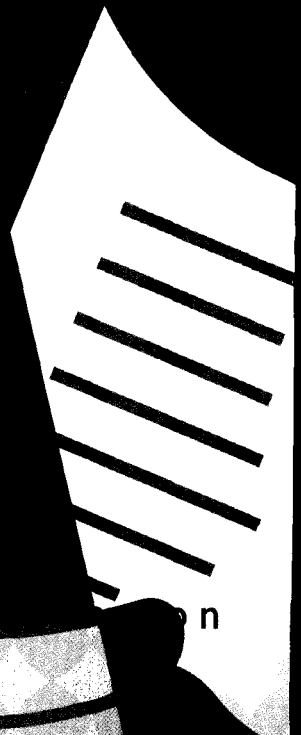
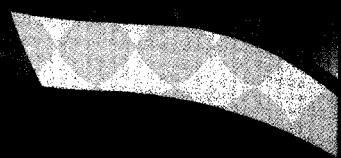


UNIVERSITY OF MINNESOTA

# Extension



Continuing Education  
**94/95**



# Save your time! Before calling for information, check the Index in the back of this Bulletin

## Extension Classes Information

101 Wesbrook Hall  
University of Minnesota  
77 Pleasant Street S.E.  
Minneapolis, Minnesota 55455  
Telephone 625-3333

## Counseling and Program Advising

314 Nolte Center  
University of Minnesota  
315 Pillsbury Drive S.E.  
Minneapolis, Minnesota 55455  
Telephone 625-2500  
Internet (e-mail):  
CEEADV@maroon.tc.umn.edu

Extension Classes Information and Registration Offices are generally open Monday through Thursday, 8 a.m. to 8 p.m., and Friday from 8 a.m. to 4:30 p.m. (For exceptions, see Office Hours, page 10)

## Where to call:

### Extension phone numbers

Cancellation Information.....	625-3333
Compleat Scholar/Practical Scholar.....	624-8880
Continuing Education for Women .....	624-5267
Correspondence Courses (Independent Study) .....	624-0000
Counseling.....	625-2500
Degrees and Certificates .....	625-2500
Director .....	624-4062
Extension Bulletin Request .....	624-2388
Extension Records (Williamson Hall).....	625-5333
General information (extension classes) .....	625-3333
Info Newsletter .....	624-3300
Instructor Telephone Numbers .....	625-3333
Macphail Center.....	627-4020
Maps (Campus or Parking).....	624-2388
Registration .....	625-3333
Registration Forms .....	624-2388
Student Board .....	626-8501
Television Classes .....	624-0000
Veterans Information .....	624-3341

### University Bookstores

St. Paul Campus Bookstore .....	624-9200
Health Sciences Bookstore .....	625-8600
East Bank Bookstore (Williamson Hall, East Bank) .....	625-6000
West Bank Bookstore .....	625-3000

### University phone numbers

Recreational Facilities .....	625-6800
Athletic Ticket Office .....	624-8080
Concerts and Lectures .....	624-2345
Day School (College) Bulletins .....	625-2008
Health Service .....	625-8400
Libraries .....	624-4552
Parking Information .....	626-PARK
University Information .....	625-5000
University Police .....	624-3550
University Theatre .....	624-2345

Volume 97, Number 7

UNIVERSITY OF MINNESOTA  
(USPS 651-720)

July 1, 1994

Published by the University of Minnesota, Office of the Vice President for Student Affairs, Communications & Publications, 110 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455-0213; once in March; twice in April and July; three times in February; and four times in August and September. Second-class postage paid at Minneapolis, Minnesota. POSTMASTER: Send address changes to University of Minnesota, Extension Classes, 101 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455.

**Bulletin Use:** The information in this bulletin and other University bulletins, publications, or announcements is subject to change without notice. University offices can provide current information about possible changes.

**Alternative Formats:** This publication is available in alternative formats upon request. Please telephone the Extension Classes Publications Office for assistance: (612) 624-3300.

**Tuition Policy:** The University of Minnesota has a policy for the way different groups of students pay for the courses they take: resident student and nonresident student. In addition, students taking 5xxx courses for graduate credit, or 8xxx courses, pay a separate graduate credit resident or nonresident rate. Each credit option is listed with each course in this bulletin as applicable. For complete information, read the section on How to Determine Tuition on page 24.



About the paper used in this bulletin: Butte des Morts Recycled Book contains 75% deinked recycled fiber, of which 10% is post-consumer waste.

# Contents

<b>Introduction</b>	
Nine Ways to Earn Credits at the University of Minnesota	3
Questions Most Often Asked about Extension Classes	4
Messages from the CEE Dean, Extension Director	5
University of Minnesota	6
Board of Regents	6
Administrative Officers	6
Continuing Education and Extension	6
Administrative Officers	6
Departments and Directors	6
Administrative Support Services	7
Extension Classes Staff	8
Counseling Department Staff	8
Equal Opportunity	8
<b>When and How to Register</b>	<b>9</b>
Registration Dates and Other Deadlines	9
<b>Office Hours and Locations</b>	<b>10</b>
<b>General Registration Instructions</b>	<b>12</b>
Sample Course Description	14
Mail and FAX Registration Instructions	14
In-person Registration Instructions	15
Alternate Choice Courses	16
Closed Classes	16
Early Registration Permission	16
Late Registration and Additions	17
<b>Bookstores</b>	<b>18</b>
<b>Enrollment Information</b>	<b>20</b>
Enrollment into Extension Classes	21
Student Conduct Code	21
Admission to the University	21
Joint Day/Extension Classes	21
Counseling and Academic Advising	22
Tuition and Fees	24
Enrollment Verification	26
Registering with an Authorization for Payment	26
Financial Aid	26
Military Information	32
Personnel	32
Veterans	32
Prerequisites	35
Academic Progress	35
Grades	36
Grade Reports and Transcripts	37
Student Identification Card	38
Credit and No-Credit Registrations	38
Credits	38
Graduate School Credit	39
Credits Without Class Attendance	41
Independent Study "Y" Registration	41
Extra Credit "X" Registrations	41
Directed Studies, Directed Research Registration	42
Special Examination	42
College-Level Examination Program (CLEP)	42
University College Directed Study	42
Research Explorations	43
CEE Independent Study (correspondence, media-assisted courses)	43
Auditors	44
Continuing Education Units	44
Special Plans	44
The Compleat Scholar/Practical Scholar (Noncredit courses)	45
Study and Travel (noncredit)	45
Continuing Education for Women	45
Persons 62 and Over	45
<b>Rules, Regulations and Policies</b>	<b>47</b>
Fee Statements	47
Changes in Course Information	47
Attendance in Classes	47
Cancel/Add Classes	47
Transfers Within the University	48
Transfers from Other Institutions	48
Access to Student Educational Records	48
Cancellations	49
Cancellations (How to Drop a Course)	49
Cancellation/Change in Scheduled Classes	50
Cancellation of Class Meetings	50
Refunds	51
Language Laboratory	52
Tax-Deductible Educational Expenses	52

## Contents

Grievance Procedures .....	53	Student Board (Extension Classes) .....	459
CEE Scholastic Committee .....	53	Student Representation, University of Minnesota Senate .....	459
<b>Course Offerings</b> .....	<b>55</b>	<b>Of Special Interest</b> .....	<b>461</b>
Semester-basis Classes .....	54	<b>Degrees and Certificates</b> .....	<b>477</b>
Symbols .....	54	Undergraduate Degrees .....	478
<b>Credit Courses</b> .....	<b>55</b>	Graduate Degrees .....	497
<b>Noncredit Offerings</b> .....	<b>379</b>	Certificates .....	501
<b>The Compleat Scholar/</b>		<b>Numbering, Symbols,</b>	
<b>Practical Scholar</b> .....	<b>379</b>	<b>Abbreviations and Maps</b> .....	<b>516</b>
Registration .....	379	Course Numbering .....	516
Compleat Scholar Course Listing ...	384	Symbols .....	516
Practical Scholar Course Listing ....	427	Department Abbreviations .....	517
<b>Compleat Scholar Weekends</b> .....	<b>443</b>	Campus Building Abbreviations .....	519
Registration .....	443	Abbreviations for Off-Campus Classes ...	520
Course Listing .....	443	Maps .....	521
<b>Research Explorations</b> .....	<b>446</b>	Classes for Neighborhood Centers .....	529
<b>General Information</b> .....	<b>453</b>	Drug-Free Campus and Work Place Program .....	531
Faculty .....	453	<b>Index</b> .....	<b>539</b>
Funding of Extension Classes Program ...	453	<b>Summer Evening Extension</b>	
Student Services Fee .....	453	<b>Classes</b> .....	<b>Inside Back Cover</b>
Campus Activities, Services and Facilities .....	453		

### About the bulletin cover

This year's original cover art is the work of San Francisco artist Ron Chan, a freelance illustrator who works almost exclusively on the Macintosh computer in producing his art. It is one in a series of several publication covers that Chan is doing for Continuing Education and Extension. Chan has won several awards including those given annually by *Communication Arts* and *Print* magazines. We in CEE are very pleased with the exciting work he has created for us this year.



## 9 Ways to earn credit at the University of Minnesota

There are many ways you can continue your education and receive credit for knowledge and skills gained in the classroom and outside the classroom. The CEE Counseling department (625-2500) will provide further information on these options.

### **1. Extension Classes (including Continuing Education for Women)**

Register for Extension classes offered at convenient locations near you! See page 529.

### **2. CEE Independent Study Correspondence and Media-Assisted Courses**

You may earn credits by self-paced study. All course requirements can be completed by mail. See page 43.

### **3. Continuing Education for Women**

Continuing Education for Women offers daytime courses both on and off campus for credit. (Men are welcome in the classes too!) Telephone 624-5267. See page 377.

### **4. Credit by Examination**

Earn credit by examination in fields in which you have gained knowledge outside the classroom. See page 42.

### **5. CLEP Program**

You may earn credits by taking the College Level Examination Program (CLEP) examinations. See page 42.

### **6. Studying Independently**

You may register for "independent study"—a Y registration—and earn credits without attending class. See page 41.

### **7. Extra Credit**

You may register for and earn extra credits—an X registration—in Extension courses if you are willing to do extra course work. See page 41.

### **8. University College**

You may earn up to 15 credits per quarter for a directed study project by registering for University College 3075. See page 42.

### **9. Directed Study, Research Projects**

Earn credit by designing directed study and/or research projects around your job activities or involvement in the community. See page 42.

---

# Questions & Answers

---

## Questions most often asked about Extension Classes:

Most answers to questions about Extension Classes and Continuing Education for Women are found in this Bulletin. Check the Index at the back of this Bulletin.

1. How do I register? What hours can I register? Where do I register? (See page 9)
2. How can I earn a degree entirely through Extension? Which ones? (See page 477)
3. I have been attending college elsewhere. How can I continue my educational program through Extension? (See page 48)
4. When does registration for classes begin? End? (See page 9)
5. What do I have to do to use my veteran's benefits to take Extension Classes? (See page 32)
6. Are there admission requirements for Extension Classes? (See page 21)
7. Are there ways to earn credits in addition to attending classes? (See page 41)
8. Can I get any financial assistance to take Extension Classes? (See page 26)
9. Are classes offered at off-campus locations near my home or work? (See page 529)
10. What is the noncredit "Compleat Scholar" Program? (See page 379)
11. Can I take classes during the day or on weekends? (See page 21)

**More questions?**

**Call Extension Classes: 625-3333**

## ***From the dean***

*With today's highly competitive job market, educational credentials are becoming increasingly important. Continuing Education and Extension and the Department of Extension Classes can help you achieve your educational and career goals. Not only does Extension Classes offer a wide selection of courses, but over 20 certificates and more than 30 degree options and majors are available through Extension Classes.*

*So whether you're pursuing a degree or seeking education for vocational or avocational reasons, there's a course waiting for you in the Extension Classes Bulletin.*

**Harold A. Miller**

*Dean, Continuing Education and Extension*

## ***From the director***

*There are many advantages of living in or near the Twin Cities metropolitan area. The area has long been recognized as one that has great access to the performing arts. The sports menu is full, all the way from youth sports to professional sports. There are many opportunities to enjoy nature, and those opportunities are enhanced by the annual parade of the theatre of seasons.*

*Educational opportunities are also plentiful, both credit and noncredit, from community education to graduate education. And you just happen to have a world-class university in your backyard—the University of Minnesota. Those of us who work in Extension Classes are dedicated to making the educational resources of the University of Minnesota available to you in every way that we can. The courses and programs that you will find in this bulletin include a great range of educational opportunities that are available to you.*

*These opportunities have expanded for 1994-95 with two new University of Minnesota degrees. The Bachelor of Information Networking (in cooperation with North Hennepin Community College) and the Bachelor of Applied Business (in cooperation with Inver Hills Community College) are now available to you. More information about these new degree programs can be found in the Degrees and Certificates section of this bulletin.*

*If you started your education several years ago, perhaps the time has come to continue on that journey. If you haven't started, we're here to help you. You'll find many students here who have walked in your shoes.*

**John S. Malmberg**

*Director, Extension Classes*

---

# University of Minnesota

---

## **Board of Regents**

Jean B. Keffeler, Minneapolis, Chair; Thomas R. Reagan, Gilbert, Vice Chair; Wendell R. Anderson, Wayzata; Julie A. Bleyhl, Madison; William E. Hogan II, Minnetonka; Hyon T. Kim, St. Anthony; H. Bryan Neel III, Rochester; Mary J. Page, Olivia; Lawrence J. Perlman, Minneapolis; William R. Peterson, Eagan; Darrin M. Rosha, Owatonna; Stanley D. Sahlstrom, St. Cloud.

## **Administrative Officers**

Nils Hasselmo, President  
Robert O. Erickson, Senior Vice President for Finance and Operations  
Ettore F. Infante, Senior Vice President for Academic Affairs and Provost  
C. Eugene Allen, Vice President for Agriculture, Forestry, and Home Economics  
Richard P. Elzay, Deputy Vice President for Health Sciences  
Melvin George, Vice President for Institutional Relations  
Anne H. Hopkins, Vice President for Arts, Sciences, and Engineering  
Marvalene Hughes, Vice President for Student Affairs  
Anne C. Petersen, Vice President for Research and Dean of the Graduate School  
Mark B. Rotenberg, General Counsel

## **CONTINUING EDUCATION AND EXTENSION**

### **Administrative Officers**

Harold A. Miller, Dean  
150 Westbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455  
(612) 624-5542

David M. Grossman  
Associate Dean for Curriculum  
150 Westbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455  
(612) 626-2255

Ann M. Pflaum  
Associate Dean for External Relations  
150 Westbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455  
(612) 626-1788

Gerald A. Klement  
Administrative Director  
150 Westbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455  
(612) 624-1561

### **Departments and Directors**

#### *Concerts and Lectures*

Dale T. Schatzlein  
109 Northrop Memorial Auditorium  
84 Church Street S.E.  
Minneapolis, MN 55455  
(612) 625-9878

#### *Continuing Medical Education*

Bart W. Galle  
Suite 107  
Radisson Hotel Metrodome  
615 Washington Avenue S.E.  
Minneapolis, MN 55414  
(612) 626-1761

#### *Counseling*

Earl Nolting  
314 Nolte Center for Continuing Education  
315 Pillsbury Drive S.E.  
Minneapolis, MN 55455  
(612) 625-7576

*Duluth Continuing Education Center*

Theresa A. Neil  
 403 Darland Administration Building  
 University of Minnesota, Duluth  
 10 University Drive  
 Duluth, MN 55812  
 (218) 726-8113

*Extension Classes*

John S. Malmberg  
 180 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 624-4062

*Independent Study*

Deborah L. Hillengass  
 33 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 624-2896

*Morris Continuing Education Center*

Roger S. McCannon  
 226 Community Services Building  
 University of Minnesota, Morris  
 600 E. Fourth Street  
 Morris, MN 56267  
 (612) 589-2211

*Professional Development and  
Conference Services*

David M. Grossman (Acting)  
 215 Nolte Center for Continuing  
 Education  
 315 Pillsbury Drive S.E.  
 Minneapolis, MN 55455  
 (612) 625-8040

*Rochester Continuing Education Center*

Carol E. Lund  
 855-30th Avenue S.E.  
 Rochester, MN 55904  
 (507) 280-2828

*Summer Session*

Jack K. Johnson  
 135 Johnston Hall  
 101 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 624-3555

*University Film and Video*

Judith A. Gaston  
 1313 Fifth Street S.E., Suite 108  
 Minneapolis, MN 55414  
 (612) 627-4277

*University Media Resources*

Sheldon Goldstein  
 540J Rarig Center  
 330-21st Avenue S.  
 Minneapolis, MN 55455  
 (612) 625-5532

**Administrative Support Services***Academic Personnel Services*

Judith A. Gaston, Academic Personnel  
 Officer  
 150 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 624-5082

*Communication Services*

Gayle A. Hendrickson, Director  
 11 Oak Street S.E., Suite 225  
 Minneapolis, MN 55455  
 (612) 624-1045

*Development Office*

Ann Pflaum (Acting), Development Officer  
 150 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 626-1788

*Financial, Payroll, and Civil Service*

*Personnel Services*  
 Rebecca I. Hurst, Fiscal Officer  
 170 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 624-4343

*Office of Information Systems*

Director to be appointed  
 302 Westbrook Hall  
 77 Pleasant Street S.E.  
 Minneapolis, MN 55455  
 (612) 625-4564

---

## Staff

---

### *Staff Development*

Raleigh Kaminsky, Executive Assistant  
150 Wesbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455  
(612) 624-9329

## **Extension Classes Staff**

### **Administration**

John S. Malmberg, Director  
William R. VanEssendelft, Associate  
Director  
Steven J. Vite, Senior Editor  
Charles R. Cheesebrough, Editor  
Jason G. Wibben, Associate Editor  
Vickie Roberts, Assistant Director  
Barb Halvorson, Accounts Supervisor

**Extension Classes Programs**—Credit classes,  
Continuing Education for Women, Early  
Childhood Studies, Elderhostel, The  
Compleat/Practical Scholar, Compleat Scholar  
Weekends, Management Advancement  
Program, Neighborhood Programs, Research  
Explorations, The Science CentrUM, Split  
Rock Arts Program

### **Program Staff**

Rachel Christensen	Susan Lindoo
Gayle Foreman	Jennifer Lunblad
Andy Gilats	Philip E. Lundblad
Susan Henderson	Margaret Mattlin
Sandy Kelley	David Shupe
Judi Linder	Claire Walter-Marchetti

## **CEE Counseling Department**

Earl Nolting, Director  
Dennis L. Keierleber, Associate Director  
Jacquelyn A. Henning, Assistant Director  
Fran Van Slyke-Zaslofsky, Senior Adviser  
Judy Boodram, Adviser  
Jane Delehanty, Adviser  
Teresa M. Fruen, Adviser  
Nancy W. Gonzalez, Adviser  
Richard J. Kott, Counselor  
Barbara H. Krantz, Counselor  
Lou Newkirk-Ledo, Adviser  
Howard Olien, Counselor  
Janet A. Pelto, Counselor  
Teresa M. Petek, Adviser  
Susanne M. Peterson, Counselor  
Philip L. Stedje, Adviser  
Andrew B. Strowig, Counselor

## **Advanced High School Student Services Office**

Darryl P. Sedio, Director  
Bill Baldus, Adviser  
Michele Ludens, Adviser  
Cindy Pavlowski, Adviser  
Toya Stewart, Adviser

## **Equal Opportunity**

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by the Americans With Disabilities Act of 1990; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity. Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547).

# When and How to Register

## Extension Classes Calendar 1994-95

### Registration dates, term dates, important deadlines, days when classes do not meet

	Fall Quarter (and fall spec term)	Fall Sem	Winter Quarter (and winter spec term)	Spring Sem (and spring spec term)	Spring Quarter
Registration by mail begins for classes listed in this bulletin	Aug. 1	Aug. 1	Oct. 31	Oct. 31	Jan. 30
Registration by mail begins for day school classes through Extension	Aug. 29	—	Nov. 11(F)	—	Feb. 21 (T)
In-person registration begins for all classes	Sept. 6	Sept. 6	Dec. 6	Dec. 6	Mar. 7
Last day to register without a late fee	Sept. 14	Sept. 14	Dec. 14	Feb. 1	Mar. 15
Classes begin	Sept. 22 (Th)	Sept. 22 (Th)	Jan. 3 (T)	Feb. 13	Mar. 27
Last day to cancel and receive an automatic "W"; registration or cancellation after this date requires scholastic committee approval. See pages 17, 47, and 49.	Nov. 4	Nov. 28	Feb. 10	Apr. 21	May 5
Final exam period	Dec. 5-10	Jan. 30-Feb. 4	Mar. 14-20 (M)	June 5-10	June 5-10
Last day of term	Dec. 10	Feb. 4	Mar. 20	June 10	June 10
Holidays and semester term breaks; no classes held	Nov. 24-25	Nov. 24-25 Dec. 12-Jan. 2 Jan. 16	Jan. 16 Mar. 24	Mar. 24 Mar. 20-26 May 29	May 29

In addition, Extension offices are closed on University holidays; see *Office Hours*, next page.

# Office Hours

## Regular Hours for Campus Office, 101 Wesbrook Hall

June 13-July 29, 1994

Monday-Thursday 8 a.m. to 6:30 p.m.

Friday 8 a.m. to 4:30 p.m.

Aug. 1-Sept. 2, 1994

Monday-Friday 8 a.m. to 4:30 p.m.

Sept. 6, 1994-June 9, 1995 (except for special hours during registration, term breaks, and holidays; see below)

Monday-Thursday 8 a.m. to 8 p.m.

Friday 8 a.m. to 4:30 p.m.

## Special Hours: Registration Dates, Term Breaks, Holidays

### Summer

July 4 Closed (Independence Day)

Sept. 5 Closed (Labor Day)

Sept. 6-8 Tuesday-Thursday, 9 a.m. to 8 p.m. (fall in-person registration)

Sept. 9 Friday, 9 a.m. to 4:30 p.m. (fall in-person registration)

Sept. 10 Saturday, 9 a.m. to 1 p.m. (fall in-person registration)

Sept. 12-14 Monday-Wednesday, 9 a.m. to 8 p.m. (fall in-person registration)

Sept. 15 Thursday, 9 a.m. to 8 p.m. (late registration)

Sept. 16 Friday, 9 a.m. to 4:30 p.m. (late registration)

### Fall Quarter

Nov. 24-25 Closed (Thanksgiving holidays)

Dec. 6-8 Tuesday-Thursday, 9 a.m. to 8 p.m. (winter in-person registration)

Dec. 9 Friday, 9 a.m. to 4:30 p.m. (winter in-person registration)

Dec. 10 Saturday, 9 a.m. to 1 p.m. (winter in-person registration)

Dec. 12-14 Monday-Wednesday, 9 a.m. to 8 p.m. (winter in-person registration)

Dec. 15-16 Thursday-Friday, 9 a.m. to 4:30 p.m. (late registration)

Dec. 19-22 Monday-Thursday, 8 a.m. to 4:30 p.m.

Dec. 23-26 Closed (holidays)

Dec. 27-30 Tuesday-Friday, 8 a.m. to 4:30 p.m.

Jan. 2 Closed (New Year's Day observed)

AUGUST 1994	SEPTEMBER 1994	OCTOBER 1994	NOVEMBER 1994	DECEMBER 1994
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6	1 2 3	1	1 2 3 4 5	1 2 3
7 8 9 10 11 12 13	4 5 6 7 8 9 10	2 3 4 5 6 7 8	6 7 8 9 10 11 12	4 5 6 7 8 9 10
14 15 16 17 18 19 20	11 12 13 14 15 16 17	9 10 11 12 13 14 15	13 14 15 16 17 18 19	11 12 13 14 15 16 17
21 22 23 24 25 26 27	18 19 20 21 22 23 24	16 17 18 19 20 21 22	20 21 22 23 24 25 26	18 19 20 21 22 23 24
28 29 30 31	25 26 27 28 29 30	23 24 25 26 27 28 29 30 31	27 28 29 30	25 26 27 28 29 30 31



**Winter Quarter**

- Jan. 16 Closed (Martin Luther King, Jr. Birthday observed)
- Mar. 7-9 Tuesday-Thursday, 9 a.m. to 8 p.m. (spring in-person registration)
- Mar. 10 Friday, 9 a.m. to 4:30 p.m. (spring in-person registration)
- Mar. 11 Saturday, 9 a.m. to 1 p.m. (spring in-person registration)
- Mar. 13-15 Monday-Wednesday, 9 a.m. to 8 p.m. (spring in-person registration)
- Mar. 16 Thursday, 9 a.m. to 8 p.m. (late registration)
- Mar. 17 Friday, 9 a.m. to 4:30 p.m. (late registration)
- Mar. 20-23 Monday-Thursday, 8 a.m. to 4:30 p.m.
- Mar. 24 Closed (floating holiday)

**Spring Quarter**

- May 29 Closed (Memorial Day)

Campus offices are closed weekends except for Saturday mornings (9 a.m. to 1 p.m.) during in-person registration periods only.

**Hours for off-campus registration sites**

***MacPhail Center, 1128 LaSalle Avenue, downtown Minneapolis***

- Sept. 6-14 Monday-Thursday, 9 a.m. to 6 p.m.; Friday, 9 a.m. to 4:30 p.m.
- Dec. 6-14 Monday-Thursday, 9 a.m. to 6 p.m.; Friday, 9 a.m. to 4:30 p.m.
- Mar. 7-15 Monday-Thursday, 9 a.m. to 6 p.m.; Friday, 9 a.m. to 4:30 p.m.

***St. Paul Skyway Registration Booth, Norwest Center, Fifth and Minnesota***

- Sept. 6-14 Monday-Friday, 9 a.m. to 5 p.m.
- Dec. 6-14 Monday-Friday, 9 a.m. to 5 p.m.
- Mar. 7-15 Monday-Friday, 9 a.m. to 5 p.m.

**Hours for CEE Counseling Department, 314 Nolte Center, Minneapolis Campus**

(Please call for an appointment or for information: 625-2500. Internet address: CEEADV@maroon.tc.umn.edu)

- Monday-Friday, days 8 a.m. to 4:30 p.m.
- Monday-Thursday, evenings By appointment

JANUARY 1995	FEBRUARY 1995	MARCH 1995	APRIL 1995	MAY 1995
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7	1 2 3 4	1 2 3 4	1	1 2 3 4 5 6
8 9 10 11 12 13 14	5 6 7 8 9 10 11	5 6 7 8 9 10 11	2 3 4 5 6 7 8	7 8 9 10 11 12 13
15 16 17 18 19 20 21	12 13 14 15 16 17 18	12 13 14 15 16 17 18	9 10 11 12 13 14 15	14 15 16 17 18 19 20
22 23 24 25 26 27 28	19 20 21 22 23 24 25	19 20 21 22 23 24 25	16 17 18 19 20 21 22	21 22 23 24 25 26 27
29 30 31	26 27 28	26 27 28 29 30 31	23 24 25 26 27 28 29	28 29 30 31
			30	

---

# Register by mail, FAX, or in person

---

## **These are registration procedures for limited-enrollment classes and nonlimited-enrollment classes.**

Read through these procedures carefully before you register! Correct registration is your responsibility. If you have questions after reading the information on registration procedures, call 625-3333. Most of the questions students ask are answered on these pages.

Limited-enrollment sections have specified limits on the number of students that will be permitted into the section. These sections are starred. The limit is given with the course description in most cases. Early registration by mail is the best way to obtain space in limited-enrollment sections.

Early registration is recommended even for nonlimited-enrollment sections to allow sufficient time for processing and return of fee statements. In rare cases, it may be necessary to place enrollment limits on nonlimited sections.

Registration information sessions are offered throughout the year by the CEE Counseling Office. These sessions are designed for students new to Extension and to the University; they focus on registration procedures, general requirements, and degree program admission. Limited information on transfer of credit and financial aid will also be available. For more information or to sign up, call CEE Counseling at 625-2500.

## **General registration instructions**

### **1. Use the official registration form found at the back of this bulletin (call 624-2388 to request additional forms).**

Forms and information are also available at the registration office in 101 Westbrook Hall on the Minneapolis campus (east bank) of the University of Minnesota. Downtown registration centers, open only during in-person registration periods, are located in St. Paul on the Skyway level of

the Norwest Center, Fifth and Minnesota Streets, and in Minneapolis at the MacPhail Center, 1128 LaSalle Ave.

### **2. Complete the registration form giving all the requested information.**

Each course description in this bulletin provides information necessary in completing the registration form. Courses are listed under departmental or subject heading (alphabetically arranged); where several classifications are possible, cross references are given. Complete the spaces on the form that request information about the course; if there have been any changes to the room, day, or time you will be notified of those changes. A sample course description appears on page 14.

If you have a University student I.D. number, be sure to include it.

For information about grade base option, see pages 36 and 37.

Be sure to complete the enrollment period section giving the term and year (e.g., Fall Qtr 94 or Winter Qtr 95). If your course is offered on a special term, check the box for the quarter in which it occurs (fall, winter, spring) and fill in the start and end dates in the space provided. Birth dates and social security numbers are requested for coding purposes and transcript identification. By supplying these numbers, you help insure that your grades and credits are recorded correctly and our mailing list is kept accurate.

The following information requested on your registration form is defined as private data under state and/or federal laws: birth date, sex, social security number, and University of Minnesota identification (I.D.) number. In general, this information may not be released to others without your consent or a court order. The intended use of the requested information is to identify you in relation to other students' records. Disclosure of this information is voluntary.

**Please type or print when completing the registration form.** If the form is not legible, fee statements cannot always be returned to students who register by mail, or record of enrollment may not be properly made on University files.

**3. You are not registered until your tuition and fees are paid.** Checks must be for the full amount of the tuition and fees and made payable to the University of Minnesota. Be sure to include special fees, course fees, and late fees, when applicable. All tuition and fees are due when you register (except for students on financial aid or whose tuition is billed to an approved agency or organization).

If you are classified as a nonresident/nonreciprocity student and are admitted to a degree program, you must pay the nonresident tuition rate given with the course.

Students are urged to pay fees by personal check, money order, or credit card. Change is not always available at in-person registration locations, and cash cannot be accepted at the downtown St. Paul registration booth or MacPhail Center.

**Credit cards**—You may charge tuition and fees on VISA, MasterCard, and Discover.

**4. You may register for all classes listed in this bulletin during the following registration periods:**

	Fall Qtr, Sem, or Fall Spec Term	Winter Qtr or Wtr Spec Term	Spring Sem	Spring Qtr or Spr Spec Term
By mail	Aug 1-Sept 14	Oct. 31-Dec 14	Oct. 31-Feb 1	Jan. 30-Mar 15
In-person	Sept 6-14	Dec 6-14	Dec 6-14	Mar 7-15
Last day to register without a late fee	Sept 14, 1994	Dec 14, 1994	Feb 1, 1995	Mar 15, 1995

**5. Joint day/Extension class registration:** You may register in certain day school classes, listed **only** in the day school quarterly *Class Schedule*, through the Extension Classes registration office during the following registration periods:

	Fall Quarter	Winter Quarter	Spring Quarter
By mail	Aug 29-Sept 14	Nov 11-Dec 14	Feb 21-Mar 15
In-person	Sept 6-14	Dec 6-14	Mar 7-15
Last day to register without a late fee	Sept 14, 1994	Dec 14, 1994	Mar 15, 1995

Students who complete one course which is part of a two- or three-part sequence are not automatically assured of space in the next course in the sequence. Early registration is

the best opportunity to obtain space in these courses.

Enrollment is limited in sections marked with a star (★).

---

## Registration

---

### Sample course description

The course description below indicates the information found in course descriptions throughout this bulletin.

- |  |   |   |   |   |
|--|---|---|---|---|
|  | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
- Psy 5141 PSYCHOLOGY OF WOMEN.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident graduate credit \$428; Non-resident graduate credit \$856; Resident graduate school credit \$735; Non-resident graduate school credit \$1617.
- 5 Psychological and physical sex differences, stressing developmental and environmental influences on dependency, aggression, achievement innovation, and achievement. Sex roles and sexuality during life phases. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)
- Fall Qtr, ★Sec 1,T, 6:20-8:50, WullH 230, Hernandez**
- |  |   |     |   |    |    |
|--|---|-----|---|----|----|
|  | 6 | 7 8 | 9 | 10 | 11 |
|--|---|-----|---|----|----|
1. Department designation and course number (a "C" after the number indicates certificate course)
  2. Course title
  3. Number of credits (if certificate credit, "certificate" will be specified) or "no credit" if applicable
  4. Tuition cost (see page 24 to determine your tuition rate)
  5. Course content (including prerequisites, limits, and special information)
  6. Term
  7. Star (★) indicates a limited-enrollment section
  8. Section number
  9. Day and time (times are p.m. unless indicated a.m.)
  10. Building and room
  11. Instructor's last name (if determined); see faculty list for title
- 

### Registration by mail (and FAX)

1. Follow the steps outlined above in general registration instructions.
2. Make out a separate check to pay your tuition and fees for each limited class you register for by mail. If one check is used to pay for two or more classes and one class is closed, the registrations cannot be processed and must be returned to you. Nonlimited-enrollment class registrations may be paid for by writing one check only. Do not send cash.  
You also may charge your tuition and fees on VISA, Discover, or MasterCard. See details on the registration form.
3. If there are classes or sections of classes that are acceptable alternatives to your first choice, list those in the space indicated on the registration form. If your first choice is closed, the registration of-

vice will select the first available choice listed and process the registration. If you do not include an alternate choice and your class choice is closed, you will be notified.

4. Mail in your registration forms, alternate choice form (optional), and tuition check(s) made payable to the University of Minnesota. (A separate tuition check is required for each limited-enrollment class.) The address is:  
Department of Extension Classes  
University of Minnesota  
101 Westbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455
5. FAX registration. You may submit your registration form by FAX during mail registration periods with billing authorized to your VISA, MasterCard, or Dis-

cover account. **The FAX number is 625-1511.** (Fee statements confirming your registration are returned by mail only.) Include your name and social security number on each FAX page.

Registrations received by mail or FAX in the Extension registration office are processed on a daily basis beginning with registration dates specified here and continuing through the mail registration period. Spaces in limited-enrollment classes will be filled daily.

Once in-person registration begins, space in limited-enrollment classes also will be assigned to students who register in person. Students whose tuition and fees are to be billed to a company, governmental agency (including foreign governments), institution, scholarship, or the military may register by mail or FAX. See page 12.

Students registering with **Regents' Scholarships** should read the section on page 30. Students registering under the Graduate Assistant Tuition Fellowship program or the Academic Staff Tuition Benefit should read the section on page 29.

Persons registering with G. I. Bill assistance must include the G. I. Bill Information Sheet with their registration. See the section on **Veterans**, page 32, for further information and instructions.

Checks, money orders, or credit card authorizations for late registrations (post-marked after midnight of the last day of the registration period) must include the late fee specified under **Late Registrations and Additions**. Checks must be for the exact amount of tuition and fees.

Students who have not received fee statements three weeks after mailing in registration forms and tuition payment should call 625-3333 to check whether the registration was received and processed. Students should assume they are registered unless notified otherwise. Registrations that cannot be processed for some reason are returned immediately (except for illegible copies).

## In-person registration

1. Follow the steps outlined above in **General Registration Instructions**.
2. **In-person registration dates for each term are given below. See *Office Hours*, pages 10-11, for hours at all locations.**

Fall Quarter	September 6-14
Fall Semester	September 6-14
Winter Quarter	December 6-14
Spring Semester	December 6-14
Spring Quarter	March 7-15

3. **Bring your completed registration form to the registration clerk at an Extension registration office during the in-person registration period.** See locations below. For limited-enrollment classes, the clerk will tell you whether there is still space available in the class. Students who register at the Minneapolis campus registration office at 101 Wesbrook Hall should check the closed-class board before bringing their registrations to the registration clerk.
4. **You must pay the full amount of tuition and fees when you register. You are not registered until your tuition and fees are paid.** Students are urged to pay tuition with a personal check, money order, or by credit card. The downtown St. Paul and Minneapolis registration centers cannot accept cash.
5. **Registration Offices (see campus maps near the end of this bulletin); downtown centers are open only during in-person registration periods:**

### *Minneapolis Campus*

Extension Classes  
101 Wesbrook Hall  
Minneapolis Campus

### *Minneapolis downtown*

MacPhail Center  
1128 LaSalle Ave.  
Downtown Minneapolis

---

## Registration

---

### **St. Paul downtown**

Registration Booth  
Norwest Center  
Skyway Level  
Downtown St. Paul

**Saturday registration**—The Westbrook Hall registration office is open one Saturday each quarter during in-person registration. Other registration offices are closed weekends.

See registration hours on the calendar, page 10.

**Classes may close at any time before or during in-person registration.** Students who wait to register in person for limited-enrollment classes may expect to stand in line at registration offices but have no assurance of obtaining space in classes they desire.

**Students are urged to register early by mail.**

### **Alternate choice courses and sections**

Students who are registering by mail are urged to include acceptable alternative sections or courses in the space indicated on the registration form. If the class you want to register for is closed, the Extension registration office will select the first available choice listed on the alternate choice form and process the registration. (Include registration forms and tuition only for your first choice.)

### **Closed classes**

Limited-enrollment classes for which there is heavy demand will often reach the maximum limit and close. The reasons for establishing limits on enrollment vary. Normally class limits cannot be exceeded.

No waiting lists are kept for Extension classes. If students have unusual and compelling reasons to be admitted to a closed class, they may state their case to the instruc-

tor of the class. **Written** permission of the instructor is required for admission to any closed class. These students are not charged a late fee through the first week of class. After that, late registrations will be assessed the appropriate late fee. Registrations sent by U.S. mail are effective the date of the postmark (or the date received if by campus mail).

Some departments have a strict policy against exceeding class limits. A note appears near the beginning of the department's course listings for those departments which do not admit students to classes that have closed.

### **Early registration permission**

Extension students who are nearing the completion of their degree or certificate program from the University and are having difficulty getting registration space in a **required** course may obtain special permission to register early for a specific course if it has limited enrollment.

Submit either a written request for permission to register early, along with transcripts of all work taken, or a letter from your major adviser verifying pending graduation within two quarters, to CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455. Specify the department, course number, and section for which you wish to register. **This request must be made at least two weeks prior to the start of mail registration for the term in which you wish to register.** The counseling office will notify you by mail regarding the action taken and how to complete registration if permission is granted.

If you are not eligible to request early registration, please note that students whose registration requests and payment arrive by mail on the first day of mail registration receive priority consideration (see mail registration instructions).

## Late registration and additions

Registration during the regular registration period is strongly recommended. Classes are canceled shortly after the end of the regular registration period if they do not have sufficient enrollment.

All registrations, whether initial or added, received either in person or by mail (effective the date of the postmark) after the close of the official registration period as designated in the **When and How to Register** section of this Bulletin will be considered late registrations and will be subject to late fees based on the following schedule:

### Late registration deadlines

	<u>FQ/FS</u>	<u>WQ</u>	<u>SS</u>	<u>SQ</u>
<i>Through the first week of classes, \$5 (if accepted)</i>	Oct. 1	Jan. 7	Feb. 18	Apr. 1
<i>Through the second week of classes, \$10 (if accepted)</i>	Oct. 8	Jan. 14	Feb. 25	Apr. 8
<i>After the above dates, \$20 (if accepted)</i>				

**A separate late fee applies to each course you are registering for.**

***All registrations made after any quarter or semester class has met twice must be accompanied by the written permission of the instructor.***

**Registration is not permitted without scholastic committee approval after the following dates:**

Fall quarter:	November 4
Fall semester:	November 28
Winter quarter:	February 10
Spring semester:	April 21
Spring quarter:	May 5

Under unusual circumstances the CEE scholastic committee may approve registration after the dates given above. Students can obtain a petition form at the Extension Classes Registration Office, 101 Wesbrook Hall (625-3333), or at CEE Counseling, 314 Nolte Center (625-2500). Approval of registration after these deadlines is rare and given only in cases of extenuating circumstances, usually beyond the student's control. Therefore, students are strongly encouraged to consider financial, work-related, and other circumstances that may affect their registrations before the sixth week of the quarter or ninth week of the semester. Contact an adviser in

the CEE Counseling Office early in the quarter to discuss options if you have questions.

For special term and special classes, any late registrations accepted after the first class must be accompanied by the written permission of the instructor. Late fees will be based on when the registration is received and how many times the class meets.

The late fee applies whether a class carries degree credit, certificate credit, or no credit; it applies to special classes and it applies whether the student wants to audit or to take a class for credit. The time of registration by mail will be determined by the postmark (or date received if sent by campus mail or FAX).

Those students registering late for Compleat Scholar/Practical Scholar noncredit courses (see page 379) must pay a \$5 late fee.

There are **no** late fees for persons registering on the *62-Plus Plan* (see page 45).

These late fees are not included in the privilege of registration with authorizations unless specifically authorized, or privilege of Public Law 894, military personnel on Off-Duty Academic Instruction or Tuition Assistance Programs. They must be paid personally by the student.

---

# Bookstores

---

Textbooks and other course materials are available at the four University of Minnesota Bookstores listed below. Each store specializes in the textbooks and materials specific to its location, so be sure to check the college and department listings given below with each bookstore to know which store carries the books for your course. Hours vary by store and time of year; call to check store hours and watch for announcements in *Info*, the Extension Classes newsletter. Bookstore hours are extended the first two weeks of the quarter, and the East Bank bookstore in Williamson Hall is open Saturdays, 10 a.m. to 4 p.m., fall through spring quarters.

## **University of Minnesota Bookstore— East Bank (625-6000)**

The East Bank bookstore located in Williamson Hall, 231 Pillsbury Drive, handles books for courses in the College of Liberal Arts (except for those CLA departments listed below in the West Bank Bookstore), College of Education, General College, and the Institute of Technology.

## **University of Minnesota Bookstore— West Bank (625-3000)**

The West Bank bookstore, located between Anderson Hall and Blegen Hall, sells books for courses in the Carlson School of Management, as well as for these College of Liberal Arts departments: history, political science, geography, sociology, Afro-American and African studies, international relations, theatre arts, studio arts, economics, music (and music education), public affairs, and urban studies.

## **University of Minnesota Bookstore— St. Paul (624-9200)**

The St. Paul bookstore, located in the St. Paul Student Center, sells books for courses taught on the St. Paul campus.

---

## **University of Minnesota Bookstore— Health Sciences (625-8600)**

The Health Sciences Bookstore, located in 2-554 Malcolm Moos Health Sciences Tower on the East Bank, sells books for courses in anatomy, history of medicine, laboratory medicine, microbiology, nursing, pharmacognosy, pharmacy, physical medicine and rehabilitation, physiology, public health, family planning administration, child and adolescent psychiatry, mortuary science, and other courses in the health sciences.

**Books for off-campus classes are available at the University bookstores.** The notice directly under each department heading in the Course Offerings section lists the bookstore that sells books for classes in that department.

**Pick up books before class.** Textbooks may be purchased before the first night of class. Lists of course offerings and required books are in the bookstores. However, if you are registered in an English Composition class, please attend the first class session before purchasing required books and materials.

**Special arrangements for book pick-up.** Arrangements may be made to send books between the St. Paul campus and Minneapolis campus bookstores.

**Ordering textbooks by phone.** You may order textbooks by telephone and charge costs for books and delivery to your Visa, MasterCard, or Discover credit card account. Call the appropriate bookstore (phone numbers below) and be prepared to give the department, course number, section number, your delivery address, and credit card information. If textbooks are in stock, your order will be filled and shipped within two working days. Postage and handling is \$2.50 plus the actual UPS charge. Wait for confirmation of your registration before ordering books by phone (handling and delivery charges are not refundable).



East Bank Bookstore	624-1819
West Bank Bookstore	625-5317
St. Paul Bookstore	624-9200
Health Sciences Bookstore	625-8600

**Book refunds**—If a course is canceled or if the student drops the class, books may be returned for a full refund through the second week of classes if the student has a sales receipt for the books and the book is in original condition. Deadlines: Fall Quarter, Oct. 5 (Wed.); Winter Quarter, Jan. 16; Spring Quarter, Apr. 7.

**Resale of books**—Since used textbooks offer a distinct savings to students, the University of Minnesota Bookstores attempt to buy as many as they can possibly use. Books are purchased throughout the school year, but you can typically get the best price for your books at the end of the quarter once textbook needs for the next term are known.

*See maps in the back of this Bulletin for locations of campus bookstore buildings.*

---

# Enrollment Information

---

<b>Contents</b>	<b>Page</b>
Enrollment into Extension Classes .....	21
Student conduct code .....	21
How to be admitted to the University .....	21
Joint Day/Extension classes .....	21
Counseling and program advising .....	22
Tuition and fees .....	24
Enrollment verification .....	26
Authorizations for payment .....	26
Financial aid .....	26
Military information .....	32
Prerequisites .....	35
Academic progress .....	35
Grades .....	36
Grade reports and transcripts .....	37
Student identification card .....	38
Credit and no-credit registrations .....	38
Graduate School credit .....	39
Earning credits outside class .....	41
Research Explorations .....	43
CEE Independent Study .....	43
Auditors .....	44
Continuing Education Units .....	44
Special plans .....	44
The Compleat Scholar/Practical Scholar .....	45
Continuing Education for Women .....	45
Persons 62 and older .....	45

## Enrollment into Extension Classes

Credit courses through Continuing Education and Extension are offered in time formats, places, and delivery modes designed to accommodate students' needs. Course content and materials, work expected of students, and responsibilities of instructors are determined by the academic discipline granting the credit. Courses are expected to have the integrity and legitimacy of campus-based day classes offered for equivalent credit.

**Anyone may register for Extension Classes.** There are no admission or entrance requirements; registrants need not possess a high school diploma. Students need only have a desire to learn. Registration in specific programs or classes sometimes may require prerequisite courses, formal admission, or experience. (See *Prerequisites*, page 35.) Students on financial aid usually must be admitted to a degree or certificate program; check with an adviser.

Students wishing to register for graduate school credit, refer to page 39.

**Day school students** who wish to register in Extension Classes are urged to consult first with their day school adviser or college office. *Day school students enrolled in both day school classes and Extension classes must register separately and pay separate tuition for each.*

Students who have been dropped from any unit of the University or who have been placed on probation should clear with their college before registering for Extension Classes; otherwise, there is no assurance that the credits will be accepted by the college from which they wish to earn a degree.

**Extracurricular Events.** No extracurricular events requiring student participation may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy.

The Senate advises all faculty that any exemption granted pursuant to this policy shall be honored and that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

**Smoke-Free Campus Policy.** Smoking is prohibited in all facilities of the University of Minnesota, Twin Cities campus, except for designated private residence hall rooms.

## Student conduct code

All students registered in courses through Continuing Education and Extension (CEE) are governed by the University of Minnesota Student Conduct Code. Students who engage in behavior that disrupts the learning environment for others may be subject to disciplinary action under the code. In addition, CEE may require students responsible for such behavior to discontinue course activities and may cancel their registration.

## How to be admitted to the University

Students interested in being admitted to a degree program at the University of Minnesota must follow certain procedures and meet specific requirements to do so. They should schedule an appointment with a CEE advisor to determine their eligibility, receive information on steps to follow, and complete the necessary steps for admission. *Telephone 625-2500 to schedule a day or evening appointment or for phone consultation.*

## Joint Day/Extension classes

Extension students may enroll in certain day school classes through Extension registration offices. However, students enrolled at the University through the day school may not register for day classes through Extension.

---

## Enrollment

---

For classes before 3:30 p.m., students should consult the day school quarterly *Class Schedule*. Registration is the same as for regular Extension classes (listed in this bulletin) except that registration by mail for these classes begins later. Students may be required to obtain written permission from the academic department offering the course and the instructor using the "Special Permission To Register Joint Day/Extension" form available from the registration office or by calling 624-2388. See the Class Schedule for additional information about obtaining instructor permission.

Departments that make day classes (offered before 3:30 p.m.) available to Extension students are indicated in the Course Offerings section of this bulletin (a note appears near the beginning of the department's course listings). The day school Class Schedule contains a list of specific classes. Access to these courses is usually limited to 2 or 3 students per course.

If you are planning to register through Extension Classes for a course offered before 3:30 p.m., call 624-2388 when mail registration begins each quarter to request a copy of the daytime Class Schedule, and procedures for registering in day school classes through Extension.

Students who have been dropped from any unit of the University or who have been placed on probation should clear with their college before registering for Extension Classes; otherwise, there is no assurance that the credits will be accepted by the college from which they wish to earn a degree.

**Joint day/Extension classes that begin at 3:30 p.m. or later are listed in this bulletin.** The symbol ● appears before the course section number.

**Note**—Enrollment in joint day/Extension classes does not constitute admission as required for some financial aid programs such as Pell Grant or Stafford Loan.

Students pursuing a degree who are not yet formally admitted to a program should seek advising regularly from CEE Counseling; call 625-2500 for an appointment.

### Counseling and academic advising

**The CEE Counseling Office** offers academic and financial aid advising and career/educational counseling services to current or prospective students interested in CEE offerings through Extension Classes, Independent Study, and Summer Session. The office is located at 314 Nolte Center; **telephone 625-2500**. Nolte Center is located at 315 Pillsbury Drive S.E. (at 17th Ave. S.E.). See *Maps* in the back of this Bulletin. Students with mobility impairments should call ahead for assistance; a curb cut is provided on the south entrance to Nolte Center (Pillsbury Drive S.E.).

**Counseling**—Professional counseling services are available to assist persons with exploration, choice, planning, and implementation of educational and career goals. Counselors can help students learn more about their interests, values, abilities, and personal characteristics related to goals; identify career options and major fields of study; develop educational and career plans; and assess problems related to academic performance. Counseling services are offered for a fee and are available by appointment.

**Advising**—Academic advising is free and available by appointment to help students select programs of study (see *Degrees and Certificates*, page 477); determine prerequisites; interpret degree requirements; evaluate transcripts of previous college work; choose the kinds and number of courses to take and the order in which they should be taken; arrange for examinations for credit or advanced standing; and handle other academic matters.

**Financial aid**—Advising is available to students seeking information about grants,

scholarships, loans, and work study for part-time or full-time study.

**Registration information sessions**—Information sessions, offered throughout the year by CEE Counseling, provide new students with assistance in registration. These sessions focus on registration procedures, general requirements, and degree program admission. Limited information on transfer of credit and financial aid is available at the sessions. For more information or to sign up, call 625-2500.

Students may call 625-2500 to arrange for day or evening appointments or to consult with an adviser by phone. See *Office Hours*, page 10.

---

# Tuition and fees

---

## How to Determine Which Tuition Rate To Pay

Consistent with current University policy on resident status, beginning Fall 1992 the Department of Extension Classes will charge nonresident rates. Please read the following to determine the tuition rate you should pay.

Different tuition rates are listed with each degree credit course. If you are registering for a course that has a course number beginning with zero (0xxx), only one rate will be listed with the course. If you have been admitted to a degree program at the University of Minnesota and are classified as a nonresident, non-reciprocity student, you will need to pay either undergraduate or graduate non-resident tuition rates. On the registration form you will be asked to check the box that describes your student status.

- I have never been admitted to a degree program at the University of Minnesota.** (Pay Minnesota *Resident* tuition rates.)
- I have been admitted to a degree program at the University of Minnesota and am classified as a resident or reciprocity student.** (Pay Minnesota *Resident* tuition rates.)
- I have been admitted to a degree program at the University of Minnesota and am classified as a nonresident, non-reciprocity student.** (Pay *Non-resident* tuition rates.)

**Note**—Student status is subject to compliance review.

## Graduate Credit Tuition Rates

If you are registering for a 5xxx-level course and want graduate credit, note that four graduate tuition rates are listed. The rate you pay will depend on whether you intend to use the course in a University of Minnesota Graduate School program and whether you are classified as a resident or non-resident of the state of Minnesota. To determine residency status, review the information above. The four graduate tuition rates are defined below.

**Resident graduate credit (\$107 per credit):** Pay this rate if you are classified as a resident of Minnesota and *are not* using the course in a University of Minnesota Graduate School program.

**Nonresident graduate credit (\$214 per credit):** Pay this rate if you are classified as a nonresident of Minnesota and *are not* using the course in a University of Minnesota Graduate School program.

**Resident Graduate School credit (\$183.75 per credit):** Pay this rate if you are classified as a resident of Minnesota and *are* using the course in a University of Minnesota Graduate School program.

**Nonresident Graduate School credit (\$404.25 per credit):** Pay this rate if you are classified as a nonresident of Minnesota and *are* using the course in a University of Minnesota Graduate School program.

**(Note)**—*These rates are approved by the Board of Regents and are subject to change*

---

The full amount of the tuition and other fees must be paid at the time of registration (tuition rates in effect at the time of registration apply). Additional fees may be assessed for use of a laboratory, extra materials, or audio-visual equipment. Tuition charges and fees do not cover books. Checks or money orders must be drawn for the exact amount due, and made payable to the University of Minnesota.

Tuition options for each course are listed after the course title. Any course fees or special fees, required in addition to the tuition, are included in the total. The cost per credit varies depending on the level of the course, the tuition rate for the college, resident status, and whether you are applying the course to a University of Minnesota Graduate School program. In the *Course Offerings* section of this Bulletin, departments are listed alphabetically, and the college that the department is a part of is listed below the department name.

**Tuition and fees are approved by the Board of Regents and are subject to change.**

For special tuition rates for students age 62 and older, see page 45.

A regularly enrolled day school student who concurrently takes day courses and Extension courses must register on separate forms and pay both day and Extension fees. **Day school students are urged to consult first with their advisers before registering in Extension classes.**

Students who overpay will receive a refund by mail. Students who underpay will have their registration and tuition checks returned by mail or will be notified of

additional tuition due if their registration was processed. For registered students who underpay, a hold will be placed on the student's record if payment is not received.

A \$20 handling fee is charged for all checks returned by a bank. Students should contact the Financial Systems Office at 138 Westbrook (624-6354) if they have received notification from their banks that a check has been returned to Extension Classes.

**No arrangements for partial payment can be made.** However, VISA, Discover, and MasterCard are accepted for tuition and fees. Students may be eligible for financial aid; see *Financial Aid* below.

**Nonresident and resident rates**—Students who have been admitted to a degree program at the University of Minnesota and who are classified as a nonresident, nonreciprocity student will pay nonresident tuition rates. If you have never been admitted to a degree program at the University of Minnesota, you pay resident tuition rates.

**Students are not registered until their tuition and fees are paid.**

You will receive a receipted confirmation when you register. Retain this document; it is your proof of enrollment. It serves as official identification as an Extension student and must be presented in order to vote in student elections, obtain books from University libraries, or purchase student athletic and other tickets.

For information on tax deductions for Extension Classes tuition, see page 52.

## Financial aids

### Enrollment verification

Students who need enrollment verification (for bank or business purposes) should bring the paid fee statements to Student Relations, 150 Williamson Hall. Full-time undergraduate students carry 12 or more credits; three-fourths time, 9 credits; half-time, 6 credits; less than half-time, 5 credits or fewer. (Credits for semester classes are distributed over two quarters; two-thirds of the credits are applied in one term and one-third of the credits apply in the other term.)

Verification can be made only for enrollment and the enrollment dates of that term in Extension classes, **not** for attendance or grades. Duplicate fee statements are available in 101 Wesbrook Hall; transcripts are available at the Certification and Transcript Service, 150 Williamson Hall (625-5333).

### Registering with an authorization for payment

All students who plan to register under the authority or with the assistance of (1) an institution, company, or scholarship; (2) federal or state agency, including military service; or (3) foreign government or agency, may register by mail or in person at 101 Wesbrook Hall, telephone 624-5577, on the Minneapolis campus.

**Authorizations for payment only apply to credit courses.** Students taking non-credit courses must include a check or money order for tuition (or credit card authorization).

If registering by mail, authorizations must include the following:

1. **Proper address:** Department of Extension Classes, University of Minnesota, 101 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455
2. **Student's name**

3. **Correct amount of tuition and fees** for specific classes
4. **Term or dates of eligibility**
5. **Authorizing signature** or stamp required
6. **Complete address of agency** to be billed for tuition.

To register, follow the procedures outlined under *When and How to Register*. Include your authorization (in place of your check) with your registration forms.

If your authorization is already on file, you **must** include a note with your registration indicating the source of your authorization, or your registration will be returned.

All materials should be sent to 101 Wesbrook Hall (or FAX 625-1511).

Registration forms must be filled out completely.

### Financial aid

#### *Academic progress*

For students not held to other college, department, or program academic standards, CEE will determine scholastic standing by evaluating satisfactory progress with the following criteria:

*Completion of two-thirds (66%) of total credits for the review period with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W, V, or X are not included in this calculation.*

**The formula for determining satisfactory progress is as follows:** (Total credits grades A, B, C, or S) *divided by* (Total credits graded A, B, C, D, F, S, N, or I) *equals* 66%.

Grades in repeated courses and noncredit remedial courses are considered in total credits.

Students who do not meet the criteria for good academic standing will not be eligible to receive financial aid, veterans benefits, and specially funded programs.



Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing.

Students are encouraged to contact an academic progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Students in certificate programs who do not register for at least one credit within six consecutive quarters will be withdrawn from their certificate program.

***Registration with financial aid (delayed payment)***

**Common requirements for financial aid**—Because financial aid programs require admission to a degree or certificate-granting program, you are encouraged to inquire about admission at the same time you apply for aid. Other requirements common to many financial aid programs include: U.S. citizen or eligible non-citizen (such as permanent resident or refugee); no prior bachelor's degree; satisfactory academic progress (see above); completion of an academic program within the maximum time frame allowed by the Office of Student Financial Aid (216 attempted credits for a bachelor's degree); demonstrated financial need; registration in on-campus credit classes; enrollment within the maximum or minimum number of credits required for eligibility; no default on educational loans or financial aid repayment owed; and no tuition or other holds on your University record.

**Registering with financial aid**—If the Office of Student Financial Aid (OSFA) has notified you that you are eligible for grants or loans or you have received an eligible Pell Grant Student Aid Report (SAR), (1) identify yourself as a financial aid recipient on your registration form and (2) request delayed payment in order to have a Student Accounts Receivable System (STARS) ac-

count established. Your aid will then be credited directly to STARS for automatic payment of tuition. If you prepay your registration, your financial aid may be delayed.

In addition to showing financial aid eligibility, you need to be admitted to a degree or certificate-granting program, be in good academic standing, and have a University record free of tuition and other selected holds. If you are receiving a Minnesota State Grant, admission is not required. Contact CEE Counseling at 314 Nolte Center (625-2500) if you have questions about the criteria for delayed payment.

Follow these steps:

1. Fill out registration forms following the instructions outlined in this bulletin. To insure accurate record keeping, be sure to include your social security number or University I.D. number, if you have one, in the space provided on the registration form.
2. Indicate on the registration form that the method of payment is financial aid. Your record will be checked for eligibility.
3. If you have completed all eligibility requirements, your registration will be processed and your financial aid will be applied to tuition and fees. (You will be billed for, or refunded, any difference between the amount of your award and the tuition and fees that are due.)

Note: During in-person registration periods, eligibility cannot be checked on Saturdays.

Students requesting delayed payment should register during regular registration periods to avoid late fees.

When delayed payment is granted, Extension registration staff will coordinate with the Student Accounts Receivable System (STARS) so your financial aid will be credited to your account.

**Receiving delayed payment does not guarantee receipt of financial aid. Students who do not receive their expected finan-**

---

## Financial aids

---

**cial aid are still responsible for payment of their tuition and fees.** A student who never attends class or stops going to classes (1) must officially cancel at 101 Wesbrook Hall, and (2) must pay that part of the tuition and fees that would not be refundable based on the refund policies described on page 51. Students are urged to cancel officially as soon as they decide to drop the course. In most cases, without official cancellation, students are responsible for the the total course costs after the refund period regardless of whether they have been attending class or intended to cancel.

If your financial aid award exceeds the charges to your STARS account and you choose to pick up your check for the remaining balance at the Check Disbursement Office, you must show a picture ID—either a University of Minnesota ID or a driver's license.

Students who drop below or exceed the number of credits on which their aid is based may not be able to obtain the aid or may be required to pay back all or part of the award.

### **Programs**

**Military personnel**—Please read the listing on pages 32-35. Students registering under the authority of the Cold War Veterans Bill (Chapter 34, Title 38, U.S. Code), should refer to page 32.

**Business Firms**—Many business firms are willing to help subsidize the education of their employees. Before registering, students are urged to talk with a company personnel officer about possible tuition payment or reimbursement that may be available for Extension classes.

**Minnesota State Grant**—This program provides funds for part-time or full-time undergraduate study. Eligibility requirements are: U.S. citizen or permanent resident of the United States; Minnesota residency; enrollment in course work applicable to a degree or certificate program and maintenance of satisfactory academic progress;

registration for three or more credits per term; and demonstration of financial need. Minnesota State Grant recipients must register for 15 credits per term to be considered full-time. In addition, applicants must not already have earned a bachelor's degree and must not have completed four years of education on a full-time basis beyond high school. Applicants use the FAFSA application, which is available at Financial Aid, 210 Fraser Hall, or the CEE Counseling Office, 314 Nolte Center. Call CEE Counseling (625-2500) for a set of procedures outlining the steps which must be followed.

**Federal Pell Grant**—The Federal Pell Grant is designed to provide financial assistance to part-time or full-time undergraduate students who do not have a prior bachelor's degree. Students must be registered for one or more credits a quarter. Pell applicants must be U.S. citizens, permanent residents, or eligible noncitizens. *Recipients must be admitted to a University of Minnesota degree- or certificate-granting program and must maintain satisfactory academic progress in order to receive funds.* Simply registering for and attending classes does not constitute admission. If in doubt, students should check with the CEE Counseling Office, 314 Nolte Center (625-2500). Applicants use the Free Application for Federal Student Aid (FAFSA), which is available at CEE Counseling, 314 Nolte Center, or from Financial Aid, 210 Fraser Hall. Contact the CEE Counseling Office for a set of procedures outlining the steps which must be followed. Procedures are revised yearly, or when the need arises.

**Campus-based aid**—Full-time undergraduate and half-time graduate students will be considered for campus-based aid. Recipients must be admitted to a degree or certificate-granting program. Most campus-based aid is restricted to students who do not already have a bachelor's degree. Programs include Federal Supplemental Educational Opportunity Grant, Office of Minority and Special Student Affairs (OMSSA) grants,

Federal Perkins Loan, Federal and State College Work-Study, and University scholarships, grants, and loans. Applicants use the FAFSA application which is available at CEE Counseling, 314 Nolte Center (625-2500) or the Office of Student Financial Aid, 206 Fraser Hall (624-1665).

**Tuition Assistance Program**—Adult undergraduate part-time Continuing Education and Extension students who have had to delay or interrupt their education for a total of three years or more may be eligible for the Tuition Assistance Grant Program. Students who have been enrolled for five years or more of exclusively part-time enrollment will also be considered. Applicants must demonstrate financial need but be ineligible for other grants, scholarships, or tuition reimbursement, or have other aid which falls short of covering tuition and books. Admission is not required. Applications will be accepted until all funds are committed, or until the day before each quarter begins, whichever comes first. Tuition Assistance Program applications are available at CEE Counseling, 314 Nolte Center (625-2500).

**Student Parent HELP Extension Program**—This program provides grants for tuition and books for undergraduate low-income student parents enrolled part-time through Extension Classes. The program also provides funding for child care, referrals for housing and off-campus child care funding, and advising, counseling, and advocacy for personal and family issues. Applicants are available at the Student Parent HELP Center, 25 Appleby Hall (625-5307).

**CEE Scholarships: IDS Minority Access and Retention Scholarship, Nolte Scholarship, Schott Scholarship, Women's Christian Association Scholarship, Mucke/Roff Scholarship, and Remington Scholarship**—These scholarships are intended for adult part-time Continuing Education and Extension students who have financial need but are not served by other

grants, scholarships, or tuition reimbursement, or have other aid which is insufficient to cover tuition, fees, and books. Applicants must have a gap of at least three years in their education, but the years counted in the gap do not need to be consecutive. Students who have five years or more of exclusively part-time enrollment will also be considered. Undergraduate students or students with a prior bachelor's degree who need additional undergraduate work will be considered. Awards are based on academic ability, financial need, and a statement of personal, educational, and career goals. Application priority deadlines for each quarter are: fall, July 8, 1994; winter, October 7, 1994; spring, January 6, 1995. If ample funds remain, applications will be accepted for six weeks beyond each priority deadline. For additional information about each of the scholarships, please contact CEE Counseling, 314 Nolte Center (625-2500).

**Semester Classes**—Credits for semester classes will be prorated for financial aid. Two thirds of fall semester credits will be counted toward fall quarter; one third will be counted toward winter quarter. One third of spring semester credits will be counted toward winter quarter; two thirds will be counted toward spring quarter.

**Financial aid for students with disabilities**—In addition to the financial aid programs listed in this section, students with disabilities may contact the offices listed below about additional financial aid options and services.

**Division of Rehabilitation Services**—Some financial aid help and vocational counseling may be available through the Minnesota Division of Rehabilitation Services. For information, contact the DRS Liaison at Disability Services, 30 Nicholson Hall (626-1333). The Division of Rehabilitation Services office in your area can also supply you with information.

## Financial aids

**Blind students** may call the Extension registration office (624-5577) concerning tuition exemption for Extension classes. Counseling regarding other financial assistance is available through the Minnesota State Services for the Blind and Visually Handicapped, 2200 University Ave. W., Suite 240, St. Paul, MN 55114-1840; telephone 642-0500 in the Twin Cities or toll free 1-800-652-9000. Tape and braille materials also are available from the Communication Center of State Services for the Blind, telephone 642-0500. Assistance on campus is available from Disability Services, 30 Nicholson Hall (626-1333).

**Special Funds**—Students with disabilities may contact Disability Services in 30 Nicholson Hall (626-1333) to discuss other possible financial aid opportunities and types of assistance. (Special funds are limited and students must demonstrate that they have unmet financial need.)

**Veterans with service-connected disabilities** may be eligible for vocational rehabilitation services through the U.S. Department of Veterans Affairs (VA). Write or call the Veterans Services Division, Room 181 Federal Building, Fort Snelling, St. Paul, MN 55111 (726-1454). Call toll free 1-800-827-1000 if outside the metro area (TDD, 1-800-829-4833).

**Federal Stafford Loan and Unsubsidized Federal Stafford Loan**—Applicants must be admitted to a degree or certificate program, be enrolled at least half-time and be making satisfactory academic progress. Eligibility for the Federal Stafford Loan is based on financial need. The Unsubsidized Stafford does not require need and may be available to students who do not qualify for a need-based Stafford or who are eligible for less than the loan limit on a Stafford Loan. The same terms and conditions apply for both loans except the treatment of interest. Interest is subsidized while the student is in school on the Federal Stafford. On the Unsubsidized Federal Stafford, the borrower

accrues interest while in school and the origination fees are slightly higher. Undergraduate loans limits are: freshmen—\$2,625; sophomores—\$3,500; junior and seniors—\$5,500. The cumulative maximum for undergraduates is \$23,000. Graduate and professional students may borrow \$8,500 a year, with a cumulative maximum of \$65,500, which includes undergraduate borrowing. The interest rate for first-time borrowers is variable, not to exceed 8.25 percent. Applicants use the FAFSA application, which is available at CEE Counseling, 314 Nolte Center (625-2500) or the Office of Student Financial Aid, 210 Fraser Hall (624-1665).

**Other Educational Loans**—These loans include Federal Parent Loan for Students and the Student Education Loan Fund (SELF). They are available to independent students (or parents of dependent students) who are unable to qualify for other aid or need additional loan funds. Terms may be not as favorable as the Federal Stafford Loan. Students should investigate all other forms of aid before applying. *Requirements include admission to a University of Minnesota degree- or certificate-granting program and maintenance of satisfactory academic progress.* Recipients must be enrolled at least half-time. For additional information and application materials, contact the Office of Student Financial Aid, 210 Fraser Hall; telephone 624-1665.

**Bank loans**—Most banks in the Twin Cities area offer a "line of credit" service to handle small, intermittent loan needs. Plans vary among banks, but the borrower usually must have an account with the bank, and a line of credit for a fixed dollar amount. Students may contact a bank for further information.

**Regents' Scholarships**—Regents' Scholarships provide tuition benefit for civil service and nonacademic union-represented employees working at least 75 percent time or 30 hours a week during the period the course is taken. Employees on academic year appointment, on the lay-off list, or on

approved leave of absence may also be eligible. Eligibility requirements are under review and are subject to change; employees should check with their supervisors for current information.

Courses must be for academic credit, graded A-F or S-N. There are two exceptions: preparatory mathematics courses offered by General College and English As A Second Language courses (Extension registration). The Regents' Scholarship covers tuition only. Regents' Scholarship does not cover retroactive tuition, late fees, course fees, lab fees, books, deposits, records fee, orientation fee, CEE special fees, or Boynton Health Service fees or other electible student services fees.

**No refunds will be given to students wishing to apply Regents' Scholarships to classes for which they have already registered and paid fees.**

Applications are available through your department. For registration information, see **When and How To Register**. For classes without enrollment limits, registrations with Regents' Scholarship forms will be accepted during the regular registration periods. For classes with limits on enrollment, do not submit registration materials until the second week of mail registration.

Regents' Scholarships are **not** accepted for: registration as an auditor in credit classes; certain correspondence and television courses from Independent Study; or for Compleat/Practical Scholar courses, MacPhail Center courses, Management Advancement Program Seminars, Research Explorations, and most other CEE noncredit workshops and courses. In addition, offerings by other departments may be excluded.

University employees on at least a 75-percent appointment may take Compleat and Practical Scholar courses for half-price (plus all course fees or special fees). See the Compleat Scholar section in the **Noncredit Course Offerings** section of this bulletin. You must submit a letter from your depart-

ment head verifying employment when you register. For limited-enrollment classes, you may register starting the second week of mail registration. For nonlimited classes, you may register during regular registration periods.

**Graduate Assistant Tuition Benefit Program**—Graduate and professional students who hold appointments as graduate teaching assistants, research assistants, administrative fellows, and certain other professional school student positions may receive tuition benefits for credit classes in Extension. For eligibility information, contact the Graduate Assistants Office, 416 Johnston Hall; telephone 626-1310. (Classes must be 5000- or 8000-level and taken for graduate credit.) Courses must be applied to the degree program filed with the Graduate School.

**Academic Staff Tuition Benefit**—Faculty and professional administrative employees holding faculty appointments of 75 percent or more may register tuition-free in Extension credit classes in which space is available. Approval and employment verification from the faculty member's department head is required. Only tuition is waived; late fees, course and special fees, books, laboratory fees, and other costs must be paid by the faculty member. Certification forms are available in academic departments. Information on eligibility is available from Student Relations, 150 Williamson Hall (625-5333).

**Other Financial Aids**—A number of other financial aid options are available. Contact CEE Counseling, 314 Nolte Center (625-2500), for additional information. Extension students who have questions or problems regarding financial aid are encouraged to call CEE Counseling.

**Tuition Reciprocity**—Residents of neighboring states may be eligible for resident tuition rates or for reduced nonresident rates. For additional information, contact Residence Classification and Reciprocity, 240 Williamson Hall (625-2006).

### Military information

#### *Personnel*

All military personnel are urged to familiarize themselves with the Registration Procedures and Information sections of this Bulletin. University regulations and procedures apply to all students unless stated to the contrary.

All branches of the Armed Services now provide Off-Duty Academic Instruction Tuition Assistance Programs for military personnel on active duty. There are no application forms necessary for admission to the Department of Extension Classes. Under these programs, eligible military personnel may be entitled to tuition assistance of up to 90 percent a quarter credit hour for approved classes. (All classes in the *Extension Classes Bulletin* are quarter credit whether designated quarter or semester length.) The remaining tuition and all fees must be paid by military personnel. Interested members of the Armed Services are urged to contact the educational officer or commanding officer of their command for proper authorization to participate in these programs. Written authorization designating classes and amount of tuition to be paid by Army, Navy, Air Force, or Marine Corps should be presented at time of registration, at which time payment of remainder of tuition must be made. Military personnel who do not have the necessary authorization at the time of registration will be required to pay in full for their registration. When the government authorization is received, a refund for the authorized amount should be requested. Registration must be made by mail or in person at 101 Wesbrook Hall, Minneapolis campus.

#### *Veterans*

To satisfy Veterans Administration requirements, veterans registering under the G.I. Bill must enroll in courses that are applicable to degrees, certificates, or other educational objectives approved by the VA. **Veterans must see an adviser at the CEE Counseling Office before registering if they have not previ-**

**ously reviewed educational plans and transcripts of all college work with an adviser.** Call 625-2500 to make arrangements to meet with an adviser. Veterans must be admitted to a degree program by the start of their third term of enrollment; otherwise benefits are terminated.

**VEAP (Chapter 32, the Post-Vietnam Era Veterans' Educational Assistance Program)** provides benefits to individuals who initially entered active duty after December 31, 1976. While serving on active duty, the serviceperson may voluntarily contribute to an educational assistance fund. Maximum entitlement is 35 months. The application form for Chapter 32 benefits is VA Form 22-1990.

**Selected Reserve Educational Assistance Program (Chapter 106 of Title 10, U.S.C.),** Public Law 98-525 enacted Oct. 19, 1984, revised the existing Chapter 106 program effective July 1, 1985, and transferred program administration responsibility to the VA. The reserve components in this program include the Army Reserve, Naval Reserve, Air Force Reserve, Marine Corps Reserve, Army National Guard, and Air National Guard, which are under the Department of Defense, and the Coast Guard Reserve, which is under the Department of Transportation, when it is not operating as a service in the Navy.

Eligibility is based on commitment to selected reserves for six years after June 30, 1985. Check with the reserve unit for details. Graduate degrees are not approved.

Entitlement is 36 months of full-time training or the equivalent part-time. Benefits are payable for full-time (\$190 monthly); three-fourths time (\$142.50 monthly); and one-half time (\$95 monthly). For less than one-half time, the monthly benefit is \$47.50 a month. No allowance for dependents is made.

Reservists apply by completing form 22-1990 and DD Form 2384, Notice of Basic Eligibility (NOBE), obtained from the reservist's unit. These forms are then submitted with the information sheet to 101 Wesbrook Hall.

**New G.I. Bill (Chapter 30)(Montgomery)—**

Provides benefits to individuals who initially entered active duty after July 1, 1985, and meet qualifications. To check, call the Veterans Administration at 726-1454.

*Veterans Registration*

Before registering, please read pages 9-16 in regard to registration procedures.

**Tuition and fees**—Veterans must pay at the time of registration. They will be reimbursed later or paid a monthly allowance.

**Certification for degree programs—Veterans must be certified every quarter.**

Each time a veteran registers for Extension Classes and wishes certification to the Veterans Administration, a G.I. Bill Information Sheet must be completed. Call 624-2388 to request copies of the G.I. Bill Information form. Please complete only one information sheet for each registration period. (Fall quarter and semester are considered one registration period.)

If the student registers by mail for limited-enrollment classes and any of these classes has closed, the G. I. information sheet will be returned and must be revised. Veterans who wish to add classes to their registration should return the corrected information sheet along with the additional registration forms and payment. Those who do not wish to add classes to their registration should return the corrected information sheet to 101 Wesbrook Hall or the Veterans Certification Office in 150 Williamson along with a note indicating that registration is completed and certification to the Veterans Administration should be made. *In either case, if the veteran does not return the information sheet, no certification will be made to the Veterans Administration.*

**Complete only one G.I. information sheet (listing on it all the courses you are registering for that term). However, be sure to write separate checks to pay tuition and fees for each limited-enrollment class for which you are registering. Submit all documents together when registering (reg-**

**istration forms, tuition checks, and one completed information sheet). The registration office will forward your information sheet to the records office in 150 Williamson Hall for certification.**

**Cancellation and transfer**—When veterans cancel or transfer classes, they must notify the Extension Veterans Office and the certification office in 150 Williamson Hall. This is especially important when it affects the total credit load. In-person registration is encouraged for those veterans registering for the first time under the G.I. Bill.

**Payments**—The amount of the monthly payment is determined by credit load. Credit minimums are as follows: for full-time benefit, 12 credits; for three-fourths time benefit, 9 credits; for one-half time benefit, 6 credits; for less than one-half time, reimbursement of tuition and fees only.

**Credits**—When registering for both quarter and semester classes, it is important to note that any change in credit load at the conclusion of a term may result in reduction of payments. (For example: a veteran taking 8 fall quarter credits and 4 fall semester credits is carrying only 4 credits at the end of fall quarter. To maintain full-time status he or she must register for 8 winter quarter credits and likewise, 4 spring semester credits and 8 spring quarter credits.)

**Advance Pay**—Veterans registering for at least half-time benefits and who have been out of school for at least one full calendar month are eligible for advance pay. This can be requested by filling out an Advance Payment Request Form, obtained by writing the Extension Veterans Office, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455, by calling 624-3341, or by filing in person at this office or at the Veterans Certification Office in 150 Williamson Hall. Requests cannot be made later than 30 days prior to the start of classes, nor earlier than 60 days before classes begin. Students who are registering for classes (by mail) during the

## Military information

advance pay period and wish to apply for advance pay must include a separate written request with their registration materials. This schedule shows the last date to apply for advance pay for each term when registering by mail:

Fall Quarter:	August 18, 1994
Fall Semester:	August 18, 1994
Winter Quarter:	November 29, 1994
Spring Semester:	November 29, 1994
Spring Quarter:	February 20, 1995

A 30-day deferment of tuition will be given only to veterans who apply for advance pay within the time listed above. No other deferment will be given. Veterans who receive a tuition deferment must pay the tuition not later than 30 days after classes begin. Failure to do so will result in the placement of a hold on the student's records and cancellation of certification to the VA effective the beginning of the term.

**Satisfactory Academic Progress**—Established standards of satisfactory progress can be found in the individual college bulletin for each degree program. Veterans who are not yet admitted to a degree program will be held to the CEE academic progress standards as described in the degrees section of this bulletin. In the past, VA regulations have changed often and without advance notice. The information in this section was correct when this Bulletin went to press, but is subject to change without notice.

The VA has established these guidelines for reporting of nonpunitive grades:

1. Any grade of "N" will be reported to the VA. The VA will adjust benefits retroactive to the beginning date of the term, resulting in an overpayment.
2. A grade of "W" will be reported to the VA if the veteran cancels a class 30 days after the beginning date of that term. The VA will adjust benefits back to the beginning date of that term, resulting in an overpayment.

If the veteran cancels the class within 30 days of the beginning of the term, the VA

will adjust the award effective the first of the month following the change in the credit load.

3. Any grade of "I" will be reported to the VA if it is not made up by the end of the term in which the veteran is enrolled. The VA will adjust benefits back to the beginning date of the term in which the "I" was assigned, resulting in an overpayment.

**It is the veteran's responsibility to keep informed regarding current VA rules.** Students who have questions should call the appropriate number listed below:

Extension Classes G.I.

Information: ..... 624-3341

Williamson Hall G.I.

Certification: ..... 625-8076

Independent Study G.I.

Information: ..... 624-0000

Advising and Counseling: ..... 625-2500  
(necessary course work—degree planning)

Unsatisfactory Progress

Problems: ..... 625-8076

### *Other Services*

**Tutorial assistance**—Veterans enrolled under the G.I. Bill (does not include chapter 106) are eligible for tutorial assistance in those courses in which they are showing academic deficiency. This is in addition to the regular monthly rate of educational assistance allowance payable while in pursuit of the approved program of education. Tutorial assistance is limited to a maximum of \$100 a month, with no entitlement charge for the first \$600.

**Veterans Vocational Rehabilitation**—Veterans with service-connected disabilities may be eligible for vocational rehabilitation services through the Veterans Administration. Write or call the Veterans Assistance Center, Federal Building, Fort Snelling, St. Paul, Minnesota 55111; 726-1454 or 1-800-827-0646.

**State of Minnesota**—Department of Veterans Affairs. Minnesota law provides that a veteran who has exhausted through use all of



his or her federal educational benefits and who is enrolled in a university of higher learning in the State of Minnesota is eligible for a one-time grant of \$350. Applicants must demonstrate financial need and must be a resident.

Any dependent of a prisoner of war or person missing in action who was a resident of Minnesota at the time of entry into the armed forces may attend a state-supported vo-tech without charge or tuition. Such dependents may attend private institutions and may be reimbursed for tuition and fees at a rate not exceeding the tuition at Minnesota public institutions. Eligibility exists until the dependent has earned a bachelor's degree or certificate of completion.

Children of veterans who died of service-connected causes may be eligible for tuition benefits or stipends while attending institutions of higher learning. Contact the Department of Veterans Affairs.

Inquiries should be directed to the Department of Veterans Affairs, State of Minnesota, Veterans Service Building, St. Paul, MN 55155. Telephone 296-2562.

### Prerequisites

A prerequisite indicates competence needed to enter a course. It may be a preliminary course, experience, or approval required before a course may be taken. Students will find a course prerequisite (if any) listed at the end of the course description. Usually there is no prerequisite for beginning courses. Most advanced courses do have prerequisites and should not be attempted unless the student has had the stated previous course or its equivalent. Occasionally, students who have had the equivalent study, training, or experience related to the course desired may be exempted from the prerequisite by the instructor.

If an instructor decides that a student is not qualified once the class has begun, the student may be permitted to transfer to another

course without penalty or cancel with a full refund under the following conditions: The student must obtain from the instructor a written statement explaining that the student does not have the necessary background or prerequisites to complete the course. This statement should be obtained as early in the quarter as possible and must be obtained and submitted by the fourth class meeting. To transfer to another class, the student also must have written permission from the instructor of the class he or she is entering if the class has met one or more times. Since most instructors are reluctant to give permission for a student to enter a class that has met two or more times, transfers should only be considered very early in the term. To receive a full refund, the student must officially cancel by mail or in person using a cancellation form available from the registration office in 101 Westbrook Hall. Cancellation should be done as early as possible in the term and must be completed by the fourth class meeting. Cancellations after the midpoint of any term may encounter grade recording delays. See *Transferring Classes, Cancellations, and Refunds* in the *Rules, Regulations and Policies* section. A prerequisite course usually may not be taken for credit after the advanced course has been satisfactorily completed.

Course numbers beginning with the numeral "8" are open only to students **admitted** to the University of Minnesota Graduate School.

### Academic Progress

For students not held to other college, department, or program academic standards, CEE will determine scholastic standing by evaluating satisfactory progress with the following criteria:

Completion of two-thirds (66%) of total credits for the review period with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W, V, or X are not included in this calculation.

---

## Grades

---

**The formula for determining satisfactory progress is as follows:** (Total credits graded A,B,C, or S) divided by (Total credits graded A,B,C,D,F,S,N, or I) equals 66%.

Grades in repeated courses and noncredit remedial courses are considered in total credits.

Students who do not meet the criteria for good academic standing will not be eligible to receive financial aid, veterans benefits, and specially funded programs.

Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing.

Students are encouraged to contact an academic progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Students admitted to certificate programs who do not register for at least one credit within six consecutive quarters will be withdrawn from their certificate programs.

## Grades

**A-F Grading System**—Four permanent grades, A (highest), B, C, and D (lowest), indicate completion of a course. The grade F represents performance that fails to meet basic course requirements and is unworthy of credit. The A-F grading system is almost always compulsory for courses in a student's major. Check with an adviser at 625-2500 for specific information.

**Note**—The Carlson School of Management also awards plus/minus letter grades for their students. For Carlson School grading information, please call 624-3313.

**S-N Grading System**—The S-N system represents an alternative to the A-F system. S represents achievement that is satisfactory to the instructor for the class in which the student is registered. (The standards for S

may vary from one class to another.) The symbol N, which stands for no credit, is assigned when the student does not earn an S and is not assigned an incomplete (I).

Students wishing to take courses under the S-N grading system should be aware of the limitations placed on the system by the college in which they intend to earn a degree. Each college determines to what extent and under what conditions each system may be available to its students. Any college may specify what course or what proportion of courses taken by its students or by prospective students must be on which grading system. The A-F and S-N grading systems cannot be combined in a single course by a student. Students may receive grades only from the grading system under which they are registered.

Choice of A-F or S-N grading system must be indicated for each course listed on the registration form at the time of registration and may not be changed after the second week of a quarter or the third week of a semester without CEE Scholastic Committee approval (there is no fee for changing). Instructors are not authorized to change students' grading systems. Changes can be made in person or by writing the Department of Extension Classes, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455 (*telephone calls are not acceptable*). **If the student does not specify on the registration form the grading system desired, the A-F system will apply.**

**A symbol of I (incomplete)** is a temporary grade. **Stopping attendance without official cancellation will result in an F or N grade.** An I will be assigned when, in the opinion of the instructor, there is a reasonable expectation that the student can complete successfully the work of the course. Student and instructor should arrive at a clear understanding in advance as to whether the student may receive an I and what the conditions will be. An I that is not made up

by the end of the next quarter of registration becomes an F or N, depending on the grading system under which the course was taken. When an I is changed to a permanent grade, the I is removed from the student's record. Veterans are advised to read information under *Academic Progress*, page 35.

**The symbol K** (continuing) is assigned by an instructor to indicate that the course is still in progress and that a grade cannot be assigned at the present time. Upon completion of the course, a permanent grade is assigned.

**The symbol X** (not to be confused with registration for extra credit) may be reported in continuation courses in which a grade cannot be determined until the sequence is completed. Upon completion, a separate grade is substituted for each X.

**The symbol W** indicates official cancellation without grade. It is assigned in all cases of official cancellation from the third week through the sixth week of any quarter, or the ninth week of any semester, or the midpoint of any special term, regardless of the student's standing. After that time, the symbol W is assigned only if the student is granted approval by the CEE Scholastic Committee. If the student stops attending without official cancellation, the instructor will assign the grade of F or N, depending on the grading system under which the course was taken.

**It is advisable, therefore, that any student experiencing difficulty in a class after the sixth week of any quarter, or the ninth week of any semester, or midpoint of any special term, discuss the matter with a CEE adviser immediately at 625-2500.**

**The symbol V** (visitor) indicates registration as an auditor or visitor (see Auditors, page 44).

**Grade-Point Average**—For purposes of determining grade-point average, grade points are assigned to the permanent grades as follows: for each credit of A, 4 grade points; B, 3 grade points; C, 2 grade points;

D, 1 grade point; F, 0 grade points. A student's grade-point average is determined by dividing the sum of grade points by the sum of credits attempted, and passed. Credits taken on the S-N grading system are not usually included in the calculation of the official university grade-point average shown on transcripts; check with your college office. (Written instructions on how to compute your grade-point average are available from CEE Counseling. Please call 625-2500 to request them by mail.)

A student who is considering repeating a course for which he or she has earned credit should check with an adviser at the CEE Counseling Office (625-2500) before registering. Each college within the University determines its own policy and procedures on repetition of courses for credit and recognition of grades.

## Grade reports and transcripts

Two types of services are available to obtain official transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 a copy. Processing time for regular service is two to three working days; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript requests is available for \$9 a copy. Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day the request is received. You must have a picture I.D. (student identification card, current passport, or driver's license) to receive over-the-counter rush service. Prepaid courier service may also be requested for both regular and rush service. Visit the transcript service (155 Williamson Hall, Minneapolis, or 130 Coffey Hall, St. Paul) for more information or call 625-5333.

Official transcripts can be requested by mail. Requests can also be dropped off at the location below. No telephone or FAX requests are accepted. Requests should in-

## Credits

clude your full name and signature, University I.D. number, social security number, date of birth, dates of enrollment and complete address(es) for mailing the transcripts. Send your requests to the Certifications Unit, 150 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. Your request must include a check or money order payable to the University of Minnesota for \$3 or \$9 a transcript.

You may pick up an unofficial copy of your record by making a request (picture I.D. required) at the transcript window in 150 Williamson Hall. There is no charge for an unofficial copy; however, there is a limit of one copy per day.

Extension grades and credits are automatically recorded for undergraduates on college (day school) transcripts. It is not necessary to request that your grades be transferred to your college record. Graduate and professional school students must petition for transfer of Extension credits to graduate or professional school records, however. Complete a "Request for Transfer" form at the Student Relations Unit, 150 Williamson Hall (625-5333).

**Official quarterly reports of students' grades are released only by the University's Office of the Registrar and cannot be furnished by Extension offices.** Grades for each term are mailed from the Office of the Registrar. You should allow four to six weeks from the close of a term for your grades to arrive in the mail and to be posted to your Extension record. If you need grades sooner, you may leave self-addressed postcards with your instructors, who will mail grades immediately following the end of the term.

### **Student identification card (I.D.)**

A University identification number is assigned to your undergraduate transcript when you register for Extension classes. Always include the I.D. number when you register or complete other University forms.

Extension students admitted to a college of the University are eligible for a University I.D. card and are encouraged to obtain one. Students not admitted to a college may purchase an I.D. card for \$5. To purchase an I.D. card, obtain an authorization for \$5 from the Bursar's Office and bring it to the Office of the Registrar where your student status will be verified.

Students registering for the first time should allow two to three days to process their record before requesting a card. A paid fee statement (your registration confirmation) and picture I.D. can be used to request student services instead of the I.D. card.

The Office of the Registrar, 150 Williamson Hall, is open 9 a.m. to 5:30 p.m. on Monday and 8 a.m. to 4 p.m., Tuesday through Friday, and has extended hours the first three days of every quarter. Call 625-9357 for more information.

## **Credit and no credit registrations**

### **Credits**

**All credits listed in the class description are QUARTER credits even though some classes meet on a semester-length schedule. Each credit usually requires, on the average, a total of three hours a week of a student's time, counting both in-class and out-of-class time.**

1. **"Degree credit"** means that the credits earned in a course may count toward the total number of credits required for either a degree or certificate program. A student who applies to a degree program should be aware that a record of all degree credits attempted in Extension Classes must be submitted at the time of application to the college offering the degree program. A few Extension courses carry a number of credits different from the number of credits carried by the same course offered in day classes. However, if a course carries the same course number as a day course, it will usually satisfy the same

prerequisite, distribution, minor, and major requirements met by the day course.

**Residence**—Credits earned in undergraduate Extension Classes are University residence credits; however, until students have been formally admitted to the college from which they expect to obtain a degree, these credits are not necessarily considered to meet the college residence requirements of individual colleges of the University. See *Degrees and Certificates*, page 477.

2. **“Certificate credit”** means that the credits earned in a course so marked may be used in appropriate Extension certificate programs. Certificate credit courses are University-level courses but do not carry degree credit. See *Certificates*, page 501.
3. **“Entrance credit”** means that credits earned may be used to meet University admission requirements.
4. **“No credit”** means that no credit is given for the course, although grades may be assigned (except for students registered on any reduced, no-credit tuition plan).

**Use at Other Institutions**—Credits earned in Extension, like those earned in day classes, are applicable toward a degree at another institution under the policies determined by that institution.

## Graduate School credit

Students who intend to pursue graduate-level course work through Continuing Education and Extension should be familiar with the instructions in both this bulletin and the Graduate School bulletin. A Graduate School bulletin may be requested from the Graduate School, 309 Johnston Hall, 101 Pleasant Street S.E., University of Minnesota, Minneapolis, MN 55455 (625-3014).

**Course numbers beginning with the numeral “5” may be taken for graduate credit by qualified students only if the instructor holds a Graduate School faculty appointment and the course descrip-**

**tion includes a statement indicating that graduate credit is available.**

Course numbers beginning with the numeral “8” are open only to students **officially admitted** to the University of Minnesota Graduate School.

**Note that the inclusion of graduate-level courses on a University of Minnesota undergraduate transcript neither implies nor guarantees admission to the University of Minnesota Graduate School, nor does it guarantee that such course work will be approved for transfer to a Graduate School student’s degree program.**

**Planning a University of Minnesota Graduate School Degree Program**—Students intending to apply CEE course work toward a University of Minnesota Graduate School degree must plan a coherent and relevant program of study. They are expected to review their plans with the Director of Graduate Studies or a qualified faculty adviser in the field of their choice. Special attention must be paid to the amount of course work that can be transferred to a degree program from outside the Graduate School, including from CEE.

Course work for the Graduate School’s Master of Arts in English, the weekend Master’s of Social Work, and Master of Business Taxation programs may be completed entirely through CEE registration. Students who wish to apply CEE course work toward a Master of Science degree in Food Science should consult with their Director of Graduate Study concerning the number of credits which may be transferred from CEE.

Students in all other Graduate School programs leading to the master’s degree are required to register through the Graduate School for at least 60 percent of the course work on their approved master’s degree program.

The remaining 40 percent of the course work required for the master’s degree may be transferred from approved sources. The

---

## Graduate credit

---

Graduate School will consider for transfer courses that meet the following criteria:

1. The courses must be completed as an adult special, summer special, or CEE registrant at the University of Minnesota (such course work from other colleges and universities cannot be transferred), or as a formally admitted and registered student in an accredited graduate school at another university. A student may request that work be transferred from more than one such source, but no more than 40 percent of the total course work may be transferred from any combination of these sources.
2. The courses must have been taken for graduate credit and taught by faculty members authorized to teach graduate-level courses.
3. The courses must be used to satisfy Graduate School degree program requirements. Courses that are not required by the student's degree program cannot be transferred to the Graduate School transcript.

All requirements for a master's degree must be completed within seven years of the date of the oldest course work on the approved degree program, including any transfer work.

Students in a Graduate School program leading to a doctoral degree may transfer no more than 12 credits from CEE to the doctoral program.

In all cases, requests to transfer course work are subject to early review and recommendation by the student's Graduate School adviser and Director of Graduate Studies and must receive final approval from the Graduate School. *Individual Graduate School programs may specify more restrictive requirements than those described above.*

**CEE Graduate-Level Registration and Fees**—Students who wish to receive graduate-level credit for a CEE course which is available for graduate credit must indicate on the CEE registration form that they are

registering for graduate credit. Students then must pay either the graduate credit tuition rate (for courses that are to be applied to graduate programs not offered through the University of Minnesota Graduate School) or the University of Minnesota Graduate School tuition rate (for courses to be applied to a Graduate School program). Students classified as nonresident/nonreciprocity students must pay nonresident tuition rates.

By indicating registration for graduate credit on the registration form, you notify the instructor of the course, who then indicates on the final grade report whether the work was completed at the graduate level. If the work was completed at the graduate level and graduate tuition was paid, the course is entered onto the student's undergraduate transcript with an asterisk (\*) printed next to the course listing.

A student who later wishes such work to be transferred to the Graduate School transcript must submit a copy of the undergraduate transcript to the Graduate School when filing the degree program form. This transcript must show that the work was taken for graduate credit and must indicate a final grade for the work; course work that is "Incomplete" or for which no grade has been submitted cannot be transferred.

In order to change a CEE registration from undergraduate to graduate credit (or the reverse), students must write or go to the Extension Classes Registration Office, 101 Westbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455 (telephone calls are not acceptable). This may be done at any time during the period of instruction; however, no refund of tuition will be made after the third week of a term when changing from graduate to undergraduate registration. The Graduate School does not permit such change after the last day of instruction. Contact a CEE Scholastic Committee representative at 625-2500 with questions.

A regularly enrolled day school student who concurrently takes day school courses and CEE courses must register separately in day school and in CEE and must pay both day school and CEE fees.

**Recent Policy Changes**—Students who register for 8000-level course work in CEE who want graduate credit must pay Graduate School tuition rates. Students who register for 5000-level course work in CEE who want graduate credit must pay either the graduate credit tuition rate or the University of Minnesota Graduate School tuition rate (for courses that are to be applied to a Graduate School program). Courses for which graduate credit is available usually include the graduate-level tuition cost and the University of Minnesota Graduate School tuition cost after the course title.

If a course taken previously is approved for transfer to a University of Minnesota Graduate School transcript, the student must pay the difference between the CEE tuition paid and Graduate School tuition. The tuition differential to be charged will be the difference between the rates in effect at the time the course was taken. In addition, there is a \$20 records transaction fee. If the tuition and fee are not paid, a hold will be placed on the student's Graduate School record by CEE. Check with the Extension Classes Registration Office, 101 Wesbrook Hall (625-3333), if you have questions.

Also, students who haven't taken courses at the graduate credit rate and later choose to transfer those credits to a Graduate School degree program must pay the difference between the graduate credit tuition paid and the Graduate School tuition rate in effect at the time the course was taken.

**Use of CEE Graduate-Level Course Work**—Registration for graduate credit and payment of Graduate School tuition rates does not guarantee that a course will be accepted for transfer to a Graduate School degree program. The use of CEE graduate-level course work to satisfy degree require-

ments at an institution other than the University of Minnesota will be entirely the prerogative of the student and the institution to which he or she submits the transcript, and is not the responsibility of either CEE or the Graduate School of the University of Minnesota.

### **Credits without class attendance**

If through personal experience or occupation, students have gained knowledge which they believe should qualify them for University credit, or if they wish to work on their own to earn credit for a project, several options are available. Students may obtain information on these programs by CEE Counseling (625-2500). Following is a summary of the various options.

#### *Independent study "Y" registration*

Many degree credit courses have been identified by academic departments as courses in which students may study independently (designated as a "Y" registration) without attending class sessions. In some instances, written instructions are available; in others, direct consultation with the instructor is necessary for planning the student's work. Regular fees are charged for independent study "Y" registrations.

Independent study can be arranged for any course so identified by an academic department, whether it is offered during day or evening hours. Department and instructor approval is necessary and a special form for that purpose, with the appropriate signatures, must be presented at time of registration. Registration is then completed in the usual manner but with a capital "Y" added after the course number. For the special permission form and for further assistance in making "Y" registration, consult CEE Counseling, 314 Nolte Center (625-2500).

#### *Extra credit "X" registration*

Students may register in a degree credit course for one, two, or three extra credits

---

## Earning credits

---

(beyond those a course carries) provided the course instructor approves. Fees are charged on the basis of number of credits for which a student is registered. The student works independently, meeting requirements set by the instructor. Extra credit study allows for more intensive study of a course topic or study in a related topic in which no regular course is offered. Department and instructor approval is necessary and a special form for that purpose with the appropriate signatures must be presented at time of registration. Registration is then completed in the usual manner but with a capital "X" after the course number. For the special permission form and for further assistance in making an "X" registration, consult CEE Counseling, 314 Nolte Center (625-2500).

### *Directed studies, Directed research registration*

A wide range of opportunities is available to Extension students for earning college credit for individually designed study or research projects. These projects may be organized around their job activities, their involvement in the community or around special interests that students have in a particular topic. A student wishing credit in Directed Studies or Directed Research should contact a faculty member in the particular area in which he or she is interested, determine if the department lists specific course numbers and titles for such registration, and obtain faculty and department approval. A special form for that purpose, with the appropriate signatures, must be presented at time of registration. Registration is then completed in the usual manner with the correct Directed Studies or Directed Research number of the department. For the special permission form and assistance in making Directed Studies or Directed Research registration, consult CEE Counseling, 314 Nolte Center (625-2500).

### *Special examination*

Students who, through independent study, experience, or study at a noncollegiate insti-

tution have gained knowledge which is equivalent to that covered by a particular University course, may earn credit for it by passing a special examination on the subject matter covered by the course. Students who have been admitted to a college within the University should contact their college to discuss special exam arrangements. Students who have not been admitted to a college may contact an adviser in the CEE Counseling Department (625-2500) to discuss arrangements. All students must have established a University of Minnesota transcript in order to take a special examination. Not all courses are open to credit by examination, and departments may restrict its use in some cases. Students should check with their college office to make sure the college will accept credit by special examination. There is a \$30 fee (subject to change). Contact CEE Counseling, 314 Nolte Center (625-2500).

### *College-Level Examination Program (CLEP)*

The College-Level Examination Program has been established by the College Entrance Examination Board to enable individuals who have acquired their education in nontraditional ways to demonstrate their academic achievement. CLEP examinations in five areas—English, mathematics, natural sciences, social science/history, and humanities—are available for a fee to Extension Classes students who may be considering entering certain degree programs. Students will receive credit upon passing one or more tests, provided they have a satisfactory score and have not yet completed requirements in the appropriate area. Since the various colleges use different criteria in accepting CLEP results, for detailed information and referral, contact CEE Counseling, 314 Nolte Center (625-2500).

### *University College directed study (UC 3075)*

University College provides an undergraduate directed study course listing (UC 3075) available to students who wish to pursue



projects that go beyond the scope of any single department or college of the University. Projects are interdisciplinary in nature and/or are done in departments that do not have an appropriate undergraduate independent study course. Students will be asked to consult with their faculty monitor and to complete the UC 3075 Independent Study Contract prior to registering. Students may take 3 to 15 credits of UC 3075. Further information may be obtained from the Inter-College Program Office of University College, 107 Armory (624-2004).

### Research Explorations

You can assist a University faculty member or other researcher as a volunteer member of a research team through the Research Explorations (REX) program. REX participants help in data collection, laboratory or field experiments, information processing, animal care, interviewing, or any number of activities associated with a research project. Time requirements vary depending on project, averaging four to six hours a week over a quarter. Through directed-study opportunities (see description above), it may be possible to receive credit for your REX participation. An application form is required. Deadlines are four weeks prior to the start of the quarter. For more information, call Research Explorations at 624-5092.

### CEE Independent Study

The Department of Independent Study offers a wide variety of courses by the correspondence method. **Courses marked in this Bulletin with (IS) following course titles are also available through CEE Independent Study.** Independent Study courses can be used toward fulfilling distribution requirements in most University undergraduate programs. All Extension certificate programs accept such credits. Credits earned through the Department of Independent Study may be used to satisfy residence requirements, with approval from your col-

lege. Please check with your adviser if you are not sure about applying Independent Study credits toward your program.

More than 350 college courses and a number of high school courses are available through CEE Independent Study. Using textbooks, a printed study guide, and sometimes other materials, you work through lessons at your own pace. You submit assignments and exams for evaluation by a University instructor. You can register at any time, and you have up to a year to complete your course. With your self-motivation and written feedback from your instructor, you can earn University credits at home. Credit cards are accepted for payment (Visa, MasterCard, Discover).

A new program of Group Independent Study courses combines the advantages of home study with a limited number of class meetings for first-hand instructor contact.

For people who like learning in a variety of ways, many Independent Study courses come with audiocassettes, videocassettes, or computer disks, in addition to a written study guide. The *Independent Study Bulletin* gives details for each course about what materials are included and their costs. The tapes are also available at no charge for use in the Learning Resources Center of Walter Library, Minneapolis campus.

Several video-assisted courses are also broadcast each year on KTCI (Channel 17) in the Twin Cities and on other Minnesota public television stations. Graduate credit is generally available for advanced-level television courses. Check the *Independent Study Bulletin* for specific courses and broadcast schedules.

For information on courses, policies, and how to register, call, write, or stop in for an *Independent Study Bulletin*: 45 Westbrook Hall, 77 Pleasant Street S.E., University of Minnesota, Minneapolis, MN 55455; telephone (612) 624-0000; FAX (612) 626-7900.

---

## Special plans

---

### Auditors (no credit)

A student who wants to attend classes, but does not wish to do all the required work, may register as an auditor by placing an "X" in the appropriate box on the registration form. An auditor is expected to attend class. Non-attendance may result in an "N" grade recorded on the student's transcript. Auditor status carries no credit. One may not later take for credit a course which has been audited; exceptions to this rule may be allowed upon consultation with an adviser in the college or school concerned. Auditors pay the same tuition and fees as other students. In very rare instances, auditors will not be permitted in some classes.

Requests for change from credit registration to audit registration are made in person or by writing the Department of Extension Classes, 101 Westbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455 (625-3333). After the sixth week of a quarter class or the ninth week of a semester class, requests for change must be approved by the CEE Scholastic Committee and the instructor; approval is granted only if the student is doing passing work at the time of the request. **No student whose tuition and fees are paid in whole or in part by military, Veterans Administration, company, Regents' Scholarships, or other scholarship funds may register as an auditor.** Changes from audit to credit will not be allowed after the second week of the quarter or third week of the semester.

Courses audited are officially recorded on the student's University record and transcript. (See also *Special Plans*, below.)

### Continuing Education Units (CEUs)

The CEU is a nationally recognized unit of measurement awarded to participants in qualifying noncredit continuing education programs. It can become a part of your permanent University record. For a descrip-

tive brochure about earning CEUs, contact the Department of Professional Development and Conference Services, 131 Nolte Center, on the Minneapolis campus; telephone 625-6616.

### Professional Development and Conference Services

The Department of Professional Development and Conference Services (PDCS) presents noncredit programs that enhance the professional skills and continuing education of adult learners.

PDCS plans and conducts educational programs in collaboration with faculty, departments, colleges and professional schools, institutes, research centers, and other organizations. These programs utilize faculty expertise and the latest forms of educational technology to provide the most accurate and up-to-date information available. The department offers courses in a wide variety of fields, including science, technology, and engineering; health and human services; government, business, and nonprofit organizations; and arts, humanities, education, social and behavioral sciences.

Telephone 625-6616 or FAX 626-1632 for a listing of current and future PDCS programs.

### Special plans

**Advanced High School Student Services Office**—Reduced no-credit registration for youngsters 12 to 16 has been discontinued. Continuing Education and Extension has an office to counsel, advise, and provide advanced placement information to young adults who have not yet graduated from high school and who want to take college classes. Interested students who are juniors or seniors in high school may contact the Advanced High School Student Services Office at 626-1666.

**62-Plus plan**—Individuals age 62 or older

may register free for no credit in regular credit classes. For further information on 62-Plus, see below. There are no late fees for persons 62 and older.

## The Compleat Scholar/Practical Scholar

Noncredit **Compleat Scholar** and **Practical Scholar** courses are flexible and non-competitive courses designed for persons interested in learning for their personal satisfaction. There are no examinations, no transcripts, and no grades. See the *Noncredit Course Offerings* section of this bulletin for a list of course titles and complete descriptions.

## Study and Travel (noncredit)

For information about **Compleat Scholar Weekends**, see the noncredit section of this Bulletin, page 443.

## Continuing Education for Women

Continuing Education for Women offers credit and noncredit classes in times, formats, and locations designed to accommodate student needs. Most credit classes meet once or twice a week during the day at off-campus locations. See the credit course listing on page 377. Noncredit classes are offered as part of the Compleat Scholar and Practical Scholar curriculum and provide participants with an opportunity to continue learning in a wide variety of areas without grades, exams, or extensive homework. See The Compleat Scholar and The Practical Scholar section of this bulletin for a list of noncredit course titles and complete descriptions.

The Continuing Education for Women Mucke/Roff Scholarship Fund was established for students registering for Continuing Education for Women credit and non-credit courses. Awards are made on the basis of scholastic ability, motivation, previous

achievement, financial need, and realistic plans. Information is available from the CEE Counseling Office, 625-2500.

## Persons 62 and older

Minnesota state law allows persons 62 and older to register in credit classes at reduced cost (credit registration) or no cost (no-credit registration) on a space-available basis. Only tuition is reduced or waived; course fees and special fees, if any, must be paid.

**Credit course registration**—Credit courses may be taken for University credit by persons 62 and older for only \$6 a degree, certificate, or entrance credit hour plus any fees. Or these courses may be taken free for no credit. For classes with limited enrollment, registrations will be accepted starting the second week of mail registration. For information on the availability of space in limited-enrollment classes, call 625-3333 during registration dates specified on page 13.

When registering by mail, students should be sure to include the completed registration forms and a check made payable to the University of Minnesota for special or course fees. If registering for credit, be sure to include \$6 a credit plus any fees. A separate check is required for each limited-enrollment class a student wishes to take.

For nonlimited-enrollment classes, students may register during regular registration periods by mail or in person.

**Noncredit Compleat Scholar and Practical Scholar Courses**—Persons 62 and older may register in noncredit Compleat Scholar and Practical Scholar courses and receive a 10-percent discount on tuition. The tuition cost for persons 62 and older is listed in parentheses after the regular tuition in the course description. Participants must pay any course or special fees. For classes with limited enrollment, registrations will be accepted starting the second week of mail registration. For nonlimited-enrollment

---

## 62+ plans

---

classes, students may register during the regular registration periods. This discount may not be combined with other discounts.

**Late fees**—There are no late fees for persons 62 and older registering under the reduced tuition option.

Be sure to see the sections on registration instructions and registration dates for each term at the beginning of this bulletin.

For general information, call 625-3333.

---

# Rules, Regulations, and Policies

---

Contents	Page
Fee Statements .....	47
Changes in course information .....	47
Attendance in classes .....	47
Cancel/add (transferring) classes .....	47
Admission to a degree program .....	48
Transfers from other institutions .....	48
Access to student educational records .....	48
Cancellations .....	49
Refunds .....	51
Language laboratory .....	52
Tax-deductible educational expenses .....	52
Grievance procedures .....	53
CEE Scholastic Committee .....	53

## Fee statements

When you register, you will receive a confirmation of registration; this is your fee statement. Save this document; it is proof of enrollment.

Students are urged to save and carry their registration confirmation which is required as identification for a number of University activities and services.

A duplicate confirmation statement may be obtained at 101 Wesbrook Hall in the event the first one is lost or illegible.

## Changes in course information

All changes occurring after the publication of the Bulletin are posted in the desk copy bulletin at each of the registration locations. Students registered in the previous two years receive current, updated information in Info, a newsletter for Extension Classes students.

## Attendance in classes

Students (including auditors) are responsible for attending classes in which they are registered. (See also *Credits Without Class Attendance*, page 41.) A student who cannot attend a class session should arrange with the instructor—in advance, if possible—to make up the work.

## How to cancel/add classes

You must officially cancel in person or by mail. Simply stopping class attendance does not constitute cancellation; you will receive an F or N grade if you do not cancel officially.

Students who wish to cancel/add classes or class sections after being officially registered may do so, if space is available, either in person at 101 Wesbrook Hall or by mail. **Students may not cancel/add between terms** (except for fall quarter and fall semester, through the second week of classes).

---

## Rules, regulations

---

Students who wish to cancel/add after an initial registration will be subject to the following fees and conditions listed below:

Prior to and during the first week of classes	None
During the second week of classes	\$10 (if accepted)
During or after the third week of classes	\$20 (if accepted)

For students who paid tuition by credit card, the tuition charge for the canceled class is credited to your account. Credit charges will not be transferred to the added course; a new transaction is required.

**Students who wish to cancel/add after the first week of classes must meet the following conditions:**

*Cancel/Add During the Second Week* (Quarter, Semester, Special Term, Special Class)—No cancel/add will be accepted after the second class meeting without written permission of the instructor of the class the student wishes to enter.

*Cancel/Add During the Third Week or After* (Quarter, Semester, Special Term, Special Class)—No cancel/add will be approved unless students have attended the second week of the class into which they wish to transfer, and have obtained written permission from the instructor of the class they wish to enter. **(Scholastic approval is required after the sixth week of the quarter or the ninth week of the semester. Contact the registration office or the CEE Counseling Office at 625-2500 for information and petition forms.)**

There will be no late fee if: (1) University requests the cancel/add be made; (2) the cancel/add is required by an unacceptable grade in prerequisite course (see *Grades*, page 36); (3) the cancel/add is required because of University cancellation of course in which previously registered, provided such cancel/add is made within one week from date of cancellation of class; or (4) between sections of a course with the same course number.

**Note**—Those wishing to take a University Extension class for no credit, but who need a transcript and a record of their registration, must register as auditors and pay full tuition.

**Students are requested to present fee statements at the time of transfer.**

**Veterans**—Any veteran registered under the G.I. Bill must notify the Extension Veterans Office, 101 Wesbrook (624-3341), when canceling and adding classes. This is essential when it changes the credit load.

### Admission to a degree program

A student may take Extension classes without going through formal admissions procedures. However, if students plan to complete a degree program through the Department of Extension Classes, they should consult the CEE Counseling Office, 314 Nolte Center (625-2500).

### Transfers from other institutions

Students who have had university or college work other than at the University of Minnesota, and who intend to work on a degree or certificate program in Extension should contact the CEE Counseling Office, 625-2500, to have their previous course work evaluated. It is important to bring a transcript when meeting with an adviser. Transcripts may be obtained from the registrar of the institution previously attended. Generally, credits from a nationally accredited two- or four-year college are accepted by the University of Minnesota provided that the courses or their equivalents are applicable to the degree or certificate program for which the student is applying.

### Access to student educational records

In accordance with regents' policy on access to student records, information about you generally may not be released to a third party without your permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The regents'

policy also permits you to review your educational records and to challenge the contents of those records.

Some student information—name, address, electronic (e-mail) address, telephone number, dates of enrollment and enrollment status (full-time, part-time, not enrolled, withdrawn and date of withdrawal), major, adviser, college and class, academic awards and honors received, and in the event of your graduation the degree received—are matters of public record or directory information. University officials and departments may provide this information in answer to inquiries without requiring authorization from you. You may prevent release of public information outside the University only during your terms of enrollment. To do so, you must notify the records office at 625-5333.

Students are advised that disciplinary action will be taken if academic records are forged or altered.

You are notified annually of your right to review your educational records. The regents' policy, including a directory of student records, is available for review in 150 Williamson Hall, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall, (612) 625-5333.

## Cancellations

### *How to drop a course*

Students who wish to cancel a class or classes must do so officially, either in person, by FAX, or by writing to the Department of Extension Classes, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455. By so doing, they will, if eligible, receive a refund (see *Refunds*, page 51), and will likewise insure entry of the appropriate symbol on their grade report. If students officially cancel the first two weeks of a term, the course they cancel will not appear on a transcript. For

cancellations after the second week, the course will appear with a grade of "W."

Students who officially cancel from a class on or before the dates listed below will automatically receive a "W" (withdrawal) on the grade report. This symbol means "official cancellation without grade." Cancellations by mail are effective the date of the postmark (or date received if sent by campus mail or FAX). If you simply stop attending class and do not cancel officially, you will receive an F or N grade.

### **Cancellations are not permitted without Scholastic Committee approval after the following dates:**

Fall quarter	November 4
Fall semester	November 28
Winter quarter	February 10
Spring semester	April 21
Spring quarter	May 5

Scholastic Committee approval of cancellation after these deadlines is rare and given only in cases of extenuating circumstances, usually beyond the student's control. Therefore, students are strongly encouraged to consider financial, academic, work-related, and personal circumstances that affect their classes before the sixth week of the quarter or ninth week of the semester. Contact an adviser (625-2500) early in the quarter or anytime an emergency arises to discuss your options.

College guidelines for cancellations will be strongly considered for students who are admitted to a degree program at the University of Minnesota.

Students can obtain a petition form from the registration office in 101 Wesbrook Hall or CEE Counseling in 314 Nolte Center. Instructor verification that the student is doing passing work is required. Completed cancellation forms, the petition form, and instructor's verification should be received by the Extension Classes registration office *before* the official start of final exam week

---

## Cancellations

---

for that term. Students will be notified by mail of the scholastic committee decision within approximately 10 working days.

**Note—no instructor is authorized to accept cancellation of any registration. The student must submit the cancellation form (in person or by mail) to the Extension classes registration office.**

The effective date of cancellation will be the day on which the cancellation is received in the Extension Classes office, regardless of the date of the student's last attendance. (Cancellations by mail are effective the date of postmark or the date received if sent by campus mail.) It is important, therefore, that whenever students stop attending a class, they should officially cancel by filling out the appropriate forms at the Extension Classes office on campus at 101 Wesbrook Hall or at the MacPhail Center in downtown Minneapolis.

**Do not stop payment of a check to cancel your registration.** You must cancel officially by mail or in person. A check handling fee of \$20 is charged for any stop order payment and you are responsible for any tuition due up to the point you officially cancel (based on the refund schedule below). A hold will be placed on your records until these fees are paid. Contact the Income Management Office in 138 Wesbrook Hall (624-6354) before you stop payment of a check for any reason.

**Veterans**—Any veteran registered under the G.I. Bill must notify the Extension Veterans Office, 101 Wesbrook (624-3341) when canceling a class. This is essential when it changes the credit load.

**Financial Aid**—Students receiving financial aid through the University of Minnesota should check with a financial aid adviser before canceling classes. Changes in credit load affect eligibility. Refunds may revert to the financial aid office, or students may be obligated for repayment of all financial aid awarded.

---

## **Cancellation of, or change in, scheduled classes (made by Department of Extension Classes)**

While the Extension staff sincerely regrets to do so, it is sometimes necessary to cancel classes with insufficient enrollment. The department reserves the right to cancel, postpone, limit enrollment, split, or combine classes, and to change instructors and/or locations of classes. If Extension cancels a class, the student will be notified and will be given the opportunity to transfer into another class without a late fee or penalty. If the student does not want to enroll in another class, a full refund will be given.

## **Cancellation of class meetings because of severe weather conditions, other emergencies**

Extension Classes are rarely canceled for any reason, including weather. However, in the event that Extension Classes are canceled, local radio stations will be notified and asked to broadcast an announcement on the day in question.

When conditions are no worse than difficult, most instructors will be in their classes. In such weather, the Extension administration does not feel it ought to decide for students whether they should attempt to go to class. If, however, conditions are worse than difficult—dangerous and/or virtually impossible—then Extension has an obligation to discourage instructors and students from risking the trip. In those cases, all classes will be canceled and the announcement made on radio and television.

*Rarely* are classes canceled. Winter weather in the metropolitan area, fierce as it sometimes is, is seldom bad enough for Extension Classes to make students' decisions for them. Classes have been canceled only a few times in the last decade.



# Refunds

A new two-part refund policy went into effect last year:

*I. Tuition Refund Schedule (credit courses only) for all students except those attending the University for the first time*

		<u>Cancellation Deadline</u>			
		<u>FQ/FS</u>	<u>WQ</u>	<u>SS</u>	<u>SQ</u>
Cancellation before or during first week of term	100%	Oct.1	Jan.7	Feb.18	Apr.2
Cancellation during the second week of term	75%	Oct.8	Jan.14	Feb.25	Apr.8
Cancellation during the third week of term	50%	Oct.15	Jan.21	Mar.4	Apr.15
Cancellation after the third week of term	none				

*II. Tuition Refund Schedule (credit courses only) for students attending the University for the first time (applies only during the first term of registration)*

		<u>Cancellation Deadline</u>			
		<u>FQ/FS</u>	<u>WQ</u>	<u>SS</u>	<u>SQ</u>
Cancellation before or during first week of term	100%	Oct.1	Jan.7	Feb.18	Apr.1
Cancellation during the second week of term	80%	Oct.8	Jan.14	Feb.25	Apr.8
Cancellation during the third week of term	70%	Oct.15	Jan.21	Mar.4	Apr.15
Cancellation during the fourth week of term	60%	Oct.22	Jan.28	Mar.11	Apr.22
Cancellation during the fifth week of term	50%	Oct.29	Feb. 4	Mar.18	Apr.29
Cancellation during the sixth week of term	40%	Nov.5	Feb.11	Mar.25	May6
Cancellation after the sixth week of term	none				

Students who wish to cancel a class or classes must do so officially, either in person or by writing to the Department of Extension Classes.

When students cancel they may be eligible for: (1) a full refund under the conditions outlined in item 1 below; (2) a refund of tuition and any course or special fees (less any late fees) under the conditions outlined in item 2 below; or (3) a refund of part of the tuition and any course fees and special fees after the class has begun, provided that the student cancels and requests a refund within the time limits outlined in the refund schedule given above.

Students who wish to cancel a class and add another class should read the section on how to cancel/add, page 47.

If you are receiving financial aid, contact the Office of Student Financial Aid in 210 Fraser Hall (624-1665) before canceling and requesting a refund. If you drop below the number of credits on which your aid is based, you may be required to pay back all or part of your award.

1. Full refund of all tuition and course-related fees will be made when a class is canceled by Extension Classes after a student has registered in it.
2. A refund of full tuition and fees also will be made:
  - A. When a student cancels anytime before or during the first week of the term.
  - B. When a student is ill or hospitalized and, in the opinion of a doctor, is

## Rules, regulations

unable to continue for medical reasons. The doctor's signed statement on the doctor's letterhead is required and must be submitted no later than the end of the term.

- C. To any student who has been recalled to or enlisted in military service upon presentation of military orders, provided the student would not be entitled to an appropriate grade at the time.
- D. When, in the opinion of the instructor, the student does not have the necessary prerequisites, or the student has already had the equivalent material in another course. Students seeking refunds under these conditions must:
  - a. Ask the instructor for a note explaining that the student does not have the necessary prerequisites. Bring in the note, a fee statement, and a completed cancellation form to 101 Wesbrook Hall or submit the note and a cancellation letter by mail. It is the student's responsibility to obtain the note and to submit all documents at one time before the fourth class meeting.
  - b. Present a transcript noting equivalent course(s), along with a fee statement and completed cancellation form, in person at 101 Wesbrook Hall or by mail. Documents must be submitted at the same time before the fourth class meeting.

Refunds for special (short) term classes will vary depending on the number of course meetings.

*Late fees are not refundable in any case.*

Cancellations by mail are effective the date of postmark (or date received if sent by campus mail or FAX). Refunds are based on the date of cancellation, not the number of times the student has attended class.

**Refunds for tuition payments made by cash or check are paid by check only and are mailed to the student. A minimum of three to four weeks is required for pro-**

**cessing a refund by check. For tuition payment by credit card, refunds will be credited to your card account within five working days. For financial aid tuition payments billed through STARS, refunds are made to STARS.**

For information about other refunds, see: *Recreation Facilities*, page 454; *Health Services Fees*, page 455; *Regents' Scholarships*, page 30.

### Language laboratory

Some Extension classes may include recommended audio tape listening at the University Library Learning Resources Center. Cassette tapes are available at the center in the basement of Walter Library on the Minneapolis East Bank campus. Extension students enrolled in courses which require audio tape listening may borrow audio cassettes for out-of-building use. For details concerning tape borrowing privileges please call the center at 624-1584.

Learning Resources Center hours: 9 a.m. to 9 p.m., Monday through Thursday; 9 a.m. to 5 p.m., Friday; 10 a.m. to 2 p.m., Saturday; and 5 p.m. to 9 p.m., Sunday.

### Tax-deductible educational expenses

University Extension Classes may be tax deductible if taken: (1) to maintain or improve the skills required in trade or business or required in performing a present job; or (2) to meet the specific requirements of an employer or the requirements of law for maintaining present employment, salary, or status (provided student had previously met the minimum requirements in effect when employed). Students cannot deduct expenses for education if courses are taken: (1) to get a general education; (2) to meet the minimum requirements to qualify for or to establish a trade or business; or (3) to prepare you to return to work or re-enter any previous business or profession.

Deductible expenses include tuition, books, supplies, laboratory fees, and similar items.

Also, students may deduct the cost of driving or taking the bus from work to school. In some cases, other education-related travel and transportation expenses may be deductible as well.

Employees with qualifying unreimbursed educational expenses may deduct them only if they itemize deductions. A tax benefit is only available to the extent these expenses together with other miscellaneous itemized deductions, such as union dues, tax preparation fees, and the cost of professional books and journals, exceed 2 percent of the taxpayer's Adjusted Gross Income for the year. Self-employed individuals may deduct in full their qualifying unreimbursed educational expenses regardless of whether or not they itemized deductions.

For information call the local office of the Internal Revenue Service at 644-7515, or from outside the Twin Cities metropolitan area call toll free 1-800- 829-1040. A free IRS booklet, publication 508, Educational Expenses, may be of help.

### **Grievance procedures**

Established grievance procedures in the Department of Extension Classes follow the University's Student Academic Grievance Policy. Academic grievances must be based on a University rule, policy, or established practice claimed to be violated. If students believe they have a justifiable complaint about education or academic services (including grades or classroom procedures), they should first confer about the problem with the instructor. Many problems can be worked out in this way, seeking resolution through informal means.

If a solution satisfactory to them is not reached, they should consider informal resolution working with the appropriate administrator, such as a program director or the academic department director. If no informal resolution can be found at the lowest unit level, parties may seek informal resolu-

tion at the collegiate level (the CEE Dean's office). Grievances regarding an instructor's judgment in assigning a grade based on academic performance may be resolved only through these informal resolution procedures.

Students who cannot resolve issues are urged to put the complaint in writing to the Director of Extension Classes, University of Minnesota, 180 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455, who will confer with the appropriate academic department chairperson. If these informal procedures do not bring about a satisfactory solution, the complainant may move the case to the formal level. The complaint should be submitted to the CEE Academic Grievance Officer and include identification of the respondent, the incident, the claimed violation, and redress sought. All complaints must be filed within 90 days after the incident occurred. Further appeals proceed to the college-level and University-level grievance committees. Contact the CEE Dean's Office, 150 Westbrook Hall, 624-2517.

Any student who has a complaint about Extension Classes programs—services, facilities, policies, and practices—is encouraged to make it known, preferably in writing, to the Director of Extension Classes.

### **CEE Scholastic Committee**

The Continuing Education and Extension Scholastic Committee is charged with interpreting and enforcing college and University regulations relating to academic affairs. It handles requests for exceptions to registration policies and procedures, admission standards for certificate programs, and transfer of credit policies for certificate programs.

The committee seeks to maintain the spirit of the University's regulations and is empowered to make exceptions in extenuating circumstances. Students experiencing difficulty which may interfere with their course work are encouraged to contact a Scholastic Committee representative in the CEE Counseling Office, 625-2500, to discuss options.

# Course Offerings

Credit Courses begin **page 55**. See the list of credit Continuing Education for Women Courses, **page 377**. Also be sure to see *Noncredit Courses* beginning on **page 379**. See the sample course description on **page 14**.

Sections of courses with a star (★) have limits on enrollment. See *When and How to Register*, **page 9**.

See *Symbols*, below. *Maps* begin **page 521**. *Abbreviations* and *Addresses for Off-Campus Classes* appear on **pages 519 and 520**.

Courses in this section are listed alphabetically by department. See **page 517** for a list of *Departments and Department Abbreviations*, and **page 519** for *Buildings* and their abbreviations.

*Course Numbering* is explained on **page 516**.

See *Index* for page numbers of individual departments.

## Semester courses

The following departments offer one or more courses on the semester basis.

Chinese	German	Physics
Economics	History	

## Symbols

The following symbols are used throughout this Bulletin:

- A hyphen between numbers indicates a sequence course, the units of which must be taken in order, unless otherwise indicated.
- ★ Enrollment space limited. See instructions on registration in limited-enrollment sections, **page 12**.
- A joint Day/Extension class. See **page 21**.
- † All courses listed before this symbol must be completed before credit may be received.
- § No credit is given if credit has been received for equivalent course listed after this symbol.
- ¶ Concurrent (simultaneous) registration is allowed or required in courses listed after this symbol.
- # Consent of instructor.
- (IS) Course also available through Department of Extension Independent Study. See **page 43**.
- Δ Consent of department offering course is required.
- cr Credit
- Qtr Quarter
- Sem Semester
- Spec Special Term
- S/N Satisfactory/No credit grading system. See **page 36**.
- A/F Letter grading system. See **page 36**.
- Lect Lecture
- Rec Recitation
- Prereq Prerequisite. See **page 35**.
- Sec Section
- Grad Graduate

## Abbreviations

**NOTE**—Campus building abbreviations are listed on **page 519** (maps begin on **page 521**). Abbreviations and addresses for off-campus class sites (neighborhood centers) are on **page 520** (maps begin on **page 530**). Course numbering is explained on **page 516**.

## Credit Courses

### Accounting (Acct)

(645 Management/Economics: 624-6506)

#### Carlson School of Management

Textbooks for most courses in Acct are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College)

**A major in accounting can be completed in the evening.**

The Carlson School of Management offers the Bachelor of Science degree in Business, which includes the Accounting Program as a major. Students are referred to the Carlson School of Management Bulletin for information regarding the pre-admission requirements associated with the first 90 degree credits. Interested students should discuss plans with an advisor in CEE Counseling (625-2500).

#### Core Requirements for General Management and Accounting Students

*Note:* Students admitted to the Carlson School of Management before fall 1990 are responsible for the requirements published in the Management Bulletin current at the time of their admission. Contact the Undergraduate Studies Office at 624-3313 for more information.

Core—28 credits (A-F required):

- Acct 3001—Introduction to Management Accounting
- BFin 3000—Finance Fundamentals
- IR 3002—Personnel and Industrial Relations
- Mgmt 3001—Fundamentals of Management
- IDSc 3030 (formerly MSci 3030)—Information Systems and Information Management
- Mktg 3000—Principles of Marketing
- OMS 3000—Introduction to Operations Management

Senior Policy Course—5 credits (A-F required)  
Mgmt 3004

Economics—4 credit course selected from the following (A-F required)

Econ 3101; Econ 3102; Econ 3105; Econ 3701

International—4 credits selected from the follow-

ing (A-F required)

AgEc 3070, 5720, 5750, 5790

BGS 3004, BGS 3014

BGS 3019 (depending on the topic offered, this course may fulfill the requirement; consult the Undergraduate Studies Office for further information)

Econ 3041, 3315, 5041, 5301 or 5331, 5307 or 5337, 5313, 5315, 5401, 5431

FSMg 3460, 3490, 3620, 3680, 3820

Geog 3321, 3331, 3341, 3351, 3378, 5145, 5181, 5191

IntR 5145, 5831

PolS 3477, 3810, 5889

PA 5820

Communications—12 credits (A-F required)

Comp 3022—Critical Reading and Writing for Management (or Comp 1027 if taken fall 1989 or earlier)

Comp 3032—Pre-Professional Writing for Business

One course from the following (Note: Students are encouraged to complete any introductory speech or rhetoric prerequisites for the following courses; the prerequisite work, however, is not required for the CSOM degree program):

Rhet 3254—Advanced Public Speaking

Rhet 3266—Discussion Methods

Spch 1101—Fundamentals of Speech Communications: Oral Communication

Spch 3111—Leadership Communication

Spch 3411—Small Group Communication Processes

Spch 3605—Public Speaking (instructor approval required)

Spch 5422—Interviewing and Communication

Th 3803—Topics: Platform Performance

#### Additional Accounting Program Requirements

To earn a B.S.B. in accounting, 50% of all accounting courses must be taken from the Carlson School. This is generally equivalent to 5 courses.

Core—24 credits (A-F required)

Acct 3101—Intermediate Financial Reporting

Acct 5102—Advanced Financial Reporting I

Acct 3201—Intermediate Management Accounting

Acct 5125—Auditing Principles and Procedures

Acct 5135—Income Tax Accounting

BLaw 3058—Introduction to Law and the Law of Contracts and Sales Contracts

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Accounting Electives—8 credits of Accounting electives (A-F required; Acct 3199 and 3299 do not apply). Acct 5180 is recommended for students planning to take the CPA examination.

Additional Electives—Additional transferable electives (upper or lower division) from the Carlson School, College of Liberal Arts, Institute of Technology, or College of Agriculture to complete the 180 credits required for graduation. Consult an adviser in the Undergraduate Studies Office before taking courses in colleges other than those listed above.

Seek advice from accounting faculty on upper division electives. It is recommended, but not required, that you choose one of the following options:

1. Economics: Econ 3102 and one additional Economics course
2. Legal and Political Environment: BLaw 3078 and BLaw 3088
3. Information and Decision Sciences: IDSc 5102 and IDSc 5103

An accounting major may also earn a general management "area of emphasis" by completing at least 5 additional courses in the appropriate emphasis. See a Carlson School advisor for details.

**Your attention is called to the Undergraduate Development Certificates in Accounting, page 506.**

**The Accounting Department strictly adheres to class size limits. CEE will only register students for accounting classes through the first week of classes if space is available. The instructor will not be allowed to admit students to classes under any circumstances.**

**Students who are nearing the completion of their program and are admitted to the Accounting degree or certificate programs are encouraged to request early registration for upper division accounting courses, to assure space in the classes. See page 16 for early registration procedures.**

**Students will not be given permission to withdraw from an accounting class after the sixth week without extenuating circumstances and permission by the CEE Scholastic Committee.**

*If for any reason you are having difficulty with registration in evening courses offered by the Accounting department, please call Nick Biondich at (612) 624-7055.*

### First year accounting courses

The first-year accounting course, Acct 1050, is designed to meet the needs of three groups of students: (1) those who plan to use accounting for management purposes; (2) those who intend to be practicing public accountants or work as a professional accountant in industry or government, and will continue with the second-year and advanced accounting courses; and (3) those who wish an introduction to the "language of business" as part of a liberal education. **This is not a bookkeeping course.**

**Acct 1050 INTRODUCTION TO FINANCIAL REPORTING.** 5 credits, tuition\* (includes \$16 special fee): Resident \$383.50; Non-resident \$1081.75.

Introduction to basic concepts of measurement and valuation which underlie the development of financial reports for external users. Financial statement preparation, analysis of alternative valuation approaches, and interpretation of financial statement information are the focal points of the course. Lectures for each quarter meet concurrently. **NOTE: Do not fill in a section or room number on the registration form. Sections are filled sequentially. Students will be notified of section number and meeting room on their registration receipt. Must be taken A-F.** (Prereq 40 credits. Limited to 45)

Fall Qtr, ★Sec 1, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 10

Fall Qtr, ★Sec 2, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 105

Fall Qtr, ★Sec 3, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, Law 3

Winter Qtr, ★Sec 4, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 10

Winter Qtr, ★Sec 5, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 115

Spring Qtr, ★Sec 6, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 115

Spring Qtr, ★Sec 7, Lect, MW, 6-7:15, BlegH 10; Rec, MW, 7:25-8:15, BlegH 10

### Upper division accounting courses

**NOTE**—Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B—" grade average.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Acct 3001 INTRODUCTION TO MANAGEMENT ACCOUNTING.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40. (IS)

A broad overview of management accounting as the main information collection and analysis technology in an organization. Topics include analysis of cost-volume-profit relationships, budgeting, and analysis of variances from budgeted performance, and issues relating to decentralized organizational design. Lectures for each quarter meet concurrently. **NOTE: Do not fill in a section or room number on the registration form. Sections are filled sequentially. Students will be notified of section and meeting room on their registration receipt. Must be taken A-F.** (Prereq 1050 and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★Sec 1, Lect, MW, 6-7, AndH 230;  
Rec, MW, 7:10-7:55, AndH 230

Fall Qtr, ★Sec 2, Lect, MW, 6-7, AndH 230;  
Rec, MW, 7:10-7:55, RarigC 610

Winter Qtr, ★Sec 3, Lect, MW, 6-7, AndH 330;  
Rec, MW, 7:10-7:55, AndH 330

Winter Qtr, ★Sec 4, Lect, MW, 6-7, AndH 330;  
Rec, MW, 7:10-7:55, BlegH 105

**Acct 3101 INTERMEDIATE FINANCIAL REPORTING.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40.

Relationships between economic events and their representation in financial statements aimed at external users. Income determination, asset valuation, and capitalization of corporations are covered. **Must be taken A-F.** (Prereq A or B in 1050 and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★Sec 1, TTh, 6-7:45, BlegH 150

Spring Qtr, ★Sec 2, TTh, 6-7:45, BlegH 150

**Acct 3201 INTERMEDIATE MANAGEMENT ACCOUNTING.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40.

Incentives and management control in the presence of uncertainty and asymmetric information. Provides an appreciation for the incentive properties of accounting measurements in large decentralized organizations. Basic concepts of moral hazard, adverse selection, and informational rents are introduced. Accounting control mechanisms such as variance analysis, budgeting, standard setting, and transfer pricing are developed for such informationally complicated environments. Draws on new findings in the accounting and economics literature. **Must be taken A-F.** (Prereq 3001. At least 90 credits completed or in progress. **Prereq will be enforced.** Limited to 60)

Spring Qtr, ★Sec 1, MW, 6-7:45, BlegH 150

**Acct 5102 ADVANCED FINANCIAL REPORTING I.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Development of an understanding of the relationship between complex events such as defined benefit pension plans, leases, and intercorporate investments and the reflection of these events in financial statements. **Must be taken A-F.** (Prereq 3101 or 5101. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 48)

Winter Qtr, ★Sec 1, MW, 6-7:45, BlegH 240

**Acct 5125 AUDITING PRINCIPLES AND PROCEDURES.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40;

Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

An introduction to the auditing of financial information systems. Emphasis on the independent audit, but a general audit approach that includes internal auditing and other forms is presented. After successfully completing this course, the student should have a working knowledge of the function and procedures of auditing. **Must be taken A-F.** The prerequisite will be enforced. (Prereq 3101 or 5101. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 53)

Fall Qtr, ★Sec 1, T, 5:30-9, BlegH 145

**Acct 5126 INTERNAL AUDITING.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Financial and operational auditing. Standards. Management of the function. **Must be taken A-F.** (Prereq 5102, 3201 or 5201 and at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 45)

Fall Qtr, ★Sec 1, MW, 6-7:45, BlegH 130

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Acct 5135 INCOME TAX ACCOUNTING.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633. (IS)

An introduction to principles of Federal income taxation of various taxpaying entities. **Must be taken A-F.** (Prereq 1050. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr, ★Sec 1, MW, 6-7:45, BlegH 145  
Winter Qtr, ★Sec 2, TTh, 6-7:45, BlegH 235  
Spring Qtr, ★Sec 3, W, 5:30-9, BlegH 230

**Acct 5160 FINANCIAL STATEMENT ANALYSIS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Interpretation and analysis of financial statements and schedules for investors and other users. **Must be taken A-F.** (Prereq 1050 or MBA 8030 and at least 90 cr completed or in progress. Students are encouraged to take 3101 or 5101 prior to enrolling in this course. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 1, T, 5:30-9, BlegH 240  
Winter Qtr, ★Sec 2, W, 5:30-9, BlegH 230

**Acct 5180 ADVANCED FINANCIAL REPORTING II.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Consolidated financial reporting with a particular focus on international business organizations. An introduction to reporting issues in governmental and not-for-profit entities is also presented. *Midquarter exams will be held outside of normally scheduled class hours: midquarter dates and times are Thurs, Apr 20, from 7:30 to 9:30 p.m.; and Thurs, May 25, 7:30 to 9:30 p.m. Must be taken A-F.* (Prereq 5102. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 52)

Spring Qtr, ★Sec 1, TTh, 5:30-7:15, BlegH 220

**Acct 5230 CORPORATE TAXATION.** 4 credits, \$735 plus special fee required.

The tax consequences of the formation, operation, and liquidation of a business corporation. (Prereq Δ and Acct 5135. Offered fall quarter. **For registration and special fee information, call 624-7511.** This course cannot be used to meet undergraduate degree requirements. Qualified students will be registered for graduate credit at the University of Minnesota. Enrollment is limited)

**Acct 5236 TAXATION II.** 4 credits, \$735 plus special fee required.

Overview of corporate tax issues, partnership tax issues, estate and gift taxes, and tax research. (Prereq Δ and Acct 5135 and at least 90 credits completed or in progress. Offered spring quarter. *This course also may be taken for undergraduate credit at an undergraduate tuition rate.* **For registration and special fee information, or the undergraduate tuition rate, call 624-7511.** This course may be used to meet undergraduate degree requirements. Qualified students may register for graduate credit at the University of Minnesota. Limited enrollment)

**Acct 5340 PARTNERSHIP TAXATION.** 4 credits, \$735 plus special fee required.

The tax consequences of the formation, operation, and dissolution of a partnership. (Prereq Δ and Acct 5135. Offered spring quarter. **For registration and special fee information, call 624-7511.** This course cannot be used to meet undergraduate degree requirements. Qualified students will be registered for graduate credit at the University of Minnesota. Enrollment is limited)

**Taxation studies—5230 and 5340** are part of a series of courses designed for students interested in post-baccalaureate studies in taxation. For information concerning registration, special course fees, and additional course offerings during 1994-95, call 624-7511.

## Adult and Teacher Education

See Vocational Education

## Aerospace Engineering and Mechanics (AEM)

(107Akerman Hall: 625-8000)

Institute of Technology

Textbooks for most AEM courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



Scott Abrahamson, Assistant Professor  
 Nejat Cur, Lecturer  
 William L. Garrard, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Aerospace Engineering and Mechanics. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*The ground school course for private pilots (AEM 3009) is not offered 1994-95.*

**AEM 1015 STATICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Force and moment vectors; resultants. Principles of statics. Application to simple trusses, frames and machines. Distributed loads. Hydrostatics. Properties of Areas. Laws of friction. (Prereq Phys 1251 or equivalent, Math 1261. Limited to 75)

Fall Qtr, ★Sec 1, W, 6:10-9:30, AkerH 225

Winter Qtr, ★Sec 2, T, 6:10-9:30, AkerH 209

**AEM 3016 DEFORMABLE BODY MECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Uniaxial loading and deformation. Stress and strain at a point. Forces and moments in beams. Centroids and second moments. Material behavior; linear elasticity. Torsion. Bending of beams of symmetrical section. (Prereq 1015, ¶Math 3261 or equivalent. Limited to 75)

Fall Qtr, ★Sec 1, T—6:10-9:30, AkerH319

Spring Qtr, ★Sec 2, W—6:10-9:30, AkerH 209

**AEM 3036 DYNAMICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Review of particle dynamics. Mechanical systems and the rigid-body model. Kinematics and dynamics of plane systems. (Prereq 1015, ¶Math 3261 or equivalent. Limited to 75)

Winter Qtr, ★Sec 1, T—6:10-9:30, AkerH 309

Spring Qtr, ★Sec 2, M—6:10-9:30, AkerH 209

**AEM 3200 INTRODUCTION TO ENGINEERING FLUID MECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

The flow of viscous incompressible fluids; fluid statics, Bernoulli flow, momentum conservation, laminar and turbulent pipe flow, laminar and turbulent boundary layers. (Prereq 1015, Math 3261, Phys 1251 or equivalent. Limited to 50)

Fall Qtr, ★Sec 1, T, 6:10-9:30, AkerH 309;

Lab, Th, 6:10-9:30, AkerH 30

**AEM 5200 KINEMATICS AND DYNAMICS OF FLUID FLOW.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

First course in fluid mechanics. Includes stress and strain rate descriptions, fluid statics, use of differential and finite control volume analysis with continuity, momentum and energy equations, Bernoulli and Euler equations, introduction to Navier-Stokes equations, vorticity, potential flow. (Prereq upper division IT student or grad, 3036, ¶Math 3252. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, T, 6:10-9:30, AkerH 313

## Afro-American and African Studies (Afro)

(808 Social Science Tower: 624-9847)

### College of Liberal Arts

Textbooks for most Afro and Arab courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also History and Women's Studies)

Teirab AshShareef, Assistant Professor

Rose Brewer, Associate Professor

Victoria Coifman, Assistant Professor

Gayle Foreman, Lecturer

Charles A. Pike, Assistant Professor

John M. Taborn, Associate Professor

Nassif Youssif, Assistant Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Afro-American and African Studies and in Arabic. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Afro 1021 INTRODUCTION TO AFRICA.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Diverse elements of African studies curriculum, content, and methodology. Historical perspective and present trends. (No prereq. Limited to 45).

Spring Qtr, ★Sec 1, W, 6:20-8:50, BlegH 135,

Coifman

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Afro 3011 ISLAM IN AFRICA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Ideological, doctrinal, and ritual aspects of Islam in continental Africa. Various religious brotherhoods and Sufi orders from different African countries in the 20th century: the Ansar, the Khatmiyya, the Muslim Brothers, the Qadiriyya, the Republican Brothers, the Sanusiyya, the Tijaniyya, and others. No knowledge of Arabic required. All readings in English. (No prereq)

Fall Qtr, Sec 1, M, 4:15-7, BlegH 245, AshShareef  
Spring Qtr, Sec 2, T, 4:15-7, BlegH 245,  
AshShareef

**Afro 3025 BLACK AMERICANS: SOCIALIZATION, PERSONALITY, AND BEHAVIOR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Development of the black psyche and of the black person and black culture. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, T, 6:20-8:50, BlegH 220,  
Taborn

**Afro 3072 RACISM: SOCIAL-PSYCHOLOGICAL CONSEQUENCES FOR BLACK AMERICANS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Racism and its effects on black Americans; definitions, determinants, and dynamics. Examined in an experiential context to reflect individual and institutional racism in milieus of student interest. (No prereq. Meets concurrently with Afro 5072. Limited to a combined total of 60)

Winter Qtr, ★Sec 1, T, 6:20-8:50, BlegH 250,  
Taborn

Spring Qtr, ★Sec 2, T, 6:20-8:50, BlegH 250,  
Taborn

**Afro 3431 HISTORY OF AFRICA TO 1800.** 4 credits, §Hist1431, §Hist3431, tuition\*: Resident \$308; Non-resident \$893.20.

Socioeconomic, political, and cultural development in pre-colonial Africa; emphasis on the slave trade, Islamic revolution, and European commercial penetration. (No prereq. Meets concurrently with Hist 3431)

Fall Qtr, Sec 1, Th, 6:20-8:50, RarigC 616

(See also CSch 0200, Rome in Africa)

**Afro 3432 HISTORY OF AFRICA: 1800 TO PRESENT.** 4 credits, §Hist 1432, §Hist 3432, tuition\*: Resident \$308; Non-resident \$893.20.

Colonial rule, the forced restructuring and underdevelopment of African economies, African resistance, nationalism, and the problems of independence. (No prereq. Meets concurrently with Hist 3432)

Winter Qtr, Sec 1, T, 6:20-8:50, AndH 230

**Afro 3514 AFRICAN-ARABIC LITERATURE IN TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Continental African literature in Arabic from different countries: Algeria, Egypt, Libya, Mauritania, Morocco, Sudan, Tunisia, and Western Sahara. Various genres represented: the novel, the short story, poetry, and drama. Major writers: Abd-al-Hayy, Abd-al-Sabur, Barrada, Binnis, al-Fayturi, al-Hakim, Mahfouz, El-Saadawi, Salih, Shukri, and Wattar. African-Arabic oral literature will act as a backdrop. Emphasis on 20th century. Texts discussed in cultural and historical context. Theoretical and critical essays. No knowledge of Arabic required. All readings in English. (No prereq. Limited to 25)

Winter Qtr, ★Sec 1, T, 4:15-7, BlegH 245,  
AshShareef

**Afro 3601 INTRODUCTION TO AFRICAN LITERATURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Oral and written African literature of the 19th and 20th centuries. All readings in English. (No prereq. Limited to 25)

Fall Qtr, ★Sec 1 T, 6:15-8:50, HHH Ctr 60,  
Pike

Spring Qtr, ★Sec 2 T, 6:15-8:50, BlegH 260,  
Pike

**Afro 3654 AFRICAN CINEMA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An examination of films by African filmmakers. Aesthetic, theoretical, and sociopolitical issues will be explored through class screenings and critical readings. Emphasis on films from sub-Saharan Africa. (No prereq. Limited to 25)

Winter Qtr, ★Sec 1, T, 6:15-8:50, BlegH 255,  
Pike

**Afro 3910 TOPICS IN AFRO-AMERICAN AND AFRICAN STUDIES: THE AFRICAN-AMERICAN CHILD: A Comprehensive Approach.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Designed for those who are involved in or plan to be involved in the important task of helping African-American children develop emotionally healthy and psychologically secure in a culturally diverse society. The course will focus on the specific research conducted by African-American psychologists and child development specialists through lectures, films, guest speakers, and readings. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, BlegH 245,  
Foreman

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Afro 5072 RACISM: SOCIAL-PSYCHOLOGICAL CONSEQUENCES FOR BLACK AMERICANS.** 4 credits, §3072, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Afro 3072. (No prereq. Meets concurrently with Afro 3072. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 60)

Winter Qtr, ★Sec 1 T, 6:20-8:50, BlegH 250, Taborn

Spring Qtr, ★Sec 2 T, 6:20-8:50, BlegH 250, Taborn

## Arabic (Arab)

*No Arab courses offered through Extension Classes 1994-95. See Afro 3514 above.*

## Aging studies

(See graduate program in gerontology, page 487; and REX 0301, Nutrition and Oral Health of the Elderly)

## Agriculture, College of

See course listings for:

- Agricultural and Applied Economics
- Agricultural Education
- Agromony and Plant Genetics
- Animal Science
- Entomology
- Food Science and Nutrition
- Horticultural Science
- Plant Pathology
- Soil Science
- Rhetoric

**College of Agriculture Professional Experience Program**—Students enrolled in the College of Agriculture may participate in the Professional Experience Program (PEP), which provides opportunity to engage in paid work experiences for 12 or more weeks during fall, winter, spring, or summer. Students of junior standing (90 credits) are eligible for the program which awards 4 credits to those students who satisfactorily complete the program. Tuition is approximately \$346. Students register through any one of the 10 departments of the Col-

lege of Agriculture. Additional information about PEP is available from the College of Agriculture Career Services office, 272 Coffey Hall on the St. Paul campus (624-2710), or from departmental offices and undergraduate advisers of the college.

## Agricultural and Applied Economics (AgEc)

(231 Classroom Office Building: 625-1222)

### College of Agriculture

Textbooks for most AgEc courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

- Elaine H. Asp, Associate Professor of Consumer Food Science
- Reynold P. Dahl, Professor
- Jerry Hammond, Professor
- Beth W. Honadle, Professor
- Jean Kinsey, Professor
- Scott Loveridge, Assistant Professor
- Wilbur R. Maki, Professor
- Willis Peterson, Professor
- Ben Senauer, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Agricultural and Applied Economics. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**AgEc 5400 INTERMEDIATE MARKET AND PRICE ANALYSIS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Development of analytical models and their application in various market situations. Unique market institutions that have developed in response to marketing problems and policies. (Prereq 3003 or Econ 1101 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, MW, 4:05-6, ClaOff B36, StP Campus, Hammond

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**AgEc 5480 FUTURES MARKETS AND PRICES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Economics of futures trading; the basis and theoretical price relationships in storable and nonstorable commodities; hedging and commercial use of futures markets with illustrations; arbitrage; options on agricultural futures, financial futures; speculation; futures market performance and regulation. (Prereq 1101 and 1102 or Econ 1101 and 1102. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 1, TTh, 6:10-7:50, ClaOff B25, StP Campus

**AgEc 5550 FOOD MARKETING ECONOMICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Economics of food marketing in U.S. Covers food consumption trends; consumer food behavior; food expenditure and consumption data; consumer survey methodology; the food distribution and retailing system; food policy issues related to food marketing. Students pursue individual and group projects. (Prereq 3101 or 3001 or #. Meets concurrently with FScN 5474. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TTh, 4:30-6:10, McNH 33, StP Campus, Asp, Senauer

**AgEc 5580 HUMAN CAPITAL AND HOUSEHOLD ECONOMICS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Investment in household formation, children, education, health, labor force participation, and non-market work analyzed in context of household economics and national productivity. Effects of economic variables on investment decisions and returns. (Prereq 3001 or Econ 3101 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, MW, 4:30-5:45, ClaOff B36, StP Campus, Kinsey

**AgEc 5620 REGIONAL ECONOMIC ANALYSIS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of regional industry and community structure; role of resource, transportation, and institutional constraints; trade, migration and investment in regional growth and change; use of regional economic formation in business investment and location planning. (Prereq 1101 or Econ 1101. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, TTh, 4:30-5:45, ClaOff 42, StP Campus, Loveridge

**AgEc 5630 REGIONAL DEVELOPMENT SYSTEMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.50; Non-resident Graduate School credit \$1212.75.

Population, income, and employment disparities in regional growth and development in selected countries; regional development strategies and institutions for public intervention in regional development process; regional systems and analyses forecasts for economic policy and development planning. (Prereq 1101 or Econ 1101. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, MW, 4:30-5:45, ClaOff B30, StP Campus, Maki

**AgEc 5640 FINANCING STATE AND LOCAL GOVERNMENTS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

*Offered via interactive television between two sites, with students at both locations.* Problems and issues in financing state and local public services in the United States; state and local revenue systems, debt and expenditures; intergovernmental fiscal relations; budget analysis. (Prereq 3001 or Econ 3101 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Th, 4:30-7:50, VoTech R280, StP Campus, Honadle

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**AgEc 5790 WORLD FOOD PROBLEMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A multidisciplinary approach to the social, economic, and technical problems of feeding the world's growing population. Principles sought from the social and economic sciences, plant sciences, and animal sciences for the application to food problems. (No prereq. Meets concurrently with Agro 5200, CAPS 5280, and FScN 5643. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension Class) Fall Qtr, ●Sec 1, W, 6-9, ClaOff B35, StP Campus, Peterson

## Agricultural Education (AgEd)

(320 Vocational/Technical Building: 624-2221)

### College of Education

(Vocational and Technical Education)

Textbooks for most AgEd courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Agricultural Education. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

## Agricultural Engineering (AgEn)

(213 Agricultural Engineering: 625-7733)

### Institute of Technology

Textbooks for most AgEn courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Kevin A. Janni, Professor  
John L. Nieber, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in AgEn. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**AgEn 5560 MECHANICS OF FLOW IN THE UNSATURATED ZONE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Fluid retention and transmission properties of unsaturated porous media. Equations of mass conservation and Darcy's law for unsaturated porous media. Simultaneous flow of immiscible fluids. Analytical, finite difference and finite element solutions to the governing equations. (Prereq Soil 5232, Math 3261, or #; upper division IT or grad IT or grad COA; 2 lectures. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, M, 6-9:30, AgEng 307, StP Campus, Nieber

**AgEn 5745 VENTILATING SYSTEMS FOR INDOOR AIR QUALITY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Impact of indoor air quality on humans, animals, and plants. Contaminant sources. Ventilating processes, systems, control strategies, and equipment for indoor air quality control. Case studies from residential, commercial, and agricultural systems. (Prereq ME 3301, CE 3400 or AEM 3200, or grad student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, MW, 4:30-6:30, AmundH 124, Janni

## Agricultural Engineering Technology (AgET)

(213 Agricultural Engineering: 625-7733)

### College of Agriculture

Textbooks for most AgET courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Philip R. Goodrich, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in AgET. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**AgET 5027 APPROPRIATE TECHNOLOGY FOR INTERNATIONAL DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Definitions, history, and successes and failures of appropriate technology. Social and technical appropriateness. Water supply, treatment, storage, and conveyance. Water pumps, sanitation. Energy; wind, water, solar, grain dryer, methane. Building materials. Agricultural machinery and storage. Transfer and adaptation of technology. Addresses the application of technology to solve problems in developing (non-Western) countries. The appropriate technologies must be determined in light of the cultural, socio-economic, and historical perspectives of the people who will be using the technologies. Case examples of successful and non-successful attempts to introduce change are presented and discussed along with the technical information. Small-group interaction is used to explore the reasons for success and failure of different technology. *Meets the Liberal Education International Perspectives requirement.* (Prereq basic understanding of math, chemistry, physics. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, MW, 5:30-8, AgEng 307, StP Campus, Goodrich

### Agronomy and Plant Genetics (Agro)

(411 Borlaug Hall: 625-7773)

#### College of Agriculture

Textbooks for most Agro courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Agronomy and Plant Genetics. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Agro 5000 PROFESSIONAL EXPERIENCE PROGRAM.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Supervised practical professional experience in agronomic industries and farm enterprise systems, together with studies of various aspects of the in-

dustry and related fields. **Must be taken S-N.** (Prereq #. May not be taken for graduate credit)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

Spring Qtr, Sec 3, Arr

**Agro 5200 WORLD FOOD PROBLEMS.** 3 credits, §AgEc 5790, §FScN 5643, §CAPS 5280, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A multidisciplinary approach examining the social, economic, and technical problems of feeding the world's growing population. Principles sought from the social and economic science, plant, animal, and food sciences for their application to world food problems. (Prereq sr or grad student with #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AgEc 5790, Agro 5200, CAPS 5280, and FScN 5643. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 6-9, ClaOff B35, StP Campus

### Alcohol and Drug Counseling Education

(See Family Social Science)

### American Indian Studies (AmIn)

(102 Scott Hall: 624-1338)

#### College of Liberal Arts

Textbooks for most AmIn courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Carolyn Bordeaux, Lecturer

Pauline Brunette Danforth, Lecturer

Jerry Buckanaga, Lecturer

Jeff Chapman, Lecturer

Robert Danforth, Assistant Education Specialist

Ron Libertus, Lecturer

Bill Means, Lecturer

Carol Miller, Associate Professor of American Studies

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in American Indian Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**AmIn 1771 INTRODUCTION TO AMERICAN INDIAN STUDIES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Content, methods, and objectives of American Indian studies. Images of the American Indian, persistence and change in American Indian communities, linguistics and literature, and tribal ethnohistories. (No prereq. Limited to 70)

Winter Qtr, ★●Sec 1, TTh, 4:15-5:30, NichH 211 (A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★Sec 2, T, 6:20-8:50, NichH 211

(See also CSch 0218, Storytelling Traditions of Woodland Indians)

**AmIn 3026 OJIBWE HISTORY AND CULTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The processes of maintenance and change in Ojibwe culture. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, ScottH 4

**AmIn 3116 AMERICAN INDIAN LITERATURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Comparative studies of oral traditions and modern tribal literature. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, W, 6:20-8:50, ScottH 4

Winter Qtr, ★Sec 2, W, 6:20-8:50,

Mdewakanton Dakota Comm Ctr, 2330 Sioux Trail NW, Prior Lake

(See also GC 1812, American Indian Literature; and CSch 0420, Gathering Ground: Regional Native American Writing)

**AmIn 3211 AMERICAN INDIAN PHILOSOPHIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Comparative studies of American Indian philosophies, tribal world views, and sources of ecological consciousness. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, W, 6:20-8:50, NichH 109

**AmIn 3242 SURVEY OF AMERICAN INDIAN ARTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Visual arts and crafts of North American Indians; history of American Indian art from pre-contact times to the present. Focus is on the art of the woodlands, plains, Northwest coast, and Southwest regions of North America because of their unique artistic diversity. Discover how American Indian art changed and developed due to internal and

external influences. Learn about the four phases of American Indian art—tribal, ethnic, pan-Indian, and contemporary. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, W, 6:20-8:50, Mdewakanton Dakota Comm Ctr, 2330 Sioux Trail NW, Prior Lake, Libertus

(See also CSch 0104, The Artistic Vision of North American Indians: Ancient Art to Contemporary Work)

**AmIn 3960 TOPICS IN AMERICAN INDIAN STUDIES: CONTEMPORARY AMERICAN INDIAN WOMEN'S LIVES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The lives of Indian women in today's society. The sometimes dual citizenship in which native women dwell from day to day presents dilemmas as well as opportunities that enable them to become strong advocates and leaders in the two worlds: tribal and the larger society. An exploration of current literature and films with discussion of pertinent issues. Guest speakers. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, M, 6:20-8:50, ScottH 4

Spring Qtr, ★Sec 2, W, 6:20-8:50,

Mdewakanton Dakota Comm Ctr, 2330 Sioux Trail NW, Prior Lake, Bordeaux

**AmIn 3960 TOPICS IN AMERICAN INDIAN STUDIES: CONTEMPORARY AMERICAN INDIAN ARTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

American Indians and their art. Historical influences and developments are covered, as are contemporary issues and artists. (No prereq. Limited to 40)

Fall Qtr, ★Sec 3, T, 6:20-8:50, ScottH 4, Chapman

**AmIn 3960 TOPICS IN AMERICAN INDIAN STUDIES: DEVELOPMENT OF AMERICAN INDIAN STUDIES CURRICULUM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Designed for teachers and those preparing for positions in teaching, administration, or staff development with schools, students, or communities which serve and/or teach of native Americans. Principles, processes, and practices involved in developing relevant curriculum on native American history, culture, heritage, philosophies, and belief systems. (No prereq. Limited to 40)

Winter Qtr, ★Sec 4, T, 6:20-8:50, NichH 109, Buckanaga

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**AmIn 3960 TOPICS IN AMERICAN INDIAN STUDIES: AMERICAN INDIAN MUSIC IN THE 20TH CENTURY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The diversity of North American Indian musical traditions. Concentrates on music tradition within the western Great Lakes region, including songs of the Anishinabe (Ojibwe), Winnebago, and intertribal groups. Focuses on pow wows as well as precedents within the "Big Drum" religion. Emphasizes reading, writing, and listening to American Indian music, and learning social and intertribal songs. (No prereq. Limited to 35)

Winter Qtr, ★Sec 5, W, 6-8:30, NichH 109, R Danforth

**AmIn 5341 CONTEMPORARY AMERICAN INDIAN MOVEMENTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Contemporary Indian organizations and social movements during the 20th century. Exploration of political activism on and off reservations, treaty disputes, economic developments, and revival of traditions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 6:20-8:50, ScottH 4, Means

**AmIn 5411 URBAN INDIAN COMMUNITIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Social science and historical analysis of termination policies and rapid city-ward Indian migration since World War II. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, W, 6:20-8:50, ScottH 4, P Danforth

**AmIn 5990 DIRECTED RESEARCH: A TRIP TO THE SOUTHWEST.** 1-15 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent research under faculty guidance. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★Sec 1, Arr, Libertus

## American Sign Language

See Educational Psychology

## American Studies (AmSt)

(104 Scott Hall: 624-4190)

### College of Liberal Arts

Textbooks for most AmSt courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

All American Studies courses are open to nonmajors.

(See also History; and The Compleat Scholar non-credit courses)

William H. Agee, Lecturer

Gayle Graham Yates, Associate Professor

**A major in American Studies can be completed in the evening.**

Most courses required for the major are offered at least every two years. Certain courses, however, may be offered less frequently. It may be necessary occasionally for students seeking a B.A. in American Studies to take some classes during the day in order to graduate. Interested students should discuss plans with a teacher of American Studies courses or with a CEE counselor (625-2500).

### B.A. Major Sequence

Required Preparatory Courses 12 credits from 1001, 1002, 1003, 3111, 3112, 3113. Recommended but not required are Hist 1301, 1302 (Survey of American History)

Major Requirements—68 credits, distributed as follows:

*Area Requirements:* American Studies students choose (with adviser approval) a total of 44 credits of 3000 or 5000 level courses related to American culture. These must include 8 to 12 credits in each of the following four areas: American history; American literature; social sciences in the United States; American art history, music, or philosophy. A list of the many courses which meet these requirements may be obtained in the American Studies office, 104 Scott Hall.

*Junior Proseminar:* AmSt 3299 (4 credits)

*Senior Proseminar:* AmSt 3301-3302-3303 (12 credits total)

12 credits in foreign civilization (must be 3000 or 5000 level courses) chosen in consultation with major adviser.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in American Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**You need not be majoring in American Studies to register for most of these classes.**

**Continuing Education for Women (CEW) section available in the following course:** AmSt 3113

**AmSt 1001 AMERICAN CULTURES I: ORIGINS THROUGH MID-19TH CENTURY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Interdisciplinary study of selected class, gender, public policy, and social issues by comparing the cultures and artistic expression of at least three of the following groups: European American, African American, American Indian, Chicano/Latino, and Asian American. Meets CLA Cultural Pluralism requirement. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, T, 6:20-8:50, NichH 209, Agee

**AmSt 1002 AMERICAN CULTURES II: MID-19TH CENTURY TO 1920S.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Interdisciplinary study of selected class, gender, public policy, and social issues by comparing the cultures and artistic expression of at least three of the following groups: European American, African American, American Indian, Chicano/Latino, and Asian American. Meets CLA Cultural Pluralism requirement. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, T, 6:20-8:50, ScottH 4, Agee

**AmSt 1003 AMERICAN CULTURES III: 1920S TO THE PRESENT.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Interdisciplinary study of selected class, gender, public policy, and social issues by comparing the cultures and artistic expression of at least three of the following groups: European American, African American, American Indian, Chicano/Latino, and Asian American. Meets CLA Cultural Pluralism requirement. (No prereq. Limited to 35)

Spring Qtr, ★Sec 1, T, 6:20-8:50, ScottH 4, Agee

**AmSt 3111 CREATIVE AMERICANS AND THEIR WORLDS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A study of the ways in which the works of selected American writers, painters, architects, filmmakers, and other artists can illuminate tensions and conflicts which have arisen out of a dual commitment by Americans to values located in nature and the natural landscape, on the one hand, and, on the other, to values associated with technological progress and ever-higher levels of affluence. "The myth of the garden" in literature and painting. Significance of paintings of urban-technological landscapes. The development of the skyscraper and of the "Chicago School" of modern architecture. The work and ideas of Frank Lloyd Wright. Contemporary issues relating to technology and the environment considered from the perspectives provided by the artists and writers we have studied. Readings of varying lengths from Crèvecoeur, Emerson, Thoreau, Mark Twain, Frank Norris, and Tom Wolfe. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 6:20-8:50, NichH 109, Agee

**AmSt 3112 AMERICAN EVERYDAY LIFE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A study of the ways in which the works of selected American writers, painters, architects, filmmakers, and creators of the popular arts can illuminate the changing roles which men and women have played in their everyday lives, especially in relation to the historical evolution of work and the family. The religious roots of traditional work and family roles for men and women. The development of the male ethos and the success ideal. The female ethos and the ideal of domesticity. The movement away from traditional roles, ideals, and ethical norms in modern everyday life. The sexual revolution. Women and the success ideal. Emergent patterns of family life. Readings of varying length from Franklin, Norris, Lewis, Wolfe, and others. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, M, 6:20-8:50, NichH 109, Agee

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**AmSt 3113 AMERICAN CULTURAL DIVERSITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A study of some ways in which the works of selected writers, painters, architects, filmmakers, and creators of the popular arts can illuminate forces for diversity and unity in modern America. The focus is on the cultural expression, values, and lifestyles of members of minority and majority cultures, with an emphasis on members of black and white cultures of the American South during the last century. Meets CLA Cultural Pluralism requirement. (No prereq. Limited to 35)

Fall Qtr, Sec 1, F, 9:30 a.m.-12, MacP. *Offered through Continuing Education for Women*

Spring Qtr, ★Sec 2, M, 6:20-8:50, ScottH 4, Agee

(See also CSch 0107, Somewhere Under the Rainbow: Multicultural Art in America)

**AmSt 3299 PROSEMINAR: AMERICAN STUDIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Exploration of the classic works in American Studies. (Prereq American Studies major. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, ScottH 2, Yates

**AmSt 3301-3302-3303 PROSEMINAR: AMERICAN STUDIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Each quarter covers a problem related to a representative theme, figure, or period. Students research and write senior theses. Required of majors. (Prereq American Studies major. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, 3301, ★Sec 1, W, 6:20-8:50, ScottH 2

Winter Qtr, 3302, ★Sec 1, W, 6:20-8:50, ScottH 2

Spring Qtr, 3303, ★Sec 1, W, 6:20-8:50, ScottH 2

## Ancient Near Eastern Studies (ANE); Hebrew (Hebr); Jewish Studies (JwSt)

(330 Folwell Hall: 625-5353)

### College of Liberal Arts

(Department of Classical and Near Eastern Studies)

Textbooks for most courses in these departments are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Classical and Near Eastern Studies; Religious Studies; and The Compleat Scholar noncredit courses)

Stephen Feinstein, Visiting Professor  
Tzvee Zahavy, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Ancient Near Eastern and Jewish Studies, Akkadian, Hebrew, and Jewish Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

## Ancient Near Eastern Studies

**ANE 1003 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC.** 4 credits, §3003, §RelS 3203, tuition\*: Resident \$294; Non-resident \$852.60.

Survey of books of Psalms, Proverbs, Job, Song of Songs, Lamentations, Ecclesiastes (Qoheleth). Characteristics of biblical poetry. Conceptions of Israelite wisdom movement. Traits of early Jewish apocalyptic writings. (No prereq. Meets concurrently with 3003, RelS 3203)

Spring Qtr, Sec 1, T, 6:20-8:50, NichH 216, Zahavy

**ANE 3003 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC.** 4 credits, §1003, §RelS 3203, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for ANE 1003. (No prereq. Meets concurrently with 1003, RelS 3203)

Spring Qtr, Sec 1, T, 6:20-8:50, NichH 216, Zahavy

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

Hebrew

**Hebr 1101-1102-1103 BEGINNING HEBREW.**

5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

*Course intended for beginners.* Speaking, reading, and writing modern Hebrew. Aural comprehension, pronunciation, basic grammar, biblical syntax. Emphasizes authentic communication in modern Hebrew. Cultural aspects of Judaism and contemporary Israeli life are included. Provides a foundation which enables transitions to biblical materials. *There must be 10 or more students enrolled in order for a section to be held.* (No prereq for 1101; 1101 or equivalent for 1102; 1102 or equivalent for 1103. Limited to 30)

Fall Qtr, 1101, ★Sec 1, TTh, 6:10-8:15, BethEl Synagogue, 5224 W 26 St, St. Louis Park (Hwy 100 & 26 St.)

Winter Qtr, 1102, ★Sec 1, TTh, 6:10-8:15, Arr Spring Qtr, 1103, ★Sec 1, TTh, 6:10-8:15, Arr

**Hebr 3131 TALMUDIC TEXTS.**

4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Study of a tractate of Talmud: Mishnah, Tosefta, Babli, and Yerushalmi. Literary critical methods. Redactional and historical problems. (No prereq)

Fall Qtr, Sec 1, T, 6-8:30, Talmud Torah of Mpls, 8300 W. 33 St., St. Louis Park (free parking), Zahavy

Jewish Studies

**JwSt 1034 INTRODUCTION TO JUDAISM.**

4 credits, §3034, §RelS 1034, 3034, tuition\*: Resident \$294; Non-resident \$852.60.

Concepts, movements, and institutions in the development of classical Judaism, as manifested in the literature and festivals of the Jewish people from Second Commonwealth times to the present. (No prereq. Meets concurrently with 3034, RelS 1034, 3034)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 218, Zahavy

(See also CSch 0214, Judaism From Crisis to Crisis)

**JwSt 3034 INTRODUCTION TO JUDAISM.**

4 credits, §1034, §RelS 1034, 3034, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

See course description for ANE 1034. (No prereq. Meets concurrently with 1034, RelS 1034, 3034)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 218, Zahavy

**JwSt 3521 THE HOLOCAUST.** 4 credits, §RelS 3541, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Nazi destruction of Jewish life in Europe, 1933-45. Historical, social background of European Jewish communities. Anti-Semitism and Nazism. Ghettoes under Nazi rule; social and cultural organization, government. Nazi terror and destruction; Jewish resistance; historical consequences. (No prereq. Meets concurrently with RelS 3541)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 148, Feinstein

(See also CSch 0213, Perpetrators, Rescuers, and Victims in the Holocaust)

**Ancient Studies**

See Interdisciplinary Archaeological Studies

**Animal Science (AnSc)**

(122 Peters Hall: 624-2722)

**College of Agriculture**

Textbooks for most AnSc courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also College of Veterinary Medicine)

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Animal Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*No AnSc courses offered through Extension Classes 1994-95.*

**Anthropology (Anth)**

(215 Ford Hall: 625-3400)

**College of Liberal Arts**

Textbooks for most Anth courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Interdisciplinary Archaeological Studies; General College courses in Social Issues)

- Bettina Arnold, Lecturer
- Kathleen Barlow, Lecturer
- Luther Gerlach, Professor
- David Lipset, Associate Professor
- Frank C. Miller, Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Mischa Penn, Associate Professor  
Gloria Goodwin Raheja, Associate Professor  
William L. Rowe, Professor  
Marc Schiltz, Lecturer  
Peter S. Wells, Professor

### Most courses needed for a major in Anthropology can be completed in the evening.

Interested students should discuss plans with an adviser (625-2500).

**B.A. Major Sequence** for those beginning an Anthropology major.

Required Preparatory Courses 1101, 1102

### Major Requirements

(1) Two of the following courses: Anth 3111, 3201, 3302, 3366 (9-10 cr); (2) Either Anth 5104 or 5592 (4 cr); (3) Five electives from 3xxx and 5xxx courses, two of which must be at the 5xxx level (minimum of 20 cr.); senior project completed through direct research or senior seminar (4 cr).

Students should consult Undergraduate Handbook and Department advisers regarding recommended courses for subfield concentrations, i.e., archaeological social/cultural and physical anthropology.

**You need not be majoring in Anthropology to register for these classes.**

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Anthropology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) section available in the following course:** Anth 1102

**Anth 1101 HUMAN ORIGINS.** 5 credits, \$1001, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Introduction to world prehistory as investigated by archaeologists; the basic methods and concepts employed by archaeologists in the study of prehistoric human biological and cultural development. (No prereq)

Winter Qtr, Sec 1, M, 6:20-9:30, FordH 285, Arnold

**Anth 1102 UNDERSTANDING CULTURES.** 5 credits, \$1002, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Varieties and range of human behavior as revealed through comparative study of cultures in all parts of

the world. Sec 3, offered through Continuing Education for Women, is a cross-cultural approach to the study of systems of beliefs and patterns of customary behavior. The following topics will be examined from a comparative perspective: language and communication, kinship and family, sex roles, cultural ecology, economic systems, law and politics, religion and world view, cultural change. (No prereq)

Fall Qtr, Sec 1, T, 6:20-9:30, FordH 155, Barlow

Winter Qtr, Sec 2, T, 9 a.m.-12, MacP, Barlow.  
*Offered through Continuing Education for Women*

Winter Qtr, Sec 3, W, 6:20-9:30, FordH 155

Spring Qtr, Sec 4, T, 6:20-9:30, FordH 155, Lipset

**Anth 3003 THE RISE OF CIVILIZATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Beginnings of agriculture and emergence of world civilizations. Development of state societies from an archaeological perspective. (No prereq)

Fall Qtr, Sec 1, Th, 6:20-8:50, FordH 285, Wells

(See also CSch 0220, The Rise of Civilizations: An Archaeological Survey)

**Anth 3111 INTRODUCTION TO ARCHAEOLOGY.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Introduction to the fundamentals of archaeological field and laboratory analysis. (No prereq)

Winter Qtr, Sec 1, Th, 6:20-9:30, FordH 55, Wells

**Anth 3131 RELIGION AND CULTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Anthropological perspectives on religion. Religion in relation to social order and individual life cycle. Religion and cultural change. (Prereq 1102 or #)

Fall Qtr, Sec 1, M, 6:20-8:50, FordH 120, Penn

**Anth 3201 APPROACHES IN CULTURAL ANTHROPOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Humanistic and scientific conceptions of culture. Interpretation and explanation. Theoretical foundations of current anthropological thought. (Prereq 1102 or #)

Spring Qtr, Sec 1, W, 6:20-8:50, FordH 285, Raheja

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Anth 3241 PEOPLES AND CULTURES OF AFRICA.** 4 credits, §Afro 3501, tuition\*: Resident \$308; Non-resident \$893.20.

Key aspects of society, culture, and ecological adaptation of African people south of the Sahara. Aesthetic expression, social, economic, political, and religious systems. Theoretical problems in African anthropology. (No prereq)

Winter Qtr, Sec 1, M, 6:20-8:50, FordH 120, Schiltz

**Anth 3261 INDIAN CULTURE AND SOCIETY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of broad South Asian civilization patterns and ethnographic contexts; theoretical issues informing South Asian anthropology. Caste, sovereignty, and polity; person and society; kinship, marriage, and gender; ritual; colonial discourse and transformations. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, FordH 285, Raheja

**Anth 5102 PRINCIPLES OF CULTURAL ANTHROPOLOGY.** 4 credits, §Anth 1102, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Elements of cultural anthropology. Range and variability of human behavior. Principles of cultural dynamics. An introductory course designed for upper division and graduate students. (Prereq jr or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 6:20-8:50, FordH 175, Penn

**Anth 5104 HISTORY OF ANTHROPOLOGY.** 4 credits, §Anth 1102, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Principal themes in 19th- and 20th-century anthropological thought—diffusionism, the autonomy of culture, evolutionism, and emerging methodological viewpoints (i.e., functionalism, structuralism, cultural materialism, and interpretivism). Is there a logic of anthropological inquiry? (Prereq 1102, 15 cr in 3xxx and 5xxx courses. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, T, 6:20-8:50, FordH 175

**Anth 5117 ANTHROPOLOGY RESOURCE MANAGEMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Employment of a cultural ecological and systems approach to examine ways in which social institutions and cultural concepts are applied and change across world societies to develop, use, and manage key environmental resources. Comparative studies from contemporary and historical United States, western Europe, Africa, Asia, and the Caribbean. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, M, 6:20-8:50, FordH 285, Gerlach

**Anth 5151 CULTURAL CHANGE AND DEVELOPMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Processes of cultural change: invention, innovation, diffusion, and acculturation. Theories of modernization, dependency, and world-systems. Roles of anthropologist in development programs. (Prereq 1102 or 5102 or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, M, 6:20-8:50, FordH 285, Miller

**Anth 5178 ARCHEOLOGY OF NORTHERN EUROPE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Archaeology of Scandinavia, northern Germany, and neighboring regions in the Bronze and Iron Ages and the Roman and Migration Periods. Trade, growth of towns, and changing art, ritual, and religion. (Prereq 1101, 3003 or 3371 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, Th, 6:20-8:50, FordH 285, Wells

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Anth 5920 TOPICS IN ANTHROPOLOGY: ANTHROPOLOGY OF AIDS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of Acquired Immune Deficiency Syndrome (AIDS) phenomena in its cultural, social, economic, medical, and psychological dimensions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, TTh, 4:30-6, FordH 175, Rowe

(See also PubH 5010, Public Health Approaches to AIDS)

### Arabic

(See Afro-American and African Studies)

### Archaeology

(See Anthropology; Classical Studies)

### Architecture (Arch)

(110 Architecture: 624-7866)

#### College of Architecture and Landscape Architecture

Textbooks for most Arch courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Landscape Architecture; Art History; and Arts in The Compleat Scholar noncredit section)

Lee Anderson, Assistant Professor  
John Carmody, Assistant Director, Underground Space Center

Dennis Grebner, Professor  
Mary Guzowski, Assistant Professor  
Douglas A. Lew, Lecturer  
Robert Mack, Lecturer  
Julia Robinson, Professor  
Leon Satkowski, Professor

Jeff Scherer, Assistant Professor  
Katherine Solomonson, Assistant Professor  
Marshall Tanick, Lecturer  
J. Stephen Weeks, Associate Professor

#### Degree programs in Architecture

The study of architecture combines history, science, and the arts as foundations for the pursuit of a career in architecture. The Department of Architecture seeks students with demonstrated academic, artistic, and creative skills. Above all, successful majors must demonstrate a capacity to think for themselves and work collectively and independently. While a degree program in architecture is not offered through Extension, a majority of the preparatory and required course work for the Bachelor of Arts with a major in Architecture can be completed in the evening. At the University of Minnesota, students are admitted to the Bachelor of Arts with a major in Architecture after having completed 90 credits of prerequisite and general education classes and maintaining a GPA of 2.50 in cumulative credits and the required Architecture prerequisites by the Department of Architecture.

For preparatory course work descriptions, see the bulletins for the College of Liberal Arts and the College of Architecture and Landscape Architecture. The College of Architecture and Landscape Architecture bulletin outlines the B.A. degree program in detail, and can be requested by calling (612) 625-2008. For further information, contact an architecture adviser at 110 Architecture, (612) 626-1000. The B.A. in Architecture is available through the College of Liberal Arts. For advising, contact a CEE adviser at (612) 625-2500.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Architecture. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Arch 1032 COLOR THEORY/USE.** 4 credits, tuition\* (includes \$5 course fee): Resident \$299; Non-resident \$857.60.

Survey of color as a design element, color theory, the physics of color, substance, interaction and use; symbolism and color effects and use; architectural application of principles and theory. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, T, 6:10-9:20, Arch 25, Grebner

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Arch 1301 INTRODUCTION TO ARCHITECTURAL DRAWING.** 4 credits, §LA 1301, tuition\* (includes \$25 course fee): Resident \$319; Non-resident \$877.60.

Emphasizes visualization and drawing of form and space in the physical environment. Explores basic elements of form of using design drawing systems and conventions. Development of skills in visual literacy and expression through drawing. **Must be taken A-F. Prerequisite for the major.** (No prereq. Limited to 25)

Fall Qtr, ★Sec 1, MW, 5:30-8:30, Arch 40, Grebner

Winter Qtr, ★Sec 2, TTh, 5:30-8:30, Arch 40  
Spring Qtr, ★Sec 3, MW, 5:30-8:30, Arch 55

**Arch 1401 THE DESIGNED ENVIRONMENT.** 4 credits, §LA 1401, tuition\*: Resident \$294; Non-resident \$852.60.

Principles and traditions within the design disciplines of architecture, landscape architecture, and urban design, along with references in the arts, sciences, and literature, will be explored in this review of the formal constructs of the designed environment. **Must be taken A-F. Prerequisite for the major.** (No prereq. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr, ★Sec 1, TTh, 5-6:45, SmithH 100, Bargmann

**Arch 1601 DESIGN PROFESSIONS AND SOCIETY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Introduction to issues and roles citizens, civic structures, entrepreneurs, clients, and design professions address in the process of shaping, constructing, and managing the physical environment. Examination of planning procedures, policy creation, and decision-making strategies used in formulating projects intended to maintain an aesthetic, ecologically functional and equitable physical environment. *Prerequisite for the major.* (No prereq. A joint Day/Extension class limited to 25 Extension students)

Spring Qtr, ★Sec 1, TTh, 8-9:55, SmithH 100, Scherer

**Arch 3311 DRAWING FOR DESIGN.** 4 credits, §LA 3311, tuition\* (includes \$25 course fee): Resident \$371; Non-resident \$1028.40.

Explores drawing processes as modes of perception, cognition, and reflection. Representational aspects of drawing systems and conventions, develops understanding of space, light, and order. **Must be taken A-F. Required for the major.** (Prereq Arch or BED major, Arch 1301 or LA 1301 or #. Limited to 25)

Fall Qtr, ★Sec 1, TTh, 5:30-8:30, Arch 40, Grebner

Winter Qtr, ★Sec 2, MW, 5:30-8:30, Arch 40, Grebner

Spring Qtr, ★Sec 3, MW, 5:30-8:30, Arch 40, Grebner

**Arch 3411 HISTORY OF ARCHITECTURE TO 1750.** 4 credits, §LA 3411, §ArtH 3411, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

History of architecture and city planning from antiquity to 1750, as illustrated by major monuments from Western and non-Western cultures. **Must be taken A-F. Required for the major.** (No prereq. Meets concurrently with LA 3411, ArtH 3411. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Th, 5:30-8:40, Arch 25, Satkowski

**Arch 3412 HISTORY OF ARCHITECTURE SINCE 1750.** 4 credits, §LA 3413, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

A history of major monuments, concepts, and theories of architecture and urbanism since 1750. **Must be taken A-F. Required for the major.** (No prereq. Meets concurrently with LA 3412, ArtH 3412. Limited to a combined total of 100)

Winter Qtr, ★Sec 1, Th, 5:30-8:40, Arch 25, Solomonson

**Arch 3501 PEOPLE, ECOLOGY, AND DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

A survey of issues, design procedures, and short- and long-term impacts of development decisions made by architects and landscape architects in terms of local and global ecological systems. **Must be taken A-F. Required for the major.** (Prereq Arch major, 3311, 3412 or #. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr, ★Sec 1, TTh, 3:35-5:30, Arch 55, Guzowski

**Arch 5281 ARCHITECTURE STUDIO I: FUNDAMENTALS OF SPACE AND FORM.** 6 credits, tuition\* (includes \$25 course fee): Resident \$544; Non-resident \$1530.10.

Introduction to elements of architecture, qualities of space, principles of design and systems of order found in everyday objects, experiences, and forms of nature. Application of visual tools—models, drawings, and graphics—and design principles to three-dimensional form and composition. Lecture, critique, and small design problems. **Must be taken A-F. Required for the major.** (Prereq Arch major, 3412 and 3311 or #. May not be taken for graduate credit at the University of Minnesota. Limited to 16)

Fall Qtr, ★Sec 1, MW, 5-9, Arch 25; F, 1:25-5:30, Arch 20, 230, Fuller

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Arch 5282 ARCHITECTURE STUDIO II: STRUCTURE AND ORDER.** 6 credits, tuition\* (includes \$25 course fee): Resident \$544; Non-resident \$1530.10.

Application of design processes in developing understandings of the relationship between architecture and meaning. Creation of order, architectural form and space within the context of cultural and technological conditions of our time. Exploration of structure systems within the context of increasingly complex design projects. Lecture, design projects, and critiques. **Must be taken A-F. Required for the major.** (Prereq 5281, Arch major or #. May not be taken for graduate credit at the University of Minnesota. Limited to 16)

Winter Qtr, ★Sec 1, MW, 5-9, Arch 20; F, 1:25-5:30, Arch 30, 230

**Arch 5283 ARCHITECTURE STUDIO III: SITE, CONTEXT, AND FORM.** 6 credits, tuition\* (includes \$25 course fee): Resident \$544; Non-resident \$1530.10.

Development of architectural form and space within the context of a specific site and building program. Exploration of materials and structure systems within the context of increasingly complex design projects. Lecture, design projects, and critiques. **Must be taken A-F. Required for the major.** (Prereq Arch 5282, Arch major or #. May not be taken for graduate credit at the University of Minnesota. Limited to 16)

Spring Qtr, ★Sec 1, MW, 5-9, Arch 35; F, 1:25-5:30, Arch 230, 20

**Arch 5313 VISUAL COMMUNICATION TECHNIQUES IN ARCHITECTURE.** 4 credits, \$3033, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

Exploration and use of delineation, presentation, and design techniques. Various visual media and methods of investigation. (Prereq Arch/BED major, 3311 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 1, T, 6:10-9:20, Arch 55, Grebner

**Arch 5321 ARCHITECTURE IN WATER-COLOR.** 4 credits, \$3110, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Watercolor as representation and communication in the design process. Foundation principles, techniques, medium, tools, and materials exploration. (Prereq Arch major, BED, 3311 or #. Qualified

students may register for graduate credit at the University of Minnesota. Limited to 16)

Spring Qtr, ★Sec 1, MW, 5:30-8:30, Arch 60, 20, 15, Lew

**Arch 5350 TOPICS IN REPRESENTATION: COMPUTER-AIDED CAD DESIGN.** 4 credits, tuition\* (includes \$40 course fee): Resident \$386; Non-resident \$1043.40; Resident Graduate credit \$468; Non-resident Graduate credit \$896; Resident Graduate School credit \$775; Non-resident Graduate School credit \$1657.

Computer-aided design topics with AUTO-CAD 12 systems. **Must be taken A-F.** (Prereq Arch major, 3083 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, ★Sec 1, W, 6:10-9:20, Arch 30

Winter Qtr, ★Sec 2, W, 6:10-9:20, Arch 45

Spring Qtr, ★Sec 3, W, 6:10-9:20, Arch 45

**Arch 5411 HISTORIC PRESERVATION.** 4 credits, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40; Resident Graduate credit \$433; Non-resident Graduate credit \$861; Resident Graduate School credit \$740; Non-resident Graduate School credit \$1622.

Philosophy and theory of historic preservation, historic origins, building documentation, technology of building conservation, historical archaeology, economic considerations, preservation law, guidelines for preservation, and case studies of representative preservation projects. (Prereq 1021 or #. Intended for advanced students in architecture, but open to the architectural profession and to any student who has fulfilled the prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, TTh, 5:15-7, Arch 35, Mack

**Arch 5413 HISTORIC BUILDING RESEARCH AND DOCUMENTATION.** 4 credits, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40; Resident Graduate credit \$433; Non-resident Graduate credit \$861; Resident Graduate School credit \$740; Non-resident Graduate School credit \$1622.

Philosophy, theory, and method of historic building research, descriptive analysis of buildings, building documentation, historical archaeology, and architectural taxonomy. (Prereq 5411 or #. Intended for students in architecture, but open to any student who has fulfilled the prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, TTh, 5:15-7, Arch 20, Mack

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Arch 5450 TOPICS IN THEORY: FEMINIST APPROACHES TO ARCHITECTURE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analyzes theoretical architectural literature in light of current feminist theory. Feminist readings will be used as a basis for investigating architectural texts. Considered will be voice of the writer, conception of the audience, definition or architecture, view of the architect, attitude toward the user and society, and ideas about context, nature, and materials. Primarily for upper-level undergraduate and graduate students. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Spring Qtr, ★Sec 1, Th, 6:10-9:20, Arch 20, Robinson

**Arch 5512 HISTORIC BUILDING CONSERVATION.** 4 credits, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40; Resident Graduate credit \$433; Non-resident Graduate credit \$861; Resident Graduate School credit \$740; Non-resident Graduate School credit \$1622.

Historic building systems, materials and methods for their conservation; introduction of contemporary systems in historic buildings. (Prereq 5411 or #. Intended for students in architecture, but open to any student who has fulfilled the prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, TTh, 5:15-7, Arch 35, Mack

**Arch 5523 LIGHT FRAME BUILDINGS: DESIGN FOR ENERGY EFFICIENCY, HEALTH, AND DURABILITY.** 4 credits, tuition\* (includes \$5 course fee): Resident \$351; Non-resident \$1008.40; Resident Graduate credit \$433; Non-resident Graduate credit \$861; Resident Graduate School credit \$740; Non-resident Graduate School credit \$1622.

Design and construction principles, problems, and solutions for housing and small commercial structures that improve comfort and energy efficiency. Building envelope assemblies—roof, wall, and foundations—and their integration with basic building systems. Discussion and resolution of common problems associated with these construction methods, such as infiltration, degradation from moisture, and poor indoor air quality. (Prereq 3062, 3064 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, W, 6:15-9:20, CivMinE 213, Carmody, Weeks

**Arch 5631 LEGAL CONTRACTS IN ARCHITECTURE.** 4 credits, \$5127, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Legal subject matter relevant to the work of architects and design professionals. **Must be taken A-F.** (Prereq 3093 or #. Qualified students may register for graduate credit at the University of Minnesota) Fall Qtr, Sec 1, W, 6:15-9:20, Arch 20, Tanick

**Arch 5950 TOPICS IN ARCHITECTURE: AUTOCAD.** 4 credits, tuition\* (includes \$20 course fee): Resident \$366; Non-resident \$1023.40.

Basic concepts, tools, and techniques of computer-aided drawing with an introduction to AutoCAD Release 12. Strategies and techniques for producing dimensioned and annotated drawings suitable for plotting, and an introduction to three-dimensional drawing capabilities. Use of dimension variables, attributes, blocks, symbols, and the creation of customized menus. Students complete a drawing project of intermediate complexity. Class sessions will include a brief demonstration and discussion followed by individual hands-on training in drawing examples of architectural construction documents. No prior computing experience is necessary. *Phone 624-7866 for information regarding day, time, and location for these AutoCAD courses.* (No prereq. May not be taken for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

Spring Qtr, Sec 3, Arr

**Arch 5970 DIRECTED STUDY.** Credits arranged. Each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Subject matter arranged. Areas of study useful to individual program objectives not available in regular course offerings. Independent study in Architecture through foreign travel programs may be arranged. (Prereq written #. Qualified students may register for graduate credit at the University of Minnesota.) Contact Prof. Stephen Weeks, 110D Arch, University of Minnesota, Minneapolis, Minnesota 55455 (624-2832).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Architecture Continuing Professional Education Courses

For a complete list of Architecture Continuing Professional Education courses offered during 1994-95 at the University of Minnesota, telephone (612) 624-1641.

*All 0xxx-level Arch courses must be taken S-N.*

**Arch 0015 MARKETING ARCHITECTURAL SERVICES.** No credit, tuition\* (includes \$10 special fee): \$157.

This eight-week series addresses marketing professional architectural/engineering services as the critical point of departure for the creative and successful practice of both small and large organizations. The fundamentals of planning, management, and implementation of the business development process for research, lead generation, qualifications, strategizing, proposals, presentations, and contract closing. **Must be taken S-N.** (No prereq)

Winter Spec Term, Sec 1, M, 6:10-9:20, Jan. 9-Mar. 6 (8 meetings—no class Jan. 16), Arch 35, Luers

### Contract Document Series

A three-course series intended to provide the intern architect with an in-depth understanding of the technical and administrative aspects of contract documents, bidding, and construction phases of architectural practice. Courses are designed to fulfill categorical IDP requirements in addition to preparing the intern to perform more effectively in the office and be more adequately prepared for the registration exams. Each course consists of eight meetings and is structured to involve the student in an interactive format using lecture/demonstrations, group discussion, and hands-on assignments with instructor feedback.

**Arch 0019 CONTRACT DOCUMENTS I: DRAWINGS, DD-CD.** No credit, tuition\*: \$147.

An in-depth look at the organization, intentions, and the "how to" of design development drawings, construction drawings (the production methods, detail development, scheduling, and checking), code analysis, cost estimating, and analysis. **Must be taken S-N.** (No prereq)

Fall Spec Term, Sec 1, W, 6-9, Sept. 28-Nov. 16 (8 meetings), Arch 35, Erickson

**Arch 0020 CONTRACT DOCUMENTS II: SPECIFICATIONS.** No credit, tuition\*: \$147.

Focuses on the intent, organization, and development of specifications (contract conditions, insur-

ance/bonding, project budgeting, and scheduling), product research, and selection. **Must be taken S-N.** (No prereq)

Winter Spec Term, Sec 1, W, 6-9, Jan. 4-Feb. 22 (8 meetings), Arch 25, Erickson

**Arch 0021 CONTRACT DOCUMENTS III: CONSTRUCTION.** No credit, tuition\*: \$147.

A comprehensive look at the construction phase from bidding through post-construction evaluation. Topics include contractual relations, bid/negotiation processes, work planning and scheduling, contractor submittals, payment certification, construction observation, and closeout. **Must be taken S-N.** (No prereq)

Spring Spec Term, Sec 1, W, 6-9, Apr. 5-May 24 (8 meetings), Arch 25, Erickson. *No late fee through Mar. 29*

### Architectural Registration Exam (A.R.E.) Review Courses

**Arch 0009 A.R.E. REVIEW COURSE.** No credit, tuition\* (includes \$10 special fee): \$157.

Conceptual/intuitive approach to structural systems for those in need of more than a minor review, and exam preparation. **Must be taken S-N.** (No prereq)

Fall Spec Term, Sec 1, Th, 6:10-9, Sept. 29-Dec. 1, Arch 30, Seiberlich

**Arch 0010 A.R.E. REVIEW COURSE.** No credit, tuition\* (includes \$10 special fee): \$157.

Preparation for professional registration examinations. Structural design—Sections DF and E. **Must be taken S-N.** (No prereq)

Winter Spec Term, Sec 1, Th, 6:10-9, Jan. 12-Mar. 9, Arch 15, Seiberlich. *No late fee through Jan. 5*

**Arch 0011 A.R.E. REVIEW COURSE.** No credit, tuition\* (includes \$10 special fee): \$157.

Preparation for professional registration examinations. Mechanical, Plumbing, Electrical, Life Safety Systems—Section G. **Must be taken S-N.** (No prereq)

Spring Spec Term, Sec 1, T, 6:10-9, Mar. 28-May 16, Arch 15, Seiberlich

**Arch 0012 A.R.E. REVIEW COURSE.** No credit, tuition\* (includes \$10 special fee): \$157.

Preparation for professional registration examinations. Site and Building Design—Sections A, B, C. **Must be taken S-N.** (No prereq)

Spring Spec Term, Sec 1, Th, 6:10-9, Mar. 30-May 25, Arch 15, Seiberlich

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Area Studies Programs

(232A Social Sciences: 624-8543)

### College of Liberal Arts

Textbooks for most courses offered through Area Studies Programs on the East Bank campus are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000); at University of Minnesota Bookstore—West Bank (625-3000) for West Bank campus courses; and at University of Minnesota Bookstore—St. Paul for courses offered on that campus(624-9200).

Byron K. Marshall, Professor of History  
Robert J. Poor, Professor of Art History  
Stuart Schwartz, Professor of Art History

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in courses offered through Area Studies Programs. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

### East Asian Studies (EAS)

**EAS 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES.** 4 credits, §Hist 3463, tuition\*: Resident \$294; Non-resident \$852.60.

Decline of Asian empires; European and American imperialism; Asian responses; nationalism; social revolution, reintegration, modernization in China, Japan, Vietnam, Korea; retreat of European and American empires. (No prereq. Meets concurrently with Hist 3463)

Spring Qtr, Sec 1, M, 6:20-8:50, BlegH 255,  
Marshall

**EAS 3013 INTRODUCTION TO EAST ASIAN ART.** 4 credits, §ArH 3013, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20. Major themes of Far Eastern art. Arts of China and Japan. (No prereq. Meets concurrently with ArtH 3013. Limited to a combined total of 70)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, JonesH 207B,  
Poor

(See also CSch 0100, The Arts of Japan)

**EAS 3465 CHINA'S RESPONSE TO THE WEST, 1750-1911.** 4 credits, §Hist 3465, tuition\*: Resident \$308; Non-resident \$893.20.

Eighteenth-century demographic crisis; the growth of Western trade, opium wars and peasant rebellion; early reform efforts, cultural conflicts with the West, imperialism in China, and the first phase of the Chinese revolution. (No prereq. Meets concurrently with Hist 3465)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 140

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EAS 3468 PEOPLE'S REPUBLIC OF CHINA: THE COMMUNIST REVOLUTION, 1900 TO PRESENT.** 4 credits, §Hist 3468, 5468, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction of Marxism in China, rise of Communist Party, and development of a rural guerilla movement. The career of Mao Tse-tung and developments in People's Republic: the Great Leap, Cultural Revolution, Gang of Four. (No prereq. Meets concurrently with Hist 3468)

Spring Qtr, Sec 1, Th, 6:20-8:50, BlegH 350

**EAS 3471 20TH-CENTURY JAPAN.** 4 credits, §Hist 3471, §Hist 5471, tuition\*: Resident \$308; Non-resident \$893.20.

The development of an industrial society, parliamentary government, mass culture, and imperialism from the Meiji reforms to the late 19th century through World War II to the contemporary period. (No prereq. Meets concurrently with Hist 3471 and 5471)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 135,  
Marshall

### Latin American Studies (LAS)

**LAS 3401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO 1800.** 4 credits, §Hist 3401, tuition\*: Resident \$308; Non-resident \$893.20.

The pre-Hispanic and colonial period to 1800, with emphasis on social, cultural, and economic aspects. (No prereq. Meets concurrently with Hist 3401)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 155,  
Schwartz

**LAS 3402 SURVEY OF LATIN AMERICAN HISTORY: 1800-1929.** 4 credits, §Hist 3402, tuition\*: Resident \$308; Non-resident \$893.20.

Development of new nations from independence to the emergence of dependent economies. (No prereq. Meets concurrently with Hist 3402)

Winter Qtr, Sec 1, M, 6:20-8:50, HHCtr 60

**LAS 3403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO PRESENT.** 4 credits, §Hist 3403, tuition\*: Resident \$308; Non-resident \$893.20.

Contradictions of modern societies: economic expansion, dependency, population growth and the social crisis, democratic and authoritarian politics. (No prereq. Meets concurrently with Hist 3403)

Spring Qtr, Sec 1, T, 6:20-8:50, Law 3

# Course Descriptions

## Art (ArtS)

(208 Art Building: 625-8096)

### College of Liberal Arts

Textbooks for most ArtS courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College courses in artistic expression; and *Arts* in The Compleat Scholar noncredit section)

Guy Baldwin, Associate Professor  
Karl Bethke, Professor  
Victor Caglioti, Associate Professor  
Melisande Charles, Lecturer  
Thomas Cowette, Associate Professor  
Christopher E. Dashke, Lecturer  
Kim Downing, Lecturer  
David L. Feinberg, Associate Professor  
Curtis Hoard, Professor  
Bruce Jenkins, Adjunct Associate Professor in Art History

Jerald Krepps, Associate Professor  
Thomas Lane, Associate Professor  
Susan Lucey, Associate Professor  
Monica Maye, Lecturer  
Jeff Millikan, Lecturer  
Alison Morse, Lecturer  
Malcolm Myers, Professor Emeritus  
Mark Pharis, Associate Professor  
Wayne Potratz, Professor  
Michael Rivard, Lecturer  
Herman Rowan, Professor Emeritus  
Jeff Sandeen, Lecturer  
Marcie Soderman-Olson, Lecturer  
Karen Wirth, Lecturer

**Change in credit hours**—The actual classroom and lab time in Extension Classes and day school ArtS courses have been adjusted to be equal. Therefore, all ArtS classes are four credits.

### A major in ArtS can be completed in the evening.

Most courses required in the major are offered in the evening each year. However, certain courses may be offered only every two or three years. It may be necessary for students seeking a B.F.A. in art to take some classes during the day in order to graduate.

Students considering a major in art should discuss plans with the coordinator of advising, 625-1848.

*Students majoring in art must take all ArtS and ArtH courses A-F. Grades of A, B, or C are required in the major courses.*

## B.A. MAJOR SEQUENCE

### Required Preparatory Courses:

One art history course at the 1xxx level

ArtS 1101, 1401, 1404, 1301 or 1302

12 cr from 1102, 1301 or 1302, 1510, 1520, 1530, 1540, 1602, 1701, 1811, 1812

ArtS 1401 should be taken before other departmental courses, or concurrently with the other required 1xxx-level studio arts courses.

### Major Requirements

At least 28 cr in studio arts courses at 3xxx/5xxx levels

8 cr in 3xxx/5xxx level art history courses

ArtS 3444, Senior Project, 2 cr, taken the final senior quarter

## B.F.A. MAJOR SEQUENCE

The B.F.A. is a 4-year degree program offering a high concentration of ArtS coursework. It is oriented toward professional work or admission to a Master of Fine Arts program. College of Liberal Arts art majors may apply for the B.F.A. degree after completing the five preparatory courses (see below). To apply, students must submit the B.F.A. application form (available in the Art Advising Office), a current U of M transcript, 3 faculty evaluations, and 8 to 10 35mm color slides of their artwork. Outstanding candidates will be granted B.F.A. degree status based on their academic record (minimum B grade point average in studio arts coursework) and the quality of their artwork as determined by a faculty review committee. B.F.A. candidates must maintain a B average in the major; candidacy is subject to review and dismissal. Upon acceptance, students must discuss and file major programs with the art adviser and the college office. All ArtS and ArtH courses must be taken on the A-F grade system. Grades below C may not be applied to the major requirements.

*Preparatory classes to be completed before application to B.F.A.: Introduction to Studio Arts, Drawing, Color, Sculpture or Ceramics, Printmaking or Photography.*

### Major Requirements:

1xxx level: ArtS 1101, 1301 or 1302, 1401, 1404, 1510 or 1520 or 1530 or 1540, 1701, 1811 or 1812, and 8 cr of electives.

3xxx/5xxx level:

Area concentration: 24 cr (Drawing/Painting, Sculpture, Printmaking, Photography, or Ceramics)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

ArtS electives: 16 cr (may include ArtS 3970 and 5970 Directed Study, and 3980 Directed Instruction)

Required Seminar: ArtS 5400 Concepts in Contemporary Arts

Art History: 16 cr total with a minimum of 8 cr at the 3xxx/5xxx level

Related Artistic Expression: 8 cr from Group D except ArtS and ArtH

Final Quarter Exhibition: B.F.A. solo or group shows may be arranged through the Katherine E. Nash Gallery, the Art Department Gallery, Larson Gallery, or other accessible local galleries.

## MINOR SEQUENCE

### Required Preparatory Courses:

1401

8 cr 1xxx level studio arts

4 cr Art History

Minor Requirements:

16 cr 3xxx/5xxx level studio arts

**You need not be majoring in Art to register for studio arts courses.**

## RESTRICTIONS IN ART CLASSES

1. Registration in any ArtS class after the first class meeting must be accompanied by the instructor's written permission.

2. Students who do not attend the first class session may lose their place in the course (at the instructor's discretion). A student who cannot attend the first class should call the instructor in advance or call the department at 625-1848 or 625-8096 to make arrangements to hold a place in class. A student who does not make these arrangements and has to cancel the course must obtain a written verification of non-attendance (from the instructor) to be given a tuition refund. This verification must be turned in at 101 Westbrook Hall by the end of the second week of the term.

Students must be on time for the first class meeting. If a student is more than 15 minutes late, the instructor can assign his or her place in the course to another student, and the student must cancel the class to receive a refund (see instructions in paragraph above).

Most studio courses require the student to spend a minimum of one hour per week in the Art Labs for each hour spent in class.

Because Extension funds its own classes, and since the subject matter of studio courses requires that enrollments be limited to small numbers of students, it has become necessary for Extension Classes to add a \$10 special fee to most classes in order for the classes to be held.

Some studio courses require additional fees which cover part of the cost of expendable materials, models, breakage, and special facilities. Use of a locker for the quarter is included in the course fee for sculpture and ceramics classes.

**3. ArtS Labs:** open labs have been scheduled to accommodate all 1xxx- and 3xxx-level Extension courses. These labs are staffed with teaching assistants who can answer both aesthetic and technical questions about the course as well as help students with the work in the course. Consult the department's lab schedule which accompanies the Art Student Fact Sheet for days and times. **Attendance at more than one lab is also possible. Attendance at lab is strongly encouraged to achieve a passing grade.**

4. Students who wish to audit ArtS courses must have written permission of the instructor and pay the full tuition rate and fees.

**Graphic Design/Commercial Art**—Graphic Design/Commercial Illustration courses are offered through the Department of Design in this Bulletin.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in ArtS. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Intermedia Arts courses** will no longer be available for University of Minnesota credit after summer 1995. Intermedia Arts, as an organization separate from the University, will continue to pursue non-accredited media education. For more information about Intermedia Arts opportunities, call (612) 627-4444. The University's Department of Art will continue to offer courses in electronic and digital imaging using the Macintosh computer as a tool in the making of visual art. For information on Department of Art courses, call (612) 625-8096.

**ArtS 1401 INTRODUCTION TO STUDIO ART.** See page 80.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Arts 1101 BASIC DRAWING.** 4 credits, tuition\* (includes \$10 special fee and \$20 course fee): Resident \$324; Non-resident \$882.60.

An introduction to basic drawing elements; exploration of contemporary and traditional methods, various drawing media, work from nature and still life. (No prereq. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 140, Caglioti

Fall Qtr, ★Sec 2, M, 6-10, ArtB 150

Fall Qtr, ★Sec 3, T, 6-10, ArtB 140

Fall Qtr, ★Sec 4, W, 6-10, ArtB 141, Rowan

Fall Qtr, ★Sec 5, Th, 6-10, ArtB 150

Fall Qtr, ★Sec 6, Sa, 8:30 a.m.-12:30, ArtB 160

Winter Qtr, ★Sec 7, M, 6-10, ArtB 140, Caglioti

Winter Qtr, ★Sec 8, T, 6-10, ArtB 150

Winter Qtr, ★Sec 9, W, 6-10, ArtB 150

Winter Qtr, ★Sec 10, Th, 6-10, ArtB 150

Winter Qtr, ★Sec 11, Sa, 8:30 a.m.-12:30, ArtB 141, Rowan

Spring Qtr, ★Sec 12, M, 6-10, ArtB 140, Caglioti

Spring Qtr, ★Sec 13, T, 6-10, ArtB 140

Spring Qtr, ★Sec 14, W, 6-10, ArtB 150

Spring Qtr, ★Sec 15, Th, 6-10, ArtB 150

Spring Qtr, ★Sec 16, Sa, 8:30 a.m.-12:30, ArtB 160

Spring Qtr, ★Sec 17, Sa, 8:30 a.m.-12:30, ArtB 150

(See also CSch 0526, Natural History Drawing)

**ArtS 1102 DRAWING.** 4 credits, tuition\* (includes \$5 special fee and \$20 course fee): Resident \$319; Non-resident \$877.60.

Work from life and nature. Introduction to pictorial structure. (Prereq 1101. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, Sa, 8:30 a.m.-12:30, ArtB 140, Cowette

Winter Qtr, ★Sec 2, W, 6-10, ArtB 140, Cagliotti

Winter Qtr, ★Sec 3, Sa, 8:30 a.m.-12:30, ArtB 140, Cowette

Spring Qtr, ★Sec 4, W, 6-10, ArtB 140, Cagliotti

Spring Qtr, ★Sec 5, Sa, 8:30 a.m.-12:30, ArtB 140, Cowette

(See also CSch 0174, Creative Drawing)

**ArtS 1301 BASIC SCULPTURE.** 4 credits, tuition\* (includes \$10 special fee and \$65 course fee): Resident \$369; Non-resident \$927.60.

Beginning course in metal construction; intensive study of structure with emphasis on form and space. Construction in metal. (No prereq. See **Restrictions, page xxx.** Limited to 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 65, Lucey

Winter Qtr, ★Sec 2, M, 6-10, ArtB 65, Lucey

Spring Qtr, ★Sec 3, T, 6-10, ArtB 65, Baldwin

**Arts 1302 BASIC SCULPTURE.** 4 credits, tuition\* (includes \$10 special fee and \$65 course fee): Resident \$369; Non-resident \$927.60.

Natural form is studied. Imaginative approaches are encouraged. Construction in clay, plaster, wood. Mold-making and casting. (No prereq. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 50, Baldwin

Winter Qtr, ★Sec 2, T, 6-10, ArtB 50, Baldwin

Spring Qtr, ★Sec 3, W, 6-10, ArtB 50

**Arts 1401 INTRODUCTION TO STUDIO ART.** 4 credits, tuition\* (includes \$10 special fee and \$15 course fee): Resident \$319; Non-resident \$877.60.

This lecture course introduces the student to the concerns, media, and environment of the practicing artist, and to the concepts of visual art making in its contemporary and historical context. Slide lectures, field trips, and discussions provide a broad aesthetic foundation for entering beginning ArtS courses, and a thorough understanding of the creative process, visual expression, and aesthetic criteria. (No prereq. See **Restrictions, page 79.**)

Fall Qtr, Sec 1, Th, 6-10, BlegH 10, Wirth

Winter Qtr, Sec 2, Th, 6-10, BlegH 10, Wirth

Spring Qtr, Sec 3, Th, 6-10, BlegH 10, Wirth

**Arts 1404 COLOR.** 4 credits, tuition\* (includes \$10 special fee and \$20 course fee): Resident \$324; Non-resident \$882.60.

Introduction to color and pictorial organization. This will provide students with intensive investigation of color and its visual implications. (Prereq 1101. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, Th, 6-10, ArtB 160, Bethke

Fall Qtr, ★Sec 2, Sa, 8:30 a.m.-12:30, ArtB 141, Feinberg

Winter Qtr, ★Sec 3, W, 6-10, ArtB 160, Feinberg

Winter Qtr, ★Sec 4, Th, 6-10, ArtB 160, Bethke

Spring Qtr, ★Sec 5, Th, 6-10, ArtB 160

Spring Qtr, ★Sec 6, Sa, 8:30 a.m.-12:30, ArtB 141, Feinberg

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**ArtS 1510 PRINTMAKING: INTAGLIO.** 4 credits each quarter (maximum 8 cr), tuition\* (includes \$10 special fee and \$50 course fee): Resident \$354; Non-resident \$912.60.

Introduction to various techniques of etching and engraving employed in working on metal plates, as well as collagraphic techniques in creative context. (No prereq. Meets concurrently with 3510, 5510. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 170

Winter Qtr, ★Sec 2, T, 6-10, ArtB 170

**ArtS 1520 PRINTMAKING: LITHOGRAPHY.** 4 credits each quarter (maximum 8 cr), tuition\* (includes \$10 special fee and \$50 course fee): Resident \$354; Non-resident \$912.60.

An introduction to planographic printing from stones and plates. Emphasis is directed to the basic techniques of image-making, processing, printing and presentation of prints. (No prereq. Meets concurrently with 3520, 5520. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 170, Krepps

**ArtS 1540 PRINTMAKING: SCREEN.** 4 credits each quarter (maximum 8 cr), tuition\* (includes \$10 special fee and \$50 course fee): Resident \$354; Non-resident \$912.60.

Traditional and contemporary screen printing media. Paper stencil, tusche and glue, cut stencil, and photo stencil techniques and their aesthetic applications. (No prereq. Meets concurrently with 3540, 5540. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Th, 6-10, ArtB 170,  
Bethke

**ArtS 1601 VIDEO ARTS PRODUCTION I.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$469; Non-resident \$1027.60.

The use of video cameras, microphones, and video recorders, techniques of lighting, sound recording, and editing are explored through lecture, demonstration, and hands-on experience. Work of video artists are viewed and discussed in terms of video theory and technique. Students work in groups to plan, shoot, and edit a short tape. (No prereq. Limited to 15)

Fall Qtr, ★Sec 1, T, 1-5, Intermedia Arts, 425 Ontario, Downing

Fall Qtr, ★Sec 2, W, 6-10, Intermedia Arts, 425 Ontario, Downing

Winter Qtr, ★Sec 3, M, 6-10, Intermedia Arts, 425 Ontario, Rivard

Winter Qtr, ★Sec 4, Th, 1-5, Intermedia Arts, 425 Ontario, Downing

Spring Qtr, ★Sec 5, T, 1-5, Intermedia Arts, 425 Ontario, Downing

Spring Qtr, ★Sec 6, Th, 6-10, Intermedia Arts, 425 Ontario, Downing

(See also CSch 0187, Video Basics)

**ArtS 1602 ART AND COMPUTERS I.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$469; Non-resident \$1027.60.

A combination lecture and studio course focusing on the creative use of the Amiga. This computer art course will introduce students to the principles and use of computers and various software packages from which they generate images of their own design to be recorded and displayed on videotape. (No prereq. Limited to 15)

Fall Qtr, ★Sec 1 M, 1-5, Intermedia Arts, 425 Ontario, Morse

Fall Qtr, ★Sec 2 M, 6-10, Intermedia Arts, 425 Ontario, Sandeen

Fall Qtr, ★Sec 3 W, 6-10, Intermedia Arts, 425 Ontario, Sandeen

Winter Qtr, ★Sec 4, M, 6-10, Intermedia Arts, 425 Ontario, Sandeen

Winter Qtr, ★Sec 5, T, 6-10, Intermedia Arts, 425 Ontario, Morse

Winter Qtr, ★Sec 6, W, 1-5, Intermedia Arts, 425 Ontario, Morse

Spring Qtr, ★Sec 7, M, 1-5, Intermedia Arts, 425 Ontario, Morse

Spring Qtr, ★Sec 8, W, 6-10, Intermedia Arts, 425 Ontario, Sandeen

**ArtS 1603 TWO-DIMENSIONAL COMPUTER GRAPHICS FOR VIDEO.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$469; Non-resident \$1027.60.

Introduces basic computer painting skills and a variety of animation techniques transferable to video, as well as features unique to the computer such as pattern generation and digital recreation of photographic images. Students will complete an animated work. (No prereq. Limited to 15)

Fall Qtr, ★Sec 1, T, 6-10, Intermedia Arts, 425 Ontario, Charles

Winter Qtr, ★Sec 2, Th, 6-10, Intermedia Arts, 425 Ontario, Charles

Spring Qtr, ★Sec 3, F, 6-10, Intermedia Arts, 425 Ontario, Charles

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Arts 1606 INTRODUCTION TO SOUND.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$469; Non-resident \$1027.60.

Covers basics of sound and audio recording from a theoretical and practical approach with an emphasis on developing an awareness of sound qualities and a facility for creative use of sound. Acoustic and electronic sound synthesis will be explored as material used in conjunction with video images and other time arts media or for its own expressive potential. No knowledge of music or sound recording is required. (No prereq. Limited to 15)

Fall Qtr, ★Sec 1, T, 6-10, Intermedia Arts, 425 Ontario, Maye

Winter Qtr, ★Sec, 2 T, 6-10, Intermedia Arts, 425 Ontario, Maye

Spring Qtr, ★Sec 3, T, 6-10, Intermedia Arts, 425 Ontario, Maye

**Arts 1611 INTRODUCTION TO ELECTRONIC ARTS.** 4 credits, tuition\* (includes \$5 special fee and \$30 course fee): Resident \$329; Non-resident \$887.60.

An introductory-level course in the theory, aesthetics, history, and philosophy of the electronic arts. Computer graphics, video, electronic sound, lasers, interactive, installation, and performance will be examined. This course will trace the current trends in the media arts from analog to digital information storage technology, and the central role played by computers in the field of electronic arts. (No prereq. Limited to 20)

Spring Qtr, ★Sec 1, W, 1-5, Intermedia Arts, 425 Ontario

(See also CSch 0167, Electronic Imaging Workshop I)

**Arts 1701 INTRODUCTION TO PHOTO MEDIUM.** 4 credits, tuition\* (includes \$10 special fee and \$40 course fee): Resident \$344; Non-resident \$902.60.

A course in black and white photography for beginners with little or no experience. Lectures on contemporary and historical use of photography. The course will cover techniques in the use of the camera, film development and enlargements. Emphasis on the creative process. Student must have camera. Any 35mm camera with adjustable F stops and shutter speeds is acceptable. If you wish to use a camera other than 35mm and are uncertain whether it will be acceptable, you may check with the Studio Arts department, 625-9532. **Additional materials for the course may cost \$75-\$125.** (No prereq. See **Restrictions, page 79.** Limited to 20).

Fall Qtr, ★Sec 1, T, 6-10, ArtB 120

Fall Qtr, ★Sec 2, T, 1-4:45, MacP Bsmt, Millikan

Fall Qtr, ★Sec 3, W, 6-10, ArtB 120

Winter Qtr, ★Sec 4, M, 6-10, ArtB 120

Winter Qtr, ★Sec 5, T, 1-4:45, MacP Bsmt, Millikan

Winter Qtr, ★Sec 6, T, 6-10, ArtB 120

Spring Qtr, ★Sec 7, M, 6-10, ArtB 120

Spring Qtr, ★Sec 8, T, 1-4:45, MacP Bsmt, Millikan

Spring Qtr, ★Sec 9, T, 6-10, ArtB 120

(See also photography courses in General College; and The Compleat Scholar, **page 395-398**)

**Arts 1811 CERAMICS.** 4 credits, tuition\* (includes \$10 special fee and \$65 course fee): Resident \$369; Non-resident \$927.60.

Introduction to handbuilding techniques in clay for individual creative expression. (No prereq. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 10, Lane

Winter Qtr, ★Sec 2, W, 6-10, ArtB 10, Pharis

Spring Qtr, ★Sec 3, T, 6-10, ArtB 10, Lane

**Arts 1812 CERAMICS.** 4 credits, tuition\* plus \$10 special fee and \$65 course fee. Total: Resident \$369; Non-resident \$927.60.

Introduction to wheel throwing techniques. (No prereq. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, W, 6-10, ArtB 10, Pharis

Winter Qtr, ★Sec 2, M, 6-10, ArtB 10, Hoard

Winter Qtr, ★Sec 3, Th, 6-10, ArtB 10, Lane

Spring Qtr, ★Sec 4, M, 6-10, ArtB 10, Hoard

**Arts 3105 PAINTING.** 4 credits, tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Introduction to studio work in painting explores the fundamentals of visual art making via the paint media. Emphasis is on the visual language: volume, texture, color, line, space, light, compositions. Proper attention will focus on concepts and technique and philosophies of painting. (Prereq 1401, 1101, 1102, 1404 or #. Limited to 20)

Fall Qtr, ★Sec 1, W, 6-10, ArtB 161, Feinberg

Winter Qtr, ★Sec 2, Sa, 8:30 a.m.-12:30, ArtB 151, Feinberg

Spring Qtr, ★Sec 3, M, 6-10, ArtB 151, Rowan

**Arts 3110 DRAWING.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Elements of drawing from the nude model, still life, and nature. (Prereq 1401, 1101, 1102. See **Restrictions, page 79.** Meets concurrently with 5110. Limited to a combined total of 20)

Fall Qtr, ★Sec 1 T, 6-10, ArtB 141, Roode

Winter Qtr, ★Sec 2 T, 6-10, ArtB 141, Roode

Spring Qtr, ★Sec 3 T, 6-10, ArtB 141

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**ArtS 3120 PAINTING.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Continuation of media development and individual problems. (Prereq 1101, 1102, 1404, 3105, 3110, 1401 or #. See **Restrictions, page 79.** Meets concurrently with 5120. Limited to a combined total of 20)  
Fall Qtr, ★Sec 1, W, 6-10, ArtB 151, Caglioti  
Winter Qtr, ★Sec 2, W, 6-10, ArtB 151,  
Feinberg

Spring Qtr, ★Sec 3, T, 6-10, ArtB 151, Roode

**ArtS 3130 WATERCOLOR.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Introduction to transparent watercolor, gouache, casein, and tempera. Figure, still life, landscape, and individual directions. (Prereq 1101, 1102, 1404, 1401 or #. Meets concurrently with 5130. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 141, Myers  
Winter Qtr, ★Sec 2, M, 6-10, ArtB 141, Myers  
Spring Qtr, ★Sec 3, M, 6-10, ArtB 141, Myers  
(See also CSch 0172, Painting in Watercolor)

**ArtS 3303 SCULPTURE: CAST METAL.** 4 credits, tuition\* (includes \$10 special fee and \$65 course fee): Resident \$383; Non-resident \$968.20.

Lost wax and sand casting in bronze, aluminum, iron. (Prereq 1301, 1302, 1401. Meets concurrently with 5330. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 185, Potratz  
Winter Qtr, ★Sec 2, T, 6-10, ArtB 185, Dashke

**ArtS 3306 PERFORMANCE ART.** 4 credits, tuition\* (includes \$10 special fee and \$50 course fee): Resident \$368; Non-resident \$953.20.

Development of individual performance artworks and research pioneers of this art form. (No prereq. Meets concurrently with 5360. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, M, 6-10, ArtB 65, Lucey

**ArtS 3420 WORKSHOP: ARTISTS' BOOKS: From Structure to Content.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Interdisciplinary exploration of art in the book form, ranging from one-of-a-kind books to multiples and sculptural works. Covers the visual language of page design, the technical aspects of book structures, and extends into making books as art objects in a variety of mediums. Concepts include image/text relationships, rhythm and sequence, and narrative structure. **Note:** *A materials fee will be*

*collected by the instructor.* (No prereq. Meets concurrently with 5420 sec 1, 2, 3. Limited to a combined total of 10)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 160, Wirth  
Winter Qtr, ★Sec 2, T, 6-10, ArtB 160, Wirth  
Spring Qtr, ★Sec 3, T, 6-10, ArtB 160, Wirth

**ArtS 3420 WOMEN'S IMAGES AND IMAGES OF WOMEN: PREHISTORY TO MODERNISM.** 4 credits, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20.

Explores women's place in Western art from several perspectives: women as artists and the imagery they have created, and women as the subject of imagery and the attitudes those images convey. The course presents the works of recognized women artists beginning with the medieval era through the Modern period. Artists presented will include Artemisia Gentileschi and Elisabeth Vigee-Le Brun, as well as more recent women artists such as Mary Cassatt and Georgia O'Keeffe. The class also examines and discusses how women have been portrayed as the subject of imagery, beginning with works from prehistory such as the Venus of Willendorf, proceeding through history to the 20th century. There will be a special emphasis on attitudes expressed in the work of 19th-century artists, and will include a re-examination of famous works such as Courbet's nudes, Manet's *Luncheon on the Grass*, and Ingres's harem scenes. (No prereq. Meets concurrently with 5420 sec 4. Limited to a combined total of 40)

Winter Qtr, ★Sec 4, M, 6-10, JonesH 207B,  
Soderman-Olson

**ArtS 3420 WOMEN'S IMAGES AND IMAGES OF WOMEN: MODERNISM TO THE PRESENT.** 4 credits, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20.

Explores women's place in Western art from the early 20th century to the present through several perspectives: women as artists and the imagery they have created, and women as the subject of imagery and the attitudes those images convey. The course presents women artists' work from modernism to the feminist era of the late 1960s and early 1970s (such as Judy Chicago and Eva Hesse) to the work of current artists such as Jenny Holzer and Barbara Kruger. Students explore contemporary issues related to art work by women including the engagement of personal identity and experiences, the questioning of economic, cultural, and social attitudes, and the use of alternative media and techniques. (No prereq. Meets concurrently with 5420 sec 5. Limited to a combined total of 40)

Spring Qtr, ★Sec 5, M, 6-10, JonesH 207B,  
Soderman-Olson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ArtS 3420 WORKSHOP: PAINTED SCULPTURE.** 4 credits, tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Concepts of the interdependency of 2- and 3-dimensional form combined with a work of art. Camouflage, illusion, and the sensation of deep space will be presented in various assignments. (Prereq one 1xxx-level Studio Arts course. Meets concurrently with 5420 sec 6. Limited to a combined total of 20)

Spring Qtr, ★Sec 6, W, 6-10, ArtB 151, Feinberg

**ArtS 3430 PAPER: PULP TO PLASTIC EX-PRESSION.** 4 credits (maximum 12 cr), tuition\* (includes \$10 special fee and \$45 course fee): Resident \$363; Non-resident \$948.20.

Creative and traditional approaches to papermaking. Course will focus on the role of paper with regard to the total expression of an art work, and the relationship of materials and preparation that lends uniqueness to handmade papers. (Prereq 1401, 1xxx-level ArtS course. Meets concurrently with 5430. See **Restrictions, page 79.** Limited to a combined total of 14)

Spring Qtr, ★Sec 1, M, 6-10, ArtB 35, Krepps

**ArtS 3510 PRINTMAKING: INTAGLIO.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20.

A print class for students who have had experience in drawing composition. All techniques of fine printing will be taught and color printing will be demonstrated in engraving and etching. (Prereq 1401, 1510 or #. Meets concurrently with 1510, 5510. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 170

Winter Qtr, ★Sec 2, T, 6-10, ArtB 170

**ArtS 3520 PRINTMAKING: INTERMEDIATE LITHOGRAPHY.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20.

Further exploration of fundamental techniques with introduction to color printing. Emphasis is directed to a more independent approach, stressing artistic considerations, in terms of materials and the visual manifestation of a statement. (Prereq 1401, 1520 or #. Meets concurrently with 1520, 5520. See **Restrictions, page 79.** Limited to a combined total of 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 170, Krepps

**ArtS 3540 PRINTMAKING: SCREEN.** 4 credits each quarter (maximum 12 cr), tuition\* each quarter (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20.

Further exploration of screen printing techniques, emphasis on color and image development. (Prereq 1401, 1540 or #. Meets concurrently with 1540 and 5540. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Th, 6-10, ArtB 170, Bethke

**ArtS 3601 VIDEO ARTS PRODUCTION II.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$483; Non-resident \$1068.20.

Building on skills learned in ArtS 1601 students will develop conceptual skills involved in video production. Areas covered will include scripting, storyboarding, budgeting, and other preproduction concerns; advanced camera and lighting techniques, editing with emphasis on the creative process, video processing, and monitoring equipment. Students will complete a final project individually or with a group. (Prereq 1601. Limited to 15)

Fall Qtr, ★Sec 1, M, 6-10, Intermedia Arts, 425 Ontario, Rivard

Winter Qtr, ★Sec 2, T, 6-10, Intermedia Arts, 425 Ontario, Rivard

Spring Qtr, ★Sec 3, T, 6-10, Intermedia Arts, 425 Ontario, Rivard

**ArtS 3602 ART AND COMPUTERS II.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$483; Non-resident \$1068.20.

Continuation and development of methods and concepts introduced in ArtS 1602. Using the Amiga. Techniques will be refined with an emphasis on producing a final project with computer graphics and animation. (Prereq 1602. Limited to 15)

Winter Qtr, ★Sec 1, W, 6-10, Intermedia Arts, 425 Ontario, Sandeen

Spring Qtr, ★Sec 2, M, 6-10, Intermedia Arts, 425 Ontario, Sandeen

**ArtS 3604 INTERDISCIPLINARY PROJECTS.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$483; Non-resident \$1068.20.

Examines alternative approaches to the creation of works using any combination of the electronic arts—video, computers, audio, projected light—with possible interface with other art forms— theatre, dance, painting, sculpture. The course stresses conceptual concerns and experimentation with numerous ways of creating and manipulating images and sounds. Students will complete several group or individual projects. (Prereq 3601 or 3602, or #. Limited to 15)

Spring Qtr, ★Sec 1, Th, 6-10, Intermedia Arts, 425 Ontario

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**ArtS 3615 VIDEO EDITING.** 4 credits, tuition\* (includes \$5 special fee and \$170 course fee): Resident \$483; Non-resident \$1068.20.

This class will develop technical and artistic skills used in video editing. Work from a number of genres will be studied to familiarize students with the range of editing styles, strategies, and technology used. In addition to a number of editing exercises, students' work-in-progress will be critiqued with suggestions made for improving the work in the editing process. (Prereq 1601. Limited to 15)

Winter Qtr, ★Sec 1, Th, 6-10, Intermedia Arts, 425 Ontario, Downing

Spring Qtr, ★Sec 2, W, 6-10, Intermedia Arts, 425 Ontario, Downing

(See also CSch 0189, Editing for Beginning Videomakers)

**ArtS 3655 VIDEO AS AN ART FORM.** 4 credits, tuition\* (includes \$20 course fee): Resident \$328; Non-resident \$913.20.

Explores the variety of video genres (including performance, installation, conceptual, documentary, and expressive) from a number of critical positions, and examines the relationship of these genres to politics and the arts. There will be viewings and discussion of significant video work and readings from prominent theorists, critics, and artists. (No prereq. Meets concurrently with ArtH 3940 and ArtH 5940. Limited to a combined total of 40)

Winter Qtr, ★Sec 1, W, 6-9, Walker Art Center Lecture Room, Jenkins

**ArtS 3710 INTERMEDIATE PHOTOGRAPHY.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$40 course fee): Resident \$358; Non-resident \$943.20.

Continued work in photographic controls and processes. Introduction to related photosensitive media. Emphasis on creative process with attention to individual interests and requirements. *Emphasis Fall Qtr:* The fine print. *Emphasis Winter Qtr:* The extended image. *Emphasis Spring Qtr:* Contemporary topics in photography. **Additional materials for the course may cost \$75-\$125.** (Prereq 1401, 1701 or #. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 120

Winter Qtr, ★Sec 2, W, 1-4:45, MacP Bsmst, Millikan

Winter Qtr, ★Sec 3, W, 6-10, ArtB 120

Spring Qtr, ★Sec 4, W, 6-10, ArtB 120

(Concurrent with 5710 and limited to a combined total of 20)

(See also photography courses in General College; and The Compleat Scholar, **pages 395-398**)

**ArtS 3810 CERAMIC DESIGN.** 4 credits each quarter (maximum 12 cr), tuition\* (includes \$10 special fee and \$75 course fee): Resident \$393; Non-resident \$978.20.

Greater emphasis on wheel throwing. Advanced design problems and introduction to glaze and clay experimentation. Emphasis on development of personal expression in ceramic medium. (Prereq 1401, 1811, 1812 or #. See **Restrictions, page 79.** Limited to 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 10, Hoard

Spring Qtr, ★Sec 2, W, 6-10, ArtB 10, Pharis

**ArtS 5110 ADVANCED DRAWING.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20; Resident Graduate credit \$453; Non-resident Graduate credit \$881; Resident Graduate School credit \$760; Non-resident Graduate School credit \$1642.

Drawing in all mediums from life and from imagination; history of drawing. (Prereq 12 cr of 3110 or #. Meets concurrently with 3110. See **Restrictions, page 79.** Qualified students may register in Sec 1 and 2 only for graduate credit at the University of Minnesota. Sec 3 may not be taken for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 141, Roode

Winter Qtr, ★Sec 2, T, 6-10, Art 141, Roode

Spring Qtr, ★Sec 3, T, 6-10, ArtB 141

**ArtS 5120 PROBLEMS IN PAINTING.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20; Resident Graduate credit \$453; Non-resident Graduate credit \$881; Resident Graduate School credit \$760; Non-resident Graduate School credit \$1642.

An advanced course in acrylic and oil painting with emphasis on individual directions as they reflect current and traditional trends in art. (Prereq 12 cr of 3120 or #. See **Restrictions, page 79.** Meets concurrently with 3120. Qualified students may register in Sec 1 and 2 only for graduate credit at the University of Minnesota. Sec 3 may not be taken for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, W, 6-10, ArtB 151, Caglioti

Winter Qtr, ★Sec 2, W, 6-10, ArtB 151,

Feinberg

Spring Qtr, ★Sec 3, T, 6-10, ArtB 151, Roode

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ArtS 5130 WATERCOLOR.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20.

Advanced watercolor techniques, aesthetic direction. Continued development of concepts and individual direction. (Prereq 12 cr of 3130 or #. Meets concurrently with 3130. See **Restrictions, page 79**. May not be taken for graduate credit. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 141, Myers  
Winter Qtr, ★Sec 2, M, 6-10, ArtB 141, Myers  
Spring Qtr, ★Sec 3, M, 6-10, ArtB 141, Myers

**ArtS 5330 SCULPTURE: CAST METAL.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$65 course fee): Resident \$383; Non-resident \$968.20; Resident Graduate credit \$503; Non-resident Graduate credit \$931; Resident Graduate School credit \$810; Non-resident Graduate School credit \$1692.

See description for 3303. (Prereq 3303. Meets concurrently with 3303. See **Restrictions, page 79**. Qualified students may register in Sec 1 only for graduate credit at the University of Minnesota; Sec 2 may not be taken for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 185, Potratz  
Winter Qtr, ★Sec 2, T, 6-10, ArtB 185, Dashke

**ArtS 5360 PERFORMANCE ART.** 4 credits (maximum 16 cr), tuition\* plus \$10 special fee and \$50 course fee. Total: Resident \$368; Non-resident \$953.20; Resident Graduate credit \$488; Non-resident Graduate credit \$916; Resident Graduate School credit \$795; Non-resident Graduate School credit \$1677.

See course description for ArtS 3306. (Prereq 3306. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3306. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, M, 6-10, ArtB 65, Lucey

**ArtS 5420 WORKSHOP: ARTISTS' BOOKS: From Structure to Content.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit 735; Non-resident Graduate School credit \$1617.

See ArtS 3420 for description. **Note:** *A materials fee will be collected by the instructor.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3420 sec 1, 2, 3. Limited to a combined total of 10)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 160, Wirth  
Winter Qtr, ★Sec 2, T, 6-10, ArtB 160, Wirth  
Spring Qtr, ★Sec 3, T, 6-10, ArtB 160, Wirth

**ArtS 5420 WOMEN'S IMAGES AND IMAGES OF WOMEN: WOMEN ARTISTS, 1650-1965.** 4 credits, tuition\* (includes \$35 special fee and \$15 course fee): Resident \$358; Non-resident \$943.20; Resident Graduate credit \$478; Non-resident Graduate credit \$906; Resident Graduate School credit 785; Non-resident Graduate School credit \$1667.

See course description for 3420 sec 1. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3420 sec 4. Limited to a combined total of 40)

Winter Qtr, ★Sec 4, M, 6-10, JonesH 207B,  
Soderman-Olson

**ArtS 5420 WOMEN'S IMAGES AND IMAGES OF WOMEN: CONTEMPORARY WOMEN ARTISTS FROM THE 1960s TO THE PRESENT.** 4 credits, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20; Resident Graduate credit \$443; Non-resident Graduate credit \$871; Resident Graduate School credit 750; Non-resident Graduate School credit \$1632.

See course description for 3420 sec 3. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3420 sec 5. Limited to a combined total of 40)

Spring Qtr, ★Sec 5, M, 6-10, JonesH 207B,  
Soderman-Olson

**ArtS 5420 WORKSHOP: PAINTED SCULPTURE.** 4 credits, tuition\* (includes \$10 special fee and \$15 course fee): Resident \$333; Non-resident \$918.20; Resident Graduate credit \$453; Non-resident Graduate credit \$881; Resident Graduate School credit \$760; Non-resident Graduate School credit \$1642.

See course description for ArtS 3420. (Prereq one 1xxx-level Studio Arts course. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3420 sec 6. Limited to a combined total of 20)

Spring Qtr, ★Sec 6, W, 6-10, ArtB 151,  
Feinberg

**ArtS 5430 PAPER: PULP TO PLASTIC EXPRESSION.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$45 course fee): Resident \$363; Non-resident \$948.20; Resident Graduate credit \$483; Non-resident Graduate credit \$911; Resident Graduate School credit \$790; Non-resident Graduate School credit \$1672.

See course description for ArtS 3430. (Prereq 12 cr of 3430 or #. Meets concurrently with 3430. See **Restrictions, page 79**. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 14)

Spring Qtr, ★Sec 1, M, 6-10, ArtB 35, Krepps

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**ArtS 5510 PRINTMAKING: ADVANCED INTAGLIO.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20.

An advanced course in etching, aquatint, meHatint, and all related techniques in the execution of intaglio prints. Color printing will be taught in conjunction with the above material. (Prereq 12 cr of 3510 or #. Meets concurrently with 1510, 3510. See **Restrictions, page 79.** May not be taken for graduate credit. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, T, 6-10, ArtB 170

Winter Qtr, ★Sec 2, T, 6-10, ArtB 170

**ArtS 5520 PRINTMAKING: ADVANCED LITHOGRAPHY.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20; Resident Graduate credit \$493; Non-resident Graduate credit \$921; Resident Graduate School credit \$800; Non-resident Graduate School credit \$1682.

Strong emphasis in creative and individual approach to lithography. Critiques and discussions are directed to understanding the intrinsic qualities of the lithographic medium. (Prereq 12 cr of 3520 or #. Meets concurrently with 1520, 3520. See **Restrictions, page 79.** Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr, ★Sec 1, M, 6-10, ArtB 170, Krepps

**ArtS 5540 PRINTMAKING: SCREEN.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$55 course fee): Resident \$373; Non-resident \$958.20; Resident Graduate credit \$493; Non-resident Graduate credit \$921; Resident Graduate School credit \$800; Non-resident Graduate School credit \$1682.

Screen processes and combined techniques. (Prereq 12 cr of 3540 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 1540, 3540. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Th, 6-10, ArtB 170,  
Bethke

**ArtS 5601 VIDEO ARTS PRODUCTION III.** 4 credits, tuition\* (includes \$15 special fee and \$170 course fee): Resident \$493; Non-resident \$1078.20.

Building on skills learned in 1601 and 3615, students engage in a number of exercises intended to increase students' facility and introduce more complex aspects of the medium. Editing strategies, experimental use of equipment, and interactive aspects of the medium will be explored as well as the issues related to the development and criticism of experimental works. (Prereq 3601 and 3615. May not be taken for graduate credit. Limited to 15)

Fall Qtr, ★Sec 1, T, 6-10, Intermedia Arts, 425 Ontario, Rivard

Spring Qtr, ★Sec 2, M, 6-10, Intermedia Arts, 425 Ontario, Rivard

**ArtS 5710 PHOTOGRAPHY.** 4 credits each quarter (maximum 16 cr), tuition\* (includes \$10 special fee and \$40 course fee): Resident \$358; Non-resident \$943.20.

Individual work in photographic controls, processes; related photosensitive media. **Additional materials for the course may cost \$75-\$125.** (Prereq 12 cr of 3710 or #. See **Restrictions, page 79.** May not be taken for graduate credit. Meets concurrently with 3710 sec 4. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, W, 6-10, ArtB 120

(See also photography courses in The Compleat Scholar noncredit section, **pages 395-398**)

## Art Education (ArEd)

See Curriculum and Instruction (CI)

## Art History (ArH)

(107 Jones Hall: 624-4500)

### College of Liberal Arts

Textbooks for most ArH courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Architecture; Classics and Near Eastern Studies; General College; and *Arts* in the The Compleat Scholar noncredit section)

Helen Griebel, Lecturer

Jane Hancock, Lecturer

Bruce Jenkins, Adjunct Associate Professor

Lyndel King, Adjunct Associate Professor

Sheila McNally, Professor

Marion Nelson, Professor Emeritus

Robert Poor, Professor

Leon Satkowski, Associate Professor of Architecture

Robert Silberman, Associate Professor

John W. Steyaert, Associate Professor

Gabriel Weisberg, Professor

**A major in Art History can be completed in the evening.**

Those courses required in the major are usually offered each year. Students interested in completing an Art History major or minor through Extension Classes should discuss plans with the director of undergraduate studies (624-0847).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### B.A. Major Sequence

#### *Required Preparatory Courses*

4 cr art practice (consult undergraduate studies director); 6 qtrs or equiv in a second language

#### *Major Requirements*

37 credits including 3008, 3009, 3011, 3012, a minimum of 20 cr in five additional art history courses, including one in film or folk art or a non-Western field. **All courses must be taken A-F.** Each student must complete a major project consisting of a) a preliminary research paper in a designated "project course" which may be either ArtH 3930 (jr-sr seminar) or any 5xxx course (by agreement with the instructor); b) ArtH 3971, Major Project Research Paper. The major project course must be selected in consultation with the director of undergraduate studies.

(Consult ArtH department regarding major project.)

**You need not be majoring in Art History to register for these classes.**

**Continuing Education for Women (CEW) sections available in the following courses:** ArtH 3035, 3142

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Art History. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**ArtH 1921 INTRODUCTION TO FILM STUDY.** 4 credits, §CSCL 1921, tuition\* (includes \$20 course fee): Resident \$314; Non-resident \$872.60.

Fundamentals of film language and major theories of film, presented through detailed analysis of several films. (No prereq. Meets concurrently with CSCL 1921)

Fall Qtr, ●Sec 1, MW, 12:20-1:10, AndH 310;  
F, 12:20-2:30, AndH 310, Jenkins (A joint Day/Extension class)

Spring Qtr, Sec 2, T, 6-9, AndH 310, Jenkins

(See also CSch 0147, Asian America: A Film Journey)

**ArtH 3009 HISTORY OF MEDIEVAL ART.** 4 credits, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Medieval architecture, painting, and sculpture from early Christian through Gothic periods. (No prereq)

Fall Qtr, Sec 1, M, 4-6:30, JonesH 207B,  
Steyaert

**ArtH 3012 HISTORY OF 19TH- AND 20TH-CENTURY ART.** 4 credits, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Major monuments and concepts of the modern period: sculpture, architecture, painting, and prints. (No prereq)

Fall Qtr, Sec 1, M, 4:30-7, FolH 306, Nelson  
Spring Qtr, Sec 2, T, 6-8:30, FolH 306,  
Hancock

**ArtH 3013 INTRODUCTION TO EAST ASIAN ART.** 4 credits, §EAS 3013, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Major themes of Far Eastern art. The arts of China and Japan (not all-inclusive). (No prereq. Meets concurrently with EAS 3013. Limited to a combined total of 70)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, JonesH 207B,  
Poor

(See also CSch 0100, The Arts of Japan)

**ArtH 3035 MYTHOLOGY IN WESTERN ART.** 4 credits, §Clas 3035, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Selected figures and events from Classical mythology as ancient artists first depicted them, and as they have appeared in later Western art. (No prereq. Meets concurrently with Clas 3035)

Spring Qtr, Sec 1, W, 1:30-4, Mpls Institute of  
Arts, Auditorium, 2400 S. 3 Ave, McNally.

*Offered through Continuing Education for Women*

**ArtH 3142 ART OF EGYPT.** 4 credits, §Clas 3142, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

The arts and architecture of Egypt from Prehistoric times to the emergence of modern Egypt, with stress on the elements of continuity and of change that have shaped Egyptian culture. (No prereq. Meets concurrently with Clas 3142)

Fall Qtr, Sec 1, W, 1:30-4, Mpls Institute of  
Arts, Auditorium, 2400 S. 3 Ave, McNally.

*Offered through Continuing Education for Women*

**ArtH 3411 HISTORY OF ARCHITECTURE TO 1750.** 4 credits, §LA 3411, §Arch 3411, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

History of architecture and city planning from antiquity to 1750, as illustrated by major monuments from Western and non-Western cultures. **Must be taken A-F.** (No prereq. Meets concurrently with LA 3411, Arch 3411. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Th, 5:30-8:40, Arch 25,  
Satkowski

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Arth 3412 HISTORY OF ARCHITECTURE SINCE 1750.** 4 credits, §LA 3412, §Arch 3412, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

A history of the major monuments, concepts, and theories of urbanism and architecture since 1750. **Must be taken A-F.** (No prereq. Meets concurrently with LA 3412, Arch 3412. Limited to a combined total of 100)

Winter Qtr, ★Sec 1, Th, 5:30-8:40, Arch 25, Satkowski

**Arth 3940 TOPICS: VIDEO AS AN ART FORM.** 4 credits, §Arth 5940, §ArtS 3655, tuition\* (includes \$20 course fee): Resident \$328; Non-resident \$913.20.

Surveys the three-decade history of video art and the major genres (performance, installation, conceptual, nonfiction, and experimental) that have emerged. Screenings, discussions, and readings will focus on developing aesthetic and critical contexts for analyzing and interpreting this new form of artistic expression. (No prereq. Meets concurrently with Arth 5940 and ArtS 3655. Limited to a combined total of 40)

Winter Qtr, ★Sec 1, W, 6-9, Walker Art Center Lecture Room, Jenkins

**Arth 3940 TOPICS: VICTORIAN ENGLAND: Fine Arts.** 4 credits, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Surveys the various strata of fine arts activity in Victorian England with attention given to both academic art and the pre-Raphaelite movement. The arts will be presented in social context with special attention given to the promotion of art among the people. (No prereq. Limited to 35)

Winter Qtr, ★Sec 2, W, 6:20-8:50, WeismanArt, King

**Arth 3950 TOPICS: MODERN ART IN EUROPE: 1900-1940.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The major modern art movements, including Fauvism, Cubism, Expressionism, Constructivism, Dada, and Surrealism. (No prereq)

Winter Qtr, Sec 1, T, 6:20-8:50, JonesH 207B, Hancock

**Arth 5463 EARLY 20TH-CENTURY PAINTING.** 5 credits, tuition\* (includes \$5 course fee): Resident \$390; Non-resident \$1121.50; Resident Graduate credit \$540; Non-resident Graduate credit \$1075; Resident Graduate School credit \$923.75; Non-resident Graduate School credit \$2026.25.

Fauvism, Cubism, Surrealism, Dadaism, and early abstraction. (Prereq one modern art course or #. Qualified students may register for graduate credit

at the University of Minnesota)

Fall Qtr, Sec 1, W, 6-8:30, JonesH 207B, Weisberg

**Arth 5766 CHINESE PAINTING.** 5 credits, tuition\* (includes \$5 course fee): Resident \$390; Non-resident \$1121.50; Resident Graduate credit \$540; Non-resident Graduate credit \$1075; Resident Graduate School credit \$923.75; Non-resident Graduate School credit \$2026.25.

Survey of major works from the 4th to the 17th centuries. Development of the landscape tradition and the literary genre of later Chinese painting. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, JonesH 207A, Poor

**Arth 5940 TOPICS: VIDEO AS AN ART FORM.** 4 credits, §Arth 3940, §ArtS 3655, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20; Resident Graduate credit \$443; Non-resident Graduate credit \$871; Resident Graduate School credit \$750; Non-resident Graduate School credit \$1632.

See course description for Arth 3940, sec 1. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Arth 3940 and ArtS 3655. Limited to a combined total of 25)

Winter Qtr, ★Sec 1, W, 6-9, Walker Art Center Lecture Room, Jenkins

**Arth 5950 TOPICS: ASIAN GARDEN.** 4 credits, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20; Resident Graduate credit \$433; Non-resident Graduate credit \$861; Resident Graduate School credit \$740; Non-resident Graduate School credit \$1622.

An examination of the historical and philosophical tradition of the garden in China and Japan. Classroom discussion will be complemented by field trips to Chinese- and Japanese-style gardens in the Twin Cities area. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, Th, 6:20-8:30, JonesH 207B, Poor

## Astronomy (Ast)

(356 Physics: 624-0211)

### Institute of Technology

Textbooks for most Ast courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

(See also General College courses in natural science)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Ast. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*Astronomy deals with the study of all constituents of the universe and of the laws which govern the formation, composition, and evolution of these constituents.*

**Astronomy 1011 and 1015 together satisfy the CLA laboratory science requirement. Students may take Ast 1015 at any time during or after they have taken Ast 1011.**

**Ast 1011 DESCRIPTIVE ASTRONOMY.** 4 credits, §1021, §1008, 1009, tuition\*: Resident \$294; Non-resident \$852.60.

The sun, the moon, the planets, and their relationships; stars, galaxies, cosmology, and the physical universe. Some math at the level of algebra and trigonometry will be used. (No prereq. A joint Day/Extension class)

Fall Qtr, ●Sec 1, MW, 6:30-8:10, Phys 150

Winter Qtr, ●Sec 2, MW, 6:30-8:10, Phys 166

Spring Qtr, ●Sec 3, MW, 6:30-8:10, Phys 166

**Ast 1015 DESCRIPTIVE ASTRONOMY LABORATORY.** 1 credit, §1025H, tuition\*: Resident \$73.50; Non-resident \$213.15.

Laboratory offered in conjunction with 1011. Opportunity to observe with telescope. *No registrations allowed after the first class meeting.* Honors sections of Astronomy Laboratory are now available to Extension students. For more information, contact the Astronomy department at 624-0211. (Prereq high school algebra; high school trigonometry recommended. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 6:15-8, Phys 450

Fall Qtr, ★●Sec 2, W, 8:15-10, Phys 450

Fall Qtr, ★●Sec 3, Th, 5:15-7, Phys 450

Winter Qtr, ★●Sec 4, T, 6:15-8, Phys 450

Winter Qtr, ★●Sec 5, W, 8:15-10, Phys 450

Winter Qtr, ★●Sec 6, Th, 5:15-7, Phys 450

Spring Qtr, ★●Sec 7, T, 6:15-8, Phys 450

Spring Qtr, ★●Sec 8, W, 8:15-10, Phys 450

Spring Qtr, ★●Sec 9, Th, 5:15-7, Phys 450

**Minnesota Starwatch**—a taped message on the night sky in Minnesota, prepared by the Astronomy Department at the University, can be reached by calling 624-2001.

## Biochemistry (BioC)

(140 Gortner Laboratory: 624-7755)

### College of Biological Sciences

Textbooks for most BioC courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Biology)

Bianca M. Conti-Tronconi, Professor

Michael Raftery, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Biochemistry. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**BioC 3021 (formerly Biol 5001) BIOCHEMISTRY.** 4 credits, §Biol 5001, tuition\*: Resident \$346; Non-resident \$1003.40.

An introduction to the fundamentals of biochemistry is presented, including the structure and function of proteins, nucleic acids, lipids, and carbohydrates; metabolism and regulation of metabolism; quantitative treatments of chemical equilibria; enzyme catalysis, and bioenergetics; and the chemical basis of genetic information flow. (Prereq Biol 1009 or 1202, 8 cr organic chemistry. A joint Day/Extension class)

Winter Qtr, ●Sec 1, MW, 5:30-7:10, BorH

335, StP Campus, Raftery

**Biol 5003 GENETICS.** Offered through Group Independent Study; see page 471.

**BioC 5025 LABORATORY IN BIOCHEMISTRY.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Discussions of techniques and problem-solving approaches illustrated with laboratory experiments and demonstrations. (Prereq Biol 5001 or ¶BioC 3021 or BioC 3021 or BioC 5331 or concurrent with any of the previously listed courses. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, T, 5:30-10, BioSci 70,

StP Campus, Conti-Tronconi

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



## Biological Sciences

Please see the following alphabetical listings for departments and related course offerings:

Animal Science  
 Biochemistry  
 Biology  
 Cell Biology and Neuroanatomy  
 Chemistry  
 Clinical Laboratory Science  
 Ecology, Evolution, and Behavior  
 General College  
 Genetics and Cell Biology  
 Health Sciences  
 History of Science and Technology  
 Interdepartmental Study  
 Microbiology  
 Nursing  
 Pharmacy  
 Plant Biology  
 Public Health

Also see Interdepartmental Study courses, page 249.

## Biology (Biol)

(223 Snyder Hall: 624-9717)

### College of Biological Sciences

Textbooks for Biol courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall for Minneapolis campus classes (625-6000); and at University of Minnesota Bookstore—St. Paul for classes on that campus (624-9200).

(See also General College courses in natural science; Biochemistry; Ecology, Evolution, and Behavior; Genetics and Cell Biology; Microbiology; Plant Biology; Interdepartmental Study; *Natural and Physical Sciences* in The Compleat Scholar noncredit section; and WoSt 3202, Biology of Women)

David Biesboer, Associate Professor  
 William P. Cunningham, Professor  
 Alan Hooper, Professor  
 Norman S. Kerr, Professor

**Degree Program in Biology**—It is possible to complete the majority of the course requirements for a Bachelor of Arts or Bachelor of Science degree in Biology through Extension. These requirements include the necessary courses in chemistry, mathematics, physics, composition, foreign languages, and liberal education. In addition, several of the

required core courses in Biology are regularly scheduled in Extension. All such CEE courses are acceptable to the Biology degree program.

Students interested in pursuing a degree in Biology through Extension are strongly encouraged to discuss their interests with an adviser in the College of Biological Sciences Student Services Office, 624-9717. Advisers are prepared to discuss degree program planning as well as course selection options.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Biology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Biol 1009 GENERAL BIOLOGY.** 5 credits, tuition\* (includes \$10 course fee): Resident \$377.50; Non-resident \$1075.75. (IS)

An introduction to the principles of biology. The cell, metabolism, heredity, reproduction, ecology and evolution. Includes laboratory. For majors that require a comprehensive survey of biology in a single quarter. *Pre-biology majors see Biol 1201-1202-1203; non-science majors see 1201.* (No prereq; high school chemistry strongly recommended. A joint Day/Extension class. Each section limited to 24 Extension students)

Fall Qtr, ★●Sec 1, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S167

Fall Qtr, ★●Sec 2, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S170

Fall Qtr, ★●Sec 3, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S177

Fall Qtr, ★●Sec 4, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S179

Winter Qtr, ★●Sec 5, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S167

Winter Qtr, ★●Sec 6, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S170

Winter Qtr, ★●Sec 7, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S177

Winter Qtr, ★●Sec 8, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S179

Spring Qtr, ★●Sec 9, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S167

Spring Qtr, ★●Sec 10, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S170

Spring Qtr, ★●Sec 11, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S177

Spring Qtr, ★●Sec 12, Lect TTh, 6-7:15, MoosT 2-650; Lab TTh, 7:30-9:15, KoltH S179

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Biol 1103 GENERAL BOTANY.** 5 credits, §3012, tuition\*: Resident \$367.50; Non-resident \$1065.75. Plant organization, function, growth and development, and reproduction. Includes laboratory. *Students who plan to major in biology in CLA or any bioscience major in CBS should take 3012.* (Prereq 1009 or 1202. Limited to 20)

Winter Qtr, ★●Sec 1, Lect TTh, 6-7:10, BioSci 12, StP Campus, Biesboer; Lab TTh, 7:30-9:30, BioSci 176, StP Campus, Biesboer

**Biol 3011 ANIMAL BIOLOGY.** 5 credits, §Biol 1106, §Biol 1806, tuition\*: Resident \$432.50; Non-resident \$1254.25.

Comparison of ways different phyla have solved similar physiological problems. Laboratory includes survey of major animal groups, physiological experiments, and dissections. TTh labs begin Sept. 27; WF labs begin Sept. 28. (Prereq Biol 1009 or 1202, Chem 1005 or 1052. Lectures meet concurrently and with 3111. A joint Day/Extension class limited to 2 Extension students unless otherwise indicated below)

Fall Qtr, ★●Sec 1, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; TTh, Lab, 12:50-2:30, BioSci 107, StP Campus

Fall Qtr, ★●Sec 2, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; TTh, Lab, 3-4:40, BioSci 107, StP Campus (Limit 8)

Fall Qtr, ★●Sec 3, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; TTh, Lab, 3-4:40, BioSci 176, StP Campus (Limit 8)

Fall Qtr, ★●Sec 4, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; TTh, Lab, 7-8:40, BioSci 176, StP Campus (Limit 8)

Fall Qtr, ★●Sec 5, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; TTh, Lab, 7-8:40, BioSci 107, StP Campus (Limit 10)

Fall Qtr, ★●Sec 6, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; WF, Lab, 10:40-12:20, BioSci 107, StP Campus

Fall Qtr, ★●Sec 7, TTh, Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr; WF, Lab, 12:50-2:30, BioSci 107, StP Campus

**BioC 3021 (formerly Biol 5001) BIOCHEMISTRY.** See listing under Biochemistry.

**Biol 3051 ENVIRONMENTAL STUDIES.** 4 credits, §1051, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

*Bioscience students may not apply these credits toward major.* Principles of ecology and current environmental issues, including air and water pollution, human population growth, toxic and hazard-

ous wastes, urbanization, land use, biological diversity, energy, environmental health, conservation history, attitudes toward nature, environmental politics, and ethics. Meets environmental theme for liberal education curriculum. (No prereq. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, MW, Lect, 4-5:40, Arch 60, Cunningham

**Biol 3111 ANIMAL BIOLOGY.** 4 credits, §Biol 3011, tuition\*: Resident \$346; Non-resident \$1003.40.

Comparative physiology of various animal groups; coordination, movement, support, excretion, reproduction. (Prereq 1009 or 1202, 1106, Chem 1005 or 1052. Lectures meet concurrently with Biol 3011 lecture. A joint Day/Extension class)

Fall Qtr, ●Sec 1, TTh, 5:30-7:10, ClaOff B45, StP Campus, Kerr

**Biol 5003 GENETICS.** 4 credits, §GCB 3022, §GCB 5022, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Introduction to the nature of genetic information, its transmission from parents to offspring, its expression in cells and organisms, and its course in populations. (Prereq 5001 or BioC 3021 or BioC 5331. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, MW, 6:30-8:10, ClaOff B35, StP Campus

*Biol 5003 is also offered through Group Independent Study. For information, see page 471.*

**Biol 5004 CELL BIOLOGY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. (IS) Structures and functions of membranes, organelles, and other macromolecular aggregates found in plant, animal, and bacterial cells. Cell form and movement, intercellular communication, transport, and secretion. (Prereq Biol 5001 or BioC 3021 or BioC 5331. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TTh, 6-7:15, BorH 335, StP Campus, Cunningham

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**BioC 5025 LABORATORY IN BIOCHEMISTRY.** See listing under Biochemistry.

**Biol 5950 SPECIAL TOPICS IN BIOLOGY: TEACHING BIOLOGY SEMINAR.** 2-3 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Designed to facilitate the exchange of participants' ideas and experiences, the course examines a variety of pedagogical philosophies and practices. Guest speakers present occasionally for the seminar. The course facilitates sharing of ideas and experiences relevant to teaching biology among graduate students, University faculty, community college, and high school faculty. The seminar will be tailored to the needs of those enrolled. A teaching journal, course evaluation, classroom observation, and final group projects are required assignments for those earning two credits. An additional hour's credit for extra work completed may be arranged with permission of the seminar coordinators. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, M, 4-6, Ecology Bldg, StP Campus

**Biol 5950 SPECIAL TOPICS BIOLOGY.** 2-4 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Meets concurrently with a multidisciplinary course, ID 5615-5616-5617 (Ways of Knowing: Six Disciplines Examined), page 251. Faculty from six different disciplines meet together with students weekly for a full academic year to discover how various academic disciplines ask questions, gather information, and validate theories. Disciplines examined include, genetics, philosophy, and earth sciences, among others. Students must enroll each quarter for four credits of the ID 5615-5616-5617 or four credits of corresponding special topics courses; students must enroll all three quarters to receive credit. Limited to a combined total of 18 students. *For information about registration and graduate credit, call (612) 625-3898.*

**Biol 5951 SOCIAL USES OF BIOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Influence of biological science on the quality of human life; agriculture, medicine, occupational health, environmental science, and theories of human nature. Responsibilities and roles of biologists in policy formulation in the scientific and political world. **Must be taken S-N.** (Prereq 10 cr sciences. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, T, 6:20-8:50, BioSci 70, StP Campus, Hooper

### Botany

(See Biol 1103 above and Plant Biology, page 301)

## Business, Bachelor of Applied (BAB)

(306 Wesbrook Hall: 626-8713)

### Continuing Education and Extension

Textbooks for most BAB courses are available at the Inver Hills Community College bookstore.

**A Bachelor of Applied Business degree (B.A.B.) can be completed in the evening.**

Continuing Education and Extension offers the Bachelor of Applied Business degree in cooperation with Inver Hills Community College. See the Degrees and Certificates section of this bulletin for admission and curriculum requirements. Interested students should discuss plans with an adviser in CEE Counseling at (612) 625-2500.

All courses meet at Inver Hills. Priority in assignment of space in class is given to students admitted to the B.A.B. degree program. Students not admitted to the program may register on a space-available basis. Check with a CEE adviser on applicability of credits in B.A.B. courses if you are working on another University of Minnesota degree.

Victoria Mikelonis, Professor of Rhetoric

**Call 626-8713 for schedule information about the B.A.B. courses listed below.**

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### **BAB 3000 HISTORICAL PERSPECTIVES AND CONTEMPORARY BUSINESS CHALLENGES.** 4 credits, tuition\*: Resident \$336; Non-resident \$1020. **Tentatively scheduled fall 1994.**

An overview of major challenges faced by contemporary businesses, such as global competitiveness, product and service quality, information revolution, and changing customer and work force demographics. Approaches to meeting these contemporary challenges are studied against a historical backdrop of evolving management practices. Emphasis is placed on the importance of developing systematic ways of analyzing complex problems, where causes and effects can be analyzed in the context of larger systems.

### **BAB 3001 COMMUNICATING FOR RESULTS.** 4 credits, tuition\*: Resident \$336; Non-resident \$1020. **Tentatively scheduled winter 1995.**

The ability to influence and persuade based on sound ideas is critical to effectiveness in organizations. This course focuses on aspects of communication that are essential to being persuasive and influential. Topics include organizing and presenting ideas effectively, strategies for audience analysis, choosing communication methods, making appropriate use of informal influence methods, and handling dissent. Processes for intercultural communication are introduced.

*Courses tentatively scheduled for winter, spring, and fall quarter in 1995 (contact a CEE adviser at [612] 625-2500 for descriptions and terms):*

- Problem Solving in Complex Organizations (4 cr)
- Small Group Behavior and Teamwork (4 cr)
- Managing Organizational Relationships (4 cr)
- Accessing and Using Information Effectively (4 cr)
- Quantitative Skills for Decision Making (4 cr)
- Leadership in a Global and Diverse Workplace (4 cr)
- Planning and Implementation at the Business Unit Level (4 cr)
- Project Management in Practice (4 cr)

### **Business Administration Courses through the Carlson School of Management**

The Carlson School of Management offers degree and certificate programs. See the Degrees and Certificates section of this Bulletin.

Please see the following alphabetical listings for course offerings:

- Accounting
- Business Finance (see Finance)
- Business, Government, and Society

- Business Law
- Industrial Relations
- Information and Decision Sciences
- Insurance
- Logistics Management
- Management
- Marketing
- Operations and Management Sciences

(See also Economics; Comp 3022, Critical Reading and Writing for Management; Comp 3032, Pre-Professional Writing for Business; Rhetoric; Certified Employee Benefits Specialist [in Industrial Relations]; and General College)

For noncredit conferences or seminars in business and management, write or call Management Advancement Program, 626-8713; Professional Development and Conference Services, 625-6616; Executive Development Center, 280 Hubert H. Humphrey Center, 624-2545; and Employer Education Service, 423 Management/Economics Building, 624-5525.

**Undergraduate Program**—Students interested in the Bachelor of Science in Business degree offered through the Carlson School of Management should contact the Undergraduate Program office in room 290 of the Hubert H. Humphrey Center, 624-3313.

**MBA Program**—Students interested in the Master of Business Administration degree offered through the Carlson School of Management should contact the MBA Program office in room 295 of the Hubert H. Humphrey Center; telephone 624-0006 for information.

### **Business and Marketing Education**

(See *Business and Industry Education* in Vocational and Technical Education)

### **Business, Government, and Society (BGS)**

(835 Management/Economics: 624-5232)

#### **Carlson School of Management**

Textbooks for most BGS courses are available at University of Minnesota Bookstore—West Bank (625-3000).

Joseph Goldman, Lecturer in Strategic Management

Abbas Mehdi, Lecturer in Strategic Management  
William Seeley, Lecturer in Strategic Management

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Business degree students must take Business, Government, and Society courses A-F.**

**NOTE:** Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**BGS 3003 BUSINESS AND THE NATURAL ENVIRONMENT.** 4 credits, tuition\* (includes \$16 special fee); Resident \$362; Non-resident \$1019.40.

Management strategies to comply with environmental laws are surveyed. Course examines management systems to reduce environmental impacts caused by resource use, hazardous waste disposal, and manufacturing. Methods for siting industrial plants and controlling pollution are explored. In-class mediation and team debates are used to discuss environmental issues. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 35)

Fall Qtr, ★Sec 1, W, 5:45-8:45, BlegH 255,  
Seeley

**BGS 3004 INTERNATIONAL BUSINESS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

World business with emphasis on the global economy, international concepts, global business structures, comparative cultures and environments, global business strategies, multinational corporations and technology, personnel and operations in the host nations. Resource (including energy) questions in their global contexts: quantities, demands, distribution of resources. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 40 students)

Fall Qtr, ★Sec 1, M, 5:45-8:45, BlegH 215,  
Goldman

Winter Qtr, ★Sec 2, T, 5:45-8:45, BlegH 120,  
Mehdi

Spring Qtr, ★Sec 3, Th, 5:45-8:45, BlegH 215

**BGS 3014 TOPICS IN INTERNATIONAL BUSINESS: U.S.-ASIAN TRADE PRACTICES: Opportunities and Obstacles to Market Penetration.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Reviews current trade and business investment practices between U.S. companies in Japan, Taiwan, China, Hong Kong, Korea, Singapore, Malaysia, and Thailand. Cultural, legal, and structural trade barriers are examined. Regulations and customary business practices in Pacific Rim nations toward expatriate American men and women are examined in depth. Direct investment laws and regulations of

Asian nations applied to foreign companies are surveyed. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 35) Spring Qtr, ★Sec 1, W, 5:45-8:45, BlegH 225,  
Seeley

**Business Finance**

(See Finance)

**Business Law (BLaw)**

(675 Management/Economics: 624-9358)

**Carlson School of Management**

Textbooks for most BLaw courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College)

Albert O. Andrews, Jr., Lecturer and  
Coordinator of Business Law

Donald Campbell, Lecturer

John Troyer, Lecturer

Thomas Lovett, Lecturer

Gregory Soule, Lecturer

Thomas Thorfinnson, Lecturer

**NOTE:** Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B—" grade average.

**BLaw 0001C COMMON LEGAL PROBLEMS.** 3 certificate credits, tuition\* (includes \$16 special fee): \$236.50.

Provides a comprehensive course in everyday legal principles, designed to assist laypersons in recognizing their legal rights and more intelligently and efficiently managing their personal affairs. This course considers legal problems such as: purchase, sale, rental, or lease of homes and other real property; making of wills and handling of estates; preparation of income tax returns; rights of persons injured in accidents and liability of persons causing accidents; liability for various other types of tortious conduct; making of contracts; sale of personal property; negotiable instruments; formation and operation of small business as a sole proprietorship, partnership or corporation; workers' compensation laws; rights and responsibilities within family, including divorce; collection of monies through garnishment, attachment, and mechanic's liens; criminal law. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, RarigC 610,  
Thorfinnson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**BLaw 0098C BUSINESS LAW—LAW OF REAL PROPERTY.** 3 certificate credits, tuition\* (includes \$16 special fee): \$236.50.

The study of the nature and classification of real estate; deeds and conveyances; landlord and tenant; recording and abstracting; torrens titles; mortgages; wills; probating of estates, etc. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, W, 6:20-8:50, Law 1, Soule

**BLaw 3058 INTRODUCTION TO LAW, THE LAW OF CONTRACTS AND SALES CONTRACTS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Study of the origin of law, its place in and effect upon society; the history and development of law; the system of courts; and legal procedure. An extensive study of the law of contracts as the basic law affecting business transactions; and law affecting the sales of goods contracts. May not be taken S-N. (Prereq Econ 1101 or equivalent and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★Sec 1, M, 6-9, BlegH 420, Lovett

Fall Qtr, ★Sec 2, T, 6-9, BlegH 420, Campbell

Winter Qtr, ★Sec 3, M, 6-9, BlegH 225,

Andrews

Winter Qtr, ★Sec 4, T, 6-9, BlegH 205, Campbell

Spring Qtr, ★Sec 5, M, 6-9, AndH 205, Andrews

Spring Qtr, ★Sec 6, Th, 6-9, AndH 230,

Campbell

**BLaw 3078 LAW: AGENCY, PARTNERSHIPS, CORPORATIONS, AND COMMERCIAL PAPER.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

A study of law affecting the relationship between principal and agent, master and servant, and employer and employee. Includes the study of the partnership and corporate forms of business entities, including the methods of creating the relationships, and the law developed to regulate and control these organizations and their members and contracts referred to as commercial papers (negotiable instruments), with emphasis on effect of the Uniform Commercial Code. (Prereq 3058 and at least 90 credits completed or in progress. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★Sec 1, M, 6-9, BlegH 205, Troyer

**BLaw 3088 LAW OF PERSONAL PROPERTY, REAL PROPERTY, AND WILLS AND ESTATES.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Study of the basic concepts of personal property, including rights of possessors, bailee, finders and holders of security interests and includes the study of the basic concepts and principles of real property law; transfers of ownership, control of and encumbering such interests. Concludes with a brief study of the law of wills and estates in passing rights to property in event of death. (Prereq 3058 and at least 90 credits completed or in progress. A joint Day/Extension class limited to 25 Extension students)

Spring Qtr, ★Sec 1, M, 6-9, BlegH 105, Troyer

## Cell Biology and Neuroanatomy (CBN)

(4-135 Jackson Hall: 624-1123)

### Medical School

Textbooks for most CBN courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

(See also Biology; Physical Medicine and Rehabilitation; and GC 1134, Cardiovascular Anatomy and Physiology)

Donald W. Robertson, Associate Professor

**CBN 3001 (formerly Anat 3001) HUMAN ANATOMY.** 5 credits, tuition\*: Resident \$660; Non-resident \$1320.

Survey of human anatomy, with some clinical and functional correlations. (Prereq 1 qtr of college biology. Limited to 60)

Spring Qtr, ★Sec 1, T, 6-8, MoosT 2-520,

Robertson; W, 6-9:40, MoosT 2-520,

Robertson

## Certified Employee Benefits Specialist

See Employee Benefits Specialist section of this bulletin.

## Chemical Dependency Counseling

(See Family Social Science)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Chemistry (Chem)**

(115 Smith Hall: 624-0026)

**Institute of Technology**

Textbooks for most Chem courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also GC 1166, Physical Science: Principles of Chemistry)

A \$40 chemistry deposit card is required for all the laboratory courses in chemistry. Information concerning the procurement of this card will be given at the first meeting of each class. This card is available at the Extension Cashier's Office in 138 Westbrook Hall. The office is open until 8 p.m. most evenings early in the quarter (telephone 625-3333 to verify hours); when it is not open in the evening, cards are available for purchase (payment by personal check required) at the Information Desk in the Registration Office, 101 Westbrook Hall. Charges for laboratory material and breakage will be punched out of the \$40 deposit card. The balance will be returned to the student at the end of the quarter.

**Note:** Enrollment in Chem 1051 is contingent on the satisfactory completion of a pretest to verify adequate preparedness. For dates, times, and locations of the chemistry pretests, please call (612) 624-0026.

*Chemistry courses tend to close quickly; therefore, early registration is suggested. Once a Chem course is closed, a waiting list will be maintained in 115 Smith Hall. For information, telephone (612) 624-0026.*

**Chem 1001 GENERAL PRINCIPLES OF CHEMISTRY.** 4 credits, §Chem 1003, 1008, tuition\* (includes \$5 special fee): Resident \$299; Non-resident \$857.60.

Introduction to chemistry, matter and energy, atoms, molecules, chemical bonding, the mole and chemical calculations, gases, liquids, solids, solutions, chemical reactions, acids, bases and equilibrium. (Prereq high school chemistry or equivalent; 2 yrs high school mathematics required, 4 yrs recommended; high school physics recommended. Limited to 93)

Fall Qtr, ★Sec 1, Rec\* T, 6-6:50; Lab T, 7-9:45, SmithH 249; Lect Th, 6-9, SciCB 325\*\*

*\*Recitation room assignments will be posted outside 115 Smith Hall on the first night recitation meets.*

*\*\*The first class meeting is always a lecture in SciCB 325, whether it is listed as lecture or laboratory. All students must attend the first class meeting and first lab meeting or risk losing their place in class.*

**Chem 1002 BASIC ORGANIC CHEMISTRY.** 4 credits, §3301, §3302, tuition\* (includes \$5 special fee): Resident \$299; Non-resident \$857.60.

Introduction to organic chemistry; emphasis on biological systems. *Primarily for nursing and forestry students; all IT students excluded without special permission; terminal course.* (Prereq 1001 or passing placement examination. Limited to 93) Winter Qtr, ★Sec 1, Rec\* T, 6-6:50; Lab T, 7-9:45, SmithH 249; Lect Th, 6-9, SciCB 325\*\*

*\*Recitation room assignments will be posted outside 115 Smith Hall on the first night recitation meets.*

*\*\*The first class meeting is always a lecture in SciCB 325, whether it is listed as lecture or laboratory. All students must attend the first class meeting and first lab meeting or risk losing their place in class.*

**Chem 1051-1052 CHEMICAL PRINCIPLES I AND II.** 4 credits each quarter, tuition\* each quarter (includes \$5 special fee): Resident \$299; Non-resident \$857.60.

Atomic theory, periodic properties of elements, chemical thermodynamics, development of the use of structural concepts, geometry of molecules, bonding theory, behavior of the gaseous and liquid states, solid state and materials chemistry, dynamics, equilibrium, behavior of solutions, acids and bases, descriptive chemistry of elements and compounds. (Prereq 1001 or passing chemistry placement examination for 1051. 1051 for 1052. Limited to 106)

Winter Qtr, 1051, ★Sec 1, Rec\* T, 6-6:50; Lab T, 7-9:45, SmithH 110; Lect Th, 6-9, SciCB 375\*\*

Spring Qtr, 1052, ★Sec 1, Rec\* T, 6-6:50; Lab T, 7-9:45, SmithH 210; Lect Th, 6-9, SciCB 325\*\*

*\*Recitation room assignments will be posted outside 115 Smith Hall on the first night recitation meets.*

*\*\*The first class meeting is always a lecture in SciCB 325, whether it is listed as lecture or laboratory. All students must attend the first class meeting and first lab meeting or risk losing their place in class.*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Chem 3100 QUANTITATIVE ANALYSIS.** 3 credits, 3100-3101†, tuition\*: Resident \$259.50; Non-resident \$752.55.

A survey of quantitative methods of analysis. Lecture. Not for chemistry majors. (Prereq 1052. Limited to 50 students)

Spring Qtr, ★Sec 1, MW, 6:15-7:30, SmithH 331

*Students interested in taking Quantitative Analysis Laboratory (Chem 3101†) should be aware that the course is not available through Extension. However, Extension students may be able to register for the regular day school sections through the Extension Division for fall quarter. A summer offering is usually available; check the summer schedule for dates and times. Extension students interested in taking this course would have to accommodate themselves to the regularly scheduled laboratory periods during these quarters. Laboratory sessions are offered two days a week from 1:25 p.m. to 5:15 p.m.*

**Chem 3301-3302 ELEMENTARY ORGANIC CHEMISTRY LECTURE I-II.** 4 credits each quarter, tuition each quarter\*: Resident \$346; Non-resident \$1003.40.

Important classes of organic compounds, both aliphatic and aromatic, together with some heterocyclic compounds. (Prereq 1052 or equivalent for 3301; 3301 for 3302. Limited to 150)

Fall Qtr, 3301, ★Sec 1, Lect MW, 6-7:55, SciCB 325

Winter Qtr, 3302, ★Sec 2, Lect MW, 6-7:55, SciCB 325

**Chem 3305-3306 ELEMENTARY ORGANIC CHEMISTRY LABORATORY I-II.** 2 credits each quarter, tuition\* each quarter (includes \$5 special fee): Resident \$178; Non-resident \$506.70. Laboratory work includes the preparation of typical substances treated in 3301- 3302. (Prereq 3301 or ¶3301 for 3305, 3302 or ¶3302 for 3306. Limited to 48)

Fall Qtr, 3305, ★Sec 1, Lect, Th, 5:30-6:15, SmithH 331; Lab, Th, 6:15-10, SmithH 349\*

Winter Qtr, 3306, ★Sec 1, Lect, Th, 5:30-6:15, SmithH 331; Lab, Th, 6:15-10, SmithH 349\*

*\*All students must attend first lab meeting or risk losing their place in class.*

## Chicano Studies (Chic)

(102 Scott Hall: 624-6309)

### College of Liberal Arts

Textbooks for most Chic courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Marilyn Bowman, Lecturer  
Maria Calderon, Lecturer  
Susan Green, Teaching Assistant  
Guillermo Rojas, Associate Professor

(See also History; and CSch 0440, Latin American Fiction)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Chicano Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Chic 3105 INTRODUCTION TO CHICANO STUDIES: THE BEGINNINGS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Convergence of Europe and America in Mesoamerica and the formation of Mexican society. Literary, social, cultural, and historical perspectives. Columbian period to 1821. *Meets CLA World Studies requirement.* (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FolH 218, Green

**Chic 3106 INTRODUCTION TO CHICANO STUDIES: MEXICO AND THE UNITED STATES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Convergence of Spanish-Mexican and Anglo-American societies in the Spanish borderlands. Literary, social, cultural, and historical perspectives, 1821-1960. *Meets CLA Cultural Pluralism requirement.* (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, M, 6:20-8:50, FolH 419, Rojas

**Chic 3107 INTRODUCTION TO CHICANO STUDIES: THE CHICANO IN CONTEMPORARY SOCIETY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The formation of contemporary Chicano political, economic, and cultural consciousness, and the forms in which it has been expressed, 1960-present. *Meets CLA Cultural Pluralism requirement.* (No prereq. Limited to 35)

Spring Qtr, ★Sec 1, M, 6:20-8:50, FolH 419, Rojas

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Chic 3115 LATINOS IN EDUCATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. Social, cultural, and professional issues encountered by the Spanish-speaking and other minorities in pursuit of opportunities in higher education. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, FordH 40, Calderon

**Chic 3428 HISTORY OF RELATIONS BETWEEN UNITED STATES AND MEXICO, 1821 TO PRESENT.** 4 credits, §Hist 3428, tuition\*: Resident \$308; Non-resident \$893.20.

U.S.-Mexico relations in the 19th and 20th centuries. *Meets CLA World Studies requirement.* (No prereq. Meets concurrently with Hist 3428)

Winter Qtr, Sec 1, W, 6:20-8:50, ScottH 4, Bowman

**Chic 3442 CHICANO HISTORY, 1900 TO PRESENT.** 4 credits, §Hist 3442, tuition\*: Resident \$308; Non-resident \$893.20.

Migration, repatriation, the Bracero program, contemporary Chicano politics, work, society, and culture. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with Hist 3442)

Spring Qtr, Sec 1, W, 6:20-8:50, WullH 140, Bowman

## Child and Adolescent Psychiatry (CAPy)

(D-697 Mayo: 626-6577)

### Medical School

#### Class materials are provided.

Gerald J. August, Ph.D., Associate Professor  
Michael Bloomquist, Ph.D., Research Psychologist

Harry M. Hoberman, Ph.D., Assistant Professor  
Beth Troutman, Ph.D., Staff Psychologist

**Workshops**—The following series of workshops is intended to offer in-depth information on assessment and treatment strategies in child and adolescent psychiatry. Please call Workshop Coordinator, Dr. Gerald August, at 626-6577 with questions; or write Box 95 Mayo, University of Minnesota, Harvard Street at East River Road, Minneapolis, MN 55455.

**Please note:** For undergraduate and graduate credit, satisfactory performance on an exam is required. In addition, a relevant paper may be required for graduate credit. If a student does not want academic credit but needs evidence of attendance, registration on an audit basis is suggested. Read about Auditors in the Enrollment Information section of this bulletin (see Index for page number).

**CAPy 5620 ATTENTION-DEFICIT HYPERACTIVITY DISORDER: DIAGNOSTIC CONSIDERATIONS AND PRACTICAL MANAGEMENT.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Attention-Deficit Hyperactivity Disorder (ADHD) is a leading cause of behavioral and educational problems in children and adolescents. Some children continue to experience symptoms well into their adult years. In this workshop, the problem of Attention Deficit Disorder will be thoroughly reviewed, including traditional definitions, theories of causation, and long-term consequences. Various treatment approaches, including parent management and educational intervention, will be thoroughly discussed. The role of medication in the overall care of such children is critically reviewed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Spec Term, ○Sec 1, Sa, Nov. 19, 1994. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, August. *No late fee through Nov. 11*

**CAPy 5623 AFFECTIVE DISORDERS AND SUICIDE IN CHILDREN AND ADOLESCENTS: PERSPECTIVES ON PREVALENCE, ETIOLOGY, AND PREVENTION.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Characteristics of depression and suicidal behavior in children and adolescents are reviewed. Methods of crisis intervention, treatment, and prevention are presented. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Spec Term, ○Sec 1, Sa, Sept. 24, 1994. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Hoberman. *No late fee through Sept. 16*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CAPy 5624 EATING DISORDERS IN CHILDREN AND ADOLESCENTS: MEDICAL AND PSYCHOLOGICAL PERSPECTIVES.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Clinical characteristics of anorexia and bulimia nervosa in children and adolescents are described. Etiological factors are considered and multidimensional treatment approaches are discussed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, ○Sec 1, Sa, Jan. 7, 1995. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Hoberman. *No late fee through Dec. 30*

**CAPy 5627 THE DEVELOPMENT AND TREATMENT OF CHILDHOOD AGGRESSIVE AND ANTISOCIAL BEHAVIOR.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

A discussion of the current crisis in the nation regarding the prevalence of violence and crime. Rates of aggressive and antisocial behavior across the age span will be presented. An in-depth discussion of the various developmental pathways to serious conduct disorder. Emphasis will be given to risk and vulnerability factors associated with the progression of aggressive/antisocial behavior as well as protective factors and resiliency associated with its desistance. A critical review of current theories and methods for the treatment of aggressive and antisocial behavior will be included. The role of prevention will be highlighted with a focus on ecological-based models of comprehensive intervention. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Spec Term, ○Sec 1, Sa, Oct. 29, 1994. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Bloomquist. *No late fee through Oct. 21*

**CAPy 5630 PSYCHOTHERAPY IN CHILDREN AND ADOLESCENTS.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Different approaches to psychotherapeutic intervention with children and adolescents will be covered. Topics to be covered will include short-term dynamic psychotherapy, behavioral therapy, cognitive-behavioral therapy, and family therapy. In addition, the psychotherapy outcome research literature will be reviewed. The emphasis is on presenting an overview of the major schools of psychotherapy with children. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, ○Sec 1, Sa, Jan. 21, 1995. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Bloomquist. *No late fee through Jan. 13*

**CAPy 5632 COMPETENCE ENHANCEMENT TRAINING PROGRAMS FOR CHILDREN WITH DISRUPTIVE BEHAVIOR.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Therapeutic approaches for treating serious behavioral problems in children abound, but few have been shown to have long-term efficacy. This workshop focuses on skill building approaches to the treatment of behavioral, emotional, and academic problems in children. Such approaches teach children to "stop and think," and also teach ways to get children to examine behavioral alternatives. Specific topics covered will include environmental engineering, contingency management, self-monitoring and self-instructional training and problem-solving training. The application of a comprehensive competence enhancement program to the treatment of impulsivity in children with attention deficit disorder will be illustrated. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, ○Sec 1, Sa, Jan. 28, 1995. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, August. *No late fee through Jan. 20*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CAPy 5633 ANXIETY DISORDERS IN CHILDHOOD AND ADOLESCENCE.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Characteristics of the spectrum of anxiety disorders in youth are described. Information on the prevalence and significant characteristics of school phobia, panic attack, separation anxiety, and obsessive-compulsive disorder in children and adolescents will be presented. A variety of etiological factors in the development of anxiety disorders will be discussed, including biological, social, and psychodynamic influences. Assessment issues and procedures both in the clinic and the community will be reviewed. Various approaches to intervention with children and adolescents with anxiety disorders will be described, as well as strategies for prevention of these conditions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, ●Sec 1 Sa, Feb. 18, 1995.

Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Troutman. *No late fee through Feb. 10*

**CAPy 5635 COGNITIVE-BEHAVIORAL THERAPY FOR CHILDREN AND ADOLESCENTS.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Cognitive-behavioral therapies include a variety of therapeutic procedures which have the goal of increasing children's ability to control their own behavior and emotions. The theoretical basis and therapy outcome research literature related to cognitive-behavioral therapy will be reviewed. The presentation will describe assessment strategies relevant to cognitive-behavioral therapy. Specific cognitive-behavioral procedures geared toward children with externalized behavioral and internalized emotional disorders will be discussed. The participant will learn about problem-solving techniques, verbal self-instruction training, rational-emotive therapy, attributional retraining and stress inoculation procedures to applied child populations. Emphasis will be placed on methods useful in promoting generalization and maintenance of treatment effects. The presentation also will highlight a model for working with families and school systems within the cognitive-behavioral framework. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Spec Term, ●Sec 1, Sa, Apr. 8, 1995.

Late registrations accepted with \$5 late fee

from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Bloomquist. *No late fee through Mar. 31*

**CAPy 5636 SCREENING AND ASSESSMENT STRATEGIES FOR CHILDREN WITH DISRUPTIVE BEHAVIORAL DISORDERS.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Begins with a review of specific screening techniques that are employed to identify children and adolescents with disruptive behavioral problems. A functional-based diagnostic assessment model is presented and examples of the application of the approach with ADHD children is provided. The utility of behavior rating scales, structured interview schedules, general abilities tests, and neuropsychological measurement procedures is demonstrated. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Spec Term, ●Sec 1, Sa, Dec. 10, 1994. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, August. *No late fee through Dec. 2*

**CAPy 5638 COMMUNITY-BASED PREVENTION FOR CHILDREN WITH SERIOUS BEHAVIORAL AND EMOTIONAL PROBLEMS.**

1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

A framework for the identification of children "at risk" for serious psychopathology and the design of preventive and promotive interventions that may serve to enhance the psychological well-being of children are presented. Child psychopathology is considered from a developmental perspective that includes such topical issues as early experiences and their effects, risk, and vulnerability factors, and competence and resiliency in early childhood. Classification and assessment of children's emotional/behavioral problems are covered with an emphasis on those methods that can be used for screening, diagnosis, and prescription. Also presented is a comprehensive model for the design and evaluation of community-based prevention and promotion programs. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, ●Sec 1, Sa, Mar. 11, 1995.

Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, August. *No late fee through Mar. 3*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CAPy 5639 BEHAVIOR PROBLEMS IN PRE-SCHOOL CHILDREN.** 1 credit, tuition\*: Resident \$132; Non-resident \$264; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

The psychological development of infants and young children and characteristic problems in this age group will be reviewed. Problems discussed will include disturbances in regulation, attachment, sleep, and social development. Both common problems and more severe disorders will be covered (e.g. excessive crying, reactive attachment disorder, sleep disturbances, and oppositional behavior). Approaches to assessment, prevention, and intervention will be discussed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Spec Term, ●Sec 1, Sa, Oct. 8, 1994. Late registrations accepted with \$5 late fee from 8 to 8:30 a.m. Workshop runs from 8:30 a.m. to 3:30, MoosT 2-620, Troutman. *No late fee through Sept. 30*

### Child Psychology (CPsy)

(106 Child Development: 624-1891)

#### College of Education

(Institute of Child Development)

Textbooks for most CPsy courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also GC 1284, Behavior Problems of Children; Youth Studies)

Bruce L. Bobbitt, Psychologist, United Behavioral Systems, Coon Rapids

Judith L. Brown, Psychologist, Minneapolis Public Schools

William R. Charlesworth, Professor, Institute of Child Development

Dianne Dukette, Post-Doctoral Fellow, Institute for Disabilities Studies

Seymour Z. Gross, Clinical Associate Professor, Department of Health Care Psychology and Director of Mental Health Services, Pilot City Health Center

Harry Hoberman, Assistant Professor, Psychiatry Ann Mooney-McLoone, Lecturer

Maria Sera, Associate Professor, Institute of Child Development

Ruth Thomas, Associate Professor, Vocational and Technical Education and National Center for Research in Vocational Education

James Turnure, Professor, Educational Psychology and Child Psychology  
Albert Yonas, Professor, Institute of Child Development

**A major in Child Psychology (CLA) can be completed in the evening, but requires careful planning.**

Those courses required in the major are offered yearly. Interested students should discuss plans with an adviser (625-2500).

#### B.A. Major Sequence

*Required Preparatory Courses:*

Psy 1001 or 5 cr of introductory psychology; CPsy 1301

*Major Requirements:*

3308; Psy 3801 or equiv; 3331 or 5331, 3343, 5329; one course from 5332 or 5336; one course from 5341, 5343, 5345; one course from 5311, 5315, 5319; Senior project: 3960; minimum of 12 additional cr in any 3xxx and 5xxx child psychology courses, which may include 3330, 3980, 5970, 5990 (a total of 4 cr from these courses may be counted toward the major).

#### B.S. Major Sequence

*Required Preparatory Courses:*

Psy 1001; CPsy 1301

*Major Requirements:*

12-17 cr to include 3308, Psy 3801, Soc 5821 or EPsy 5240, Soc 3811 or EPsy 5281; 12 cr from 3331 or 5331, 3343, 5329; 8 cr from 3330 or 5330, 5334; 4 cr from 5341, 5343, 5345; 4 cr from 5332, 5336; 8 cr from 5311, 5315, 5319; 4 cr from 3960, senior project; 12 cr from 3xxx or 5xxx CPsy courses, which may include 3980, 5970, 5990 (only 4 cr of each course may be counted toward the major); 22-24 cr from supporting field courses.

Areas that may be included are communication disorders, computer science, education, home economics, psychology, public health, social work, sociology. See the advising office, 106 Child Development, for a list of approved courses.

Child Psychology majors may not count Psychology credits toward their 30 (BA) or 6 (BS) credits at 3000- or 5000-level outside their major.

*A minor in Child Psychology (only for CLA students) is also available. Interested students should call CEE Counseling, 625-2500.*

**You need not be majoring in Child Psychology to register for these classes.**

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Child Psychology courses not used toward a major may be taken A-F or S-N in CLA.**

**CPsy 1301 INTRODUCTORY CHILD PSYCHOLOGY.** 4 credits, \$3309, \$5301, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Introduction to the science of child behavior; review of theories and research. (Prereq 5 cr introductory psychology. Meets concurrently with 3309. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Th, 6:20-8:50 (addn hr arr), NichH 211, Yonas

Winter Qtr, ○Sec 2, W, 6:20-8:50 (addn hr arr), SciCB 125, Charlesworth

Spring Qtr, ○Sec 3, W, 6:20-8:50 (addn hr arr), NichH 211, McLoone

**CPsy 3308 RESEARCH METHODS IN CHILD PSYCHOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Techniques used in study of child development; emphasis on collection, organization, and analysis of data. (Prereq 1301, Psy 1001. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★○Sec 1, W, 6:20-8:50 (addn hr arr), ChDev 216, Dukette

Winter Qtr, ★○Sec 2, T, 6:20-8:50 (addn hr arr), ChDev 105, Dukette

Spring Qtr, ★○Sec 3, M, 6:20-8:50 (addn hr arr), ChDev 105, Dukette

**CPsy 3309 INTRODUCTORY CHILD PSYCHOLOGY FOR THE SOCIAL SCIENCES.** 4 credits, \$1301, \$5301, tuition\*: Resident \$346; Non-resident \$1003.40.

Science of child behavior; review of theory and research; designed for majors in psychology, sociology, and related disciplines; not suggested for child psychology majors. (Prereq Psy 1001. Meets concurrently with 1301. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Th, 6:20-8:50 (addn hr arr), NichH 211, Yonas

Winter Qtr, ○Sec 2, W, 6:20-8:50 (addn hr arr), SciCB 125, Charlesworth

Spring Qtr, ○Sec 3, W, 6:20-8:50 (addn hr arr), NichH 211, McLoone

**CPsy 3330 DIRECTED EXPERIENCES.** 1-4 credits. 4 credits this offering, \$5330, tuition\*: Resident \$346; Non-resident \$1003.40.

Intellectual and/or social development of children, adolescents, or adults as individuals or members of families or peer groups. Options include active participation with an age group or training in research methods, including both experimental and observational techniques. (Prereq 1301 or equiva-

lent. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★○Sec 1, W, 6:20-8:50 (plus 4 addn daytime hrs/wk required), ChDev 216, Heinrichs

**CPsy 3343 INTRODUCTION TO COGNITIVE DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Development of cognitive processes; research, methodology, and contrasting theoretical perspectives. Introduction to research and theory in developmental psychology necessary to understand course material. (Prereq 1301, 3308 or Psy 1005. A joint Day/Extension class)

Fall Qtr, ○Sec 1, MW, 4-5:40, CivMinE 212, Sera

**CPsy 3960 SENIOR PROJECT IN CHILD PSYCHOLOGY.** 1-4 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85.

A review of the literature in a current topic area of child psychology. Sec 3 is second quarter only. **Must be taken A-F.** (Prereq senior status, #. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Th, 6:20-7:10, ChDev 216

Winter Qtr, ○Sec 2, Th, 6:20-7:10, ChDev 218

Spring Qtr, ○Sec 3, Th, 6:20-7:10, ChDev 105

**CPsy 5302 INFANCY.** 4 credits, \$3302, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Perceptual, motor, emotional, social, and cognitive development during the first two years of life; the developing infant in its social and physical environment. (Prereq 1301 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, T, 6:20-8:50 (addn hr arr), BuH 120

**CPsy 5303 ADOLESCENT PSYCHOLOGY.** 4 credits, \$3303, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit 428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Physical, cognitive, and social development during adolescence. (Prereq 5 cr introductory psychology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, W, 4:45-7:15, OwreH 2-210, Hoberman

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CPsy 5305 MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §Educ 5440, §HSU 5009, §PA 5414, §Phar 3009, §PubH 5737, §SAHP 5009, §SW 5024, §Soc 5960, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Multidisciplinary introduction to aging and the aging process. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AdEd 5440, HSU 5009, PA 5414, Phar 5009, PubH 5737, SW 5024, Soc 5960. A joint Day/Extension class) Fall Qtr, ●Sec 1, MW, 4:40-6:25, MoosT 2-690 Spring Qtr, ●Sec 2, MW, 4:40-6:25, MoosT 2-690

(See also GC 1136, Biological Aspects of Aging)

**CPsy 5311 INTRODUCTION TO DEVELOPMENTAL PSYCHOPATHOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theories and research strategies to investigate origins and course of disordered behavior in childhood and adults, including description, etiology, development. Excluded are problems of physical, sensory, or mental handicaps. (Prereq 1301 or equivalent, 3308 or Psy 1005. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, T, 6:20-8:50 (addn hr arr), EliH N119, Bobbitt

**CPsy 5313 PSYCHOLOGY OF ATYPICAL CHILDREN.** 4 credits, §3313, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Problems of research, assessment, and behavior associated with atypicality; evaluation of research in areas of major concern for sensory, language, intellectual, and physical deviation. (Prereq 1301 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, M, 6:20-8:50, NichH 207, Brown

**CPsy 5315 INTRODUCTION TO MENTAL RETARDATION.** 4 credits, §EPsy 5620, §PsyS 5120, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Gradu-

ate School credit \$735; Non-resident Graduate School credit \$1617.

Psychological and educational problems related to the mentally retarded. (Prereq 1301 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EPsy 5620. A joint Day/Extension class limited to a combined total of 25 Extension students) Winter Qtr, ●Sec 1, W, 4:40-8:30, WullH 140, Turnure

**CPsy 5319 INTRODUCTION TO CLINICAL CHILD PSYCHOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Survey of assessment and intervention procedures of child clinical psychology in clinical and community settings. Primarily for students not majoring in clinical psychology. (Prereq 12 cr in psychology, child psychology, educational psychology, or sociology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Sa, 9 a.m.-12:20, BuH 120, S Gross

**CPsy 5322 MOTOR DEVELOPMENT.** 3 credits, §Kin 5132, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Motor skill development from birth to physical maturity. (Prereq Kin 3132 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 4:15-6:15, CookeH 215, Wade

**CPsy 5329 GENETICS, ETHOLOGY, AND DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Survey of evolutionary theory, behavioral genetics applied to understanding of development of human behavior, formation of species-typical adaptive behavior and individual differences in infancy, childhood, and adolescence. (Prereq 1301 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 4:25-6, SciCB 125, Charlesworth

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CPsy 5330 DIRECTED EXPERIENCES WITH CHILDREN.** 1-4 credits. 4 credits this offering, \$3330, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Intellectual and/or social development of children, adolescents, or adults as individuals or members of families or peer groups. *Focus this offering:* early childhood education. **Must be taken A-F.** (Prereq 1301 or equivalent. For students in post-baccalaureate licensure or graduate programs only. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, T, 6:20-8:50 (plus 4 additional daytime hours/week required), ChDev 216, Mooney-McLoone

Winter Qtr, ★●Sec 2, W, 6:20-8:50 (plus 4 additional daytime hours/week required), ChDev 216, Mooney-McLoone

**CPsy 5331 PROCESS OF SOCIAL DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Processes of individual change from infancy through adolescence and development of capacities for and influences of social relations; research, methodology, and theoretical perspectives. (Prereq 1301 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, M, 6:20-8:50 (addn hr arr), NichH 213, Teo

**CPsy 5336 DEVELOPMENT AND INTERPERSONAL RELATIONS.** 4 credits, \$5339, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Processes and functions of interactions with parents and peers; analysis of theory and research on developmental changes and influences. (Prereq 1301 or equivalent; 3308 or Psy 1005, 3331 or 5331. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4-5:30, WullH 140, Thomas

**CPsy 5353 DEVELOPMENT DURING THE SCHOOL YEARS.** 4 credits, tuition\*: Resident

\$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Principles of psychological development, emphasizing ages 5-18. Theory and research from developmental psychology relevant to individual growth and achievement; issues in applying a developmental perspective to topics in child and adolescent development (e.g., fostering learning, risk for school failure, behavior and emotional problems, diversity). (Prereq 4 cr psychology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 4-5:30, ChDev 105, Thomas

**Day School Classes**—In addition to the Extension classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

## Chinese

(See the Institute of Languages and Literatures, page 243)

## Civil Engineering (CE)

(122 Civil Engineering: 625-5522)

### Institute of Technology

Textbooks for most CE courses are available at University of Minnesota Bookstore—East Bankin Williamson Hall (625-6000).

Paul D. Capel, Adjunct Assistant Professor  
John J. Connors, Adjunct Professor  
Bruce C. Braaten, Lecturer  
Gary A. Davis, Assistant Professor  
Emmanuel Detournay, Associate Professor  
Catherine E. French, Associate Professor  
Theodore V. Galambos, Professor  
John S. Gulliver, Associate Professor  
Robert C. Johns, Lecturer  
Gerald W. Johnson, Associate Professor  
Walter J. Maier, Professor  
Mark S. Meyers, Lecturer  
David E. Newcomb, Assistant Professor  
Mark Snyder, Assistant Professor  
Heinz G. Stefan, Professor  
Raymond L. Sterling, Associate Professor,  
Underground Space Center  
Joel W. Toso, Lecturer

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Your attention is called to the Undergraduate Development Certificate in Civil Engineering—90 credits, page 512.

Through registration in Extension, students may earn the majority of Civil Engineering credits required for a B.S. in Civil Engineering. Students may not transfer upper division courses into the C.E. degree program unless they have been admitted to the Institute of Technology and the Upper Division in the Civil Engineering curriculum.

**Joint Day/Extension Classes**—Graduate students may register through Extension for day school and joint Day/Extension classes in Civil Engineering. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**CE 0005 REFRESHER COURSE FOR CIVIL ENGINEERS.** No credit, tuition\*: \$294.

For practicing engineers. Lectures and problem sessions relating to highways, soils, environmental, structural, and hydraulic engineering. **Must be taken S-N.** (Prereq BCE or equivalent degree or completion of Parts I and II of the State Board Examination)

Winter Qtr, Sec 1, T, 6:40-10, CivMinE 210,  
Connors, Davis, French, Galambos, Gulliver,  
Johnson, Maier, Snyder, Sterling, Toso

**CE 3050, 3051 ENGINEERING INTERN WORK ASSIGNMENT.** 4 credits each term, tuition\* each term: Resident \$346; Non-resident \$1003.40.

Grades based on formal written report by the student covering his or her work during the six-month professional assignment. **Must be taken S-N.** (Prereq registration in intern program. A joint Day/Extension class)

Fall Spec Term, 3050, ●Sec 1, Day and Time arr

Fall Spec Term, 3051, ●Sec 1, Day and Time arr

Spring Spec Term, 3050, ●Sec 2, Day and Time arr

Spring Spec Term, 3051, ●Sec 2, Day and Time arr

**CE 3300 SOIL MECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Index properties and soil classification; compaction. Effective stress. Permeability and seepage. One-dimensional compression. Strength and failure criteria. **Must be taken A-F.** Lectures meet concurrently. (Prereq IT student, AEM 3016. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, Lect TTh, 4:40-6:35, Arch 30; Lab T, 6:40-8:35, CivMinE 350, Detournay

Winter Qtr, ★●Sec 2, Lect TTh, 4:40-6:35, Arch 30; Lab W, 9:05-11 a.m., CivMinE 350, Detournay

Winter Qtr, ★●Sec 3, Lect TTh, 4:40-6:35, Arch 30; Lab Th, 2:30-4:25, CivMinE 350, Detournay

Winter Qtr, ★●Sec 4, Lect TTh, 4:40-6:35, Arch 30; Lab F, 9:05-11 a.m., CivMinE 350, Detournay

**CE 3400 FLUID MECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Fluid statics and dynamics for liquids and gases. Kinematics of fluid flow, viscous effects, and introduction to incompressible and compressible duct flow. Boundary layers, lift and drag, fluid measurements. (Prereq IT student or ForP major, Math 3261, AEM 1015 or AEM 3016. Limited to 50)

Spring Qtr, ★●Sec 1, T, 6-10 plus 2 Sa a.m. classes arr, CivMinE 202, Stefan

**CE 5099 ADVANCED DESIGN, ANALYSIS, RESEARCH OR TUTORIAL IN CIVIL ENGINEERING: SOIL ENGINEERING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Site characterization; subsurface investigations, soil profiles and geologic stratigraphy. Instrumentation. Deep foundations; design considerations, pile capacity, load tests. Braced excavations; design considerations, surcharge loading, bottom stability, seepage analysis, struts and anchors. (Prereq IT or grad student, CE 3300 or #. May not be taken for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, TTh, 6:40-8:35, CivMinE 210, Meyers

**CE 5105 SURVEY ADJUSTMENTS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Application of statistical theory to the adjustment of surveying and photogrammetric measurements. Includes the concepts of precision and accuracy, error propagation, observation and condition equations, weighting of observations, solution of systems of equations by method of least squares, and precision of adjusted quantities. **Must be taken A-F.** (Prereq IT or grad student, CE 3100 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Spec Term, ★Sec 1, Sa, Sept. 24, Oct. 8, 22, Nov. 5, 19, 9 a.m.-5, CivMinE 210, Johnson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**CE 5200 GEOMETRIC DESIGN OF HIGHWAYS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Forecast of traffic volume demand; impact of vehicle type on geometric design; vertical and horizontal alignment; intersection design; highway capacity. **Must be taken A-F.** (Prereq IT or grad student, CE 3200. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, TTh, 4:40-6:35, CivMinE 212, Davis

**CE 5201 HIGHWAY TRAFFIC CHARACTERISTICS AND OPERATIONS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Characteristics and measurements of volume, speed, density, and travel time; characteristics of vehicles and road users; parking characteristics and design of facilities; applications of signs, signals, and markings in traffic control. (Prereq IT or grad student, CE 3200. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4:40-6:35, CivMinE 212, Davis

**CE 5301 APPLIED SOIL MECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Consolidation and settlements. Bearing capacity of shallow foundations. Earth pressure theories; rigid and flexible retaining walls. Stability of slopes. **Must be taken A-F.** (Prereq IT or grad student, CE 3300. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4:40-6:35, CivMinE 210, Detournay

**CE 5304 DESIGN OF HIGHWAY AND AIRPORT PAVEMENTS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theories of pavement design, flexible and rigid; equivalent wheel loads. Strength tests and frost

action. Design procedures for flexible and rigid pavements. (Prereq IT or grad student, CE 3300, CE 5603. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students) Spring Qtr, ★●Sec 1, MW, 4:40-6:35, CivMinE 210, Newcomb

**CE 5405 HYDROLOGY AND HYDROLOGIC DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Hydrologic cycle, precipitation, evaporation, infiltration, runoff analysis, flood routing, statistical procedures in hydrology, urban hydrology, introduction to mathematical models of medium and large watersheds, application of hydrology to design of outlet works and flow control structures. (Prereq IT or grad student, CE 3400 or #. May not be taken for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr, ★●Sec 1, MW, 6:40-8:35, CivMinE 205, Toso

**CE 5506 ENVIRONMENTAL WATER CHEMISTRY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Composition of natural waters and wastewater, chemical processes affecting distribution of pollutants and water quality parameters in natural waters; methods of evaluation to determine fate of organic pollutants. (Prereq IT or grad student, Chem 1006 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr, ★Sec 1, MW, 4:40-6:35, CivMinE 205, Capel

**CE 5580 INTRODUCTION TO ENVIRONMENTAL LAW FOR ENGINEERS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Environmental regulatory law relevant to the work of civil and environmental engineers; specific provisions of federal statutory and regulatory laws such as NEPA, CWA, RCRA, CAA, and CERCLA. (Prereq IT or grad student or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Spring Qtr, ★Sec 1, TTh, 6:40-8:20, CivMinE 205, Braaten

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CE 5600 LINEAR STRUCTURAL SYSTEMS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Analysis of determinate and indeterminate linear structural systems; analysis of trusses and frames through virtual work, moment distribution, energy methods, and slope-deflection equations. Influence lines. Approximate methods of analysis. Design considerations. **Must be taken A-F.** (Prereq IT upper division or grad student, AEM 3016. May not be taken for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, TTh, 4:40-6:35, CivMinE 210, Connors

**CE 5610 DESIGN OF METAL STRUCTURES: INTRODUCTION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Loads on civil structures. Load factor and working stress philosophies of design. Design of tension, compression, and flexural members and their connections. Codes, properties of structural metals. **Must be taken A-F.** (Prereq IT upper division, CE 5600, CE 5603 or ¶CE 5603. May not be taken for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4:40-6:35, AkerH 209, Connors

**CE 5611 DESIGN OF REINFORCED CONCRETE STRUCTURES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Principles of strength and serviceability in reinforced concrete structural design. Strength analysis, design of beams, joists, one-way slabs for flexure and shear. Anchorage development, splicing of reinforcement. Stresses at service, deflections, cracking, long-term effects. Introduction to design of columns; continuity; simple footings. **Must be taken A-F.** (Prereq IT upper division, CE 5600, CE 5603 or ¶CE 5603. May not be taken for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, MW, 4:40-6:35, CivMinE 210, Connors

**CE 5612 DESIGN OF METAL STRUCTURES: INTERMEDIATE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Design of complete metal structures; plate girder bridges, industrial buildings, multistory frames.

**Must be taken A-F.** (Prereq IT upper division or grad student, CE 5610. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, MW, 4:40-6:35, CivMinE 205, Galambos

**CE 5701 CEMENTED MATERIAL PROPERTIES: EVALUATION AND MIXTURE DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Characteristics and performance evaluation concept of construction materials, properties, and design of cemented mixtures such as concrete, bituminous mixtures, stabilized soils, and rocks. (Prereq CE 5603. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, MW, 4:40-6:35, CivMinE 210, Newcomb

**CE 5702 COMPONENTS, PROPERTIES, AND DESIGN OF PORTLAND CEMENT CONCRETE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Physical and chemical properties and characteristics of Portland cement, aggregates, and admixtures. Properties and design of concrete mixtures. **Must be taken A-F.** (Prereq 5603. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, MW, 4:40-6:35, CivMinE 212, Snyder

**CE 5703 PROJECT MANAGEMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Broad, practical examination of construction project management including project planning, budgeting, scheduling, staffing, task and cost control, and communicating with, motivating, and managing team members. (Prereq senior standing, IT major. May not be taken for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr, ★●Sec 1, W, 6:40-10, CivMinE 205, Johns

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Classical and Near Eastern Studies

(330 Folwell Hall: 625-5353)

### College of Liberal Arts

Textbooks for most Classical Studies courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Art History; Foreign Study; History; Religious Studies)

Gerald Erickson, Professor  
 Jackson Hershbell, Professor  
 Sheila McNally, Professor  
 Oliver Nicholson, Assistant Professor  
 George Sheets, Associate Professor  
 Robert P. Sonkowsky, Professor  
 Soterios Stavrou, Adjunct Instructor  
 Theofanis Stavrou, Professor

**NOTE**—Classics (Clas) courses require no knowledge of Latin or Greek.

See also Ancient Near Eastern Studies, Hebrew, and Jewish Studies on page 68.

**Read about language laboratories on page 52.**

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Classical and Near Eastern Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) sections available in the following courses:** Clas 1042, 3035, 3142

### Classics (Clas)

**You need not be majoring in Classical Civilization to register for these classes.**

**Clas 1023 THE AGE OF CONSTANTINE THE GREAT.** 4 credits, §3023, tuition\*: Resident \$294; Non-resident \$852.60.

Change and continuity in the Roman Empire from its zenith in the 2nd century through the 3rd century crisis to the New Empire of Diocletian and Constantine, the first Christian emperor (circa A.D. 180 to 363). Proscription of Classical paganism; Christianity as imperial religion. (No prereq. Meets concurrently with 3023)

Spring Qtr, Sec 1, M, 6:20-8:50, FolH 306,  
 Nicholson

**Clas 1025 THE AGE OF JUSTINIAN AND MUHAMMAD.** 4 credits, §3025, tuition\*: Resident \$294; Non-resident \$852.60.

Transformation of the Roman Empire in Europe into barbarian kingdoms (circa A.D. 500 to circa 700). "Golden age" of the Eastern Roman Empire under Emperor Justinian. Tension between Rome and Persia; rise of Islam; Arab invasion. (No prereq. Meets concurrently with 3025)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 208,  
 Nicholson

**Clas 1042 GREEK AND ROMAN MYTHOLOGY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

The heroes, gods, and goddesses of ancient Greece and Rome. The stories of the myths and the stories behind the myths. *The class consists of 2 hours of lecture followed by discussion sections.* (No prereq)

Fall Qtr, Sec 1, M, 6-9, FolH 50, Hershbell  
 Winter Qtr, Sec 2, Th, 1:15-4, MacP, Erickson.  
*Offered through Continuing Education for Women*

**Clas 3023 THE AGE OF CONSTANTINE THE GREAT.** 4 credits, §1023, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Clas 1023. (No prereq. Meets concurrently with 1023)

Spring Qtr, Sec 1, M, 6:20-8:50, FolH 306,  
 Nicholson

**Clas 3025 THE AGE OF JUSTINIAN AND MUHAMMAD.** 4 credits, §1025, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Clas 1025. (No prereq. Meets concurrently with 1025)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 208,  
 Nicholson

**Clas 3035 MYTHOLOGY IN WESTERN ART.** 4 credits, §ArH 3035, tuition\* (includes \$5 course fee): Resident \$313; Non-resident \$898.20.

Selected figures and events from Classical mythology as ancient artists first depicted them, and as they have appeared in later Western art. (No prereq. Meets concurrently with ArH 3035)

Spring Qtr, Sec 1, W, 1:30-4, Mpls Institute of Arts, Auditorium, 2400 S. 3 Ave, McNally.  
*Offered through Continuing Education for Women*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Clas 3072 THE NEW TESTAMENT.** 4 credits, §5072, §ReIS 3072, 5072, tuition\*: Resident \$308; Non-resident \$893.20.

First century Israel under Roman rule. Jesus of Nazareth. Earliest Christian communities. Jewish Christianity. Mission to Gentiles. Paul the apostle. Beginnings of the New Testament. (No prereq. Meets concurrently with 5072, ReIS 3072, 5072)  
Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 306

**Clas 3089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY.** 4 credits, §5089, §ReIS 3089, 5089, tuition\*: Resident \$308; Non-resident \$893.20.

Archaeological data relevant to the Jewish scriptures and the New Testament; major sites in the Holy Land and in other areas of the Mediterranean and the Near East. The evidence of pottery, inscriptions, manuscripts, and coins. Excavation methods. Archaeology as a tool for study of ancient religions. (No prereq. Meets concurrently with 5089, ReIS 3089, 5089)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 104

**Clas 3142 ART OF EGYPT.** 4 credits, §ArH 3142, tuition\* (includes \$5 course fee): Resident \$308; Non-resident \$898.20.

The arts and architecture of Egypt from Prehistoric times to the emergence of modern Egypt, with stress on the elements of continuity and of change that have shaped Egyptian culture. (No prereq. Meets concurrently with ArH 3142)

Fall Qtr, Sec 1, W, 1:30-4, Mpls Institute of Arts, Auditorium, 2400 S 3 Ave, McNally

**Clas 5072 THE NEW TESTAMENT.** 4 credits, §3072, §ReIS 3072, 5072, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Clas 3072. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3072, ReIS 3072, 5072)

Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 306

**Clas 5073 ROMAN RELIGION AND EARLY CHRISTIANITY.** 4 credits, §ReIS 5073, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Greek and Roman civic religion; myths, oracles and philosophy; imperial cult; foreign cults;

NeoPlatonism; varieties of Christianity in 2nd and 3rd centuries; martyrdom and persecution; the Christian Empire and the pagan reaction; Augustine of Hippo. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with ReIS 5073)

Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 218, Nicholson

**Clas 5089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY.** 4 credits, §3089, ReIS 3089, 5089, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Clas 3089. Requires additional work for graduate credit. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3089, ReIS 3089, 5089)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 104

## Greek (Grk)

**Grk 1101-1102-1103 BEGINNING CLASSICAL GREEK: INDIVIDUALLY PACED.** 5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75. (IS 1101)

Emphasis on developing reading ability and on reading real Greek as soon as possible. Students proceed at their own pace through a course of graded reading materials keyed to an accompanying grammar. Readings include selections from Plato, Aristophanes, Euripides, Demosthenes, Herodotus, and Homer. Class is divided into study groups which meet concurrently. Students in the study groups are encouraged to interact with each other and with the instructor in an informal and mutually supportive way. Examinations are taken when the student feels ready. *Courses meet concurrently each term.* (No prereq for 1101; 1101 or equiv for 1102; 1102 or equiv for 1103)

Fall Qtr, Sec 1, W, 6:20-8:50, FolH 218, 148, 426, Sheets

Winter Qtr, Sec 2, W, 6:20-8:50, FolH 214, 138, 218, Sheets

Spring Qtr, Sec 3, W, 6:20-8:50, FolH 214, 312, JonesH 4, Sheets

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Greek, Modern (MdGk)**

**MdGk 1101-1102-1103 BEGINNING MODERN GREEK.** 5 credits each quarter, \$FSSP 3001-3002-3003, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

Speaking and reading demotic Greek. Pattern-practice drill, simple readings, some grammar. (No prereq for 1101; 1101 or equiv for 1102; 1102 or equiv for 1103. Meets concurrently with FSSP 3001-3002-3003)

Fall Qtr, 1101, Sec 1, Th, 6:20-8:50, BlegH 245, T Stavrou

Winter Qtr, 1102, Sec 1, Th, 6:20-8:50, BlegH 255, T Stavrou

Spring Qtr, 1103, Sec 1, Th, 6:20-8:50, BlegH 255, T Stavrou

**MdGk 1104-1105-1106 INTERMEDIATE MODERN GREEK.** 5 credits each quarter, \$FSSP 3004-3005-3006, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

A review of the fundamentals of syntax through a variety of readings from Modern Greek prose writers and poets. Provides additional grammatical elements which are reinforced through reading, conversation, and composition. *There must be 10 or more students enrolled in order for a section to be held.* (Prereq 1103 or equiv for 1104; 1104 or equiv for 1105; 1105 or equiv for 1106. Meets concurrently with FSSP 3004-3005-3006)

Fall Qtr, 1104, Sec 1, M, 6:20-8:50, SocSci 1383, S Stavrou

Winter Qtr, 1105, Sec 1, M, 6:20-8:50, SocSci 101, S Stavrou

Spring Qtr, 1106, Sec 1, M, 6:20-8:50, SocSci 101, S Stavrou

**Latin (Lat)**

**NOTE**—Lat 1101 requires no previous knowledge of Latin.

**Lat 1101-1102-1103 LATIN.** 5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Fifteen college credits of Latin for all ages: junior high, senior high and college students, pre- and post-college adults, families—the learning community. Programmed texts and tapes for home study permit self-pacing. Knowledge is broken up into isolated bits, which students master bit by bit, returning to previous bits as necessary. 90% success rate. Weekly discussions motivate learning, provide community, and explore humanistic educa-

tional dimensions of Classical Latin traditions. Students are divided into study groups, which meet one hour each week; the hour is arranged between 6:05 and 9:05 p.m. Tuesdays. The entire class will meet from 6:05 to 7:05 p.m. the first class each term, new students in 240, returning students in 246 FolH. *Courses meet concurrently each term and with 1104.* (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr, 1101, Sec 1, T, FolH 218, 246, 344, Sonkowsky

Fall Qtr, 1102, Sec 1, T, FolH 218, 246, 344, Sonkowsky

Fall Qtr, 1103, Sec 1, T, FolH 218, 246, 344, Sonkowsky

Winter Qtr, 1101, Sec 2, T, FolH 218, 246, 344, Sonkowsky

Winter Qtr, 1102, Sec 2, T, FolH 218, 246, 344, Sonkowsky

Winter Qtr, 1103, Sec 2, T, FolH 218, 246, 344, Sonkowsky

Spring Qtr, 1101, Sec 3, T, FolH 218, 246, 344, Sonkowsky

Spring Qtr, 1102, Sec 3, T, FolH 218, 246, 344, Sonkowsky

Spring Qtr, 1103, Sec 3, T, FolH 218, 246, 344, Sonkowsky

**Lat 1101-1102-1103 LATIN.** 5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

*Each of the following sections is offered via interactive television between two sites, with students at both locations.* Basic grammar and vocabulary, practice in reading and writing Latin, workbook exercises, easy Latin readings and Roman legends. Weekly class sessions motivate learning, provide community, and explore humanistic dimensions of classical Latin traditions. Text materials permit self-pacing, but students will complete an assigned body of materials each quarter. 1103 will include a review of learned elements with a shift of emphasis to longer passages of continuous reading. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr, 1101, Sec 4, MW, 3:15-4:15, RarigC, 5th floor, Studio C, Sonkowsky

Winter Qtr, 1102, Sec 4, MW, 3:15-4:15, RarigC, 5th floor, Studio C, Sonkowsky

Spring Qtr, 1103, Sec 4, MW, 3:15-4:15, RarigC, 5th floor, Studio C, Sonkowsky

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Lat 1104 LATIN READINGS: CAESAR.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Reading in Book I of Julius Caesar's masterpiece *The Gallic Wars*. Weekly one-hour study groups on Tuesdays arranged between 6:05 and 9:05 p.m. The entire class will meet from 6:05 to 7:05 p.m. the first class each term. Meets concurrently with 1101-1102-1103. (Prereq 1103 or #)

Fall Qtr, Sec 1, T, FolH 218, 246, 344,  
Sonkowsky

Winter Qtr, Sec 2, T, FolH 218, 246, 344,  
Sonkowsky

Spring Qtr, Sec 3, T, FolH 218, 246, 344,  
Sonkowsky

### Clinical Laboratory Science (CLS)

(D-242 Mayo: 625-9171)

#### Medical School

(See also Public Health)

Textbooks for most CLS courses are available at University of Minnesota Bookstore—Health Sciences (625-1500).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Clinical Laboratory Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*No CLS courses offered through Extension Classes 1994-95*

### Communication Disorders (CDis)

(115 Shevlin Hall: 624-3322)

#### College of Liberal Arts

Textbooks for most CDIs courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Robert H. Brookshire, Professor

Julia M. Davis, Professor

Shirley S. Doyle, Associate Clinical Specialist

Karlind T. Moller, Professor of Human and Oral  
Genetics and Communication Disorders

Joe E. Reichle, Professor

Clark D. Starr, Professor

Diana J. van Deusen, Assistant Clinical Specialist

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in CDIs. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**CDIs 5101 COMMUNICATION PROBLEMS OF CHILDREN.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Problems of children with impaired communication due to delayed language development, hearing loss, articulation disorders, voice disorders, stuttering, cleft palate (oral-facial anomalies), and neuromuscular disorders. Communication disorders and their effects on speech and language development. (Prereq non-Speech and Hearing Science major. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, **Sec 1, M, 4:30-6:30** (plus 1 hour/week arranged), FolH 340, Doyle

**CDIs 5507 CLEFT PALATE, ORAL-FACIAL ANOMALIES AND SPEECH.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Relationships between oral-facial structures and speech. Emphasis on speech problems associated with dental and palatal anomalies and on their clinical management. Observations of clinical activities. (Prereq 5304, 5504 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, **Sec 1, MW, 4:15-6**, FolH 340, Starr,  
Moller

**CDIs 5509 MOTOR SPEECH DISORDERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Nature, assessment, and treatment of motor speech disorders in adult and pediatric populations. (Prereq 5304 or #5304. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, **Sec 1, Th, 4:40-7:40** (plus 1 hour/week arranged), FolH 340

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CDis 5606 LANGUAGE ASSESSMENT, INTERVENTION—EARLY STAGES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Analysis of the communication disorders in pre-school age children with special emphasis on the assessment and management of language disorders observed in children with developmental disabilities as well as intellectually normal children. (Prereq 5305 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, M, 3:35-6:35 (plus 1 hour/week arranged), BuH 120, Reichle

**CDis 5608 LANGUAGE ASSESSMENT, INTERVENTION—ADULTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of language disorders in adolescent and adult populations with special emphasis on assessment and intervention strategies applicable to aphasia and other neurogenic disorders. (Prereq 5302 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 5-6:45, FolH 340, Brookshire

**CDis 5900 TOPICS IN COMMUNICATION DISORDERS: COUNSELING IN COMMUNICATION DISORDERS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Explores counseling issues and techniques appropriate to persons with communication disorders and their families. Videotaped and live vignettes of speech and hearing counseling sessions will be used to demonstrate counseling techniques and pitfalls. Students will practice techniques learned in class by engaging in small group role-plays. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Th, 3:35-6:35, FolH 340, Davis, van Deusen

**CDis 5900 TOPICS IN COMMUNICATION DISORDERS: CLINICAL ISSUES AND PROCEDURES.** 2 credits, tuition\*: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Designed to acquaint students in speech-language pathology and audiology with issues and procedures that are relevant and necessary for good clinical practice. Although the course will focus primarily on the implementation of Public Law 94-142, procedures relevant to noneducational settings also will be addressed. The importance of inter-agency collaboration will be stressed. (Prereq senior or graduate student status. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 2, F, 2:30-4:25, FolH 340

**CDis 5900 TOPICS IN COMMUNICATION DISORDERS: COMMUNICATIVE APPROACHES TO CHALLENGING BEHAVIOR IN PERSONS WITH SEVERE DEVELOPMENTAL DISABILITIES.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Designed to identify and critique best practices that provide positive treatment alternatives for individuals who engage in socially motivated aggression, self injury, tantrumming, and other forms of challenging behavior. A large proportion of instructional procedures addressed in this course will focus on establishing more efficient communicative repertoires that serve the same function as existing challenging behaviors. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 3, M, 3:35-6:35, BuH 123, Reichle

### Comparative Studies in Discourse and Society (CSDS)

See Cultural Studies and Comparative Literature, page 122.

### Compleat Scholar

(See page 379)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Composition and Communication (Comp)

(306 Lind Hall: 625-2888)

#### College of Liberal Arts

Textbooks for most Comp courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000). See textbook note below.

(See also English; General College; Rhetoric; and *Writing in The Compleat Scholar* noncredit section)

**Composition Requirements for Degree Programs.** Since September 1982, the College of Liberal Arts and most other colleges of the University have required all students to satisfy the Writing Practice requirement and take one or more upper division courses (Comp 30xx) in their junior or senior year.

**Refresher courses.** Students who feel the need for a refresher course before enrolling in Comp 1011 are encouraged to take courses from the General College if they feel their background in structure or grammar is insufficient, or American Studies 1001, 1002, 1003, American Life, if they feel their reading background has been neglected. Rhetoric 1160, College Reading, and LASK 1001, *Becoming a Master Student*, may also be useful.

**Transfer and continuing students.** Students who have passed one or more composition courses at another university may be exempt from the Writing Practice requirement. They should contact the Continuing Education and Extension Counseling Office, 314 Nolte Center, 625-2500, for information as to their proper choice of courses.

Students who have passed Comp 1001 and Comp 1002, or Comm 1001 and Comm 1002 under previously existing requirements are probably exempt from further lower division composition courses unless their major department had an additional requirement when they began work at the University.

Continuing students who have passed Comp 1001 or Comm 1001, but not the second course, should either take Comp 1027 or an appropriate upper level (3xxx) course to complete their requirement.

**International students.** Students whose native language is not English should go to Klaeber Court 175 for information; contact Sheryl Holt, Coordinator of Composition for Non-Native Speakers of English, 624-4524.

**Exemptions.** Students with exceptionally high skills in English may earn exemption from the Writing Practice requirement. Students interested in this alternative should contact CEE Counseling, 314 Nolte Center, 625-2500.

**ATTENDANCE**—Students absent from the first day of classes in any Composition course may lose their place in the course unless they have contacted their instructor prior to the first class meeting.

**REGISTRATION AFTER FIRST CLASS MEETING**—Students who wish to register in a Comp course that has already met must secure the written permission of the instructor in order to register. Students who register without securing written permission may be canceled from the class without notice.

**Textbooks**—Because different instructors require different texts, even for different sections of the same course, students should attend class before buying books for Composition courses.

**Note**—Comp 0002C (Grammar and Usage Review), 0003C (Review of Business English), 0004C (Business Correspondence), and 0006C (Basic Technical Writing) are no longer being offered through Composition and Communication. Students interested in noncredit introductory writing courses should see the Communication Skills listing of the General College section of this Bulletin, page 207.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Composition and Communication. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) section available in the following course:** Comp 1011

#### Computer-assisted Comp sections

Certain sections of Comp 3031 and 3032 make use of computer-assisted instruction; there is no additional charge for these courses. These sections are identified with each course.

Computer laboratories are located in 26 Lind Hall, where there are both IBM and Macintosh computers. Instruction in the lab during class hours involves drafting, revising, and special exercises. Previous word processing and typing experience is not essential.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Comp 1011 WRITING PRACTICE I.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Provides guided practice in solving writers' problems through recitation, in-class workshops, and individual conferences. Writing assignments focus on defining purpose, organizing and developing content, analyzing audiences, drafting the whole essay and its parts, and revising and editing so as to master the fundamentals of expository structure and style. After first day of class, consent of instructor is required. (No prereq. Limited to 25)

*The Writing Practice requirement is fulfilled by successful completion of Comp 1011. Students whose work does not meet an acceptable standard in 1011 will receive a continuation grade ("X"), and will take Comp 1013 to complete the requirement.*

**Minneapolis Campus (Including MacPhail Center)**

- Fall Qtr, ★Sec 1, M, 6:20-9:10, LindH 340
- Fall Qtr, ★Sec 2, T, 6:20-9:10, LindH 320
- Fall Qtr, ★Sec 3, T, 6:20-9:10, LindH 315
- Fall Qtr, ★Sec 4, W, 1-3:50, MacP (1128 LaSalle, downtown Mpls). Offered through Continuing Education for Women
- Fall Qtr, ★Sec 5, W, 6:20-9:10, AmundH 158
- Fall Qtr, ★Sec 6, W, 6:20-9:10, AmundH 156
- Fall Qtr, ★Sec 7, Th, 6:20-9:10, LindH 315
- Fall Qtr, ★Sec 8, Th, 6:20-9:10, LindH 320
- Winter Qtr, ★Sec 9, M, 6:20-9:10, LindH 315
- Winter Qtr, ★Sec 10, T, 6:20-9:10, AmundH 120
- Winter Qtr, ★Sec 11, T, 6:20-9:10, AmundH 124
- Winter Qtr, ★Sec 12, W, 6:20-9:10, KoltH S137
- Winter Qtr, ★Sec 13, Th, 6:20-9:10, AmundH 116
- Spring Qtr, ★Sec 14, M, 6:20-9:10, LindH 303
- Spring Qtr, ★Sec 15, M, 6:20-9:10, KoltH S137
- Spring Qtr, ★Sec 16, T, 6:20-9:10, KoltH S135
- Spring Qtr, ★Sec 17, T, 6:20-9:10, KoltH S133

**Roseville Area High School**

- Spring Qtr, ★Sec 18, W, 6:20-9:10, room 143

**Richfield High School**

- Fall Qtr, ★Sec 19, W, 6:20-9:10, room 241

**Comp 1013 WRITING PRACTICE II.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

*Designed for students who have recently completed Comp 1011.* Intensive work on individual writing problems. Highly individualized workshops and conferences. Students who need this course must contact the Composition office (625-2888) before registering. (Prereq grade of X in 1011. A joint Day/Extension class limited to 18 Extension students)

- Fall Qtr, ★Sec 1, Arr
- Winter Qtr, ★Sec 2, Arr
- Spring Qtr, ★Sec 3, Arr

**Comp 1027 INTERMEDIATE EXPOSITORY WRITING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Focuses on the range of choices writers make based on audience, purpose, and context. Relies on critical reading and a variety of written assignments to improve students' control over their writing and the effect it will have on their intended audiences. (Prereq completion of the Writing Practice requirement, or Comp 1001 or Comm 1001; sophomore standing is recommended. Limited to 25)

- Fall Qtr, ★Sec 1, W, 6:20-8:50, KoltH S139
- Winter Qtr, ★Sec 2, T, 6:20-8:50, KoltH S137
- Spring Qtr, ★Sec 3, T, 6:20-8:50, KoltH S137

**Comp 3011-3033 Upper Division Writing Courses**—Completion of one of these courses (4 cr) (with the exception of Comp 3022) fulfills the "upper division composition requirement" as defined by the student's major department. Some colleges or departments require more than one upper division course. Completion of the Writing Practice requirement or its equivalent is prerequisite for all of these courses. Students should have declared a major, and are advised not to take the course until they have completed 90 credits (with the exception of Comp 3022 and 3033, which require 60 or more credits). The Composition Office has a list of which courses are required or recommended for each degree program.

**Comp 3011 WRITING ABOUT LITERATURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Primary focus on presenting the active reading of literary works (poems, plays, fiction) in literary commentary and criticism, primarily for academic audience. Use of secondary sources, and attention to various theoretical and critical approaches. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

- Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 320

**Comp 3012 WRITING IN THE HUMANITIES.** 4 credits, tuition\*. Total: Resident \$308; Non-resident \$893.20. (IS)

Writing on topics where historical and multicultural perspectives are brought together in the context of these disciplines. Assignments involve integrating primary texts with critical commentary. Frequent practice in presenting primary materials through paraphrase and summary. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

- Spring Qtr, ★Sec 1, T, 6:20-8:50, AmundH 116

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Comp 3013 WRITING FOR THE ARTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Writing in the roles of artist, member of the audience, and critic to balance subjective responses and academic analysis. Emphasis on the importance of writing to create and maintain the arts communities through grants, reviews, and formal criticism. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, LindH 325

Spring Qtr, ★Sec 2, Th, 6:20-8:50, LindH 315

**Comp 3014 WRITING IN THE SOCIAL SCIENCES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Emphasizes writing as a way to communicate knowledge about individual and collective human behavior. Multidisciplinary perspectives on common social issues, description and analysis of quantitative data. Assignments may include the literature review, research proposal, case study, and theoretical argument. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, M, 6:20-8:50, LindH 320

Fall Qtr, ★Sec 2, M, 6:20-8:50, LindH 303

Fall Qtr, ★Sec 3, W, 6:20-8:50, LindH 303

Fall Qtr, ★Sec 4, W, 6:20-8:50, LindH 302

Winter Qtr, ★Sec 5, T, 6:20-8:50, LindH 303

Winter Qtr, ★Sec 6, T, 6:20-8:50, LindH 315

Winter Qtr, ★Sec 7, W, 6:20-8:50, LindH 315

Winter Qtr, ★Sec 8, Th, 6:20-8:50, LindH 215

Spring Qtr, ★Sec 9, M, 6:20-8:50, LindH 325

Spring Qtr, ★Sec 10, Th, 6:20-8:50, LindH 303

Spring Qtr, ★Sec 11, Th, 6:20-8:50, LindH 302

**Comp 3015 WRITING ABOUT SCIENCE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Emphasizes awareness of the close connection between writing and the practice of science. Through descriptive papers, scientific papers, grant proposals, literature reviews, response papers and other projects, students will learn how language functions in a variety of scientific contexts. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Spring Qtr, ★Sec 1, M, 6:20-8:50, LindH 315

**Comp 3022 CRITICAL READING AND WRITING FOR MANAGEMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Strategies and conventions for writing in management and related fields. Improvement of communication skills through the incorporation of narrative,

descriptive, analytical and persuasive techniques into writing on current business topics, with an emphasis on critical reading, thinking, and writing. Strategies for communicating among varied audiences in business settings. *This course is the first of two courses required by the Carlson School of Management. It does not fulfill the upper-division composition requirement as defined by most majors in the College of Liberal Arts.* (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, T, 6:20-8:50, LindH 340

Winter Qtr, ★Sec 2, W, 6:20-8:50, LindH 340

Winter Qtr, ★Sec 3, W, 6:20-8:50, LindH 320

Spring Qtr, ★Sec 4, Th, 6:20-8:50, KoltH S137

**Comp 3027 ADVANCED EXPOSITORY WRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Designed for already competent writers, this course focuses on the production of polished writing within and beyond the university setting. Teaches effective argumentation through critical reading and awareness of context and audience. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, T, 6:20-8:50, LindH 325

Fall Qtr, ★Sec 2, T, 6:20-8:50, LindH 203

Fall Qtr, ★Sec 3, W, 6:20-8:50, LindH 315

Winter Qtr, ★Sec 4, T, 6:20-8:50, LindH 325

Winter Qtr, ★Sec 5, T, 6:20-8:50, LindH 340

Spring Qtr, ★Sec 6, M, 6:20-8:50, LindH 320

Spring Qtr, ★Sec 7, M, 6:20-8:50, LindH 215

**Comp 3031 TECHNICAL WRITING FOR ENGINEERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Presenting technical information accurately and clearly with attention to the rhetorical and organizational contexts of the writing. Analysis of writing situations, style and form of technical reports, and collaborative written and spoken presentations. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, M, 6:20-8:50, LindH 315

Fall Qtr, ★Sec 2, T, 6:20-8:50, LindH 215

Winter Qtr, ★Sec 3, T, 6:20-8:50, LindH 320

(computer-assisted section)

Winter Qtr, ★Sec 4, W, 6:20-8:50, LindH 203

Spring Qtr, ★Sec 5, T, 6:20-8:50, LindH 320

Spring Qtr, ★Sec 6, T, 6:20-8:50, LindH 340

Spring Qtr, ★Sec 7, Th, 6:20-8:50, LindH 320

(computer-assisted section)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Comp 3032 PRE-PROFESSIONAL WRITING FOR BUSINESS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Writing for the wide variety of situations and audiences found in business. Form and style of business writing in collaborative and individual assignments. Assignments and practical examples tied as much as possible to students' major fields. This is the second of two courses required by the Carlson School of Management. (Prereq the Writing Practice requirement or equivalent and written #. Limited to 20)

Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 325  
(computer-assisted section)

Winter Qtr, ★Sec 2, W, 6:20-8:50, RarigC 610

Winter Qtr, ★Sec 3, W, 6:20-8:50, LindH 325  
(computer-assisted section)

Spring Qtr, ★Sec 4, M, 6:20-8:50, LindH 320

Spring Qtr, ★Sec 5, W, 6:20-8:50, RarigC 610

(See related courses in General College; and Rhetoric)

**Comp 3033 WRITING FOR THE HEALTH SCIENCES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Addresses the writing needs of students from the diverse fields of the Health Sciences. Primary emphasis on practicing and achieving verbal clarity in a variety of situations ranging from precise description of a clinical procedure to balanced discussion of ethical contexts. (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, LindH 340

Winter Qtr, ★Sec 2, W, 6:20-8:50, LindH 217

Spring Qtr, ★Sec 3, T, 6:20-8:50, LindH 303

Spring Qtr, ★Sec 4, T, 6:20-8:50, LindH 325

**Comp 3065 EDITORIAL PRACTICE.** 4 credits, (maximum 12 cr, no topic can be repeated), tuition\*: Resident \$308; Non-resident \$893.20.

Introduces fundamental elements of editorial work, especially the evaluation of manuscripts; attention is paid to "in-house" publications, such as newsletters. Survey of copy editing (making manuscripts clear and concise), substantive editing (working with content), and layout and design. Students hear guest lectures, participate in group editing projects, and present a report on some aspect of editing. *This course does not fulfill the upper-division composition requirement as defined by most majors.* (No prereq. Limited to 25)

Spring Qtr, ★Sec 1, T, 6:20-9:10, LindH 203

(See also CSch 0356, Introduction to Copyediting)

**Comp 3085 CONFERENCE COURSE IN ADVANCED COMPOSITION.** 4 credits, tuition\* (includes \$40 special fee): Resident \$348; Non-resident \$933.20.

Individual writing conferences scheduled at student's and instructor's convenience. Interested students must contact the Composition Office (306 Lind Hall, 625-2888), and submit a brief written outline of the project in order to be approved for registration. *This course may not fulfill the upper-division composition requirement as defined by some majors; check with your college office before registering.* (Prereq the Writing Practice requirement or equivalent and written #)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

Spring Qtr, Sec 3, Arr

**Computer Science (CSci)**

(4-192 Electrical Engineering/Computer Science Building: 625-4002)

**Institute of Technology**

Textbooks for most CSci courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also General College; and Information and Decision Sciences)

Your attention is called to the Undergraduate Development Certificate in Computer Science, 45 and 90 credits, **page 510**; and Computer Science degree, below.

Daniel Boley, Associate Professor

John Carlis, Associate Professor

David Du, Professor

Deng-Zhu Du, Associate Professor

David Fox, Professor

Maria Gini, Associate Professor

Ravi Janardan, Associate Professor

Vipin Kumar, Associate Professor

John Riedl, Assistant Professor

Shashi Shekhar, Assistant Professor

Jaideep Srivastava, Associate Professor

Marvin L. Stein, Professor

Anand Tripathi, Associate Professor

**A Bachelor of Arts (B.A.) with a major in computer science offered through the College of Liberal Arts can be completed during the evening.**

**For information about the Bachelor of Information Networking degree offered through Continuing Education and Extension in conjunction with North Hennepin Community College (NHCC), see the Degrees and Certificates section of this bulletin, page 485.**

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

*Students are encouraged to pick up the curriculum guide in the Computer Science office.*

The following is a partial list of the course requirements common to both the B. Comp. Sci. (Institute of Technology) and the B.A. (College of Liberal Arts).

### *Required Preparatory Courses*

Math 1251-1252, 1261, and Math 3251, 3261; Stat 3091 or 5121 for students intending to take additional work in statistics

### *Major Requirements*

CSci 3311, 3316, 3317, 3321, 3322, 3327, 5102, 5106, 5201, 5301, 5400

### *Substitutes*

Students may use the following approved substitutes for their computer science degree or certificate programs: CSci 3400 for CSci 3311, CSci 3106 for CSci 3316, CSci 3105 for CSci 3321, CSci 3107 or 5101 for CSci 3327, CSci 5121 for CSci 3322

Students are referred to the Institute of Technology Bulletin or the College of Liberal Arts Bulletin for specifics on additional requirements.

Permission of the department is required for admission to the major. For additional information, contact CEE Counseling, 625-2500.

**Computer Science mathematics prerequisites in the Institute of Technology and the College of Liberal Arts**

The entrance requirement for the Institute of Technology and the College of Liberal Arts and the prerequisite for Math 1251 is 4 years of high school mathematics including solid geometry and trigonometry. Any student who meets this requirement is eligible to register for Math 1251. However, if it has been two years or more since last taking a mathematics course, the student is strongly advised to register for Math 1201 or possibly GC 0631. A student who has completed GC 0631 or its equivalent (higher algebra) in high school or college (not a trade school) within the last 2 years may register for Math 1201. GC 0631 and Math 1201 take the place of the junior and senior mathematics courses in high school. If you need assistance in determining math placement, please contact a CEE adviser at 625-2500.

(See also business and mathematics under General College; and Operations and Management Science)

**CSci 3101 A FORTRAN INTRODUCTION TO COMPUTER PROGRAMMING.** 4 credits, §1100-1101, tuition\* plus \$6 special fee. Total: Resident \$352; Non-resident \$1009.40.

Algorithm development and the principles of computer programming using the Fortran language, emphasizing numerical methods for science and engineering applications. Integral open laboratory. (Prereq 1 qtr calculus. Limited to 60)

Fall Qtr, ★Sec 1, Lect, M, 6:10-8:40, EE/CSci 3230; Lab, W, 6:10-7:30, EE/CSci 3230

Winter Qtr, ★Sec 2, Lect, M, 6:10-8:40, EE/CSci 3230; Lab, W, 6:10-7:30, EE/CSci 3230

**CSci 3102 INTRODUCTION TO PASCAL PROGRAMMING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

PASCAL computer language, applications, programming techniques. Designed to bring students to advanced-level competence in PASCAL programming. (Prereq non-CSci major, Math 1111 or equivalent or 1201 or #. Limited to 60)

Spring Qtr, ★Sec 1, Lect, M, 6:10-8:40, AmundH 116; Lab, W, 6:10-7:30, AmundH 116

**CSci 3113 INTRODUCTION TO PROCEDURAL PROGRAMMING IN C.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Introduction to computer programming in the procedural paradigm. Students use the C language to write several programs that illustrate flow control, basic data types (array, record, pointer), and program structuring. Course is designed both as an introduction to programming and to prepare students for more advanced courses in data structures and algorithms. (Prereq precalculus or #, not for credit after taking 3121, 3322, or 5113. Limited to 60)

Fall Qtr, ★Sec 1, M, 6:10-8:40, EE/CSci 3210; Lab, W, 6:10-7:30, EE/CSci 3210

Winter Qtr, ★Sec 2, M, 6:10-8:40, EE/CSci 3210; Lab, W, 6:10-7:30, EE/CSci 3210

Spring Qtr, ★Sec 3, M, 6:10-8:40, EE/CSci 3210; Lab, W, 6:10-7:30, EE/CSci 3210

**CSci 3121 SURVEY OF DATA STRUCTURES AND ALGORITHMS.** 4 credits, §3105, 3321, tuition\*: Resident \$346; Non-resident \$1003.40.

The fundamental structures of computer science are introduced, including induction, mathematical analysis of computational complexity, and the definition and implementation of selected data structures along with their fundamental operations. Students will implement some of these data structures in computer programs. (Prereq 3102 or 3113 or #. Meets concurrently with 3321. Limited to a combined total of 100)

Spring Qtr, ★Sec 1, Lect, M, 6:10-8:40, MechE 108; Lab, W, 6:10-7:30, MechE 108

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CSci 3311 DISCRETE STRUCTURES OF COMPUTER SCIENCE.** 4 credits, §3400, tuition\*: Resident \$346; Non-resident \$1003.40.

Mathematical techniques and structures needed in Computer Science. Topics include formal logic, elementary combinatorics, induction, recurrences, relations and graphs. (Prereq 1 qtr calculus or #. Limited to 60)

Fall Qtr, ★Sec 1, Lect, Th, 6:10-8:40, EE/CSci 3230; Lab, T, 6:10-7:30, EE/CSci 3230

Spring Qtr, ★Sec 2, Lect, T, 6:10-8:40, MechE 108, Fox; Lab, Th, 6:10-7:30, MechE 108

**CSci 3316 THE STRUCTURE OF COMPUTER PROGRAMMING I.** 4 credits, §3106, tuition\*: Resident \$346; Non-resident \$1003.40.

Different programming paradigms as a formal way of expressing computer algorithms and data. Procedures, recursion, and iteration as algorithmic development techniques. Use of abstraction and of modularity. The language Scheme is used for illustration of ideas and lab problems. (Prereq 1 qtr calculus or #. Limited to 60)

Fall Qtr, ★Sec 1, Lect, M, 6:10-8:40, MechE 202; Lab, W, 6:10-7:30, MechE 202

Winter Qtr, ★Sec 2, Lect, T, 6:10-8:40, EE/CSci 3111; Lab, Th, 6:10-7:30, EE/CSci 3111

**CSci 3317 THE STRUCTURE OF COMPUTER PROGRAMMING II.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Advanced programming paradigms. Object-oriented programming, logic programming, and pattern matching are illustrated with examples. Generic operators, local variables, and objects as ways of encapsulating different conceptual parts of a program. The language Scheme is used for illustration of ideas and lab programs. (Prereq 3316 or #. Limited to 60)

Winter Qtr, ★Sec 1, Lect, T, 6:10-8:40, MechE 108; Lab, Th, 6:10-7:30, MechE 108

Spring Qtr, ★Sec 2, Lect, T, 6:10-8:40, AkerH 309; Lab, Th, 6:10-7:30, AkerH 309

**CSci 3321 ALGORITHMS AND DATA STRUCTURES I.** 4 credits, §3105, 3121, tuition\*: Resident \$346; Non-resident \$1003.40.

Fundamental data structures with some of the rudimentary computer algorithms are introduced. Students will implement these data structures and their operations as abstract data types. The course includes a study of C++ with emphasis on implementation of data types and control structures. (Prereq

3311 or 3400, 3316 or 3106, or #. Meets concurrently with 3121. Limited to a combined total of 100)

Spring Qtr, ★Sec 1, Lect, M, 6:10-8:40, MechE 108; Lab, W, 6:10-7:30, MechE 108

**CSci 3322 ALGORITHMS AND DATA STRUCTURES II.** 4 credits, §5121, tuition\*: Resident \$346; Non-resident \$1003.40.

Fundamental paradigms for algorithm design with the supporting data structures. Complexity, correctness analysis, and lower bound theory. Implementation of selected algorithms and data structures using C++ language. (Prereq 3321 and 3317. Meets concurrently with 5121. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Lect, Th, 6:10-8:40, EE/CSci 3210, Srivastava; Lab, T, 6:10-7:30, EE/CSci 3210

**CSci 3327 INTRODUCTION TO THE ORGANIZATION OF COMPUTER SYSTEMS.** 4 credits, §3107, 5101, tuition\*: Resident \$346; Non-resident \$1003.40.

Organization of hardware and software systems that support computer programming and program execution. Symbolic assembly language to study the mapping of application programs and data into the underlying hardware. Ideas illustrated in assembly language programs (currently Motorola 680x0). (Prereq 3316 or 3121 or #. Meets concurrently with 5101. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Lect, Th, 6:10-8:40, MechE 18; Lab, T, 6:10-7:30, MechE 18

**CSci 5101 STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS I.** 4 credits, §3107, 3327, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

See course description for CSci 3327. (Prereq non-CSci major, 3316 or 3121 or #. Qualified students who are **nonmajors** may register for graduate credit at the University of Minnesota. Meets concurrently with 3327. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Lect, Th, 6:10-8:40, MechE 18; Lab, T, 6:10-7:30, MechE 18

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CSci 5102 STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS II.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Extension of basic machine architecture and the principles of system programming: closed subroutines; parameter passing mechanisms; macros and conditional assembly; input-output; assembly linking and loading; dynamic resource allocation; introduction to operating systems, job control language, and processes. Informal laboratory. (Prereq 3107 or 5101 or 3327 or #. Qualified students who are **nonmajors** may register for graduate credit at the University of Minnesota. Limited to 60)

Winter Qtr, ★Sec 1, T, 6-9:30, 171 Career & Cont Educ Bldg, NHCC, 7411 85 Ave N, Brooklyn Park. *Students enrolling in this section must purchase textbooks only at the North Hennepin Community College bookstore.* (Limit 25)

Winter Qtr, ★Sec 2, Th, 6:10-8:40, EE/CSci 3230

**CSci 5106 STRUCTURE OF HIGHER LEVEL LANGUAGES.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Formal definition of the syntax and semantics of programming languages; semantics both by means of interpreters and by using the axiomatic approach. Concepts underlying programming languages and their implementations in a selected group of languages. Program description at compile time and execution time. (Prereq 3322 or 5121 or #. Qualified students who are **nonmajors** may register for graduate credit at the University of Minnesota. Limited to 60)

Spring Qtr, ★Sec 1, T, 6:10-8:40, EE/CSci 3-230

**CSci 5107 COMPUTER GRAPHICS I.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Definition of interactive computer graphics, its goals and its problems. A model system. Data structures for computer graphics, picture structure and transformation. Structures of graphical programming languages. Interaction handling. Raster graphics. (Prereq 3322, 3327 or #. Qualified students may

register for graduate credit at the University of Minnesota. Limited to 60)

Winter Qtr, ★Sec 1, W, 6:10-8:40, MechE 221

**CSci 5113 INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING USING C++.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

An introduction to object-oriented programming in C++ for students who already know how to program in C. *Topics:* Object-oriented programming. Inheritance, including polymorphism and multiple inheritance. Container classes and iterators. Operator overloading, user-defined implicit conversions, constructors, destructors, and templates. (Prereq a background in C language programming equivalent to at least CSci 3113. May not be taken for graduate credit by computer science majors. Other qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Fall Qtr, ★Sec 1, T, 6:10-8:40, EE/CSci 2260, Riedl

**CSci 5121 ALGORITHMS AND DATA STRUCTURES II.** 4 credits, \$3322, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

See course description for CSci 3322. (Prereq non-CSci majors only, 3106 or 3321 or #. Open for graduate credit only to **nonmajors**. Meets concurrently with 3322. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Lect, Th, 6:10-8:40, EE/CSci 3210, Srivastava; Lab, T, 6:10-7:30, EE/CSci 3210

**CSci 5122 ADVANCED DATA STRUCTURES.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Internal and external sorting. Symbol tables. Optimal binary search trees. AVL trees. B-Trees. Tries. Hashing. Files and Indexes, ISAM, multilists, inverted files, cellular partitions, differential files. (Prereq 5121 or 3322 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Spring Qtr, ★Sec 1, Th, 6:10-8:40, EE/CSci 3111, Janardan

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CSci 5151 INTRODUCTION TO PARALLEL COMPUTING I.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Parallel computing: programming techniques, algorithms, data structures. Evaluation of algorithm quality. Effectiveness and scalability. Basic concepts and algorithms for parallel computation. (Prereq 3121 or 3322. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Fall Qtr, ★Sec 1, W, 6:10-8:40, EE/CSci 3115, Kumar

**CSci 5180 SOFTWARE ENGINEERING I.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Emphasis on abstractions as vehicle for analysis, design, and testing and on modules as vehicle for implementation. Software life cycle and project data bases. PSL/PSA. Actor model of computation process, and data modeling. Specification language MSG. Use of abstractions in functional, architectural, and module design. Test case selection and reliability assessment. Systematic coding: invariants and representation functions. (Prereq 3107 or 5101 or 3327 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Winter Qtr, ★Sec 1, W, 6:10-8:40, EE/CSci 3115  
Spring Qtr, ★Sec 2, M, 6-9:30, 119 Science Bldg, NHCC, 7411 85 Ave N, Brooklyn Park.  
*Students enrolling in this section must purchase textbooks only at the North Hennepin Community College bookstore. (Limit 30)*

**CSci 5201 INTRODUCTION TO COMPUTER ARCHITECTURE.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Elementary computer architecture, gates and digital logic, register transfers and micro-operations, processor studies of existing systems. (Prereq 3311 or 3400, 3107 or 5101 or 3327 or #. Open for graduate credit only to **nonmajors**. Limited to 60)

Fall Qtr, ★Sec 1, W, 6-9:30, 166 Career & Cont Educ Bldg, NHCC, 7411 85 Ave N, Brooklyn Park. *Students enrolling in this section must*

*purchase textbooks only at the North Hennepin Community College bookstore. (Limit 25)*  
Winter Qtr, ★Sec 2, T, 6:10-8:40, EE/CSci 3230

**CSci 5211 DATA COMMUNICATIONS AND COMPUTER NETWORKS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Network classification and services. Hardware components: multiplexors, concentrators, communications media. Network protocols and architectures. Research areas. Informal laboratory. (Prereq 5102 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Fall Qtr, ★Sec 1, M, 6-9:30, 119 Science Bldg, NHCC, 7411 85 Ave N, Brooklyn Park.

*Students enrolling in this section must purchase textbooks only at the North Hennepin Community College bookstore. (Limit 30)*

Spring Qtr, ★Sec 2, W, 6:10-8:40, EE/CSci 3115

**CSci 5212 NETWORK PROGRAMMING LABORATORY.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

(Prereq 5102 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr, ★Sec 1, T, 6-9, 139 Science Bldg, NHCC, 7411 85 Ave N, Brooklyn Park.

*Students enrolling in this section must purchase textbooks only at the North Hennepin Community College bookstore.*

**CSci 5301 NUMERICAL ANALYSIS.** 4 credits, tuition\* (includes \$6 special fee): Resident \$352; Non-resident \$1009.40; Resident Graduate credit \$434; Non-resident Graduate credit \$862; Resident Graduate School credit \$741; Non-resident Graduate School credit \$1623.

Floating point arithmetic and rounding errors. Iterative methods. Numerical solution of nonlinear equations. Newton's method. Direct methods for linear systems of equations. Gaussian elimination. Factorization methods. Interpolation and approximation. Numerical integration and differentiation. Introduction to numerical solution of ordinary differential equations. Informal laboratory. (Prereq Math 3261 or #; a knowledge of Pascal or FORTRAN is assumed. Qualified students who are **nonmajors** may register for graduate credit at the University of Minnesota. Limited to 60)

Spring Qtr, ★Sec 1, M, 6:10-8:40, EE/CSci 3115, Frankowski

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CSci 5400 INTRODUCTION TO AUTOMATA THEORY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Turing machines, computable functions, unsolvability of the halting problem, recursive functions. Finite state models; equivalence, minimization, properties, decision questions, characterizations. Regular expressions. Survey of other automata. (Prereq 3311 and 3321 or #. Open for graduate credit only to **nonmajors**. Limited to 60) Fall Qtr, ★Sec 1, M, 6:10-8:40, EE/CSci 3115

**CSci 5502 INTRODUCTION TO OPERATING SYSTEMS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Definition and historical development or operating systems. Abstractions and implementations of features common to most systems. Concurrency and related control problems. Resource allocation. Storage allocation. Process manager and the kernel of an operating system. Sharing. Capability-based addressing. Protection. Performance measurement and analysis. (Prereq CLA CSci major or IT CSci major upper division or grad, 5102 and 3322 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60) Winter Qtr, ★Sec 1, Th, 6:10-8:40, MechH 202

### Continuing Education for Women

(See credit courses list on page 377. See The Compleat Scholar and Practical Scholar noncredit courses beginning page 379.)

### Counseling, Chemical Dependency

(See Family Social Science)

### Cultural Studies and Comparative Literature (CSCL)

(350 Folwell Hall: 624-8099)

College of Liberal Arts

Textbooks for most CLit, CSDS, and CSCL courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also American Studies, Art History; Classical and Near Eastern Studies, English; General College; Humanities; Interdepartmental Study, Philosophy, Psychology; The Compleat Scholar non-credit courses; and individual foreign language departments for other literature courses)

Chris Bezat, Lecturer  
Giulia Colaizzi, Lecturer  
Barbara Engh, Lecturer  
Jeanine Ferguson, Lecturer  
Ole Gram, Lecturer  
Bruce Jenkins, Adjunct Associate Professor of Art History  
Michelle Lekas, Lecturer  
Sylvia Lopez, Lecturer  
Kitty Millet, Lecturer  
Charles Sheaffer, Lecturer  
Gary Thomas, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Comparative Literature, Comparative Studies in Discourse and Society, and Cultural Studies and Comparative Literature. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before registration for that quarter begins.

### Comparative Literature (CLit)

*No CLit courses offered through Extension Classes 1994-95*

### Cultural Studies and Comparative Literature (CSCL)

**Most of the courses for a major in Cultural Studies and Comparative Literature can be completed in the evening.**

Students interested in a major in Cultural Studies and Comparative Literature should discuss plans with a CEE adviser (625-2500).

#### B.A. Major Sequence

#### Major Requirements

**A. CSCL Department Courses**—48 credits to include: 1) CSCL 1301 or 1001; and 1302, and 1303 (12 credits); 2) Five 3xxx-level CSCL courses, including courses from at least three of the following four divisions (20 credits): a) Discursive Practices, b) Culture and Conflict: Case Studies, c) Influential Configurations of Knowledge, and d) Social Constructions of the Subject; 3) Four 5xxx-level CSCL courses, including one CSCL 5990 (Senior Workshop/Major Project) and three addi-

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



tional courses carrying any of the departmental designators (CSCL, CLit, CSDS) (16 credits)

**B. Concentration (16 credits)**—Four 3xxx-5xxx CLA courses relevant to the declared area of concentration, approved by an adviser. At least one course must be from CSCL, CLit, or CSDS. None of the four courses can be 1xxx level (16 credits).

**Note:** For sections A2, A3, and B, departmental (CSCL, CLit, CSDS) topics courses (3910 and 5910) and directed studies (3970 and 5970) will meet stated requirements. Up to four courses in sections A and B, excluding 3xxx- and 5xxx-department courses, may be taken S-N.

**B.A. Minor Sequence**

**Minor Requirements**

(Minimum 24 credits)

Six CSCL courses, including a) CSCL 1301 or 1001 (4 credits), and 1302 or 1303 (4 credits), b) three 3xxx-level courses (12 credits), and c) one 5xxx-level CSCL course carrying any of the departmental designators (CSCL, CLit, CSDS) (4 credits)

**Concentration**—Under either option, the nature of the concentration and the courses which comprise it are a matter of your own choice, though your final program must be approved by your adviser.

**You need not be majoring in Cultural Studies and Comparative Literature to register for these classes.**

**CSCL 1301 DISCOURSE AND SOCIETY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

General introduction to modes of expression (e.g. verbal, visual, musical) through representative works. Analysis of discourse in relation to social structures, examining its role in creating and contesting social borders, replicating cultures, and attaching differential privilege to various cultural practices. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FolH 138

Winter Qtr, ★Sec 2, T, 6:20-8:50, FolH 138

Spring Qtr, ★Sec 3, M, 6:20-8:50, FolH 138

**CSCL 1302 TEXT AND CONTEXT.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Examination of varied historically grounded case studies, in order to explicate ways in which social and political tensions of particular moments and local milieus find representation in specific items of discourse. Relation of cultural discourses to the sociohistorical conditions of their emergence. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, M, 6:20-8:50, FolH 138

**CSCL 1303 KNOWLEDGE, PERSUASION, AND POWER.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Inquiry into the ways certain bodies of discourse come to cohere, to exercise persuasive power, and to be regarded as authoritative, while others are marginalized, ignored, or denigrated. Interrelations of center and periphery, hegemony and counterhegemony, cannon and apocrypha. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, W, 6:20-8:50, FolH 138

**CSCL 1921 INTRODUCTION TO FILM STUDY.** 4 credits, §ArtH 1921, tuition\* (includes \$20 course fee): Resident \$314; Non-resident \$872.60.

Fundamentals of film language and major theories of film, presented through detailed analysis of several films. (No prereq. Meets concurrently with ArtH 1921)

Fall Qtr, ○Sec 1, MW, 12:20-1:10, AndH 310; F, 12:20-2:30, AndH 310, Jenkins (A joint Day/Extension class)

Spring Qtr, Sec 2, T, 6-9, AndH 310, Jenkins

(See also CSch 0148, Anatomy of a Film: The Western—New Trails Across an Old Frontier)

**CSCL 3115 CINEMA AND IDEOLOGY.** 4 credits, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20.

Study of the major aspects of film as discourse with special attention to the complex relations it maintains with the ideological and political contexts in which it appears. Specific films will be used to study cinema as institution, film as current product, and artistic ideologies in politics. (No prereq)

Winter Qtr, Sec 1, Th, 6:20-8:50, FolH 114, Colaizzi

**CSCL 3132 THE MODERN NOVEL IN A COMPARATIVE PERSPECTIVE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examination of the relationship of modernity to the genre of the novel in Western Europe and the Americas. Students will analyze the notions of subjectivity and philosophical reflection as they are manifested in the literatures of various novelists over a variety of literary periods and geographical terrains. (No prereq)

Spring Qtr, Sec 1, M 6:20-8:50, FolH 218, Gram

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CSCL 3172 MUSIC AS A DISCOURSE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. Close examination of widely varying musical forms and styles, "classical" and "popular," in relation to discourses about music and to larger patterns of culture, ideology, and power. (No prereq)  
Winter Qtr, Sec 1, W 6:20-8:50, FolH 312, Engh  
(See also CSch 0132, Music in Daily Life)

**CSCL 3175 COMEDY: TEXT AND THEORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Interdisciplinary study of comedy and comic theory through time and across world cultures in philosophy, psychology, literature, drama, film, folk tale, play, and social convention. (No prereq)  
Spring Qtr, Sec 1, T, 6:20-8:50, FolH 116,  
Thomas

(See also CSch 0149, The Golden Era of Movie Comedy Teams)

**CSCL 3176 CINEMATIC DISCOURSE AND CULTURAL POLITICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An examination of the way film texts and the social institutions of cinema both contribute to and resist the reproduction of social relations in modern Western countries. Particular attention to class, race, and gender as sites of socio-cultural conflict. (No prereq)  
Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 116, Lekas

**CSCL 3321 THEORIES OF CULTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. Sociological, anthropological, and philosophical models of culture. Critical analyses of the interrelations of art, society, and ideology. Authors to be considered may include, but are not limited to Marx, Durkheim, Freud, Gramsci, Benjamin, Marcuse, Geertz, Derrida, and Foucault. (No prereq)  
Winter Qtr, Sec 1, M, 6:20-8:50, FolH 340,  
Lopez

**CSCL 3412 PSYCHOANALYSIS AND LITERATURE PART I: THE ESSENTIAL FREUD.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The theoretical writings of Sigmund Freud, basic concepts of psychoanalytic criticism, the dream and interpretation, the genre of the case study, Freud's ideas concerning the constitution of ethnicity, culture, identity and gender, fantasy vs. reality, psychoanalysis of the author/character/culture. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, FolH 138, Sheaffer  
(See also CSch 0282, What's Wrong With Freud)

**CSCL 3910 TOPICS: THEORIES AND PRACTICES OF PHOTOGRAPHY.** 4 credits, tuition (includes \$15 course fee)\*: Resident \$323; Non-resident \$908.20.

An examination of a number of the influential theoretical discussions of photography including those offered by Walter Benjamin, Roland Barthes, Susan Sontag, John Tagg, and Victor Burgin. These theories of photography will be considered in relation to the actual practices of a number of 19th- and 20th-century photographers who also wrote and talked about their work. An exploration of how theory at once illuminates the practice of photography while also failing to comprehend the complexity of the field. An attempt will be made to clarify why photography has provoked the uniquely theoretical attention it has recently received. (No prereq)  
Fall Qtr, Sec 1, W, 6:20-8:50, FolH 138,  
Ferguson

**CSCL 3910 TOPICS: MUSIC AND FILM.** 4 credits, tuition\* (includes \$15 course fee): Resident \$323; Non-resident \$908.20.

An examination of the relation between music and image in "classical" and "modernist" films (Welles, Hitchcock, Fellini, Greenaway, Kubrick, Godard, Antonioni, Altman, Scorsese, Spielberg, Campion, Linklater). The different ways in which the tension between sound and image is structured in selected films of these directors will be the focus of the class. Some questions to be considered: Does the film image determine, and thereby dominate, the music? Is the expressive power of the music a "reflection" of the image-idea and/or image-feeling? How does music make audible the inaudible? How do the codes that define musical style and its meaning intersect with the semiotics of film genre and plot? How does music affirm and/or challenge the film narrative? How does music "suture" the viewer and construct identity? How does music create desire and define sexuality? How does music work with regard to the gaze? How does music as "sound-image" interact with the "optical image" to create a sound-silence-visual continuum? (No prereq)

Spring Qtr, Sec 2, Th, 6:20-8:50, FolH 138, C  
Bezart

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CSCL 3931 PROBLEMS IN STATELESS LITERATURES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examination of literatures not subsumable under the concept of "nation." The course will study the aesthetics of the governing nation in relation to governed communities in contrast to alternative communitarian modes of language use to relate history and construct identity. (No prereq)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 116, Millet

## Comparative Studies in Discourse and Society (CSDS)

*No CSDS courses offered through Extension Classes 1994-95*

## Curriculum and Instruction (CI)

(125 Peik Hall: 625-6372)

### College of Education

(Department of Curriculum and Instruction)

*Combines former individual departments of Art Education (ArEd), Elementary Education (Elem), Curriculum and Instructional Systems (CISy), and Secondary Education (SeEd).*

Textbooks for most CI courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Eugene M. Anderson, Associate Professor  
 Patricia G. Avery, Associate Professor  
 Richard Beach, Professor  
 L. JoAnne Buggie, Lecturer  
 LaVonne Carlson, Instructor  
 John J. Cogan, Professor  
 Margaret DiBlasio, Associate Professor  
 Fred N. Finley, Associate Professor  
 Kerry Freedman-Norberg, Associate Professor  
 William E. Gardner, Professor  
 Michael F. Graves, Professor  
 Harlan S. Hansen, Professor  
 Patricia A. Heller, Associate Professor  
 Simon R. Hooper, Assistant Professor  
 Karen N. Hoyle, Professor  
 Roger T. Johnson, Professor  
 Helen L. Jorstad, Associate Professor  
 Judith Lambrecht, Professor  
 Frances Lawrenz, Professor  
 John C. Manning, Professor

Dianne Monson, Professor  
 B. Murphy, Lecturer  
 Darcia Narvaez, Assistant Professor  
 R. Michael Paige, Associate Professor  
 Margaret Y. Phinney, Assistant Professor  
 Thomas R. Post, Professor  
 Gregory C. Sales, Associate Professor  
 James Stochl, Professor  
 Barbara M. Taylor, Professor  
 Diane J. Tedick, Assistant Professor  
 Constance L. Walker, Associate Professor  
 Susan M. Watts, Assistant Professor

**Restriction in CI classes**—A student who does not attend the first class session will, at the instructor's discretion, not be allowed to continue. If it is not possible to attend the first class session, the student should contact the instructor in advance (or the Art Education office at 625-7818) to make necessary arrangements to hold a place in class.

*Enrollments in limited classes in this department are strictly enforced. Neither the department nor the course instructor will give written permission for registration in these classes once the limit is reached and the class closes. However, you may check for openings in day school.*

*These courses are subject to frequent changes in time and rooms. Check for correct day, time, and room in a day school class schedule.*

**Master's Degree**—Master of Education degrees with a focus on **Second Languages and Cultures** or **Leadership or Teacher Leadership** are offered through the College of Education. *For further information on degree programs, telephone (612) 626-7196.*

**Special Offerings**—A variety of courses and workshops in education are available to local school districts which wish to jointly design continuing education experiences to meet local staff needs. Such offerings are limited only by the personnel resources of the college.

For further information about planning individually designed courses or workshops contact: Department Chair, Department of Curriculum and Instruction, University of Minnesota, 145 Peik Hall, 159 Pillsbury Drive S.E., Minneapolis, MN 55455. Telephone: 625-1362.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CI 5069 (formerly ArEd 5302) CURRICULUM INNOVATIONS IN ART EDUCATION.** 4 credits, §ArEd 5302, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Study and analysis of innovations, evaluation of materials for teaching units and projects. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension Students)

Fall Qtr, ★●Sec 1, TTh, 4:40-6:25, PeikH 40, DiBlasio

**CI 5070 (formerly ArEd 5310) HISTORY OF AMERICAN ART EDUCATION.** 3 credits, §ArEd 5310, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Development of art as subject matter in curriculum; relation to traditions in art and in schooling; comparison of change within social, political, and economic contexts. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension Students)

Fall Qtr, ★●Sec 1, W, 4:40-7:25, PeikH 40, Freedman-Norberg

**CI 5113 (formerly Elem 5145) CLASSROOM MANAGEMENT.** 3 credits, §Elem 5145, §SeEd 5145, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For teachers, administrators, and support staff working in elementary school programs; focus on management of student behavior, of instruction as it relates to student behavior, and of teacher organizational tasks within the classroom. **Must be taken A-F.** (Prereq tchg or admin exper or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1 T, 4:30-7, PeikH 28, Hansen

**CI 5130 (formerly CISy 5600) INTRODUCTION TO CURRICULUM SYSTEMS.** 3 credits, §CISy 5600, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident

Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to the field of curriculum. Exploration and assessment of definitions of curriculum; historical and current issues; principles and theories of curriculum; alternative models and methods of design and evaluation. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7, PeikH 315, Gardner

Winter Qtr, ★●Sec 2, W, 4:30-7, PeikH 315

Spring Qtr, ★●Sec 3, M, 4:30-7, PeikH 215, Harris

**CI 5138 CLASSROOM COMMUNICATION: MULTICULTURAL AND MORAL PERSPECTIVES.** 4 credits, §CISy 5600, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An examination of the factors that lead to effective communication in the ethnically diverse classroom, preschool-adult. Readings and discussion will explore communication techniques and classroom structures that have cultural and moral implications. Students will have the opportunity to expand their intercultural communication skills through tutoring and in-class practice. (Prereq MEd or Grad student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:30-7, PeikH 25, Narvaez

**CI 5155 (formerly CISy 5902) CLASSROOM INSTRUCTION.** 3 credits, §CISy 5902, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Identifying goals, selecting instructional strategies, and developing assessment procedures for contemporary K-12 students. (Prereq MEd or Graduate school student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension Students)

Winter Qtr, ★●Sec 1, Th, 4:30-7, PeikH 48, Graves

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CI 5160 (formerly CISy 5160) SUPERVISION OF ELEMENTARY, SECONDARY, AND POST-SECONDARY INSTRUCTION.** 3 credits, §CISy 5160, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Achievement of appropriate teaching expectations focusing on problems of personnel responsible for their improvement. **Must be taken A-F.** (Prereq 5130 or CISy 5600. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, T, 4:30-7, PeikH 325, Anderson

**CI 5172 (formerly Elem 5107) TEACHING STUDENTS WITH LEARNING DIFFICULTIES.** 3 credits, §Elem 5107, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Diagnosis of pupil difficulty; development and prevention; tests as aids to teaching; following up a testing program; socio-emotional problems associated with learning difficulties. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, M, 4:30-7, PeikH 48, Watts

**CI 5187 (formerly Elem 5602) INTRODUCTION TO CURRICULUM SYSTEMS.** 3 credits, §Elem 5602, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Elementary school classroom teaching project designed to improve specific teaching skills, planned by student and approved and directed by student's adviser as part of M.Ed. program. **Must be taken A-F.** (Prereq M.Ed. student in elementary education and early childhood. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, Arr, Heller

Spring Qtr, ★●Sec 2, Arr, Hansen

**CI 5195 (formerly SeEd 5351) DIRECTED STUDY IN ELEMENTARY AND SECONDARY EDUCATION.** Cr arr (max 6 credits), §SeEd 5351, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Individual or group work on curricular, instructional, or evaluation problems. (Prereq educ or grad student, #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 6)

Fall Qtr, ★Sec 1, Arr, Jorstad

Fall Qtr, ★Sec 2, Arr, Walker

Winter Qtr, ★Sec 3, Arr, Beach

Winter Qtr, ★Sec 4, Arr, Graves

Winter Qtr, ★Sec 5, Arr, Lawrenz

Winter Qtr, ★Sec 6, Arr, Jorstad

Winter Qtr, ★Sec 7, Arr, Walker

Winter Qtr, ★Sec 8, Arr, Tedick

Winter Qtr, ★Sec 9, Arr

Winter Qtr, ★Sec 10, Arr, Avery

Spring Qtr, ★Sec 11, Arr, Jorstad

Spring Qtr, ★Sec 12, Arr, Lawrenz

Spring Qtr, ★Sec 13, Arr, Tedick

Spring Qtr, ★Sec 14, Arr, Walker

**CI 5250 (formerly Elem 5376) CURRENT TRENDS IN EARLY CHILDHOOD EDUCATION.** 3 credits, §Elem 5376, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Continuing needs of children in our changing culture; current practices and recent research. **Must be taken A-F.** (Prereq teaching experience in kindergarten or primary or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 17 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, PeikH 28, Hansen

Winter Qtr, ★●Sec 2, M, 4:30-7, PeikH 28, Hansen

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CI 5251 (formerly Elem 5377) EARLY CHILDHOOD EDUCATION; MATERIALS AND RESOURCES.** 3 credits, §Elem 5377, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Experience in the selection and use of commercial and teacher-made educational materials and media common to early childhood education programs. **Must be taken A-F.** (Prereq 5250 or Elem 3377 or Elem 3376. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, M, 4:30-7, PeikH 28,  
Hansen

**CI 5252 (formerly Elem 5378) CONTEMPORARY PROGRAMS FOR YOUNG CHILDREN.** 1-3 credits (maximum 3 cr). 3 credits this offering, §Elem 5378, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Child growth and development aspects of preschool children in light of need for curriculum intervention programs; current trends, program evaluation, recent research. **Must be taken A-F.** (Prereq MED student in early childhood education. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, TTh, 4:45-6:15, NichH  
209A, Carlson

**CI 5253 (formerly Elem 3379) COGNITIVE AND CREATIVE LEARNING IN EARLY CHILDHOOD EDUCATION.** 3 credits, §Elem 3379, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Development approach to planning cognitive, language, and creative curriculum. **Must be taken A-F.** (Prereq CPsy 1301 OR 5301. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4:15-5:45, PeikH 215,  
Murphy

**CI 5335 (formerly CISy 5151) INTRODUCTION TO INSTRUCTIONAL SYSTEMS AND TECHNOLOGY.** 3 credits, §CISy 5151, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of the historical foundations, contemporary issues, and research base of instructional systems. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, PeikH 215,  
Hooper  
Spring Qtr, ★●Sec 2, W, 4:30-7, PeikH 31,  
Hooper

**CI 5337 (formerly CISy 5209) PRINCIPLES AND PROCEDURES IN DESIGNING INSTRUCTION.** 4 credits, §CISy 5209, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Major models of instructional development; generic components; design models; review of instructional design and learning environments. **Must be taken A-F.** (Prereq 5000. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, W, 4:30-7:50, PeikH 335,  
Lambrecht

**CI 5351 (formerly CISy 5208) COMPUTER-BASED TOOLS FOR TEACHERS.** 3 credits, §CISy 5208, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The use of microcomputers for instructional materials generation, record keeping and classroom management tasks in K-12 classrooms. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, W, 4:30-7, PeikH 355,  
Lambrecht

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CI 5360 (formerly CISy 5003) INTRODUCTION TO COMPUTERS AND THEIR USES.** 1 credit, §CISy 5003, tuition\*: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Introduction to computer technology in instruction: hardware, software, terminology, word processing, and instructional applications. Intended for students with no background in computing. **Must be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, M, 7:15-8:05, PeikH 355,  
Hire

Winter Qtr, ★●Sec 2, Th, 6:15-7:05, PeikH 355  
Spring Qtr, ★●Sec 3, T, 3:35-4:15, PeikH 355

**CI 5361 (formerly CISy 5004) INTRODUCTION TO MULTIMEDIA.** 1 credit, §CISy 5004, tuition\*: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Introduction to the use of multimedia technologies; hardware, software, terminology and applications in instruction. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, W, 7:15-8:05, PeikH 335,  
Hire

Winter Qtr, ★●Sec 2, T, 7:15-8:05, PeikH 335  
Spring Qtr, ★●Sec 3, W, 7:15-8:05, PeikH 335

**CI 5362 (formerly CISy 5006) INTRODUCTION TO INSTRUCTIONAL COMPUTER PROGRAMMING.** 3 credits, §CISy 5006, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75..

Introduction to designing computer-based instructional programs through programming. Students need not have a mathematics or science background. **Must be taken A-F.** (Prereq 5360 or CISy 5003 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, W, 4:30-7, PeikH 355,  
Hooper

**CI 5363 (formerly CISy 5205) COMPUTER-BASED INSTRUCTION: INTRODUCTION TO DESIGN.** 3 credits, §CISy 5205, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of computer uses in education and training; models for designing computer-based instruction with particular emphasis on interface design. **Must be taken A-F.** (Prereq 5362 or CISy 5006 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, T, 4:30-7, PeikH 355,  
Hooper

**CI 5367 (formerly CISy 5207) INTERACTIVE VIDEO INSTRUCTION.** 4 credits, §CISy 5207, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Multimedia technologies; design and development of interactive instruction **Must be taken A-F.** (Prereq 5000. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, T, 4:30-7:50, PeikH 325,  
Sales

**CI 5401 (formerly Elem 5300) LITERATURE FOR THE ELEMENTARY SCHOOL.** 3 credits, §Elem 5300, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Evaluative survey of books for children; research related to children's reading interests; selection of literature. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, T, 4:30-7, PeikH 315,  
Monson

Spring Qtr, ★●Sec 2, M, 4:30-7, PeikH 315,  
Monson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CI 5402 (formerly Elem 5305) SURVEY OF SPECIAL COLLECTIONS IN CHILDREN'S LITERATURE.** 3 credits, §Elem 5305, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Content and accessibility of collections that relate to the creation of books; emphasis on possibilities and methods for interpreting the content of the collections to children. **Must be taken A-F.** (Prereq 5401 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr, ★○Sec 1, W, 6:30-9, ChDev 105, Hoyle

**CI 5410 (formerly Elem 5331) TEACHING READING IN THE ELEMENTARY SCHOOL.** 3 credits, §Elem 5331, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Objectives, materials, and teaching procedures; current practices and curricula; class and individual projects. **Must be taken A-F.** (Prereq 9 or in education. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★○Sec 1, W, 4:30-7, PeikH 48, Watts

**CI 5411 (formerly Elem 5334) READING DIFFICULTIES: ASSESSMENT AND INSTRUCTION.** 3 credits, §Elem 5334, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Causes, prevention, and correction; remedial practices useful to the classroom teacher, school counselor, and reading specialist. **Must be taken A-F.** (Prereq 5410 or 5450 or Elem 5331 or SeEd 5344. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★○Sec 1, W, 4:30-7, PeikH 46, Taylor

**CI 5414 (formerly Elem 5337) BEGINNING READING INSTRUCTION.** 3 credits, §Elem 5337, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For teachers and specialists interested in initial teaching procedures; compares alternative methods of beginning instruction; emphasis on readiness programs, test-grouping patterns, language factors, and intensive instruction procedures to prevent reading failure. **Must be taken A-F.** (Prereq 3410 or Elem 3331 or elem teacher or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★○Sec 1, W, 4:30-7, PeikH 48, Manning

**CI 5415 (formerly Elem 5338) TEACHING READING IN THE INTERMEDIATE GRADES.** 3 credits, §Elem 5338, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For teachers and specialists interested in problems of teaching reading beyond the decoding stage; emphasis on comprehension strategies, basic study skills, and reading in the content areas, and use of literature in reading program. **Must be taken A-F.** (Prereq 3410 or Elem 3331 or elem teaching experience or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★○Sec 1, W, 4:30-7, PeikH 48, Watts

**CI 5420 (formerly Elem 5315) TEACHING WRITING IN THE ELEMENTARY SCHOOL.** 3 credits, §Elem 5315, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theory and research dealing with the writing process and application to development of an elementary school writing curriculum. **Must be taken A-F.** (Prereq postbaccalaureate, MEd, or graduate student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★○Sec 1, Th, 4:30-7, PeikH 225, Phinney

Spring Qtr, ★○Sec 2, T, 4:30-7, PeikH 225, Phinney

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**CI 5425 (formerly Elem 5316) TEACHING LANGUAGE ARTS IN THE ELEMENTARY SCHOOL.** 3 credits, §Elem 5316, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Improvement of instruction, study of trends in English education. **Must be taken A-F.** (Prereq 3316 or elementary teaching experience. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★○Sec 1, Th, 4:30-7, PeikH 225, Phinney

**CI 5440 (formerly SeEd 5321) TEACHING LITERATURE IN SECONDARY SCHOOLS.** 5 credits, §SeEd 5321, tuition\*: Resident \$432.50; Non-resident \$1254.25; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Current theory and methods of instruction; research and response to literature and reading; adolescent literature; growth assessment; curriculum design and evaluation. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★○Sec 1, Th, 4:30-7, PeikH 28, Beach

**CI 5441 (formerly SeEd 5320) LITERATURE FOR ADOLESCENTS.** 3 credits, §SeEd 5320, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Reading and analysis of fiction and nonfiction; methods for critically assessing quality and appeal; appropriate for secondary English and social studies teachers and librarians. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★○Sec 1, Sa, 9 a.m.-12:30, PeikH 28, Beach

**CI 5450 (formerly SeEd 5344) TEACHING READING IN CONTENT AREAS.** 3-5 credits, §SeEd 5344, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Methods of accommodating to student abilities and facilitating reading in regular content classes. (No

prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students) Winter Qtr, ★○Sec 1, T, 4:30-7, PeikH 48

**CI 5451 (formerly SeEd 5175) SECONDARY REMEDIAL READING INSTRUCTION.** 3 credits, §SeEd 5175, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles and techniques for developing and conducting programs for secondary students seriously deficient in reading skills. **Must be taken A-F.** (Prereq 5450 or 5410 or equivalent, SeEd 5344. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★○Sec 1, T, 4:30-7, PeikH 315, Graves

**CI 5460 (formerly SeEd 5322) TEACHING WRITING IN SECONDARY SCHOOLS AND COLLEGES.** 3 credits, §SeEd 5322, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Historical and contemporary context; analysis of composing processes; prewriting and revision; audience analysis; comprehension and coherence; selected problems in assigning and evaluating writing. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★○Sec 1, T, 4:30-7, PeikH 48

**CI 5470 (formerly SeEd 5176) CLASSROOM RESEARCH IN LITERARY EDUCATION.** 3 credits, §SeEd 5176, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Review and analysis of current studies; design and analyses for school-based research. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★○Sec 1, T, 4:30-7, PeikH 46, Graves

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CI 5480 (formerly SeEd 5659) SCHOOL-RELATED PROJECTS IN ENGLISH EDUCATION AND ?** 1-6 credits. 3 credits this offering, §SeEd 5659, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Individual or group work on curricular, instructional, or evaluation problems and projects applicable to school situations. **Must be taken A-F.** (Prereq M.Ed. student in English education. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 3 Extension students)

Winter Qtr, ★●Sec 1, Arr, Beach

Winter Qtr, ★●Sec 2, Arr, Graves

**CI 5502 (formerly Elem 5348) WORKSHOP: OUTDOOR SCIENCE EDUCATION.** 3 credits, §Elem 5348, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Classroom and fieldwork activities dealing with models, materials, and methods in the outdoor setting; consideration of broad topics such as ecological relationships, cyclic processes and change as well as more specific topics such as rocks and minerals, plants and animals, and stargazing. *Dates are subject to change; for current information, call Prof. Robert Johnson at (612) 624-7031.* (Prereq elem teaching experience. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Spec Term, ★●Sec 1, F, 6-9, Jan. 27,

Woodlake Nature Center, Richfield, Johnson;

SaSu, 8:30 a.m.-4:30, Jan. 28, 29, Woodlake

Nature Center, Richfield; F, 6-9, Mar. 3, Long

Lake Conservation Center, Aitkin, Minn.;

SaSu, 8:30 a.m.-4:30, Mar. 4, 5, Long Lake

Center, Aitkin, Minn.; M, 6-9, Mar. 6,

Woodlake Nature Center, Richfield. *No late fee through Jan. 20*

**CI 5504 (formerly Elem 5350) ELEMENTARY SCHOOL SCIENCE: MATERIALS AND RESOURCES.** 3 credits, §Elem 5350, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Experiences in the use of educational materials and media common to the teaching of modern elementary school science. **Must be taken A-F.** (Prereq elementary teaching experience or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, M, 4:15-7:15, PeikH 385,

Johnson

Spring Qtr, ★●Sec 2, T, 4:30-7:15, PeikH 365,

Johnson

**CI 5533 (formerly SeEd 5397) STUDIES IN SCIENCE EDUCATION.** 3 credits, §8887, §SeEd 5397, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Improvement of science teaching through application of research findings. **Must be taken A-F.** (Prereq 8500 or SeEd 8887, M.Ed. student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, W, 4:30-7, PeikH 365,

Heller

**CI 5534 (formerly SeEd 5706) FOUNDATIONS OF SCIENCE EDUCATION.** 3 credits, §SeEd 5706, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of present practices in light of the historical and philosophical foundations of science education. **Must be taken A-F.** (Prereq admission to M.A., M.Ed., or Ph.D. in education. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, W, 4:30-7, PeikH 365,

Finley

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**CI 5619 (formerly Elem 5319) TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Methods and materials; developing oral and written communication; consideration of alternatives in program format; preparation of materials; global awareness and cross-cultural experience; assessing children's language; children's literature, games, songs; developing units and lessons. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Fall Qtr, ★●Sec 1, Sa, 9 a.m.-12, PeikH 215, Jorstad

**CI 5642 (formerly SeEd 5218) ASSESSMENT OF LEARNERS WITH LIMITED ENGLISH PROFICIENCY.** 4 credits, §SeEd 5218, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Social, political, and educational context. Evaluation vs. research and implications for bilingual schooling, curriculum development, and materials section; existing methods for assessment of language proficiency and academic achievement. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, W, 4:40-8, PeikH 315, Walker

**CI 5652 (formerly SeEd 5122) TEACHING CULTURE: THEORY AND APPLICATION.** 4 credits, §SeEd 5122, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of the concept; related factors and materials for use in the classroom; culture shock; empathy; culture conflict, awareness, learning. **Must be taken A-F.** (Prereq postbaccalaureate or graduate student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, Th, 4:40-8:05, PeikH 155, Paige

**CI 5656 (formerly SeEd 5219) READING AND WRITING IN A SECOND LANGUAGE.** 4 credits, §SeEd 5219, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Reading comprehension and composing processes in a second language; relationship between first and second language comprehension and composing processes, between reading and writing, and between culture and reading comprehension and writing; politics of literacy; assessment of second language literacy. (Interactive television offering.) **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, T, 4:40-8:05, ChDev 216, Tedick

**CI 5657 (formerly SeEd 5385) SPEAKING AND LISTENING IN A SECOND LANGUAGE.** 4 credits, §SeEd 5385, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theories and methods of teaching language as communication in oral and aural modes; planning student interaction; classroom organization for learning and acquisition. Students complete reflective analyses of lessons. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, Sa, 9 a.m.-12, PeikH 215, Jorstad

**CI 5662 (formerly SeEd 5189) CRITICAL ISSUES IN SECOND LANGUAGE CURRICULUM.** 4 credits, §SeEd 5189, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Development of competencies in curriculum and materials construction; application to lessons, units, modules, courses, levels of instruction in ongoing programs of second language acquisition in schools. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, T, 4:40-7:05, PeikH 165, Tedick

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CI 5669 (formerly SeEd 5185) SCHOOL AND PROFESSIONAL BASED EXPERIENCES IN SECOND LANGUAGES AND CULTURES.** 1-12 credits (max 12 credits), §SeEd 5185, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

(Prereq MEd students only. Qualified students may register for graduate credit at the University of Minnesota. Limited to 6)

Fall Qtr, ★Sec 1, Arr, Jorstad

Fall Qtr, ★Sec 2, Arr, Lange

Fall Qtr, ★Sec 3, Arr, Paige

Fall Qtr, ★Sec 4, Arr, Tedick

Fall Qtr, ★Sec 5, Arr, Walker

Winter Qtr, ★Sec 6, Arr, Jorstad

Winter Qtr, ★Sec 7, Arr, Lange

Winter Qtr, ★Sec 8, Arr, Walker

Winter Qtr, ★Sec 9, Arr, Tedick

Spring Qtr, ★Sec 10, Arr, Jorstad

Spring Qtr, ★Sec 11, Arr, Lange

Spring Qtr, ★Sec 12, Arr, Walker

Spring Qtr, ★Sec 13, Arr, Tedick

**CI 5680 (formerly Elem 5320) PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** 3 credits, §Elem 5320, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642.

Minimum of three hours weekly of supervised teaching and observation in elementary schools. **Must be taken S-N.** (Prereq 5619 or ¶5619 or Elem 5319, #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★Sec 1, Arr, Jorstad

Winter Qtr, ★Sec 2, Arr, Jorstad

Spring Qtr, ★Sec 3, Arr, Jorstad

**CI 5730 (formerly Elem 5361) SOCIAL STUDIES FOR THE IN-SERVICE ELEMENTARY/MIDDLE SCHOOL.** 3 credits, §Elem 5361, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Content and organization of social studies programs; programs of understanding, improving the learning situation, and effective use of materials. **Must be taken A-F.** (Prereq 5110 or Elem 3101 or equivalent; postbaccalaureate students only. Quali-

fied students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★Sec 1, T, 4:30-7, PeikH 225, Cogan

**CI 5760 (formerly SeEd 5152) TECHNIQUES OF INSTRUCTION IN SOCIAL STUDIES.** 3 credits, §SeEd 5152, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of teaching strategies and contemporary curriculum materials in the social studies; techniques of instruction useful in inquiry; strategies of analysis; classroom behavior and evaluation; required of all M.A., M.Ed., and Ph.D. candidates. **Must be taken A-F.** (Prereq in-service teacher or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★Sec 1, M, 5-8, PeikH 325, Avery

**CI 8190 (formerly Elem 8991) PROBLEMS: IMPROVEMENT OF INSTRUCTION.** Credits arranged, §Elem 8991, tuition\* each credit: Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

For students qualified to make intensive studies of problems related to school supervision. (Prereq #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 1 Extension student)

Spring Qtr, ★Sec 1, Arr, Manning

**CI 8361 (formerly CISy 8411) ADVANCED COURSEWARE AND DESIGN: ISSUES.** 3 credits, §CISy 8411, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of the most recent trends and issues in the research and development of computer-based instructional materials. (Prereq 5365 or 5366 or CISy 5216 or CISy 5218. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★Sec 1, M, 4:30-7, PeikH 335, Sales

**Day School Classes**—In addition to the Extension classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Dance (Dnce)**

(106 Norris Hall: 624-5060)

Department of Theatre Arts and Dance

**College of Liberal Arts**

**NOTE:** Students with questions about Dnce courses should call Zoe Sealy, Extension Classes Dance Coordinator, at 626-7210.

Textbooks for most Dnce courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Diane Aldis, Teaching Specialist  
 Scott Anderson, Teaching Specialist  
 Joe Chvala, Teaching Specialist  
 Susana DiPalma, Teaching Specialist  
 Michael Ellison, Teaching Assistant  
 Mary Harding, Teaching Specialist  
 Ray Hayward, Teaching Specialist  
 Morris Johnson, Teaching Specialist  
 Mary B. Lampe, Associate Professor  
 Dong-Il Lee, Teaching Assistant  
 Barbara Loeb, Teaching Specialist  
 Rita Mustaphi, Teaching Specialist  
 Raneeramaswamy, Teaching Specialist  
 Sarah Springer, Teaching Specialist  
 Linda Stoen, Teaching Specialist

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Dance. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before registration for that quarter begins.

*It is assumed that the health of adults registering for classes will be equal to the demands of the activities in which they are to participate. Students are required to sign a "health waiver" form on the first day of class.*

**Dance (Dnce) courses (numbered through 1499) may be taken S-N.**

**Dnce 1001 FUNDAMENTALS OF MODERN DANCE I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Introduction to fundamentals of modern dance technique. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, MW, 5:20-6:50, NorrisH 67, Aldis

Winter Qtr, ★Sec 2, MW, 7-8:30, NorrisH 67, Aldis

**Dnce 1002 FUNDAMENTALS OF MODERN DANCE II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Introduction to the fundamentals of modern dance techniques, level two. Emphasis on exploring rhythms and dynamics underlying movement. (Prereq 1001 or equivalent. Limited to 20)

Winter Qtr, ★Sec 1, MW, 5:20-6:50, NorrisH 67, Aldis

**Dnce 1004 FUNDAMENTALS OF BALLET I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Introduction to the fundamentals of classical ballet techniques including barre and center work. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, TTh, 5:20-6:50, NorrisH 67, Harding

Winter Qtr, ★Sec 2, TTh, 5:20-6:50, NorrisH 67, Harding

**Dnce 1005 FUNDAMENTALS OF BALLET II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Fundamentals of classical ballet including barre, center work, and combinations; level two. (Prereq 1004 or equivalent. Limited to 20)

Spring Qtr, ★Sec 1, TTh, 5:20-6:50, NorrisH 67, Harding

**Dnce 1007 FUNDAMENTALS OF JAZZ I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Basic skills of jazz dance. (No prereq. Limited to 16)

Fall Qtr, ★Sec 1, TTh, 5:30-7, RarigC 10, Ellison

**Dnce 1008 FUNDAMENTALS OF JAZZ II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Basic skills of jazz dance and its origins, level two. (Prereq 1007 or equivalent. Limited to 16)

Winter Qtr, ★Sec 1, TTh, 5:30-7, RarigC 10, Ellison

**Dnce 1009 FUNDAMENTALS OF JAZZ III.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Basic skills of jazz dance and its origins with emphasis on use of rhythms and phrasing. (Prereq 1008 or equivalent. Limited to 16)

Spring Qtr, ★Sec 1, TTh, 5:30-7, RarigC 10, Ellison

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Dnce 1031 BALLROOM DANCE I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Elementary steps and variations of the foxtrot, lindy, waltz, tango, cha-cha, rhumba, and samba. (No prereq. Sec 1 and 2 meet concurrently; sec 3 and 4 meet concurrently; sec 5 and 6 meet concurrently. Limited to 25 each section)

Fall Qtr, ★Sec 1, M, 7-9, NorrisH 151, Lampe (men only)

Fall Qtr, ★Sec 2, M, 7-9, NorrisH 151, Lampe (women only)

Spring Qtr, ★Sec 3, M, 7-9, NorrisH 151, Lampe (men only)

Spring Qtr, ★Sec 4, M, 7-9, NorrisH 151, Lampe (women only)

**Dnce 1032 BALLROOM DANCE II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Second level of the foxtrot, lindy, waltz, tango, cha-cha, rhumba, and samba with emphasis on style. (Prereq 1031 or equivalent. Sec 1 and 2 meet concurrently. Limited to 25 each section)

Winter Qtr, ★Sec 1, M, 7-9, NorrisH 151, Lampe (men only)

Winter Qtr, ★Sec 2, M, 7-9, NorrisH 151, Lampe (women only)

**Dnce 1034 INTERNATIONAL FOLK DANCE I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Introductory course in International Folk Dance. Students will learn folk dances from many different cultures and countries in the world. Basic folk locomotor movements such as schottischje, polka, skip, waltz, and grapevine, as well as a variety of dance forms such as circle dance and line dance. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, W, 7-9, NorrisH 151, Loeb

Spring Qtr, ★Sec 2, W, 7-9, NorrisH 151, Loeb

(See also CSch 0178, International Folk Dancing)

**Dnce 1036 WORLD DANCE TECHNIQUES—AFRO-CARIBBEAN.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

An introduction to the music, rhythms, and dance styles of the Caribbean Islands. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, MW, 5:20-6:50, NorrisH 153, Johnson

Winter Qtr, ★Sec 2, MW, 5:20-6:50, NorrisH 153, Johnson

**Dnce 1037 WORLD DANCE TECHNIQUES—AFRO-CARIBBEAN II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The music, rhythms, and dance styles of the Caribbean Islands with emphasis on more intricate and longer phrases of movement. (Prereq 1036 or equivalent. Limited to 30)

Spring Qtr, ★Sec 1, MW, 5:20-6:50, NorrisH 153, Johnson

**Dnce 1077 BEGINNING TAPI.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The basics of tap; learning fundamental terms and basic rhythm structures. (No prereq. Limited to 18)

Fall Qtr, ★Sec 1, TTh, 5:20-6:20, PeikG 65, Chvala

Winter Qtr, ★Sec 2, TTh, 6:30-7:30, PeikG 65, Chvala

**Dnce 1078 BEGINNING TAP II.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The basics of tap; fundamental terms, basic rhythms, stock steps, and standard time steps. (Prereq 1077 or equivalent. Limited to 18)

Winter Qtr, ★Sec 1, TTh, 5:20-6:20, PeikG 65, Chvala

**Dnce 1079 BEGINNING TAP III.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The basic of tap; emphasis on clarity of sound and rhythm. (Prereq 1078 or equivalent. Limited to 18)

Spring Qtr, ★Sec 1, TTh, 5:20-6:20, PeikG 65, Chvala

**Dnce 1110 DANCE TOPICS: KOREAN MASK DANCE—PONGSAN MASKED DANCE DRAMA.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

One of the most popular of traditional performing arts. Originated from the Pongsan area of Korea and flourished from the 18th to the 20th century. The class will synthesize various elements of theatricality including song, dance, poetry reading, mime, mask-making craft, drama, drum playing, and story telling. Most of these elements grew out of Shamanistic rituals from pre-historic periods. (No prereq. Limited to 16)

Fall Qtr, ★Sec 1, MW, 5:30-7, RarigC 10, Lee

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Dnce 1110 DANCE TOPICS: WORLD DANCE TECHNIQUES—INDIAN CLASSICAL DANCE.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The classical dances of India, including Bharatanatyam (South Indian) and Kathak (North Indian). (No prereq. Limited to 16)

Winter Qtr, ★Sec 2, MW, 5:30-7, RarigC 10, Mustaphi, Ramaswamy

**Dnce 1110 DANCE TOPICS: YOGA.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Yoga is an ancient Eastern movement tradition which integrates the body, breath, and mental focus through a series of specific movement postures. Regular practice of yoga can facilitate the release of tension, improve alignment and physical health. Yoga also helps to maintain a state of well being, clarity, and calm. (No prereq. Limited to 20)

Winter Qtr, ★Sec 3, T, 7-9, NorrisH 151, Anderson

(See also PSch 0931, Meditation: Seeing the Mind)

**Dnce 1110 DANCE TOPICS: MODERN REPERTORY AND PERFORMANCE.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Focus is on the development of a dance performance piece. Designed as a combination technique class and rehearsal. (Prereq 1001, 1002 or equivalent. Limited to 20)

Spring Qtr, ★Sec 4, MW, 5:20-6:50, NorrisH 67, Aldis

**Dnce 1110 DANCE TOPICS: WORLD DANCE TECHNIQUES—FLAMENCO.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

The classical dance of Spain. (No prereq. Limited to 16)

Spring Qtr, ★Sec 5, MW, 5:30-7, RarigC 10, DiPalma

**Dnce 1110 DANCE TOPICS: FUNDAMENTALS OF APPALACHIAN CLOGGING.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

Exploring the rudiments of clogging technique and its origin. (No prereq. Limited to 18)

Spring Qtr, ★Sec 6, TTh, 6:30-7:30, PeikG 65, Springer

**Dnce 1110 DANCE TOPICS: T'AI CHI CH'UAN.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

A slow-motion exercise which works out the complete muscular and nervous system as well as benefiting the internal organs. The gentle movements calm the mind and breath as well as unifying the body into one unit. This class will include some Daoist warm-up exercises, Ch'i-Kung breathing exercises, and an introduction to the formal T'ai Chi movements. (No prereq. Meets concurrently with PE 1110. Limited to a combined total of 20)

Spring Qtr, ★Sec 7, TTh, 7-8:30, NorrisH 67, Hayward

**Dnce 3077 INTERMEDIATE TAP I.** 1 credit, tuition\* (includes \$30 special fee): Resident \$107; Non-resident \$253.30.

Concentration on complex rhythm structures, syncopation, and improvisation. (Prereq 1079 equivalent. Limited to 18)

Fall Qtr, ★Sec 1, TTh, 6:30-7:30, PeikG 65, Chvala

**Dnce 3330 TOPICS: DANCE FOR THE ATHLETE.** 2 credits, tuition\* (includes \$30 special fee): Resident \$184; Non-resident \$476.60.

Dance skills for athletes which develop flexibility, strength, speed, and balance. Barre and floor work will be included. (No prereq. Limited to 18)

Winter Qtr, ★Sec 1, MW, 7-9, PeikG 65, Stoen

**Dnce 3334 BODYWORK I: MOVEMENT AS COMMUNICATION.** 2 credits, tuition\* (includes \$30 special fee): Resident \$184; Non-resident \$476.60.

Principles of techniques of bodywork including applications within wellness/stress management fields. *Students will be required to purchase a course packet from Copies on Campus as a text.* (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, M, 7-9, NorrisH 67, Aldis

**Dnce 3335 BODYWORK II: EXPLORING THE ARTICULATE BODY.** 2 credits, tuition\* (includes \$30 special fee): Resident \$184; Non-resident \$476.60.

Further study in depth of the body's potential for healthy and efficient movement patterns through movement experiences and discussion. Each unit will explore concepts from anatomy, kinesiology, and contemporary body therapies (Somatics) to learn about specific areas of the body, their function, expressive potential, and relationship to other areas of the body. *Students will be required to purchase a course packet from Copies on Campus as a text.* (Prereq 3334 or #. Limited to 20)

Spring Qtr, ★Sec 1, M, 7-9, NorrisH 67, Loeb

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Danish

(See Scandinavian Languages)

### Decision Sciences (DSci)

See Information and Decision Sciences, page 239; and Operations and Management Science, page 290.

### Dentistry

For information on noncredit conferences or workshops in dentistry, please contact the director, Lynda Young Kreischer, Continuing Dental Education, Room 6-406 Moos Health Science Tower, 515 Delaware Street S.E., University of Minnesota, Minneapolis 55455; telephone 625-1418.

### Design, Housing, and Apparel (DHA)

(240 McNeal Hall: 624-9700)

College of Human Ecology

**PLEASE NOTE:** All courses previously offered as Dsgn, Hsg, and TexC courses are now offered as DHA courses.

Textbooks for most DHA courses are available at University of Minnesota Bookstore—St. Paul (624-9200)

#### Restrictions in DHA classes

1. Registration in any DHA class after the first class meeting must be accompanied by the instructor's written permission.
2. You must attend the entire first DHA class session or your space in that class will be forfeited.
3. Students who do not attend the first class session will lose their place in the course.
4. Design studio courses require the student to spend a minimum of two hours per week on projects for each hour spent in class.
5. Some DHA classes require additional fees which cover part of the cost of expendable materials, breakage, and special facilities. Students may pay this fee at the Extension Classes Cashier's Office, 138 Westbrook Hall. In addition, some courses may also require the purchase of special tools or supplies not included in the tuition or course fees printed with each course.

6. Several courses in Design Communication and Interior Design require the use of a computer. Printing computer output through University computer labs requires a fee; printer cards can be obtained through the lab or the St. Paul Bursar's Office.

7. Students intending to pursue a degree program in Design Communication should contact a pre-design or pre-interior design adviser in the College of Human Ecology (624-1717). Students should not assume that courses listed in the *Extension Classes Bulletin* constitute a complete program. Program bulletins are available from the College of Human Ecology. Design Communication and Interior Design students are required to pass a portfolio review following completion of basic foundation courses, prior to taking any specified upper division courses. Contact an adviser for details.

**The Department of Design, Housing, and Apparel and Continuing Education and Extension have phased out the Graphic Design/Commercial Illustration Certificate.**

For further information, call CEE Counseling at 625-2500.

(See also Art and The Compleat Scholar noncredit courses)

**St. Paul Escort Service**—An escort service is now available on the St. Paul campus. Students who want a University security escort to walk with them from campus buildings to parking lots may call 624-WALK 24 hours a day; monitors are primarily available between 6 p.m. and 1 a.m.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in DHA. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

#### Apparel Sciences and Design

**DHA 1211 (formerly TexC 1211, 1641) INTRODUCTION TO RETAIL MERCHANDISING.** 4 credits, §TexC 1641, §GC 1511, §GC 1548, tuition\*: Resident \$294; Non-resident \$852.60. (IS) Orientation to types of retailers; identification of and research on the retail consumer; retail functions including management and merchandise control. (No prereq. Meets concurrently with GC 1548. Limited to a combined total of 35)

Winter Qtr, ★Sec 1, W, 5:30-9, ApH 226, Peterson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**DHA 1261 (formerly Dsgn 1261) CLOTHING DESIGNSTUDIO II (formerly Fashion Illustration).** 4 credits, §Dsgn 1543, tuition\* (includes \$7.50 course fee): Resident \$301.50; Non-resident \$860.10.

Human figure sketches and fashion illustration as a form of communication. Emphasis on color, proportion, cut, and fabric detail. (No prereq. Limited to 22)

Fall Qtr, ★Sec 1, TTh, 3:30-6:20, McNH 258, StP Campus

Spring Qtr, ★Sec 2, MW, 3:30-6:20, McNH 262, StP Campus

**DHA 3213 (formerly TexC 3213, 3664) FASHION TREND ANALYSIS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Factors that influence the acceptance or rejection of apparel and other textile products at the consumer level. Analysis of current trends and future projections. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, MW, 6:30-8:30, McNH 376, StP Campus

**DHA 3218 (formerly TexC 3218, 3660) PATTERN DEVELOPMENT II (formerly Computer-Aided Design of Apparel).** 4 credits, §3660, tuition\* (includes \$7.50 special fee): Resident \$315.50; Non-resident \$900.70.

Manipulation of basic pattern blocks to form a variety of garment and product structures. Applications of sizing and grading systems to selected designs, computer manipulation of patterns. (Prereq 3211 or TexC 3211. Limited to 18)

Winter Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 305 (IBM Lab), StP Campus

Spring Qtr, ★Sec 2, MW, 3:30-6:20, McNH 305 (IBM Lab), StP Campus

### Design Foundations and Design Communication

**DHA 1300 (formerly Dsgn 1300, 1501) INTRODUCTION TO DESIGN.** 3 credits, §1501, tuition\*: Resident \$220.50; Non-resident \$639.45.

Study of basic design processes, the elements, principles, evaluation, and history of design in global perspective. (No prereq)

Fall Qtr, ★Sec 1, M, 6:30-9:20, McNH 33, StP Campus (A joint Day/Extension class)

Spring Qtr, ★Sec 2, T, 6:30-9:20, McNH 198, StP Campus

**DHA 1301 (formerly Dsgn 1301, 1201) INTRODUCTION TO VISUAL COMMUNICATION AND GRAPHIC DESIGN.** 4 credits, §1201, tuition\*: Resident \$294; Non-resident \$852.60.

Overview of advertising communications process and creative procedure, terminology, and technology. Explores copywriting, design, typography, production, color separating, printing, photography, and television. Emphasis on designer's relationship with the other specialists. (No prereq. Limited to 28)

Fall Qtr, ★Sec 1, MW, 6-8, ClaOff B25, StP Campus

Fall Qtr, ★Sec 2, TTh, 6-8, ClaOff B25, StP Campus

Winter Qtr, ★Sec 3, TTh, 6-8, ClaOff B30, StP Campus

Spring Qtr, ★Sec 4, TTh, 6-8, BorH 365, StP Campus

**DHA 1306 (formerly Dsgn 1306 1206) SPATIAL LOGIC FOR DESIGNERS.** 4 credits, §1206, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Drafting, orthographic projection, and scale drawing fundamentals. Emphasizes use of geometry in mechanical construction of 1, 2, 3 point perspective; methods of visually communicating technical, financial, and statistical information. (Prereq Pre-Design Comm, Design Comm, ASci & Dsgn, ADsgn, Pre-ADsgn, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 22)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 262, StP Campus (A joint Day/Extension class)

Winter Qtr, ★Sec 2, MW, 6:30-9:20, McNH B3, StP Campus

**DHA 1323 (formerly Dsgn 1323, 1523) DESIGN PROCESS: DRAWING I.** 4 credits, §1523, tuition\*: Resident \$294; Non-resident \$852.60.

Problem solving in drawing with application of design elements and principles. Assignments done both in and out of design studio. (Prereq Applied Design, Pre-Design Comm, Design Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 22)

Fall Qtr, ★Sec 1, MW, 6:30-9:20, McNH 258, StP Campus (A joint Day/Extension class limited to 11 Extension students)

Winter Qtr, ★Sec 2, TTh, 3:30-6:20, McNH 258, StP Campus

Spring Qtr, ★Sec 3, TTh, 6:30-9:20, McNH 258, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**DHA 1325 (formerly Dsgn 1325, 1525) DESIGN PROCESS: TWO DIMENSIONAL DESIGN I.** 4 credits, \$1525, tuition\*: Resident \$294; Non-resident \$852.60.

Experiments with principles of two-dimensional design. (Prereq Pre-Dsgn Comm, Dsgn Comm, Applied Design, Costume Design, ASci & Dsgn, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, or Textiles and Clothing. Limited to 22)

Fall Qtr, ★Sec 1, MW, 3:30-6:20, McNH 262, StP Campus (A joint Day/Extension class)

Winter Qtr, ★Sec 2, TTh, 6:30-9:20, McNH 258, StP Campus

**DHA 1328 (formerly Dsgn 1328, 1521, 1528) DESIGN PROCESS: COLOR.** 4 credits, \$1528, tuition\* (includes \$7.50 special fee): Resident \$301.50; Non-resident \$860.10.

Study of color concepts and their applications to design. Students will also be required to purchase supplies for this class which probably will exceed \$125. (Prereq 1501, or 1300, 1523 or 1323, or 1525 or 1325 or their equivalents, Pre-Dsgn Comm, Applied Design, Costume Design, ASci Dsgn, Dsgn Comm, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Pre-Applied Design or Textiles and Clothing. Limited to 22)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 262, StP Campus

Winter Qtr, ★Sec 2, MW, 3:30-6:20, McNH 262, StP Campus

Spring Qtr, ★Sec 3, TTh, 6:30-9:20, McNH 262, StP Campus

**DHA 1331 (formerly Dsgn 1331, 1531) SURFACE-FABRIC DESIGN I.** 4 credits, \$1531, tuition\* (includes \$35 course fee): Resident \$329; Non-resident \$887.60.

Exploration of surface pattern and composition with varied media and materials: dyeing, resist, batik, stencil, block printing and others. (Prereq 1523 or 1323, 1525 or 1325, 1300 or their equivalents, Pre-Dsgn Comm, Dsgn Comm, Applied Design, Costume Design, ASci & Dsgn, Housing, Pre-Applied Design, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, or Textiles and Clothing. Limited to 18)

Winter Qtr, ★Sec 1, MW, 6:30-9:20, plus arr, McNH B9, StP Campus

Spring Qtr, ★Sec 2, TTh, 3:30-6:20, plus arr, McNH B9, StP Campus

**DHA 1334 INTRODUCTION TO COMPUTER APPLICATIONS FOR THE DESIGNER.** 2 credits, tuition\* (includes \$10 course fee): Resident \$157; Non-resident \$436.30.

Introduction to the Macintosh computer and basic programs used in visual communications, including desktop publishing, drawing, file management, and options for output. **Must be taken A-F.** (Prereq Pre-Dsgn Comm. Limited to 18)

Fall Qtr, ★Sec 1, M, 6:30-9:20, McNH 305 (Mac Lab), StP Campus

Winter Qtr, ★Sec 2, F, 3:30-6:20, McNH 305 (Mac Lab), StP Campus

Spring Spec Term, ★Sec 3, TTh, Mar. 28-Apr. 27, 3:30-6:20, McNH 305 (Mac Lab), StP Campus

**DHA 3117 (formerly Dsgn 3117, 3517) HISTORY OF COSTUME: ORIGINS THROUGH 18TH CENTURY.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90.

Emphasis on European costume. (Prereq general art history course. A joint Day/Extension class)

Fall Qtr, Sec 1, MW, 6:30-8:10, McNH 216, StP Campus

**DHA 3301 (formerly Dsgn 3301, 3356) PRODUCTION FOR THE GRAPHIC DESIGNER.** 4 credits, \$3256, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Investigation of processes and techniques for production of print communication. Fundamentals of keyline, mechanical art production, specification for printing industry. (Prereq pass portfolio review for degree program. Limited to 18)

Winter Qtr, ★Sec 1, TTh, 6:30-9:20, McNH B3, StP Campus

Spring Qtr, ★Sec 2, MW, 6:30-9:20, McNH B3, StP Campus

**DHA 3323 (formerly Dsgn 3323, 3523) DESIGN PROCESS: DRAWING II.** 4 credits, \$3523, tuition\*: Resident \$308; Non-resident \$893.20.

Advanced problem solving in drawing with application of design elements and principles. Assignments done both in and out of studio. (Prereq 1523 or 1323, Applied Design, Dsgn Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Retail Merchandising, Textiles and Clothing, pass Dsgn Comm portfolio review or Δ. Limited to 22)

Spring Qtr, ★Sec 1, MW, 3:30-6:20, McNH 258, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**DHA 3325 (formerly Dsgn 3325, 3525) DESIGN PROCESS: TWO-DIMENSIONAL DESIGN II.** 4 credits, \$3525, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Experiments with principles of two-dimensional design. (Prereq 1525 or 1325 or equivalent, Applied Design, Dsgn Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing student, pass Dsgn Comm portfolio review. Limited to 22)

Winter Qtr, ★Sec 1, MW, 3:30-6:20, ClaOff 17, StP Campus

**DHA 3327 (formerly Dsgn 3327, 3527) DESIGN PROCESS: THREE-DIMENSIONAL DESIGN.** 4 credits, \$3527, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Study and application of principles of three-dimensional design. (Prereq 1523, or 1323, 1525 or 1325, 1328 or 1528, Applied Design, Dsgn Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing, pass Dsgn Comm portfolio review or Δ. Limited to 22)

Fall Qtr, ★Sec 1, MW, 6:30-9:20, McNH B3 StP Campus (A joint Day/Extension class)

Spring Qtr, ★Sec 2, TTh, 6:30-9:20, McNH B3, StP Campus

**DHA 3328 (formerly Dsgn 3328, 3521, 3528) DESIGN PROCESS: COLOR II.** 4 credits, \$3521, 3528, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Continued study of color concepts and their application to design. Students will also be required to purchase supplies for this class which probably will exceed \$125. (Prereq 1523 or 1323, 1528 or 1328, Applied Design, Dsgn Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing, pass Dsgn Comm portfolio review or Δ. Limited to 22)

Winter Qtr, ★Sec 1, MW, 6:30-9:20, McNH 262, StP Campus

**DHA 3331 (formerly Dsgn 3331, 3531) SURFACE-FABRIC DESIGN II.** 4 credits, \$3531, \$5331, tuition\* (includes \$35 course fee): Resident \$343; Non-resident \$928.20.

Selection from printed, dyed, woven, or non-woven textiles. (Prereq 1531 or 1331, Applied Design, Dsgn Comm, Costume Design, ASci & Dsgn, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing, pass Dsgn Comm portfolio review or Δ. Meets concurrently with 5331. Limited to a combined total of 18)

Winter Qtr, ★Sec 1, TTh, 3:30-6:20 plus arr, McNH B9, StP Campus, Otto

Spring Qtr, ★Sec 2, MW, 6:30-9:20 plus arr, McNH B9, StP Campus

**DHA 3332 (formerly Dsgn 3332, 3532) FIBER STRUCTURE: WEAVING.** 4 credits, \$3532, \$5332, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Beginning loom techniques. Studio problems. (Prereq 1528 or 1328, 1525 or 1325, or #. Meets concurrently with 5332. Limited to a combined total of 16)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 16, StP Campus (A joint Day/Extension class)

Spring Qtr, ★Sec 2, TTh, 6:30-9:20, McNH 16, StP Campus

**DHA 3334 (formerly Dsgn 3334, 3534) COMPUTER APPLICATIONS TO DESIGN PROBLEMS.** 4 credits, \$3534, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Solutions to the design process using the Macintosh computer. Students gain experience in microcomputers, peripherals, and software. (Prereq 1523 or 1323, 1525 or 1325, 1528. Limited to 18)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 305 (Mac Lab), StP Campus (A joint Day/Extension class)

Winter Qtr, ★Sec 2, MW, 3:30-6:20, McNH 305 (Mac Lab), StP Campus

Spring Qtr, ★Sec 3, TTh, 6:30-9:20, McNH 305 (Mac Lab), StP Campus

**DHA 3337 (formerly Dsgn, 3337, 1532, 3537) FIBER STRUCTURE DESIGN I.** 4 credits, \$3537, tuition\*. Total: Resident \$308; Non-resident \$893.20.

Individual designing with two- and three-dimensional forms non-loomed techniques. (Prereq pass Design Communication portfolio review, demonstrated proficiency in sewing. Limited to 20)

Spring Qtr, ★Sec 1, MW, 6:30-9:20, McNH 16, StP Campus

**DHA 3350 (formerly Dsgn 3350, 3355) TYPOGRAPHIC DESIGN I.** 4 credits, \$3255, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Theory and application of principles of typographic composition. Emphasis on history of typography, type faces and letter forms, typesetting methods, terminology, type specification and copy fitting. *Students will be required to purchase supplies for this class which will probably exceed \$125.* (Prereq pass Design Communication portfolio review for degree program. Limited to 22)

Fall Qtr, ★Sec 1, MW, 3:30-6:20, McNH B3, StP Campus (A joint Day/Extension class)

Winter Qtr, ★Sec 2, MW, 6:30-9:20, McNH 258, StP Campus

(See also CSch 0362, The Fault With Default: Typography for Desktop Publishing)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**DHA 3352 (formerly Dsgn 3352, 3252) GRAPHIC DESIGN II.** 4 credits, §3252, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Continued development of professional skills in areas of layout and design for advertising. Photographic techniques, color separation, and other printing/production techniques are included. (Prereq 3351 or 3251 or #. Limited to 22)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH B3, StP Campus

Winter Qtr, ★○Sec 2, TTh, 3:30-6:20, McNH B3, StP Campus (A joint Day/Extension class limited to 11 Extension students)

**DHA 3353 (formerly Dsgn 3353, 3253) GRAPHIC DESIGN III.** 4 credits, §3253, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Continued development of layout skills. Exposure to conditions in the workplace. Advertising psychology, consumer relations, and business management. Printing papers. Orientation in agency, studio, and corporate procedures. *Students will be required to purchase supplies for this class which will probably exceed \$125.* (Prereq 3352 or 3252. Limited to 22)

Winter Qtr, ★Sec 1, TTh, 6:30-9:20, McNH B3, StP Campus

Spring Qtr, ★○Sec 2, TTh, 3:30-6:20, McNH B3, StP Campus (A joint Day/Extension class limited to 11 Extension students)

**DHA 3371 (formerly Dsgn 3371, 3571) PROFESSIONAL ISSUES IN APPLIED DESIGN/VISUAL COMMUNICATIONS.** 2 credits, §3571, tuition\*: Resident \$154; Non-resident \$446.60.

Discussion of issues in the field, possible goals, and professionalism. **Must be taken S-N.** (Prereq completion of 60 credits in Category E. To be taken prior to or concurrently with 5303 [formerly 3584], #)

Fall Qtr, ★Sec 1, M, 6:30-9:20, McNH 262, StP Campus

Spring Qtr, ★Sec 2, M, 3:30-6:20, McNH B3, StP Campus

**DHA 3380 (formerly Dsgn 3380, 3280) DESIGN PORTFOLIO.** 2 credits, §3280, tuition\* (includes \$10 course fee): Resident \$164; Non-resident \$456.60.

Compilation of individual portfolios; individual and group critiques. Preparation of slides. Should be taken as final course in program. **Must be taken S-N.** (Prereq 20 cr of 33xx and/or 35xx courses and pass Design Communications portfolio review. Limited to 22)

Fall Qtr, ★Sec 1, W, 6:30-9:20, McNH 262, StP Campus

Spring Qtr, ★Sec 2, W, 3:30-6:20, McNH B3, StP Campus

**DHA 5105 HISTORY OF VISUAL COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An analysis of visual communication concentrating on the 19th and 20th centuries; including technological, cultural, and aesthetic influences on graphic design. **Must be taken A-F.** (Prereq an introductory art history course. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, MW, 3:30-6:20, McNH 33, StP Campus

**DHA 5107 (formerly 5507) HISTORY OF DECORATIVE ARTS: TEXTILES.** 4 credits, §5507, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Textiles from early civilization to the 20th century. Design, materials, and techniques. (Prereq ArH 1002. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, TTh, 3:30-5, McNH 197, StP Campus

**DHA 5170 SPECIAL TOPICS: GRAPHIC DESIGN PRACTICUM.** 4 credits, tuition (includes \$10 course fee)\*: Resident \$318; Non-resident \$903.20; Resident Graduate credit \$438; Non-resident Graduate credit \$866; Resident Graduate School credit \$745; Non-resident Graduate School credit \$1627.

Advanced work in graphic design on complex topics involving actual projects and team project development. *Students will be required to purchase supplies for this class which will probably exceed \$125.* (Prereq 3352. May not be taken for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Winter Qtr, ★○Sec 1, TTh, 3:30-6:20, McNH 262, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**DHA 5170 SPECIAL TOPICS: FURNITURE DESIGN.** 4 credits, tuition (includes \$10 course fee)\*: Resident \$18; Non-resident \$903.20; Resident Graduate credit \$438; Non-resident Graduate credit \$866; Resident Graduate School credit \$745; Non-resident Graduate School credit \$1627.

Studio work in furniture design on complex topics involving actual projects and product development. Students are introduced to the concepts of modern furniture design through a series of projects that incorporate thinking, problem solving, communication, research, drawing, model building, materials investigation, and building real furniture. It embraces the philosophy that good design requires parallel growth in thinking through the process, understanding the materials used, and experience with various techniques. Topics include materials exploration, structural development, construction methods, lighting, and documentation. (Prereq 3352. May not be taken for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Winter Qtr, ○Sec 2, TTh, 6:30-9:20, McNH B25, StP Campus

**DHA 5170 SPECIAL TOPICS: TYPOGRAPHIC DESIGN II.** 4 credits, tuition (includes \$10 course fee)\*: Resident \$318; Non-resident \$903.20; Resident Graduate credit \$438; Non-resident Graduate credit \$866; Resident Graduate School credit \$745; Non-resident Graduate School credit \$1627.

Continued development of typographic design skills. Advanced work in layout, design, letter forms, and typefaces. *Students will be required to purchase supplies for this class which will probably exceed \$125.* (Prereq 3350. Qualified students may register for graduate credit at the University of Minnesota. Limited to 22)

Spring Qtr, ★Sec 3, TTh, 3:30-6:20, McNH 258, StP Campus

**DHA 5331 SURFACE-FABRIC DESIGN III.** 4 credits, \$3531, \$3331, tuition\* (includes \$35 course fee): Resident \$343; Non-resident \$928.20; Resident Graduate credit \$463; Non-resident Graduate credit \$891; Resident Graduate School credit \$770; Non-resident Graduate School credit \$1652.

Designing in one special surface textile technique. Studio problems. Readings. (Prereq 3331. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3331. Limited to a combined total of 16)

Winter Qtr, ★Sec 1, TTh, 3:30-6:20 plus arr, McNH B9, StP Campus, Otto

Spring Qtr, ★Sec 2, MW, 6:30-9:20 plus arr, McNH B9, StP Campus

**DHA 5332 FIBER STRUCTURE: WEAVING II.** 4 credits, \$3532, \$5332, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20; Resident Graduate credit \$438; Non-resident Graduate credit \$866; Resident Graduate School credit \$745; Non-resident Graduate School credit \$1627.

Advanced loom weaving. Exploration of pattern weaves and color. (Prereq 3332 or 3532. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3332. Limited to a combined total of 16)

Fall Qtr, ★○Sec 1, TTh, 3:30-6:20, McNH 16, StP Campus (A joint Day/Extension class)

Spring Qtr, ★Sec 2, TTh, 6:30-9:20, McNH 16, StP Campus

**DHA 5334 (formerly Dsgn 5334, 5534) COMPUTER APPLICATIONS TO DESIGN PROBLEMS II.** 4 credits, \$5534, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20; Resident Graduate credit \$438; Non-resident Graduate credit \$866; Resident Graduate School credit \$745; Non-resident Graduate School credit \$1627.

Solutions to the design process using Macintosh computers. Students use software to combine images and print and explore color and desktop publishing. *Students will be required to purchase supplies for this class which will probably exceed \$125.* (Prereq 3334 or 3534. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Fall Qtr, ★○Sec 1, MW, 3:30-6:20, ClaOff 17, StP Campus (A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★Sec 2, TTh, 3:30-6:20, McNH 305, StP Campus

Winter Qtr, ★Sec 3, TTh, 6:30-9:20, ClaOff 17, StP Campus

Spring Qtr, ★Sec 4, MW, 3:30-6:20, McNH 305, StP Campus

(See also CSch 0363, Layout and Page Design: Tips and Techniques for Desktop Publishing)

**DHA 5337 (formerly Dsgn 5337, 5537) FIBER STRUCTURE DESIGN: QUILTING.** 4 credits, \$5537, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Application of color and design principles through techniques of patchwork and quilting. (Prereq pass Design Communication portfolio review. Qualified students may register for graduate credit at the University of Minnesota. Limited to 16)

Winter Qtr, ★Sec 1, TTh, 3:30-6:20, McNH 16, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Interior Design

**DHA 1621 (formerly Dsgn 1621, 1550) INTERMEDIATE DRAFTING.** 4 credits, \$1550, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Intermediate-level drafting instruction in paraline drawing, perspective drawing, and architectural dimensioning. (Prereq demonstrated proficiency in basic drafting techniques. Limited to 20)

Fall Qtr, ★Sec 1, MWF, 3:30-5:20, McNH 480, StP Campus

Spring Qtr, ★Sec 2, MWF, 3:30-5:20, McNH 480, StP Campus

**DHA 1641 (formerly Dsgn 1641, 1554) INTERIOR DESIGN: STUDIO I.** 4 credits, \$1554, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Application of design elements and principles to interior design problems, including two-dimensional projects, scale models, and three-dimensional design experiments in the space laboratory. (Prereq 1300, 1323, 1328, 1621. ASci & Design, ADsgn, Pre-ADsgn, jCDsgn, Dsgn Comm, Pre-Design Comm, Hsg, IDsgn, RMdse, Pre-RMdse, or TexC student. Limited to 20)

Fall Qtr, ★Sec 1, TTh, 3:30-6:20, McNH 475, StP Campus

Winter Qtr, ★Sec 2, TTh, 6:30-9:20, McNH 480, StP Campus

**DHA 1642 (formerly Dsgn 1642, 1555) INTERIOR DESIGN: STUDIO II.** 4 credits, \$1555, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Problems in designing for interior space needs with emphasis on behavioral concerns related to interiors. (Prereq 1641. Limited to 20)

Winter Qtr, ★Sec 1, MWF, 3:30-5:20, McNH 475, StP Campus

Spring Qtr, ★Sec 2, MWF, 3:30-5:20, McNH 475, StP Campus

**DHA 3170 SPECIAL TOPICS: INTERIOR DESIGN CODES AND ENVIRONMENTAL ISSUES.** 3 credits. **Tentatively scheduled for 1995-96.**

**DHA 3622 (formerly Dsgn 3622, 3550) INTERIOR DESIGN PRESENTATION.** 4 credits, \$3550, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Exploration of various visual presentation media with an emphasis on techniques that will aid in the

communication and visualization of the design process, ideas, and solutions. Detailing of interior structures, furnishings and designs will be developed. **Must be taken A-F.** (Prereq pass Interior Design portfolio review. Limited to 20)

Fall Qtr, ★Sec 1, TTh, 6:30-9:20, McNH 480, StP Campus

Spring Qtr, ★Sec 2, TTh, 6:30-9:20, McNH 475, StP Campus

**DHA 3623 (formerly Dsgn 3623, 3552) COMPUTER-AIDED DESIGN, DRAFTING SYSTEM I.** 4 credits, \$3552, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Application of two-dimensional computer-aided design in the design process as it relates to interior design. AutoCAD software used on an IBM-PC. (Prereq 1621 or 1550 or #. Limited to 19)

Fall Qtr, ★Sec 1, MW, 3:30-6:20, McNH 305 (IBM Lab), StP Campus

Winter Qtr, ★Sec 2, MW, 6:30-9:20, McNH 305 (IBM Lab), StP Campus

Spring Qtr, ★Sec 3, TTh, 6:30-9:20, McNH 305 (IBM Lab), StP Campus

**DHA 3624 (formerly Dsgn 3624, 3556) COMPUTER-AIDED DESIGN DRAFTING SYSTEMS II.** 4 credits, \$3556, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Application of design principles utilizing advanced 2-D and 3-D computer-aided design and application to the interior design profession using AutoCAD on the IBM-PC. (Prereq 3623 or 3552. Limited to 19)

Spring Qtr, ★Sec 1, MW, 6:30-9:20, McNH 305 (IBM Lab), StP Campus

**DHA 3632 (formerly Dsgn 3632, 3554) INTERIOR BUILDING TECHNOLOGY.** 4 credits, \$3554, tuition\*: Resident \$308; Non-resident \$893.20.

Methods of building construction and principles of structure theory. Emphasis on interior architectural components and systems. (Prereq pass Interior Design portfolio review; others 1621, DHA 1401 or 1801, or Δ. Limited to 20)

Fall Qtr, ★Sec 1, MW, 6:30-9:20, McNH 475, StP Campus

Winter Qtr, ★Sec 2, MW, 3:30-6:20, McNH 480, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**DHA 3633 (formerly Dsgn 3633, 3548) LIGHTING DESIGN FOR ENVIRONMENTAL SPACES.** 3 credits, \$3548, tuition\*: Resident \$231; Non-resident \$669.90.

Examination of types and uses of lighting, its relationship to color, and energy conservation. Evaluation of light quantity and quality for residential and non-residential spaces. (Prereq pass Interior Design review or #. A joint Day/Extension class)

Winter Qtr, **Sec 1**, TTh, 3:30-5:15, McNH 180, StP Campus, Ginthner

**DHA 3643 (formerly Dsgn 3643, 3553) INTERIOR DESIGN STUDIO III.** 4 credits, \$3553, tuition\*: Resident \$308; Non-resident \$893.20.

Intermediate interior design problems related to non-residential spaces. (Prereq 3622,  $\Delta$ )

Winter Qtr, **Sec 1**, TTh, 6:30-9:20, McNH 475, StP Campus

Spring Qtr, **Sec 2**, TTh, 6:30-9:20, McNH 480, StP Campus

**Housing**

**DHA 5461 (formerly Hsg 5461, 5861) HOUSING MANAGEMENT.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.25; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Management of multi-unit housing. Includes historical perspectives, current status of housing, management approaches, psychosocial impact of housing and community design, specific residential populations. Students will conduct a post-occupancy evaluation of a housing complex. (Prereq 3463 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, **Sec 1**, TTh, 2:30-4:45, McNH 180, StP Campus, Franklin

**DHA 5481 (formerly Hsg 5481, Dsgn 5581, 5881) DESIGNED ENVIRONMENTS AND AGING.** 4 credits. Tentatively scheduled for 1995-96.

**DHA 5465 (formerly Hsg 5465) HOUSING IN WORLD PERSPECTIVE I.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Social analysis of housing around the world; emphasis on population, environment, and social organization of nations as contexts for national policy and for housing choices of households. (Prereq 3463 or 3863 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, **Sec 1**, MW, 3:30-5:10, McNH 216, StP Campus, Morris

**Dutch (Dtch)**

(205 Folwell Hall: 625-2080)

**College of Liberal Arts**

Textbooks for most Dtch courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

James Parente, Jr., Professor  
Ray Wakefield, Associate Professor

**A minor in Dutch can be completed in the evening.**

*Required Preparatory Courses:* 1101-1102-1103-1104-1105-1106.

*Minor Requirements:* 3011, 3310, 3510, 3610, two courses to be chosen with the help of an adviser.

Read about language laboratories on page 52.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Dutch. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Dtch 1101-1102-1103 BEGINNING DUTCH.** 5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (speaking and writing). (No prereq for 1101; 1101 for 1102; 1102 for 1103. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, 1101, **Sec 1**, MWTh, 4-5:30, FolH 104

Winter Qtr, 1102, **Sec 1**, MWTh, 4-5:30, FolH 234

Spring Qtr, 1103, **Sec 1**, MWTh, 4-5:30, FolH 234

**Dtch 1104-1105-1106 INTERMEDIATE DUTCH.** 5 credits each quarter, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75.

Emphasis on proficiency according to the national ACTFL system. Listening, reading, speaking, writing at the Intermediate and Advanced levels on ACTFL scale. (Prereq 1103 or completion of 1110 for 1104; 1104 for 1105; 1105 for 1106. A joint Day/Extension class)

Fall Qtr, 1104, **Sec 1**, MW, 5:50-8, FolH 104

Winter Qtr, 1105, **Sec 1**, MW, 5:50-8, FolH 234

Spring Qtr, 1106, **Sec 1**, MW, 5:50-8, FolH 234

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Dtch 3011-3012 CONVERSATION AND COMPOSITION.** 4 credits each quarter, tuition each quarter\*: Resident \$308; Non-resident \$893.20.

Spoken Dutch; composition; development of vocabulary; grammar review. (Prereq 1106 or # for 3011; 3011 for 3012. 3011 and 3012 meet concurrently. A joint Day/Extension class)

Fall Qtr, 3011, ●Sec 1, TTh, 5:45-7, FolH 426

Fall Qtr, 3012, ●Sec 1, TTh, 5:45-7, FolH 426

**Dtch 3310 STUDIES IN DUTCH AUTHORS: DUTCH WOMEN WRITERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of Netherlandic women writers from the Renaissance to the 20th century. *May be repeated for credit.* (Prereq 1103 or 15 cr of 1110 or #. Meets concurrently with 3610 sec 1. A joint Day/Extension class)

Fall Qtr, ●Sec 1, T, 3:35-5:30, FolH 344, Parente

**Dtch 3310 STUDIES IN DUTCH AUTHORS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

One author studied in depth. *May be repeated for credit.* (Prereq 1103 or 15 cr of 1110 or #. Meets concurrently with 3610 sec 2. A joint Day/Extension class)

Spring Qtr, ●Sec 2, T, 3:35-5:30, FolH 234

**Dtch 3510 TOPICS IN DUTCH CULTURE: THE CAMP CHILDREN.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Investigation of the unique position of the Dutch people during World War II, who, in both the European and Asian theaters of war, faced the danger of incarceration in concentration camps.

**Requires no knowledge of Dutch.** *May be repeated for credit.* (No prereq. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 3:35-5:30, FolH 234, Wakefield

**Dtch 3610 DUTCH AUTHORS IN TRANSLATION: DUTCH WOMEN WRITERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of Netherlandic women writers from the Renaissance to the 20th century. *May be repeated for credit.* (No prereq. Meets concurrently with 3310 sec 1. A joint Day/Extension class)

Fall Qtr, ●Sec 1, T, 3:35-5:30, FolH 344, Parente

**Dtch 3610 DUTCH AUTHORS IN TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

One author studied in depth. **Requires no knowledge of Dutch.** *May be repeated for credit.* (No prereq. Meets concurrently with 3310 sec 2. A joint Day/Extension class)

Spring Qtr, ●Sec 2, T, 3:35-5:30, FolH 234

## Early Childhood Studies Program

(Department of Extension Classes, 200 Westbrook Hall: 625-1855)

An interdisciplinary program within Extension Classes which offers continuing education courses and competency-based training for child care professionals and paraprofessionals, family-based service providers, foster care providers, and military personnel. Other courses related to Early Childhood can be found in this Bulletin listed under Child Psychology, Educational Psychology, and Family Social Science. For information regarding the Early Childhood field, contact CEE Counseling at 625-2500 or the College of Education Student Affairs Office at 625-6501. For Prekindergarten/Nursery School licensure, contact Lynn Galle at 624-7009. For the undergraduate Early Childhood degree, contact Harlan Hansen at 625-4039.

## East Asian Studies

See Area Studies Programs, [page 77](#); and the Institute of Languages and Literatures, [page 242](#).

## Ecology, Evolution, and Behavior (EEB)

(100 Ecology: 625-4466)

### College of Biological Sciences

Textbooks for most EEB courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Biology; BGS 3003, Business and the Natural Environment; Interdepartmental Study courses, [page 249](#); *Natural and Physical Sciences* in The Compleat Scholar noncredit section; and GC 1112, Science in Context: Human Uses of the Environment)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Ecology, Evolution, and Behavior. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Internships and Study Abroad**—For information about internships and directed study through the Minnesota Studies in International Development program, call 626-2234 or stop by 106 Nicholson Hall.

\* Indicates limited-enrollment section. See abbreviations and symbols, [page 54](#).

\* Tuition definitions of Resident and Non-resident explained on [page 24](#).



**EEB 3001 INTRODUCTION TO ECOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Basic concepts in ecology; the organization, development, and functioning of ecosystems; population growth and regulation. Human impact on ecosystems. Not open to biology majors. (No prereq. Open to juniors and above, or completion of 90 credits) Fall Qtr, Sec 1, MW, 6:20-8:15, Ecology 150c

(See also CSch 0245, A Practical and Legal Guide to Preserving Green Space in Your Community)

## Economics (Econ)

(1035 Management/Economics: 625-6353)

### College of Liberal Arts

Textbooks for most Econ courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Public Affairs)

Harlan M. Smith, Professor Emeritus of Economics

**You need not be majoring in Economics to register for any economics classes, but you need to have completed prerequisite courses.**

**B.A. and B.S. Majors**—The Department of Economics offers four major sequences, two for the B.A. degree and two for the B.S. The B.S. degree is more quantitative in orientation than the B.A. The specialized tracks (B.A. Quantitative Emphasis major program and B.S. Mathematics Emphasis major program) stress particular supporting quantitative skills (calculus, linear algebra, and econometrics), while the two general tracks (B.A. and B.S. major programs) do not require such specific quantitative courses. The senior advisor for majors and premajors is the Director of Undergraduate Programs.

*Students interested in a degree in economics are urged to request the College of Liberal Arts bulletin which explains the B.A. and B.S. in detail; telephone (612) 625-2008.*

### B.A. Major Sequence

The B.A. major program is intended to give the student a solid background in economics without assuming that he or she will pursue a career or graduate training in economics. The B.A. major program is the least quantitative of the four major options and offers considerable freedom in course selection from among many upper division electives.

### Required Preparatory Courses—

1101 or 1101H or 1104 or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1142 or 1251 or equiv;  
Stat 1001 or equiv recommended

### Major Requirements—

#### Part I:

Stat 3011-3012 (no credit for Stat 5021)  
3101 or 3101H, 3102 or 3102H, 3103 or 3103H  
(3101 must be taken first; 3102 and 3103 may be taken simultaneously)  
28 3xxx-5xxx cr; may include three courses from Acct 3101; AgEc 3040, 3070, 3500, 3710, any 3- or 4-cr AgEc 5xxx-level course; BFin 3000, 3300. Economics courses reserved for nonmajors do not count toward the 28 cr.

#### Part II:

Composition requirement: upper-level writing course, Comp 3014—Writing for the Quantitative Social Sciences or 3027—Advanced Expository Writing (highly recommended)  
Senior project paper (obtain guidelines from the department)  
Two courses in the major requirements section may be taken S-N.  
GPA requirement: C or better in all courses in the major requirements section.  
4 cr of directed studies courses (3970, 5970) may be applied toward the major.  
Supporting coursework in computer science, mathematics, and statistics is recommended.

### B.A. Quantitative Emphasis Major Sequence

The B.A. Quantitative Emphasis major program adds basic quantitative training (in calculus, linear algebra, and econometrics) to the student's economics program. This major should be especially attractive to students considering careers that require some practical economic analysis or who are considering graduate work in business administration or public affairs.

### Required Preparatory Courses—

1101 or 1101H or 1104 or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1251-1252 or equiv

### Major Requirements—

#### Part I:

Math 1261 or equiv  
Stat 3011-3012 (no credit for Stat 5021)  
3101 or 3101H, 3102 or 3102H, 3103 or 3103H  
(3101 must be taken first; 3102 and 3103 may be taken simultaneously); 3231

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

20 3xxx-5xxx cr; may include two courses from Acct 3101; AgEc 3040, 3070, 3500, 3710, any 3- or 4-cr AgEc 5xxx-level course; BFin 3000, 3300. Economics courses reserved for nonmajors do not count toward the 20 cr.

### Part II:

Same as Part II for B.A. major program.

Supporting coursework in computer science and statistics is recommended.

### B.S. Major Sequence

The B.S. major program emphasizes a strong quantitative component but is not designed specifically for students who plan to pursue a career or graduate training in economics. The major would be suitable for those interested in graduate work in business administration. The student is given significant freedom in course selection from three quantitative fields (computer science, mathematics, and statistics) as well as from economics.

#### Required Preparatory Courses—

- (a) 1101 or 1101H or 1104 or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1251-1252-1261 or equiv
- (b) A minimum GPA of 2.50 in economics and mathematics courses is required

#### Major Requirements—

##### Part I:

Stat 5121-5122 or 5131-5132-5133 (5131-5132-5133 are more difficult) (no credit for Stat 5021 or Stat 3011-3012)

2 additional courses (at least 4 cr each) from CSci department (at or above the 31xx level), Math department (any course at or above the 31xx level except Math 3142 and Math 5090), or Stat department (any course at the 5xxx level except Stat 5021). Courses must be approved by the economics department.

3101 or 3101H, 3102 or 3102H, 3103 or 3103H (3101 must be taken first; 3102 and 3103 may be taken simultaneously)

Two courses from: 5xxx-level honors courses; 5113; 5231-5232; 5733; and 5161-5162-5163, 5164-5165-5166, 5261-5262-5263. Courses in these last three sequences may be taken S-N.

##### Part II:

24 3xxx-5xxx cr; may include three courses selected from Acct 3101; AgEc 3040, 3070, 3500, 3710, any 3- or 4-cr AgEc 5xxx-level course; BFin 3000, 3300. Math 5081, 5242-5243, 5606-5607-5608. Economics courses reserved for nonmajors do not count toward the 24 cr

Composition requirement: Upper-level writing course, Comp 3014—Writing for the Quantitative Social Sciences or 3027—Advanced Expository Writing (highly recommended)

Two courses in the major requirements section may be taken S-N (in addition to 5161-5162-5163, 5164-5-6, or 5261-2-3)

GPA requirement: C or better in all courses in the major requirements section.

4 cr of directed studies courses (3970, 5970) may be applied toward the major.

### B.S. Mathematics Emphasis Major Sequence

The B.S. Mathematics Emphasis major program is designed specifically for the student interested in graduate study of economics or a career as a professional economist in business, government, or college teaching. The major's strong quantitative component stresses particular quantitative skills such as multivariate calculus, linear algebra, and econometrics—essential in economics graduate training.

#### Required Preparatory Courses—

- (a) 1101 or 1101H or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1251-1252-1261 or equiv;  
(Stat 3011 or equiv recommended)
- (b) A minimum GPA of 2.50 in economics and mathematics courses is required

#### Major Requirements—

##### Part I:

Math 3251-3261 or equiv

Stat 5121-5122 or 5131-5132-5133

Econ 5231 (Econometrics)

3101 or 3101H, 3102 or 3102H, 3103 or 3103H (3101 must be taken first; 3102 and 3103 may be taken simultaneously);

Two courses from: 5xxx-level honors courses; 5113; 5232; 5733; and 5161-5162-5163, 5164-5165-5166, 5261-5262-5263. Courses in these last three sequences may be taken S-N

##### Part II:

Same as Part II for B.S. major program

Supporting coursework in computer science is recommended.

### Minor Sequence

For any of the following minor programs, no more than one course may be taken S-N; a grade of C or better is required in all courses in the minor requirements section.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**General Economics Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104;  
1102 or 1102H or 1105;  
Math 1142 or 1251 or equiv

## Minor Requirements—

3101 or 3105 or equiv  
16 additional 3xxx-5xxx cr (advance approval of courses by the economics department is needed)

Up to 4 cr of directed studies courses (3970, 5970) may be applied toward the minor

**Economic Theory Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104 or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1251-1252 or equiv

## Minor Requirements—

Math 1261-3251-3261, or equiv  
3101, 3102, 3103 or equiv  
2 courses from 5107H, 5113, 5733

**Econometrics Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104 or equiv;  
1102 or 1102H or 1105 or equiv;  
Math 1251-1252 or equiv

## Minor Requirements—

Math 1261 or equiv  
Stat 5121-5122 or 5131-5132-5133  
3101, 3102 or equiv  
5231-5232  
4 cr directed studies (5970) for an econometrics research project

**International Trade and Development Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104;  
1102 or 1102H or 1105;  
Math 1142 or 1251 or equiv

## Minor Requirements—

3101 or equiv  
5331 (prereq 3102) or 5301  
5337 (prereq 3102) or 5307  
5315 or 3315  
5431-5432 (prereq 3102, 3103) or 5401

**Applied Microeconomics Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104;  
1102 or 1102H or 1105;  
Math 1251 or equiv

## Minor Requirements—

3101 or equiv  
5531 (prereq 3102) or 3501  
5631 (prereq 3103) or 3601  
5611 or 5621 or 5623  
5821 (prereq 3103) or 3801 or 5831 (prereq 3103)

Recommended: 3231 (prereq Stat 3011-3012 or equiv)

**Monetary Economics Minor**

## Required Preparatory Courses—

1101 or 1101H or 1104;  
1102 or 1102H or 1105;  
Math 1142 or 1251 or equiv

## Minor Requirements—

Stat 3011 or equiv  
3101 or 3105, 3102 or equiv  
3751-3752  
5721 or 3701  
5731 or 5741

Students interested in a major or minor in Economics should contact CEE Counseling, 625-2500. All economics courses required for either, plus enough electives, are offered in Extension over a two- or three-year period. Other courses which are *not available in Extension* may be taken through Joint Day/Extension registration without special permission. *The only Extension economics classes available that way are Econ 1101 and 1102.*

**Semester-Length Courses**—All credits listed in the class description are *quarter* credits even though economics classes meet on a semester-length schedule. Credits earned in Extension are applicable toward a degree at another institution under the policies determined by that institution. Further information is found on **page 38** of this bulletin.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Econ. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Econ 1101 (formerly 1002)-1102 (formerly 1001) PRINCIPLES OF ECONOMICS.** 4 credits each semester, if no credit received for any equivalent course, tuition\* each semester: Resident \$294; Non-resident \$852.60. (IS)

Principles underlying economic activity and the way these principles work out through our economic institutions. 1101 is preferably first, but if the student wishes, the two may be taken the same term to permit more rapid progress to other economics courses. 1101: Micro-economics: demand and supply, competition and monopoly, distribution of income. 1102: Macro-economics: national income, money and banking, economic growth. (Prereq ability to handle simple graphs and elementary algebra at the level of GC 0623 and GC 0631. Each section limited to 35 unless otherwise indicated)

### Campus

Fall Sem, 1101, ★Sec 1, M, 6:10-7:50, FordH 349

Fall Sem, 1101, ★Sec 2, M, 6:10-7:50, VinH 314

Fall Sem, 1101, ★Sec 3, M, 8:05-9:45, VinH 314

Fall Sem, 1101, ★Sec 4, T, 6:10-7:50, AmundH 158

Fall Sem, 1101, ★Sec 5, T, 8:05-9:45, AmundH 158

Fall Sem, 1101, ★Sec 6, W, 6:10-7:50, VinH 313

Fall Sem, 1101, ★Sec 7, Th, 6:10-7:50, VinH 313

Fall Sem, 1102, ★Sec 1, M, 6:10-7:50, VinH 313

Fall Sem, 1102, ★Sec 2, T, 6:10-7:50, VinH 314

Fall Sem, 1102, ★Sec 3, W, 6:10-7:50, VinH 314

Spring Sem, 1101, ★Sec 8, M, 6:10-7:50, VinH 314

Spring Sem, 1101, ★Sec 9, T, 6:10-7:50, VinH 314

Spring Sem, 1101, ★Sec 10, Th, 6:10-7:50, VinH 314

Spring Sem, 1102, ★Sec 5, M, 6:10-7:50, VinH 313

Spring Sem, 1102, ★Sec 6, W, 6:10-7:50, VinH 314

Spring Sem, 1102, ★Sec 7, Th, 6:10-7:50, VinH 313

### Roseville Area High School

Fall Sem, 1101, ★Sec 11, M, 6-7:40, room 243 (Limit 30)

Spring Sem, 1102, ★Sec 8, M, 6-7:40, room 243 (Limit 30)

### Richfield Senior High School

Fall Sem, 1101, ★Sec 12, W, 6:20-8, room 144

**An Interdisciplinary Offering: Econ 1102/Pol 1001**—The following two courses will be offered concurrently with course material team taught, interwoven, and integrated where appropriate. *Students must register for both courses, using separate registration forms for each course.* This is a total of 9 credits.

**Econ 1102 PRINCIPLES OF ECONOMICS: MACRO-ECONOMICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Principles underlying economic activity and the way these principles work out through our economic institutions. Macro-economics: national income, money and banking, economic growth. (Prereq 1101 or equivalent, ability to handle simple graphics and elementary algebra at the level of GC 0623 and GC 0631, ¶Pol 1001, sec 2. Meets concurrently with Pol 1001, sec 2. Limited to a combined total of 28)

Winter Qtr, ★Sec 4, TTh, 6:20-9:20, HHHctr 60, Freeman, Green

**Pol 1001 AMERICAN GOVERNMENT AND POLITICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75..

Principles, organization, processes, functions of government, and the interplay of political forces in the United States. Attention given throughout to current issues. (Prereq §Econ 1102, sec 2. Meets concurrently with Econ 1102, sec 4. Limited to a combined total of 28)

Winter Qtr, ★Sec 3, TTh, 6:20-9:20, HHHctr 60, Freeman, Green

(About the instructors: John R. Freeman is Professor of Political Science, and George D. Green is Associate Professor of History)

### Economics majors and nonmajors

Students should note that Extension Classes offers in each field of economics both a course designed for the student who is not an economics major and courses designed for economics majors. Most economics courses will be offered on a rotating basis rather than all being offered in any one year. The table below shows the comparable courses for economics majors and for others by fields. In addition to those listed, the following course is **open to economics majors and nonmajors** alike (only prerequisite is Principles of Economics, Econ 1101-1102 or equivalent):

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Econ 5021 Economics, Ethics and Economic Philosophy**

	Courses open to	
	Econ Majors (Prerequisites usually 3101, 3102)	Non-Majors (Prerequisites Principles of Economics 1101, 1102) or equivalent
Survey of Economic Ideas	5022	3021
American Economic Problems	5031	3031
Current Economic Issues	5033	3033
The Prospective World Economy	5041	3041
Economic Development	5331	5301
Comparative Economic Systems	5337	5307
International Economics	5429	5401
Labor Economics	5531	3501
Industrial Organization and Anti-Trust Policy	5631	3601
Money and Banking	5721	3701-5701
Elements of Public Finance	3821	3801

**General economics****Econ 3021 and 5022 SURVEY OF ECONOMIC IDEAS.** 3-5 credits. **Not offered 1994-95.**

A historical and analytical treatment of the development of some of the most important ideas and viewpoints in economics, and their relationship to changing economic conditions and politics, starting before Adam Smith and coming up to the present day. (Prereq 1101, 1102 or equivalent or # for 3031, and 3101 and 3102 for 5022. Qualified students may register for graduate credit for 5022 at the University of Minnesota. Student may register for 3, 4 or 5 credits; assignments and examinations will vary accordingly. Term paper required only for 5 credits)

**Econ 3031 and 5031 AMERICAN ECONOMIC PROBLEMS.** 4 credits. **Not offered 1994-95.**

This course is designed to fill gaps by offering material not covered in other Extension economics courses at the 3000 or 5000 level. It shows how simple economic principles and other relevant considerations bear upon some of our American economic problems. (Prereq 1101, 1102 or equivalent for 3031 [not open to economics majors], 3101 or 3105 or # for 5031. 5031 may not be taken for graduate credit. The courses meet concurrently but only one may be taken for credit)

**Econ 3033 and 5033 CURRENT ECONOMIC ISSUES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Current controversies over economic policies to deal with some of our economic problems. Different issues are chosen for study each time the course is offered, so it may be taken more than once with instructor consent. Opportunity is provided for students to focus part of their effort on a specific issue of their choice in the general area of study. (Prereq 1101, 1102 or equivalent for 3033. 3101 or 3105 or # for 5033. Qualified students may register in 5033 for graduate credit at the University of Minnesota. The courses meet concurrently, but only one may be taken for credit)

Fall Sem, Sec 1, Th, 6:10-7:50, BlegH 120, Smith

**Econ 3041 and 5041 THE PROSPECTIVE WORLD ECONOMY.** 4 credits. **Not offered 1994-95.**

Consideration of what the economic future holds and what can be done now to deal with negative factors and to improve the prospects. (Prereq 1101, 1102 or equivalent for 3041 [not open to economics majors]; 3101 or 3105 or # for 5041. Qualified students may register in 5041 for graduate credit at the University of Minnesota. The courses meet concurrently but only one may be taken for credit)

**Econ 5021 ECONOMICS, ETHICS, AND ECONOMIC PHILOSOPHY.** 3-5 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Different topic each time offered, so course may be taken more than once, with consent of instructor. (Prereq 1101, 1102 or equivalent or #. Students may register for 3, 4, or 5 credits; assignments and examinations vary accordingly. Term paper required only for 5 credits. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem, Sec 1, Th, 6:10-7:50, BlegH 120, Smith

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Economic theory

**Econ 3101 MICROECONOMIC THEORY.** 4 credits, §3105 or BGS 3001, tuition\*: Resident \$308; Non-resident \$893.20.

Behavior of households, firms and industries under competitive and monopolistic conditions. Factors influencing production, price and other decisions of the firm; application of the theory. Business degree students admitted prior to the Fall of 1981 or after Spring 1986 may take this course or Econ 3105.

**Must be taken A-F.** (Prereq 1101, 1102 or equivalent, 1 qtr calculus, or #. Limited to 35)

Fall Sem, ★Sec 1, T, 6:10-7:50, FordH 349

Fall Sem, ★Sec 2, Th, 6:10-7:50, VinH 314

Spring Sem, ★Sec 3, M, 6:10-7:50, FordH 349

**Econ 3102 MACROECONOMIC THEORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Factors determining the price level, the amount of employment, and national income; effects of monetary and fiscal policies. Emphasis on a general equilibrium approach. (Prereq 3101, or equivalent, Math 1111 or 1131 or 1201 or equivalent or #. Limited to 35)

Fall Sem, ★Sec 1, T, 6:10-7:50, BlegH 115

Spring Sem, ★Sec 2, T, 6:10-7:50, BlegH 115

**Econ 3103 WELFARE ECONOMICS.** 4 credits. **Not offered 1994-95.**

Economics majors are required to take this course to graduate. For others, it is an elective. Relationship between economic efficiency, markets, and society's goals for the distribution of well being. Criteria for choosing among alternative distributions of well being. Applications of the theory to public goods and other situations. (Prereq 3101 or #)

**Econ 3105 MANAGERIAL ECONOMICS.** 4 credits, §3101, §BGS 3001, tuition\*: Resident \$308; Non-resident \$893.20.

Theory of the firm; managerial decision problems. Demand theory. Production technology and cost concepts. Pricing and output decisions. Investment behavior. Not open to economics majors. Business degree students admitted prior to the Fall of 1981 or after Spring 1986 may take this course or Econ 3101. **Must be taken A-F.** (Prereq 1101, 1102 or equivalent, 1 qtr calculus. Limited to 35)

Fall Sem, ★Sec 1, W, 6:10-7:50, HHCtr 60

### Development and area studies

**Econ 5301 and 5331 ECONOMIC DEVELOPMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The role of simple economic principles and of non-economic factors in raising a nation's standard of living. Lessons from the historical development of modern industrial economies. Problems of economic development of the underdeveloped nations today. Development planning. Issues in U.S. policy toward underdeveloped nations. (Prereq 1101, 1102 or equivalent for 5301 [not open to economics majors]; 3101, 3102 or # for 5331. The courses meet concurrently, but only one may be taken for credit. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem, Sec 1, Th, 8:05-9:45, BlegH 120, Smith

**Econ 5307 and 5337 COMPARATIVE ECONOMIC SYSTEMS.** 4 credits. **Not offered 1994-95.**

Different economic systems today, including various socialist, communist, and capitalist economies. Economic ideologies and systems; alternative ways to perform basic economic functions; performance and problems of different economic systems; economic planning and the economic roles of government and the market in different countries; relations between different economic systems. (Prereq 1101, 1102 or equivalent for 5307 [not open to economics majors]; 3101, 3102 or # for 5337. The courses meet concurrently, but only one can be taken for credit. Qualified students may register for graduate credit at the University of Minnesota)

### International economics

**Econ 5401 and 5429 (formerly 5431) INTERNATIONAL ECONOMICS.** 4 credits, §5431, 5432. **Not offered 1994-95.**

Principal issues involved in international economic relations. A one-term survey of international trade theory, arguments over tariff policy, foreign investment, exchange rates, the balance of payments, and analysis of international monetary systems. (Prereq 1101, 1102 or equivalent for 5401 [not open to economics majors]; 3101, 3102 or # for 5429. The courses meet concurrently, but only one may be taken for credit. Qualified students may register for graduate credit at the University of Minnesota)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Labor economics**

**Econ 3501 and 5531 LABOR ECONOMICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An introductory course dealing with the role of labor in the economy; labor as a factor of production; population and the labor force; economics of labor markets; labor market institutions; theories of wages and employment; unions and collective bargaining; current wage and employment practices; public policy. (Prereq 1101, 1102 or equivalent or # for 3501 [not open to economics majors]; 3101, 3102 for 5531. The courses meet concurrently, but only one can be taken for credit. Qualified students may register for graduate credit for 5531 at the University of Minnesota.)

Fall Sem, Sec 1, M, 6:10-7:50, BlegH 120

(See also IR 3007, Collective Bargaining and Labor Relations)

**Industrial organization**

**Econ 3601 and 5631 INDUSTRIAL ORGANIZATION AND ANTI-TRUST POLICY.** 4 credits. **Not offered 1994-95.**

Economic aspects of anti-trust and related policies. Relations between market structure and economic efficiency and welfare. Economic origins of monopoly and other restraints on competition. Purposes and effects of anti-trust and related legislation. (Prereq 1101, 1102 or equivalent or # for 3601 [not open to economics majors]; 3101, 3102 or # for 5631. The courses meet concurrently, but only one can be taken for credit. Qualified students may register for graduate credit for 5631 at the University of Minnesota)

**Money and banking**

**Econ 5721 MONEY AND BANKING.** 4 credits, \$3701, 5701, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Historical development, present pattern, and economic role of financial institutions, with main emphasis on commercial banks, the money supply, and the Federal Reserve System Monetary Policy. (Prereq 3101, 3102 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Econ 3701 and 5701)

Fall Sem, Sec 1, Th, 8:05-9:45, BlegH 120, Smith

**Econ 3701 and 5701 MONEY, BANKING, AND MONETARY POLICY.** 4 credits, \$5721, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS 3701)

Money creation; determinants and control of the money supply. Effects of various monetary transactions; elementary monetary theory. Economic role of banks, bank regulation. Tight and easy money; Federal Reserve policy. (Prereq 1101, 1102 or equivalent. Not open to Econ majors, who should take 5721. The courses meet concurrently and with Econ 5721, but only one may be taken for credit. Qualified students may register for graduate credit for 5701 at the University of Minnesota)

Fall Sem, Sec 1, Th, 8:05-9:45, BlegH 120, Smith

**Public finance**

**Econ 3801 and 5821 ELEMENTS OF PUBLIC ECONOMICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Competing views on the proper role of government in the economy. Effects of tax and spending policies, taking into account private agents' response to government actions and the way government officials may use their powers; optimal policies. Applications primarily to U.S. federal government. (Prereq 1101, 1102 or equivalent or # for 3801 [not open to economics majors]; 3101, 3102 or # for 5821. The courses meet concurrently but only one may be taken for credit. Qualified students may register for graduate credit for 5821 at the University of Minnesota)

Spring Sem, Sec 1, W, 6:10-7:50, HHCtr 60

**Education, College of**

Persons interested in admission to an Education program should discuss plans with an Extension pre-education adviser (625-2500). Students with completed bachelors degrees or those close to or ready to apply to the College of Education may be referred to the College of Education Student Affairs Office, 40 Wulling Hall, 86 Pleasant Street S.E., Minneapolis, Minnesota 55455 (625-6501), for further information, or directly to the Admissions Office, 240 Williamson Hall, (625-2008), for an application. Most professional education courses must be taken in day school, when schools are in session for observation. However, all programs in the College of Education emphasize the preparation

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

of the teacher in liberal education and in the teaching subjects. Many evening offerings listed in this bulletin may be taken by prospective teachers for later use toward degree programs or to fulfill some prerequisite course work in the College of Education.

**Teachers-in-Service:** Many courses in academic fields are available for teachers through evening Extension Classes registration. In addition to the professional education courses available through evening Extension Classes there are extensive offerings in the late afternoon and Saturday morning hours as part of the day school program of the College of Education. Day school class schedules and information about mail registration are available at the College of Education Student Affairs Office, 40 Wulling Hall, 86 Pleasant Street S.E., University of Minnesota, Minneapolis, Minnesota 55455 (625-6501).

### Day School Classes

**How to register in College of Education Day School Classes:** Students who wish to register in late afternoon and Saturday morning education day school classes (see individual departments for a listing) should follow these steps:

**Adult Special Students:** (1) Begin admission and registration process at the Education Student Affairs Office, 40 Wulling Hall. (2) Secure admission approval from a Student Progress Subcouncil representative in the Education Student Affairs Office. (3) For registration, request mail registration materials and your fee statement will be sent to you, or secure fee statement at the Registration Center, 202 Fraser Hall, and pay fees.

**Master of Education (M.Ed.) Degree Students:** Begin registration process at the Education Student Affairs Office, 40 Wulling Hall; mail registration is available upon request.

**Master of Arts (M.A.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.) Degree Students:** (1) If registered in Graduate School during previous quarters, obtain registration materials in your departmental office; new students obtain registration materials in 307 Johnston Hall. (2) Secure adviser's approval. (3) Return completed forms to 310 Johnston Hall. (4) Secure fee statement at the Registration Center, 202 Fraser Hall, and pay fees. If not admitted previously to Graduate School, contact the Graduate School (625-3014) for information about admission procedures.

*For further information, contact the Education Student Affairs Office, 625-6501.*

**Renewal of Teaching licensure:** Former teachers and those wishing to renew licenses should check with the State Department of Education (296-2046) concerning specific requirements for individual majors. (See also EPsy 5135, Workshop in Human Relations)

Please see the following listings for all College of Education course offerings:

**AdEd,** Adult Education (Department of Vocational and Technical Education)

**AgEd,** Agricultural Education; see Vocational and Technical Education (Department of Vocational and Technical Education)

**BIE,** Business and Industrial Education (Vocational and Technical Education)

**CPsy,** Child Psychology (Institute of Child Development)

**CI,** Curriculum and Instruction (Curriculum and Instruction; includes ArEd, Elem, CISy, SeEd)

**EdAd,** Educational Administration (Department of Educational Policy and Administration)

**EdPA,** Educational Policy and Administration (Department of Educational Policy and Administration)

**EPsy,** Educational Psychology (Department of Educational Psychology— includes courses in the program areas of counseling and student personnel psychology, psychological foundations, school psychology, and special education)

**FE,** Family Education; see Vocational and Technical Education (Department of Vocational and Technical Education)

**HRD,** Human Resource Development (Vocational and Technical Education)

**Kin,** Kinesiology (School of Physical Education and Recreation)

**MthE,** Mathematics Education (Department of Curriculum and Instruction)

**MuEd,** Music Education (School of Music)

**PE,** Physical Education (School of Physical Education and Recreation)

**Rec,** Recreation, Park, and Leisure Studies (School of Physical Education and Recreation)

**SPFE,** Social and Philosophical Foundations of Education (Department of Educational Policy and Administration; see EdPA for complete listing)

**VoEd,** Vocational Education; see Vocational and Technical Education (Department of Vocational and Technical Education)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



(See also FR 5403, Fundamentals of Natural Resource Education; Geo 5051, Physical Geology for Teachers; Geo 5052, Historical Geology for Teachers; Soil 5022, Basic Soil Science for Teachers)

For information about Early Childhood Studies, see page 146.

## Educational Policy and Administration (EdPA)

(275 Peik Hall: 624-1006)

### College of Education

(Department of Educational Policy and Administration)

Textbooks for most EdPA courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

G.F. Alkire, Associate Professor  
 M.S. Anderson, Assistant Professor  
 A.L. Bagley, Professor  
 J.J. Cogan, Professor  
 T.J. Delmont, Lecturer  
 A.M. Harkins, Associate Professor  
 V.L. Hendrix, Professor  
 R.B. Heydinger, Lecturer  
 C. P. Hooker, Professor Emeritus  
 D.R. Johnson, Lecturer  
 J.A. King, Associate Professor  
 D.R. Lewis, Professor  
 K.S. Louis, Professor  
 M.L. Lundy-Dobbert, Professor  
 T.L. Mazzoni, Professor  
 J.A. Mestenhauser, Professor  
 V.D. Mueller, Professor  
 N.C. Nickerson, Professor  
 R.E. Orton, Associate Professor  
 R.M. Paige, Associate Professor  
 J.R. Rest, Professor  
 C.H. Sederberg, Professor  
 C.S. Turner, Associate Professor  
 R.F. Weatherman, Professor

**Master's Degree**—A Master of Education degree with a focus on Leadership is available through the Curriculum and Instruction department and through the Educational Policy and Administration department. This degree is designed to increase a teacher's ability to take on the expanded roles and responsibilities of educators in Minnesota and across the country. Students will be admitted into the program once a year, each fall quarter. Classes will be held at an off-campus site. Degree completion is possible within two to three years. One requirement for

admission is that applicants must have at least two years of classroom teaching experience.

For further information on degree programs, telephone (612) 626-7196.

**EdPA 5090 SCHOOL AND SOCIETY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Readings in social science and philosophy relevant to thinking about role of school in a changing American society. **Must be taken A-F.** (Prereq senior or post-B.A. in Education or CLA music ed major or Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, TTh, 8:15-9:30 a.m., BuH 120, King

Fall Qtr, ★●Sec 2, Th, 12:20-2:50, WullH 230, Lundy-Dobbert

Winter Qtr, ★●Sec 3, T, 4:30-7, PeikH 155, Mueller

Spring Qtr, ★●Sec 4, MW, 1:30-2:45, PeikH 155, Harkins

Spring Qtr, ★●Sec 5, TTh, 12:45-2, PeikH 155, Bagley

**EdPA 5101 HISTORICAL FOUNDATIONS OF MODERN EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Background course for all other courses in history and philosophy of education. Analysis and interpretation of important elements in modern education derived from the Greeks, the Romans, the Middle Ages, and the Renaissance. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, PeikH 155, Bagley

**EdPA 5102 EDUCATION IMAGERY IN EUROPE AND AMERICA.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Images and ideas of education expressed in the visual arts of Western civilization (antiquity to 20th century) in relation to concurrent educational thought

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

and practice; symbolism, myth, propaganda, didacticism, genre, caricature. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, M, 4:30-7, PeikH, Bagley

**EdPA 5103 SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, §EPsy 5660, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Procedures in establishing and improving educational programs for exceptional children. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EPsy 5660. A joint Day/Extension class limited to a combined total of 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, NichH 122,

Johnson

Spring Qtr, ★●Sec 2, W, 4:30-7, NichH 209,

Johnson

**EdPA 5120 HISTORY OF CHILDHOOD EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Childhood education in Western civilization; emphasis on images, symbols, ideas important to educational theory and practice in home and school. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7, NichH 201, Bagley

**EdPA 5128 WORKSHOP: EDUCATIONAL ADMINISTRATION.** 1-6 credits. Tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Laboratory approach provides opportunities for experienced administrators to concentrate on common administrative and supervisory problems. *Focus Sec 1: Quality and Renewal in the Learning Organization* (3 cr). *Focus Sec 2: Arr* (3 cr). (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, W, 4:30-7, WullH 130,

Harkins

Spring Qtr, ★●Sec 2, M, 4:30-7, PeikH, Louis

**EdPA 5131 COMPARATIVE EDUCATION.** 3 credits, §SPFE 5131, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

European, Asiatic, and American systems and philosophies of education; possibilities of international education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, NichH 209A,

Cogan

**EdPA 5155 HISTORY OF WESTERN EDUCATIONAL THOUGHT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Major educational classics of Western civilization: Plato, Aristotle, Cicero, Quintilian, Montaigne, Milton, Locke, Rousseau, and others. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, T, 4:30-7, PeikH, Bagley

**EdPA 5156 HISTORY OF IDEAS IN AMERICAN EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Readings in American political, economic, and social development related to education; reference to the emerging system of public education. Recommended as a background for EdPA 5170 but not a prerequisite. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, M, 4:30-7, PeikH, Bagley

**EdPA 5167 THE AMERICAN MIDDLE SCHOOL.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Sources of the movement; purposes, functions, and limitations; fundamental problems, types, and curricular implications of reorganization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, Sa, 8-10:30 a.m., PeikH, Nickerson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EdPA 5173 CASE STUDIES FOR POLICY RESEARCH.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to the use of qualitative case study research method and its application to questions of educational practice. Class project required. Emphasis on design of studies that employ open-ended interviewing as primary data collection technique. **Must be taken A-F.** (Prereq education or graduate student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension Students) Winter Qtr, ★●Sec 1, Th, 4-6:30, PeikH, Turner

**EdPA 5180 SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, \$EPsy 8760, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Problems of administration and organization of special education programs. (Prereq 5103 or EdAd 5103 or EPsy 5660 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, T, 4:30-7, PeikH, Weatherman

**EdPA 5182 COMPARATIVE PHILOSOPHIES OF EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of competing philosophies of education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, W, 4:30-7, PeikH, Orton

**EdPA 5201 FORMAL ORGANIZATIONS IN EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to classical and current theories of organizational behavior and administration in education. Leadership and control, communication, conflict, the effects of educational environments, organizational design and change, and organizational effectiveness. (No prereq. Qualified students may register for graduate credit at the University of

Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7, NichH 109, Louis Spring Qtr, ★●Sec 2, M, 4-6:30, PeikH, Turner

**EdPA 5202 POLITICS OF EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Social science findings, concepts, and methods used to consider the political context of educational administration; emphasis on public school policy making by local and state governments; role of administrators. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:30-7, PeikH 155, Mazzoni

Spring Qtr, ★●Sec 2, Th, 4:30-7, PeikH, Mazzoni

**EdPA 5204 FINANCING ELEMENTARY AND SECONDARY SCHOOLS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Value assumptions and educational finance policy, economic factors, sources and characteristics of educational revenue, state and local distribution systems, federal support, urban/rural variations, institutional financing alternatives. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Sa, 10:30 a.m.-1, PeikH 225, Mueller

Spring Qtr, ★●Sec 2, T, 7:30-10, PeikH, Mueller

**EdPA 5209 EDUCATION IN FUTURE SOCIAL SYSTEMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Interdisciplinary inquiry into problems of social specialization and generalization; projections and analysis of long-range (30 years or more) social and technological trends related to education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, NichH 209, Harkins

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EdPA 5210 SOCIAL FORECASTING AND EDUCATIONAL FUTURES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of social sciences in the academic and applied dimensions to formal education, including a social-scientific and systems orientation toward communities; emphasis on short-range social and educational planning—near-present to a few years hence. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★○Sec 1, T, 4:30-7, PeikH, Harkins

**EdPA 5211 SOCIAL DESIGN AND EDUCATIONAL FUTURES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Medium-range interdisciplinary approach to community design and analysis emphasizing formal education systems in community context; focus upon new neighborhoods, towns, experimental cities and subcultural enclaves in rural and urban settings emphasizing time period from several years to 3 decades hence. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★○Sec 1, T, 4:30-7, PeikH, Harkins

**EdPA 5212 SCHOOL BUDGETING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Concepts and skills involved in preparing financial budgets for public schools; competency in translating educational programs into budgetary systems, anticipating revenue receipts, planning expenditures, and techniques for preparing a balanced budget. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★○Sec 1, W, 7:30-10, WullH 220, Sederberg

**EdPA 5213 FINANCIAL RESOURCE MANAGEMENT.** 3 credit, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident

Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Concepts and skills involved in the management of financial resources in public schools; performance exercises related to public school accounting systems, purchasing, the controller function, and reporting and interpreting school financial data. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★○Sec 1, M, 7:30-10, PeikH, Sederberg

**EdPA 5214 SCHOOL MANAGEMENT INFORMATION SYSTEMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Basic techniques required to generate, maintain, and make accessible computer-based management information system in education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★○Sec 1, W, 7:30-10, PeikH, Sederberg

**EdPA 5215 THE PRINCIPALSHIP.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The role of the principal: qualifications, duties, and problems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★○Sec 1, T, 7:30-10, PeikH 215, Alkire  
Spring Qtr, ★○Sec 2, T, 4:30-7, PeikH, Alkire

**EdPA 5216 RECENT RESEARCH IN ELEMENTARY SCHOOL ADMINISTRATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Pertinent research literature. (Prereq 5215 or EdAd 5215. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★○Sec 1, T, 7:30-10, PeikH, Alkire

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EdPA 5222 INTRODUCTION TO POLICY RESEARCH.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Critical examination of the political, philosophical, environmental, and methodological issues that accompany policy research in education; particular consideration will be given to the determinants of the applicability of quantitative and qualitative methods. **May be taken S-N by graduate students only**; all others must take A-F. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, M, 4:30-7, PeikH, Hendrix, Mazzoni

Spring Qtr, ★●Sec 2, W, 4:30-7, PeikH, Hendrix, Anderson

**EdPA 5223 LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION.** 2-4 credits, §EPsy 5605, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Analysis of recent litigation and legislation; emphasis on implementation of right to education, right to treatment, labeling, due process, and related issues. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EPsy 5605. A joint Day/Extension class limited to a combined total of 15 Extension students)

Spring Qtr, ★●Sec 1, M, 4:30-7, AndH 230, Hooker

**EdPA 5224 LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Constitutional, statutory, and common law bases of school administration; principles growing out of fundamental legal procedures. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, M, 4:30-7, BlegH 5, Hooker

**EdPA 5226 EDUCATIONAL FACILITIES PLANNING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning educational facilities for public and private school systems and institutions of higher education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, W, 4:30-7, PeikH, Alkire

**EdPA 5227 PUBLIC SCHOOL PERSONNEL PROGRAMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Selection, assignment, evaluation, and development of school personnel, salary and conditions of service; policies of administrative, instructional, and noninstructional personnel. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, W, 4:30-7, NichH 209A, Alkire

**EdPA 5240 SEMINAR: CLINICAL EXPERIENCES IN EDUCATIONAL ADMINISTRATION.** 1-9 cr, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

For educational administration majors engaged in clinical experiences. **Must be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension Students)

Fall Qtr, ★●Sec 1, Th, 4:30-7, WullH 220, Sederberg

Winter Qtr, ★●Sec 2, Th, 4:30-7, PeikH, Sederberg

Spring Qtr, ★●Sec 3, Th, 4:30-7, PeikH, Sederberg

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EdPA 5245 ETHICS, MORALITY, AND VALUES IN EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introductory graduate-level course on the subject matter of ethics, morality, and values in education. Application to key issues of professional practice. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension Students)

Winter Qtr, ★●Sec 1, Arr, PeikH, Orton

**EdPA 5250 AMERICAN HIGHER EDUCATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

American higher and postsecondary education in historical and contemporary perspective; special emphasis on societal and political demands on higher education system; consequent changes in its various forms and functions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, W, 4:30-7:50, NichH 209, Lewis

**EdPA 5260 INTRODUCTION TO EDUCATIONAL PLANNING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles, tools, and emerging issues in higher and elementary/secondary education settings, including decision-making models, strategic planning, forecasting, program planning, and short-range planning. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, W, 4:30-7, PeikH, Delmont

Winter Qtr, ★●Sec 2, Arr, PeikH, Heydinger

Spring Qtr, ★●Sec 3, T, 4:30-7, PeikH, Delmont

**EdPA 5265 ADMINISTERING THE HIGH SCHOOL PROGRAM.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Emphasis upon the principal as instructional leader; practices and procedures used in building a master schedule; analysis and evaluation of the school program and services. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Th, 7:30-10, PeikH 225, Nickerson

**EdPA 5266 PRINCIPAL-CONSTITUENT DECISION MAKING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For school administrators and those preparing for administrative positions in educational institutions; focus on administrator's role in large group, small group, and dyadic interaction decision making; role playing, simulation, and case study analysis. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, Th, 7:30-10, PeikH, Nickerson

**EdPA 5272 PROBLEMS: EDUCATIONAL POLICY AND ADMINISTRATION.** 1-3 credits each quarter, \$8272, tuition\*each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

For students in educational policy and administration who are qualified to make intensive studies of a school system. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Arr

Winter Qtr, ★●Sec 2, Arr

Spring Qtr, ★●Sec 3, Arr

**EdPA 5274 TWO-YEAR POSTSECONDARY INSTITUTIONS.** 3 credits, \$VoEd 5274, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Present status, development, functions, organization, curriculum, and trends in postsecondary but nonbaccalaureate institutions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 4-6:30, SmithH 111, Turner

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EdPA 5280 INTRODUCTION TO THE ECONOMICS OF EDUCATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Economic impact of education on educational markets, prices, and production relationships, distribution of income, and investment and cost-benefit analysis in education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, W, 4:30-7:50, PeikH, Lewis

**EdPA 5281 ECONOMIC ANALYSIS IN EDUCATIONAL EVALUATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Use and application of cost-effectiveness, cost-benefit, cost-utility, and cost-feasibility in the evaluation of educational problems and programs. **Must be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, T, 4:30-7, PeikH, Lewis

**EdPA 5540 SEMINAR: THE COLLEGE STUDENT.** 3 credits, \$EPsy 5451, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Psychology and sociology of college students, research concerning diversity of populations, vocational development of students; student society, culture, mental health, underachievement, drop-outs, values, and attitudes; relevant research methods. (Prereq 6 cr in psychology or educational psychology. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EPsy 5451. A joint Day/Extension class limited to a combined total of 15 Extension students)

Spring Qtr, ★●Sec 1, Th, 4:30-7:15, BuH 120, Rest

**EdPA 5603 (formerly AdEd 5603) INTERNATIONAL EDUCATION AND DEVELOPMENT.** 3 credits, \$AdEd 5603, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Contemporary theories relating formal and nonformal education to national development in social, cultural, political, and economic sectors; alternative conceptualizations and theoretical perspectives on education and development. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7, NichH 122, Paige

**EdPA 5605 (formerly AdEd 5605) RESEARCH TOPICS: INTERNATIONAL DEVELOPMENT EDUCATION.** 3 credits, \$AdEd 5605, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Empirical research conducted in developing societies relating formal and nonformal education to national development in social, cultural, political, and economic sectors. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

**EdPA 5607 (formerly AdEd 5607) APPLIED INTERNATIONAL DEVELOPMENT EDUCATION.** 3 credits, \$AdEd 5607, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Educational innovations designed to promote national development in selected developing nations; educational case studies in the context of such objectives; conceptualizations of the role of education in development and outcomes. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, T, 4:30-7, PeikH, Paige

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EdPA 5609 CRITICAL ISSUES IN INTERNATIONAL EDUCATION AND EDUCATIONAL EXCHANGES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Provides comprehensive, multidimensional, and policy practices of U.S. and other universities. In addition, it will identify curricular strategies typically used by the various components. The critical issues cluster around the field's conceptual development; its multidisciplinary; integration of learning; production, consumption, and transfer of international knowledge; and especially its practical application to programs, global careers, and to pedagogy. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, TTh, 2-4, PeikH, Mestenhauser

**Day School Classes**—In addition to the Extension classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

### Educational Psychology (EPsy)

(204 Burton Hall: 624-3543)

#### College of Education

Textbooks for most EPsy courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Psychology)

Brian Abery, Lecturer  
William Bart, Professor  
Sheldon Braaten, Lecturer  
Ann Casey, Lecturer  
Sandra Christenson, Associate Professor  
Ernest C. Davenport, Associate Professor  
Mark Davison, Professor  
Stanley Deno, Professor  
Lynne K. Edwards, Associate Professor  
Byron Egeland, Professor  
V. Lois Erickson, Associate Professor  
Christine Espin, Assistant Professor  
Lynn Friedman, Assistant Professor  
Joan Garfield, Adjunct Associate Professor  
David Giese, Adjunct Professor  
L. Sunny Hansen, Professor  
Vernon Hendrix, Adjunct Professor

Diane Holte, Associate Education Specialist  
C. P. Hooker, Professor Emeritus  
Susan Hupp, Professor  
David W. Johnson, Professor  
Jean King, Adjunct Professor  
Stephen Klein, Adjunct Assistant Professor  
Marie Knowlton, Associate Professor  
Geoffrey Maruyama, Professor  
Scott McConnell, Associate Professor  
Mary McEvoy, Associate Professor  
Judith Puncocchar, Lecturer  
James Rest, Professor  
John Romano, Associate Professor  
Susan Rose, Associate Professor  
John Rynders, Professor  
S. Jay Samuels, Professor  
Mary Schultz, Teaching Specialist  
Robert Tennyson, Professor  
James Terwilliger, Professor  
Katherine Thomas, Adjunct Assistant Professor  
James Turnure, Professor  
Paulus van den Broek, Associate Professor  
Richard Weatherman, Professor  
Richard Weinberg, Professor  
Wayne Welch, Professor  
Frank B. Wilderson, Jr., Professor  
Frank Wood, Professor  
Jennifer York, Assistant Professor  
James Ysseldyke, Professor

American Sign Language: 626-9392

**Note:** American Sign Language courses can be used to complete a second language requirement. Contact CEE Counseling (625-2500) with questions.

*You must attend the entire first class session or your space in that class will be forfeited.*

**EPsy 1601 AMERICAN SIGN LANGUAGE I.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Introduces fundamentals of American Sign Language as a second language. Emphasis is placed on varieties of sign language and sign language practices, questions, commands, and simple sentences. Receptive and Expressive sign vocabulary building are featured. **May be taken S-N.** (No prereq. Limited to 25)

Fall Qtr, ★Sec 1, M, 4:40-9, EltH N647

Fall Qtr, ★Sec 2, M, 4:40-9, WullH 140

Fall Qtr, ★Sec 3, MWF, 11:15 a.m.-12:45, EltH N647

Fall Qtr, ★Sec 4, MWF, 9:05-10:35 a.m., EltH N647

Fall Qtr, ★Sec 5, MWF, 11:15 a.m.-12:45

Fall Qtr, ★Sec 6, TTh, 12:20-2:35, EltH N647

Fall Qtr, ★Sec 7, TTh, 12:20-2:35

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



- Winter Qtr, ★Sec 8, M, 4:40-9, EltH N647  
 Winter Qtr, ★Sec 9, MW, 3:35-5:50, AkerH 211  
 Winter Qtr, ★Sec 10, MWF, 11:15 a.m.-12:45  
 Winter Qtr, ★Sec 11, TTh, 7:45-10 a.m., EltH N647  
 Winter Qtr, ★Sec 12, TTh, 12:20-2:35, EltH N647  
 Spring Qtr, ★Sec 13, M, 4:40-9, AkerH 211  
 Spring Qtr, ★Sec 14, MWF, 11:15 a.m.-12:45  
 Spring Qtr, ★Sec 15, TTh, 7:45-10 a.m., EltH N647  
 Spring Qtr, ★Sec 16, TTh, 12:20-2:35

**EPsy 1602 AMERICAN SIGN LANGUAGE II.**  
 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Introduces fundamentals of American Sign Language as a second language beyond the basic level. Emphasis is placed on locatives, classifiers, and temporal and distributional aspects. Receptive and Expressive sign vocabulary building are featured at the conversational level. **May be taken S-N.** (Prereq 1601 or #. Limited to 25)

- Fall Qtr, ★Sec 1, MWF, 9:05-10:35 a.m.  
 Fall Qtr, ★Sec 2, MWF, 11:15 a.m.-12:45  
 Fall Qtr, ★Sec 3, TTh, 12:20-2:35  
 Fall Qtr, ★Sec 4, Th, 4:40-9, EltH N647  
 Winter Qtr, ★Sec 5, M, 4:40-9, EltH N647  
 Winter Qtr, ★Sec 6, MW, 1:25-3:40  
 Winter Qtr, ★Sec 7, MWF, 9:05-10:35 a.m.  
 Winter Qtr, ★Sec 8, MWF, 11:15 a.m.-12:45  
 Winter Qtr, ★Sec 9, T, 4:40-9, EltH N647  
 Winter Qtr, ★Sec 10, TTh, 7:45-10 a.m.  
 Winter Qtr, ★Sec 11, TTh, 12:20-2:35  
 Spring Qtr, ★Sec 12, M, 4:40-9, EltH N647  
 Spring Qtr, ★Sec 13, MW, 3:35-5:50, AkerH 317  
 Spring Qtr, ★Sec 14, MWF, 9:05-10:35 a.m.  
 Spring Qtr, ★Sec 15, TTh, 7:45-10 a.m.  
 Spring Qtr, ★Sec 16, W, 4:40-9, EltH N647

**EPsy 1603 AMERICAN SIGN LANGUAGE III.**  
 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Expands on the conversational use of American Sign Language as a second language including grammar, deaf culture, short stories, and narratives. Receptive and Expressive use of ASL will be stressed at the conversational level. **May be taken S-N.** (Prereq 1602 or #. Limited to 25)

- Fall Qtr, ★Sec 1, TTh, 7:45-10 a.m., EltH N647  
 Fall Qtr, ★Sec 2, TTh, 7:45-10 a.m.  
 Fall Qtr, ★Sec 3, W, 4:40-9, EltH N647  
 Fall Qtr, ★Sec 4, Th, 4:40-9, AkerH 319  
 Winter Qtr, ★Sec 5, MWF, 9:05-10:35 a.m.  
 Winter Qtr, ★Sec 6, MWF, 11:15-12:45

- Winter Qtr, ★Sec 7, Th, 4:40-9, EltH N647  
 Spring Qtr, ★Sec 8, MW, 1:25-3:40  
 Spring Qtr, ★Sec 9, MW, 3:35-5:50, AkerH 313  
 Spring Qtr, ★Sec 10, MWF, 9:05-10:35 a.m.  
 Spring Qtr, ★Sec 11, MWF, 11:15 a.m.-12:45  
 Spring Qtr, ★Sec 12, T, 4:40-9, EltH N647  
 Spring Qtr, ★Sec 13, Th, 4:40-9, EltH N647

**EPsy 3601 AMERICAN SIGN LANGUAGE IV.**  
 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25.

Stresses conversational use of American Sign Language and culturally significant topics relating to the deaf community, complex use of ASL, grammatical features and vocabulary expansion. Comprehension and expression of jokes, dialogues, stories are emphasized. **May be taken S-N.** (Prereq 1603. Limited to 25)

- Fall Qtr, ★Sec 1, MW, 1:10-3:25  
 Fall Qtr, ★Sec 2, MW, 3:35-5:50, AkerH 317  
 Fall Qtr, ★Sec 3, MWF, 9:05-10:35 a.m.  
 Fall Qtr, ★Sec 4, MWF, 11:15 a.m.-12:45  
 Fall Qtr, ★Sec 5, T, 4:40-9, EltH N647  
 Fall Qtr, ★Sec 6, TTh, 7:45-10 a.m.  
 Winter Qtr, ★Sec 7, MW, 1:25-3:40  
 Winter Qtr, ★Sec 8, T, 4:40-9, JonesH 11  
 Winter Qtr, ★Sec 9, TTh, 12:20-2:35  
 Winter Qtr, ★Sec 10, MW, 3:35-5:50, AkerH 317  
 Spring Qtr, ★Sec 11, MWF, 9:05-10:35 a.m.  
 Spring Qtr, ★Sec 12, T, 4:40-9, JonesH 11  
 Spring Qtr, ★Sec 13, TTh, 7:45-10

**EPsy 3602 AMERICAN SIGN LANGUAGE V.**  
 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25.

Stresses common conversational use of American Sign Language and culturally significant topics relating to the deaf community. Idiomatic use of sign in conversation and expansion of vocabulary are introduced. Comprehension and expression of common conversational topics and idiomatic expressions are emphasized. **May be taken S-N.** (Prereq 3601. Limited to 25)

- Fall Qtr, ★Sec 1, TTh, 12:20-2:35 a.m., EltH N647  
 Fall Qtr, ★Sec 2, W, 4:40-9, AkerH 319  
 Winter Qtr, ★Sec 3, MW, 3:35-5:50, AkerH 319  
 Winter Qtr, ★Sec 4, MWF, 11:15 a.m.-12:45  
 Winter Qtr, ★Sec 5, TTh, 7:45-10 a.m.  
 Winter Qtr, ★Sec 6, TTh, 12:20-2:35  
 Winter Qtr, ★Sec 7, Th, 4:40-9, AkerH 319  
 Spring Qtr, ★Sec 8, M, 4:40-9, JonesH 4  
 Spring Qtr, ★Sec 9, MWF, 9:05-10:35 a.m.  
 Spring Qtr, ★Sec 10, MWF, 11:15a.m.-12:45  
 Spring Qtr, ★Sec 11, TTh, 12:20-2:35

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.  
 \* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 3603 CULTURAL PERSPECTIVES OF DEAFNESS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Provides an introduction to the deaf community, its social norms, values, and folklore. The international integration of social, religious, athletic, literary, and scholarly institutions are introduced. **May be taken S-N.** (Prereq 1603)

Fall Qtr, Sec 1, M, 4:40-7:20, PeiH 225

Winter Qtr Sec 2, W, 4:40-7:20, WullH 220

Spring Qtr, Sec 3, W, 4:40-7:20, ChDev 218

**EPsy 5110 INTELLIGENCE.** 3 credits, \$PsyF 5147, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theories of intelligence and its development; implications for educational practices and psychological research. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:30-7, BuH 125, Bart

**EPsy 5112 KNOWING, LEARNING, AND THINKING.** 4 credits, \$PsyF 5152, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Principles of human information processing; issues in memory and thought; discussion of mental operations in comprehension and understanding; analysis of intellectual structures supporting problem solving in applied settings. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, W, 5:30-8:50, EltH N647, Samuels

**EPsy 5113 INTRODUCTION TO THE PSYCHOLOGY OF INSTRUCTION.** 3 credits, \$PsyF 5153, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Survey of psychological factors in design of instruction; performance criteria, strategy, and sequence in contexts of research; development and

implementation activities in instructional techniques, technologies, and delivery systems, psychological processes relevant to measures of effectiveness in teaching-learning environment. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 4:15-6:45, NichH 201, Tennyson

**EPsy 5114 PSYCHOLOGY OF STUDENT LEARNING.** 3 credits, \$PsyF 5182, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. (IS)

Survey of psychological methods and principles; models of the learner; topics in development, creativity, intelligence, and motivation, implications for teaching and curriculum design in preschool, elementary, and secondary education; professional training with children and adolescents as clients. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, W, 4:30-7, BuH 120, van den Broek

Winter Qtr, ★●Sec 2, W, 4:30-7, BuH 120, van den Broek

Spring Qtr, ★●Sec 3, W, 4:30-7, BuH 123, van den Broek

**EPsy 5115 PSYCHOLOGY OF ADULT LEARNING.** 4 credits, \$PsyF 5183, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Survey of psychological methods and principles in human learning; models of the adult learner; topics in motivation, creativity, achievement, intelligence; implications of teaching and curriculum design in higher education, continuing education, and professional training. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, T, 4:15-7:35, PeiH 155, Tennyson

Spring Qtr, ★●Sec 2, T, 4:15-7:35, EltH N647

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EPsy 5116 BEHAVIOR ANALYSIS IN EDUCATION.** 4 credits, \$PsyF 5149, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Practical applications of reinforcement theory; behavior analysis, precision teaching, programmed instruction. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Fall Qtr, ●Sec 1, M, 4:40-8:30, PtH 204,

McEvoy

Spring Qtr, ●Sec 2, M, 4:40-8:30, PtH 204, Deno

**EPsy 5130 PERSONALITY AND SOCIAL DEVELOPMENT.** 3 credits, \$PsyF 5162, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Major concepts and research findings in adjustment and development with special emphasis on educational implications. **Must be taken A-F.** (Prereq 5 cr in introductory psychology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Winter Qtr, ★●Sec 1, T, 4:30-7, PeikH 215

Spring Qtr, ★●Sec 2, W, 4:30-7, BuH 125

**EPsy 5135 WORKSHOP IN HUMAN RELATIONS.** 6 credits, \$PsyF 5305, tuition\*: Resident \$519; Non-resident \$1505.10; Resident Graduate credit \$642; Non-resident Graduate credit \$1284; Resident Graduate School credit \$1102.50; Non-resident Graduate School credit \$2425.50.

An experientially based course including simulation activities, curriculum writing, and supervised practice in basic human relations skills emphasizing individual, cultural, and ethnic differences and their implications for educational practice. **Must be taken S-N.** (No prereq. Approved to meet State Department of Education requirement for licensure renewal. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, M, 5-10, BuH 120, Punchchar

Spring Qtr, ●Sec 2, M, 5-10, BuH 120,

Puncochar

**EPsy 5150 SOCIAL PSYCHOLOGY OF EDUCATION.** 3 credits, \$PsyF 5170, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Concepts and theories in the field applied to educational problems and settings; laboratory sessions to make applications and develop skills in group behavior. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4-6:30, PeikH 315,

Johnson

**EPsy 5200 SPECIAL TOPICS: DESIGNS FOR LEARNING WITH INTERACTIVE MEDIA.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The availability of interactive, computer-based technologies provides unique possibilities for advanced learning environments. This course reviews the theory and research pertaining to learning with interactive media. Special emphasis is placed on the design of instructional strategies and tactics which make effective use of a variety of advanced interactive technologies. Students will be placed in a highly interactive laboratory setting and will have opportunities to review and evaluate several interactive course ware exemplars. In addition to lectures, small group discussions and project work, students will have access via internet to students and tutors at Lancaster University involved in a similar course of study. **May be taken S-N.** (Prereq undergrad degree in education/computer science/psychology or the equivalent of two full years as an instructional developer/course ware designer or by special invitation to participate. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:15-7:35, MechE 221,

Tennyson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 5221 BASIC PRINCIPLES OF MEASUREMENT.** 3 credits, \$PsyF 5121, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Fundamental concepts, principles, and methods in educational and psychological measurement; educationally useful properties of tests; types and uses of derived scores; factors influencing reliability and validity. **May be taken S-N.** (Prereq EPsy 5260 or EPsy 8260 or PsyF 5110 or PsyF 8110. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, TTh, 4:15-5:30, WullH 220, Bart

**EPsy 5240 PRINCIPLES AND METHODS OF EVALUATION.** 3 credits, \$PsyF 5125, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introductory course in program evaluation; theory; practical examples, purpose, roles, program descriptions, and evaluation strategies. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, W, 4:30-7:30, PeikH 225, King

**EPsy 5260 INTRODUCTORY STATISTICAL METHODS.** 4 credits, \$PsyF 5110, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Techniques for organizing and presenting data; descriptive indices of central tendency, variability and bivariate correlation/regression; procedures for making inferences concerning means and proportions. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr, ★Sec 1, T, 5:45-8:50, BuH 120

Fall Qtr, ★●Sec 2, MW, 4:15-6, NichH 109. A joint Day/Extension class limited to 10 Extension students

Winter Qtr, ★●Sec 3, TTh, 4:15-6, NichH 216, Hendrix. A joint Day/Extension class limited to 10 Extension students

Winter Qtr, ★Sec 4, W, 5:45-8:50, BuH 123

Spring Qtr, ★●Sec 5, MW, 4:15-6, NichH 216. A joint Day/Extension class limited to 10 Extension students

Spring Qtr, ★Sec 6, W, 5:45-8:50, WullH 220

**EPsy 5401 COUNSELING PROCEDURES.** 3 credits, \$PsyS 5110, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For persons whose professional work includes counseling and interviewing; not for licensure as school counselor. Emphasis on counseling relationship and principles of interviewing; case studies, role playing and demonstration. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 18 Extension students)

Fall Qtr, ★●Sec 1, M, 4:15-6:45, BuH 125

Winter Qtr, ★●Sec 2, T, 4:15-6:45, BuH 125, Erickson

Spring Qtr, ★●Sec 3, M, 4:15-6:45, BuH 125

(See also Family Social Science)

**EPsy 5430 FOUNDATIONS OF CAREER DEVELOPMENT.** 3 credits, \$PsyS 5210, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to theory, research, practice; examination of concepts of work, work values, career and career education; application of theory and research to career guidance practice in educational, industrial, and community agency settings. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 18 Extension students)

Fall Qtr, ★●Sec 1, T, 4:15-6:45, BuH 125, Hansen

**EPsy 5433 DEVELOPMENTAL CAREER COUNSELING OF WOMEN.** 3 credits, \$PsyS 5310, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Counseling skills and interventions to facilitate the career development of girls and women at different life stages; the sex role system, female socialization and stereotyping; facts, myths, and trends regarding women's changing roles in a technological society; issues of sexism in strategies and programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 18 Extension students)

Spring Qtr, ★●Sec 1, W, 4:15-7, BuH 120, Hansen

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EPsy 5434 COUNSELING ADULTS IN TRANSITION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theoretical and empirical knowledge to provide bases for analyzing adaptation to transitions; applications of counseling intervention and training in coping skills to cases of life change. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 18 Extension students)

Fall Qtr, ★○Sec 1, W, 4:15-6:45, BuH 125, Romano

**EPsy 5451 SEMINAR: THE COLLEGE STUDENT.** 3 credits, \$PsyS 5540, \$HiEd 5540, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Psychology and sociology of college students; research concerning diversity of populations, vocational development of students, student society, culture, mental health, underachievement, drop-outs, values and attitudes; relevant research methods. **Must be taken A-F.** (Prereq 6 credits psych or edpsych. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EdPA 5540. A joint Day/Extension class limited to a combined total of 10 Extension students)

Spring Qtr, ★○Sec 1, Th, 4:30-7:15, BuH 120

**EPsy 5461 CROSS-CULTURAL COUNSELING.** 3 credits, \$PsyS 5505, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Effect of cross-cultural and cross-national differences in counseling processes. **Must be taken A-F.** (Prereq#. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Fall Qtr, ★Sec 1, M, 6-8:30, BuH 123, Thomas

**EPsy 5600 CHILDHOOD LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS.** 3 credits, \$PsyS 5100, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Recent trends and findings in the study of language acquisition and communication; classroom implications including education of exceptional children. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, T, 4:40-7:30, ChDev 105, Turnure

Spring Qtr, ○Sec 2, T, 4:40-7:30, NichH 207, Turnure

**EPsy 5601 EDUCATION OF EXCEPTIONAL CHILDREN.** 4 credits, \$PsyS 5101, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Introduction to field of special education for classroom teachers and other school personnel. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, M, 4:40-8:30, Phys 133, Knowlton

Spring Qtr, ○Sec 2, W, 4:40-8:30, NichH 207

**EPsy 5604 TRANSITION FROM SCHOOL TO WORK AND COMMUNITY LIVING FOR PERSONS WITH SPECIAL NEEDS.** 4 credits, \$PsyS 5104, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Organization and design of training programs to promote independent living and the vocational and community adjustment of persons with disabilities and other at-risk populations; curriculum materials; methods, and organizational strategies for adolescent and adult learners, families, and community service providers. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Spring Qtr, ★○Sec 1, W, 4:40-8:30, PeikH 215

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 5605 LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION.** 2-4 credits, §EdPA 5223, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Analysis of recent litigation and legislation; emphasis on implementation of right to education, right to treatment, labeling, due process, and related issues. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EdPA 5223. A joint Day/Extension class limited to a combined total of 10 Extension students) Spring Qtr, ★●Sec 1, M, 4:30-7, AndH 230, Hooker

**EPsy 5607 COLLABORATION FOR INCLUSIVE SCHOOL COMMUNITIES.** 3 credits, §PsyS 5107, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Rationale for, implications of, and strategies for including students with unique needs (e.g., disabilities) in general education classroom settings. The importance of creating a sense of community among students and adults in today's heterogeneous classrooms and schools is emphasized. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 4:40-7:30, Arr, York

**EPsy 5608 PARENT AND PROFESSIONAL PLANNING FOR HANDICAPPED STUDENTS.** 3 credits, §PsyS 5108, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Study and demonstration of constructive approaches to cooperative planning and implementation of education programs by parents, teachers, and persons involved with children who have special needs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Th, 4:40-7:30, BuH 120

Spring Qtr, ●Sec 2, Th, 4:40-7:30, Arch

**EPsy 5609 FAMILY-PROFESSIONAL PLANNING FOR PERSONS WITH SEVERE HANDICAPS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Interdisciplinary course examining the needs of families including children with severe handicaps; emphasis on life cycle needs, service issues, programs of support from infancy through adult years, services from different agencies, disciplines, professional requirements, and responsibilities in serving families. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 30 Extension students)

Winter Qtr, ★●Sec 1, W, 4:40-7:30, NichH 122

**EPsy 5612 EDUCATION OF LEARNING-DISABLED CHILDREN.** 3 credits, §PsyS 5112, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of considerations in design and conduct of services for learning-disabled children; approaches to education of such children. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, T, 4:40-7:30, ChDev 218, Espin

Winter Qtr, ★●Sec 2, Th, 4:40-7:30, NichH 209

**EPsy 5615 EDUCATIONAL INTERVENTIONS FOR LEARNING DISABILITIES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning, implementing, evaluating academic programs for students with disabilities in written and spoken language, quantitative concepts, and cognitive skills required for learning. **Must be taken A-F.** (Prereq 5612 or PsyS 5112. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr, ★●Sec 1, T, 4:40-7:30, NichH 122, Espin

Spring Qtr, ★●Sec 2, T, 4:40-7:30, BuH 123, Espin

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EPsy 5620 INTRODUCTION TO MENTAL RETARDATION.** 4 credits, §CPsy 5315, §PsyS 5120, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Issues relating to educational practices; community planning; educational philosophy, administration and organization, and programming. **Must be taken A-F.** (Prereq 5601 or PsyS 5101 or equivalent. Meets concurrently with CPsy 5315. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, W, 4:40-8:30, WullH 140, Turnure

Spring Qtr, ★●Sec 2, T, 4:40-8:30, WullH 140, Rynders

**EPsy 5621 METHODS AND MATERIALS FOR STUDENTS WITH MILD TO MODERATE MENTAL RETARDATION.** 4 credits, §PsyS 5121, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Curriculum content, materials, and methods of instruction for students with mental retardation; preparation of instructional instruments leading to both individual and group teaching expertise. **Must be taken A-F.** (Prereq 5601 or PsyS 5101 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 4:40-8:30, ChDev 105, Rynders

**EPsy 5622 PROGRAMS AND CURRICULA FOR LEARNERS WITH MODERATE TO SEVERE DISABILITIES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Elementary/secondary program design and curricula for learners with severe disabilities. Emphasis on preparing children and youth for integrated, normalized community environments in domestic, leisure, and vocational domains. Discussion of developmentally appropriate programming. Structured observation of learners with severe disabilities required. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Th, 4:10-7:30, NichH 109

**EPsy 5624 BIOMEDICAL AND PHYSICAL ASPECTS OF DEVELOPMENTAL DISABILITIES.** 3 credits, §PsyS 5124, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Selected information in genetics; anatomy, physiology, and kinesiology; central and peripheral nervous system; prenatal, perinatal, and postnatal development; physically disabling conditions; and management of educational procedures. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, T, 4:40-7:30, BuH 125, York

**EPsy 5625 EDUCATION OF HANDICAPPED INFANTS AND PRESCHOOL CHILDREN WITH DEVELOPMENTAL DISABILITIES.** 3 credits, §PsyS 5125, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Issues, problems, and practical applications in designing strong programs for young children with all types of handicapping conditions. **Must be taken A-F.** (Prereq 5601 or 5620 or PsyS 5101 or PsyS 5120 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 4:40-8:30, Peik 215, Rynders

**EPsy 5626 INSTRUCTION FOR LEARNERS WITH MODERATE TO SEVERE DISABILITIES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Data-based strategies for school and non-school instruction, including basic measurement principles; assessment, design, implementation, and evaluation of instruction; concept and task analysis; natural and instructional cues, corrections, consequences. **May be taken S-N.** (Prereq 5116 and 5622. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 4:10-7:30, BuH 123

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 5636 EDUCATION OF MULTI-HANDICAPPED LEARNERS WITH SENSORY IMPAIRMENTS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Characteristics of learners with visual and auditory impairments. Design of instructional programs to remediate or circumvent disabilities, including the use of prosthetic devices. Consideration of related areas of performance that may be affected by sensory impairments. **May be taken S-N.** (Prereq 5601 or PsyS 5101. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, M, 4:10-6:40, ChDev 218, Hupp

**EPsy 5640 PSYCHOLOGICAL, SOCIAL, AND EDUCATIONAL ASPECTS OF DEAFNESS.** 3 credits, §PsyS 5140, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Historical and current societal perceptions of deaf; analysis of effects and patterns of hearing loss on children and adults; intelligence, personal and social adjustment, effect of the psychological processes on acquisition of language, speech, and speech reading skills. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, W, 4:40-7:30, PtH 204

**EPsy 5641 MODELS OF SERVICE DELIVERY TO STUDENTS WITH HEARING LOSS.** 3 credits, §PsyS 5141, 5144, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Programmatic and systems of support for infants, children, and youth who are deaf or hard of hearing; educational delivery system models, curriculum and material adaptation, and consultation skills. **Must be taken A-F.** (Prereq 5644, PsyS 5144, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, W, 4:40-7:30, FolH 134

**EPsy 5643 LANGUAGE FOR DEAF/HARD OF HEARING CHILDREN.** 4 credits, §PsyS 5143, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Functional language development in communicatively disabled persons; overview of language curricula and programming strategies, pertinent research and models of instruction for use in the educational environment. **Must be taken A-F.** (Prereq 5640 or PsyS 5140 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, T, 12:20-4, PtH 204, Rose

**EPsy 5644 LANGUAGE PROGRAMMING FOR CHILDREN WITH HEARING LOSS.** 3 credits, §PsyS 5144, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Programs and practices focusing on the development of language in deaf and hard of hearing infants, children, and youth; comparative study of language development among deaf, hard of hearing, and hearing persons. **Must be taken A-F.** (Prereq 5643, PsyS 5143, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, M, 1:25-4, PtH 204, Rose

**EPsy 5646 READING AND INSTRUCTIONAL PRACTICES WITH DEAF AND HARD OF HEARING STUDENTS.** 4 credits,

tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Focuses on the knowledge and skills required to assess, plan, and implement instruction for individuals with hearing loss. Emphasis on theoretical and programmatic issues in the acquisition of reading and writing skills, curricular adaptations, and effective instructional approaches used with hearing-impaired learners. **Must be taken A-F.** (Prereq 5643, PsyS 5143, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, T, 4:40-8:30, NichH 207, Schultz

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**EPsy 5647 AURAL AND SPEECH PROGRAMMING FOR CHILDREN WITH HEARING LOSS.** 4 credits, §PsyS 5147, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Fundamentals of the speech and hearing mechanisms; survey of instructional practices and technology-based assistive devices to develop auditory and speech skills. Strategies to adapt classroom environment. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, T, 12:20-4, ChDev 216, Rose

**EPsy 5648 MODES OF COMMUNICATION FOR PERSONS WITH DISABILITIES.** 3 credits, §PsyS 5148, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theoretical and applied study of selection and application of alternative communication modalities; assessment and development of modes including gestures, speech reading, cued speech, sign language, form boards, and technology-based systems. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 1:25-4, FolH 116, Rose

**EPsy 5651 MANAGING PROBLEM BEHAVIOR IN THE CLASSROOM.** 3 credits, §PsyS 5151, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Typical patterns of problem behavior in classroom settings; relationships to teacher mental health; simulation of methods for prevention and management. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, W, 4:30-7:30, Roseville Area HS, Braaten

**EPsy 5656 EDUCATIONAL NEEDS OF STUDENTS WITH EMOTIONAL DISTURBANCE OR BEHAVIORAL DISORDERS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55;

Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Preparation for specialists: Educational characteristics, educational interventions, teaching of social behavior, legal and ethical issues. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, W, 4:40-7:30, PeikH 155, Wood

Winter Qtr, ★●Sec 2, M, 4:40-7:30, PeikH 155, Wilderson

**EPsy 5657 EDUCATIONAL INTERVENTIONS FOR STUDENTS WITH EMOTIONAL DISTURBANCE OR BEHAVIORAL DISORDERS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Preparation for specialists: Assessment and planning procedures, interagency cooperation, career preparation and transition for EBD students. **Must be taken A-F.** (Prereq 5656. Qualified students may register for graduate credit at the University of Minnesota. A joint

Day/Extension class limited to 25 Extension students)

Winter Qtr, ★●Sec 1, W, 4:40-7:30, NichH 209A, Wood

Spring Qtr, ★●Sec 2, M, 4:40-7:30, ChDev 218, Wilderson

**EPsy 5660 SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, §PsyS 5160, §EdPA 5103, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Procedures in establishing and improving educational programs for exceptional children. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EdPA 5103. A joint Day/Extension class limited to a combined total of 10 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-7, NichH 122, Weatherman

Spring Qtr, ★●Sec 2, W, 4:30-7, NichH 209

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 5671 LITERARY BRAILLE.** 3 credits, §PsyS 5171, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Mastery of literary Braille code; analysis of specialized equipment emphasizing use of Braille writers, slates, and computers for Grade 2 Braille transcriptions. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, Th, 4:40-7:30, BuH 125, Knowlton

**EPsy 5672 ADVANCED BRAILLE.** 3 credits, §PsyS 5172, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Mastery of Nemeth Code of mathematics, introduction to foreign languages, computer notation and consideration of Braille textbook formats and techniques; consideration of music Braille. **Must be taken A-F.** (Prereq 5671 or PsyS 5171. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, Th, 4:40-7:30, BuH 125, Knowlton

**EPsy 5680 EDUCATION OF THE DISADVANTAGED.** 3 credits, §PsyS 5180, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Educational needs of children handicapped by behavior related to deficiencies of physical and/or cultural environment; adaptations of educational programs. **Must be taken A-F.** (Prereq 12 credits in sociology, psychology, educational psychology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Winter Qtr, ★○Sec 1, W, 4:40-7:30, BuH 125

**EPsy 5681 METHODS AND MATERIALS FOR INFANTS AND PRESCHOOL CHILDREN WITH DEVELOPMENTAL DISABILITIES.** 4 credits, §PsyS 5181, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Methods, materials, conceptual models for maximizing educational development of young children

with all types of handicapping conditions. **Must be taken A-F.** (Prereq 12 cr in education or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, M, 4:40-8:30, NichH 209, McEvoy

**EPsy 5700 ASSESSMENT AND DECISION MAKING IN SPECIAL EDUCATION.** 3 credits, §PsyS 5200, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For teachers and other educational personnel; identifying the needs of handicapped students; planning, monitoring, evaluating instructional programs; practice in use of standardized devices and development of clinical measures for handicapped students. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 30 Extension students)

Fall Qtr, ★○Sec 1, Th, 4:40-7:30, BuH 123, Deno

Winter Qtr, ★○Sec 2, W, 4:40-7:30, ChDev 218, Deno

**EPsy 5701 PRACTICUM: SPECIAL EDUCATION.** Credits arr, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Supervised experience in teaching or related work in schools or other agencies serving exceptional children. **Must be taken S-N.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Espin

Fall Qtr, ○Sec 2, Knowlton

Fall Qtr, ○Sec 3, Rose

Fall Qtr, ○Sec 4, Wood

Winter Qtr, ○Sec 5, Espin

Winter Qtr, ○Sec 6, Knowlton

Winter Qtr, ○Sec 7, Rose

Winter Qtr, ○Sec 8, Wilderson

Spring Qtr, ○Sec 9, Espin

Spring Qtr, ○Sec 10, Knowlton

Spring Qtr, ○Sec 11, Rose

Spring Qtr, ○Sec 12, Wilderson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EPsy 5702 WORKSHOP: SPECIAL EDUCATION: Improving ASL for Classroom Communication.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Supervised experience in teaching or related work in schools or other agencies serving exceptional children. *Focus this offering:* American Sign Language form. Improving vocabulary production, and use of ASL phrase structure rules and other grammatical features needed by professionals working with children who are deaf. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, M, 4:40-6:30, ChDev 105

**EPsy 5703 PRACTICUM EXPERIENCE: SPECIAL EDUCATION.** Credits arr, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Supervised experience in teaching or related work in schools or other agencies serving exceptional children. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, arr, Hupp

Fall Qtr, ●Sec 2, arr, McEvoy

Fall Qtr, ●Sec 3, arr, Rynders

Winter Qtr, ●Sec 4, arr, Hupp

Winter Qtr, ●Sec 5, arr, McEvoy

Winter Qtr, ●Sec 6, arr, Rynders

Spring Qtr, ●Sec 7, arr, Hupp

Spring Qtr, ●Sec 8, arr, McEvoy

Spring Qtr, ●Sec 9, arr, Rynders

**EPsy 5704 WORKSHOP: INTERVENTIONS AND PRACTICES IN EDUCATIONAL AND HUMAN SERVICE PROGRAMS.** Credits arr, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Concepts, issues, and practices; development of educational and psychological support services in school and human service settings. For practicing professionals. **Must be taken S-N.** (No prereq.

Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Arr, Abery

Winter Qtr, ●Sec 2, Arr, Abery

Spring Qtr, ●Sec 3, Arr, Abery

**EPsy 5710 CONTEMPORARY SERVICES FOR PERSONS WITH DEVELOPMENTAL DISABILITIES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An introductory survey of characteristics and service needs of persons with substantial developmental disabilities using multidisciplinary approaches. Addresses changing concepts, models of services, issues related to promoting the self determination, independence, productivity, and integration of persons into the community. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, T, 4:40-7:30, BuH 123, York

**EPsy 5849 ASSESSMENT OF THE PRE-SCHOOL CHILD.** 3 credits, \$PsyS 5549, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Review of assessment of children ages 0-5 from a developmental perspective; overview of normal and abnormal development; issues and techniques in cognitive, social, and emotional assessment; early education programs. **May be taken S-N.** (Prereq statistics or measurement course or grad course in assessment. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Th, 4:40-7:30, PtH 204, McConnell

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EPsy 5850 CREATING FAMILY-SCHOOL PARTNERSHIPS FOR EDUCATIONAL SUCCESS: FAMILIES, SCHOOLS, AND EDUCATIONAL OUTCOMES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The theoretical and empirical bases for creating family-school partnerships to enhance student success in school are described. Essential partnership variables to create a collaborative ethic between home and school and models/programs for K-12 are covered. Specific home-school partnership strategies to address academic, social, and behavioral concerns for individual students and systems-level concerns, such as discipline and violence, are described. Practical home-school partnership strategies for use by educational personnel (teachers, psychologists, counselors, administrators) to involve all families in education are emphasized in this interactive television/distance education course. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, **Sec 1, M**, 4:30-7:30, PeikH 165, Christenson

**EPsy 5900 INDEPENDENT STUDY.** Credits arr (max 12 cr). Tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent study in areas of special interest to students. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr  
Winter Qtr, Sec 2, Arr  
Spring Qtr, Sec 3, Arr

**EPsy 5900 INDEPENDENT STUDY: EDUCATION, HUMAN DEVELOPMENT, AND SPIRITUALITY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A course designed to raise key questions for inquiry on the nature of self, processes of current education, and ways spirituality is experienced and understood. Participants will be asked to engage questions with open inquiry; current sources in Educational Psychology and related disciplines will be considered for recent trends and directions. Course assignments will include guest lectures, group dis-

ussion, and written responses to key themes on the topic. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 4, W, 4:30-7, BuH 240, Erickson

## Electrical Engineering (EE)

(4-174 EE/CSci: 625-3300)

### Institute of Technology

Textbooks for most EE courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Dave Lo, Adjunct Professor of Electrical Engineering

Robert Oswald, Unisys Corporation

The Department of Electrical Engineering makes no academic distinction between students in day class and evening class sections. All students in a given course have the same examinations and are assigned course grades from a common standard. The final examination is administered at the time specified for the day section, and is announced the first class session. Students unable to take the final at the scheduled time must drop the course and will have tuition and fees fully reimbursed.

Through registration in Extension Classes, students will be able to complete most credits, but not all credits, toward a bachelor's degree in Electrical Engineering (check with the Extension Counseling Department, 625-2500). The degree then may be completed after a limited amount of day school attendance. Students admitted to IT must have an adviser and get approval of their one-year plan.

Except under unusual circumstances, the curriculum which applies to an E.E. major at the time of admission to the Upper Division shall be considered to specify the course requirements for graduation for a period up to four years. Thus, after admission to the Upper Division, a student is generally insulated from any change in degree requirements for a maximum of four years, although the student always has the option of satisfying the requirements in effect at the time of program completion.

A student may *not* transfer upper division courses (courses numbered 3000 or higher, except for EE 3009, EE 3010, EE 3351, and EE 3352) into the E.E. degree program unless he or she was admitted to the Upper Division in the Electrical Engineering Curriculum before taking the course or courses and the course or courses have had the written prior approval of the student's E.E. adviser. Extension

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

courses taken while a student is on academic probation may not be applied toward graduation requirements or removal of probationary conditions without the explicit prior permission of the Electrical Engineering Scholastic Standards Committee. It is the responsibility of the student to follow those rules.

*Students interested in the degree should see the Degrees and Certificates section of this Bulletin.*

**Senior Design Project**—See EE 5450 below.

**EE 0001 REFRESHER COURSE FOR ELECTRICAL ENGINEERS.** No credit, tuition\*: \$147.

A review of electrical engineering fundamentals required to pass the Minnesota Professional Engineering Examination in electrical engineering. It is designed to aid the electrical engineer to prepare for the P.E. examination by presenting an organized review of material ordinarily contained in an electrical engineering college curriculum. The primary emphasis is on problem solving with orientation as close as possible to the type of question contained in the examination. (Prereq B.S. in electrical engineering, passing the E.I.T. examination, and four years of electrical engineering experience)

Winter Qtr, Sec 1, Th, 6:20-8:40, EE/CSci 3125

**EE 1400 CIRCUITS LABORATORY.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Laboratory to accompany 3009 and 3010. (Prereq IT student, 3009 or ¶3009. Limited to 14)

Spring Qtr, ★Sec 1, M, 8:10-9:55, EE/CSci 3170

Spring Qtr, ★Sec 2, W, 8:10-9:55, EE/CSci 3170

**EE 3009 LINEAR CIRCUITS I.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Physical principles underlying the modeling of circuit elements. Two- and three-terminal resistive elements, Kirchoff's laws. Simple resistive circuits. Linearity in circuits. First-order circuits. Circuits in sinusoidal steady state. **Must be taken A-F.** (Prereq IT student, Math 3321 or ¶Math 3321, Math 3321 [or Math 3212 or 3221], Phys 1281 or ¶Phys 1281. Limited to 56)

Spring Qtr, ★Sec 1, MW, Lect, 6:10-8:10, EE/CSci 3125

**EE 3010 LINEAR CIRCUITS II.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Energy and power in AC circuits. Transformers. Laplace transform techniques of circuit analysis. Frequency response. Two ports. **Must be taken A-F.** (Prereq IT student, at least C grades in 3009, Math 3321 [or Math 3212 or 3221], Phys 1291 or ¶Phys 1291. Limited to 75)

Fall Qtr, ★Sec 1, TTh, 6:10-8:10, EE/CSci 3115

**EE 3011 SIGNAL ANALYSIS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Fourier methods of analysis. Laplace transforms and applications. Z-transforms. Frequency and time-domain responses. (Prereq upper division EE major; 3010. Limited to 75)

Winter Qtr, ★Sec 1, TTh, 6:10-8:10, EE/CSci 3210

**EE 3012 SYSTEM DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Continuous, discrete-time systems. Feedback: stability, applications. (Prereq upper division EE major, 3011, Math 3321 [or 3213 or 3221]. Limited to 75)

Spring Qtr, ★Sec 1, TTh, 6:10-8:10, EE/CSci 3115

**EE 3060 SEMICONDUCTOR DEVICES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Elementary semiconductor physics; physical description of pn junction diodes, bipolar junction transistors and field-effect transistors. (Prereq upper division EE or CSci or ME major, 3010 or ¶3010, Phys 1291. Limited to 75)

Fall Qtr, ★Sec 1, MW, 6:10-8:10, EE/CSci 3111

**EE 3061 ANALOG ELECTRONICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Small signal models for the BJT and FET. Elementary amplifiers. Differential and operational amplifiers; applications. **Must be taken A-F.** (Prereq upper division EE or CSci or ME major, 3010, 3060, 3400 or ¶3400. Limited to 75)

Winter Qtr, ★Sec 1, MW, 6:10-8:10, MechE 212

**EE 3062 DIGITAL ELECTRONICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Stability and feedback amplifiers, operational amplifier structures; implementation of digital circuits with bipolar and field-effect transistors; application to inverters, gates, flip-flops, logic arrays, and storage elements. **Must be taken A-F.** (Prereq upper division EE or CSci or ME major, 3061, 3351, 3401 or ¶3401. Limited to 75)

Spring Qtr, ★Sec 1, MW, 6:10-8:10, MechE 212

**EE 3110 ELECTRIC AND MAGNETIC FIELDS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Field properties of electricity and magnetism. Interaction with dielectric and magnetic materials. (Prereq upper division EE or ME major, at least C grades in Phys 1291, Math 3331 or ¶3331 [or Math 3212 or 3231]. Limited to 75)

Winter Qtr, ★Sec 1, MW, 6:10-8:10, AmundH 104

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EE 3111 ELECTROMAGNETIC WAVES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Time-varying electromagnetic fields. Propagation and reflection of electromagnetic waves. Metallic and optical waveguides. (Prereq upper division EE major, 3110. Limited to 75)

Spring Qtr, ★Sec 1, MW, 6:10-8:10, EE/CSci 3230

**EE 3351 INTRODUCTION TO LOGIC DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Boolean algebra and logic gates. Combinational logic: simplification and design examples. Sequential logic and design of synchronous sequential logic systems. Integral laboratory. (Prereq sophomore standing in IT. Sec 1 and 2 lectures meet concurrently. Limited to 24)

Winter Qtr, ★Sec 1, M, Lect, 6:10-8:40, EE/CSci 3115; T, Lab, 6:10-8:10, EE/CSci 2178

Winter Qtr, ★Sec 2, M, Lect, 6:10-8:40, EE/CSci 3115; W, Lab, 6:10-8:10, EE/CSci 2178

**EE 3352 INTRODUCTION TO MICROPROCESSORS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Basic computer organization and assembly language programming. Instruction types and addressing modes. Subroutines. Assembler usage. Programming techniques. Integral laboratory. (Prereq sophomore standing in IT, CSci 3104. Sec 1 and 2 lectures meet concurrently. Limited to 16)

Spring Qtr, ★Sec 1, M, Lect, 6:10-8:40, EE/CSci 3111; T, Lab, 6:10-8:10, EE/CSci 3130

Spring Qtr, ★Sec 2, M, Lect, 6:10-8:40, EE/CSci 3111; W, Lab, 6:10-8:10, EE/CSci 3130

**EE 3400-3401-3402 JUNIOR ELECTRICAL ENGINEERING LABORATORY.** 2 credits each quarter, tuition\* each quarter: Resident \$173; Non-resident \$501.70.

Experiments in circuits, electronics, and electromagnetic fields. (Prereq EE major, 1400, 3060 or ¶3060 for 3400...3400, 3011 or ¶3011, 3061 or ¶3061 for 3401...3401, 3062 or ¶3062 for 3402 or #. Limited to 14)

Fall Qtr, 3400, ★Sec 1, Th, 6:10-9:10, EE/CSci 3166

Winter Qtr, 3401, ★Sec 1, Th, 6:10-9:10, EE/CSci 3166

Spring Qtr, 3402, ★Sec 1, Th, 6:10-9:10, EE/CSci 3166

**EE 5002 DIGITAL SIGNAL PROCESSING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

General concepts of signal processing; discrete-time systems and digital filters. **Must be taken A-F.** *This course is offered through Extension Classes on a rotating basis of two years on, one year off, two years on, and so forth. See EE 5003 laboratory below.* (Prereq upper division EE major or grad IT major, 3012 or #. **May not be taken for graduate credit.** Limited to 65)

Winter Qtr, ★Sec 1, T, 6:10-8:40, EE/CSci 3115

**EE 5003 DIGITAL SIGNAL PROCESSING LABORATORY.** 1 credit, tuition\*: Resident \$86.50; Non-resident \$250.85.

Computer experiments in digital signal processing and digital filter design. *This course is offered through Extension Classes on a rotating basis of two years on, one year off, two years on, and so forth.* (Prereq upper division EE major or grad IT major, 3012 or #. **May not be taken for graduate credit.** Limited to 12)

Winter Qtr, ★Sec 1, M, 6:10-8:10, EE/CSci 2170

Winter Qtr, ★Sec 2, W, 6:10-8:10, EE/CSci 2170

**EE 5053 DESIGN OF DIGITAL CIRCUITS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Design of modern digital integrated circuits at subsystem level. Nonlinear device models, use to predict system performance. Comparison of performance and topology of various logic families including TTL, MOS, CMOS, 12L, and ECL. *This course is offered through Extension Classes once every four years. See EE 5090 laboratory below.* (Prereq upper division EE major or grad IT major, 3012 or #. **May not be taken for graduate credit.** Limited to 65)

Spring Qtr, ★Sec 1, T, 6:10-8:40, EE/CSci 3111

**EE 5090 DIGITAL CIRCUIT DESIGN LABORATORY.** 1 credit, tuition\*: Resident \$86.50; Non-resident \$250.85.

Experiments in digital circuit design to accompany EE 5053. *This course is offered through Extension Classes once every four years. See EE 5290 laboratory below.* (Prereq upper division EE major or grad IT major, 3402, 5053 or ¶5053 or #. **May not be taken for graduate credit.** Limited to 12)

Spring Qtr, ★Sec 1, W, 6:10-9:10, EE/CSci 3144

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EE 5300 ELECTROMECHANICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. Principles of electromechanical energy conversion with applications to actuators, transducers, and rotating machines. Performance characteristics derived from analytical models of ac and dc machines. *This course is offered through Extension Classes once every four years.* (Prereq upper division EE major or grad IT major, 3011, 3110. **May not be taken for graduate credit.** Limited to 65)  
Fall Qtr, ★Sec 1, TTh, 6:10-7:50, EE/CSci 3111

**Senior Design Project**—The following course is required for the completion of a degree in electrical engineering. It is offered only through day school registration. Enrollment is limited. Call 625-3300, Department of Electrical Engineering, for further information.

**EE 5450 SENIOR DESIGN PROJECT.** 2 degree credits. Team participation in formulation and solving of open-ended design problems. Oral and written presentations. (Prereq EE senior, 3012, 3062, 3110, 3351, 3352, 3402)

## Elementary Education (Elem)

See Curriculum and Instruction (CI)

## Employee Benefits Specialist, Certified (CEBS)

(322 Westbrook Hall, Department of Extension Classes: 626-8713)

Andrew F. Whitman, Professor of Insurance

Employee Benefits Specialist courses focus on the fundamental principles underlying the design and operation of employee benefit plans. They are designed for individuals who have responsibilities for employee benefit plans or an interest in the field. All courses carry certificate credit as distinguished from degree credit and are recorded on a transcript available at the University's Admissions and Records Office. Certificate credits may be accepted as meeting degree requirements at the discretion of other colleges and universities.

These offerings also provide formal class work for persons in the Certified Employee Benefits Specialist (CEBS) Program. The CEBS program is a 10-course professional designation program sponsored jointly by the International Foundation of Employee Benefit Plans and the Wharton School of the University of Pennsylvania. This program gives persons the opportunity to earn a professional designation: Certified

Employee Benefit Specialist. Up to the present time Continuing Education and Extension offers all of the 10 CEBS courses. This year CEE will offer six parts.

**For a CEBS brochure listing courses and requirements of the program, please write to:** CEBS Registrations, International Foundation of Employee Benefit Plans, P.O. Box 69, Brookfield, WI 53008; or call (414) 786-6700.

**CEBS Registration**—If interested in registration for the CEBS examinations, an initial nonrefundable fee is required. This registration allows candidates to apply for the CEBS examinations (fees are extra), establishes their personal file at the International Foundation of Employee Benefits Plans, and includes the CEBS newsletter. The deadline for application to take the CEBS January 1995 examinations is Nov. 1, 1994; the deadline for application to take the June 1995 examinations is Apr. 1. Further information regarding these examinations and fees may be obtained from CEBS Registrations. See address and telephone number above.

**Note:** All CEBS courses have been approved by the Commissioner of Commerce for insurance continuing education credit. **CEBS courses may be taken A-F or S-N.**

**CEBS 0001C (I) EMPLOYEE BENEFITS CONCEPTS AND MEDICAL CARE BENEFITS.** 4 certificate credits, tuition\*: \$294.

Begins with an overview of the environment of employee benefit plans and covers hospital plans, surgical/medical expense plans, major medical plans, dental and vision care, and health care cost containment techniques. The new and/or expanded topics in the revised course include managed care, long-term care, health maintenance organization (HMOs), preferred provider organizations (PPOs), and retiree medical benefits. (No prereq)  
Fall Spec Term, Sec 1, W, 6:30-9, Sept. 28-Dec.

14, 1994, AmundH 116

**CEBS 0002C (II) DESIGN AND ADMINISTRATION OF LIFE, DISABILITY INCOME, AND OTHER WELFARE BENEFIT PLANS.** 4 certificate credits, tuition\*: \$294.

Covers the group insurance mechanism, life insurance benefits, short- and long-term disability income, employee-assistance programs, and dependent care arrangements. Also includes expanded coverage of death benefits and public sector disability income benefits, flexible benefits, flexible spending accounts, as well as new subject areas such as family leave, unemployment benefits, employee discounts, educational benefits, credit unions, and management topics. (No prereq)

Winter Spec Term, Sec 1, W, 6:30-9, Mar.

22-June 7, 1995, AkerH 211. *No late fee through Mar. 15*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**CEBS 0003C (III) RETIREMENT PLANS: BASIC FEATURES AND DEFINED CONTRIBUTION APPROACHES.** 4 certificate credits, tuition\*: \$294.

After a historical introduction of private pension plan development, this course reviews the objectives of benefit plan design. It provides an analysis of the differences between defined benefit and defined contribution plans and gives an overview of the legal requirements (tax and non-tax) that must be satisfied by qualified retirement plans. It explains defined contribution plans: money purchase, profit sharing, thrift and savings, employee stock ownership plans (ESOPs), 401(k) plans, and simplified employee pensions (SEPs). Also included are individual approaches to retirement plan design: IRAs, Keogh plans, and 403(b) annuities for the nonprofit sector. (No prereq)

Fall Spec Term, Sec 1, T, 6:30-9, Sept. 27-Dec 13, 1994, AmundH 156

**CEBS 0004C (IV) RETIREMENT PLANS: DEFINED BENEFIT APPROACHES AND PLAN ADMINISTRATION.** 4 certificate credits, tuition\*: \$294.

After an overview of the retirement aspects of Social Security, defined benefit features are analyzed, and hybrid approaches (cash balance and target benefit plans) are discussed. Other topics are actuarial and accounting aspects of defined benefit plan sponsorship, basic concepts of investing pension assets, a comparison of the trust fund approach with the insured approach to plan funding, the implications of the plan termination insurance program of the Pension Benefit Guaranty Corporation (PBGC) for both terminating and ongoing sponsors and their employees, the taxation of retirement benefits, and nonqualified approaches to providing retirement income. (No prereq)

Winter Spec Term, Sec 1, T, 6:30-9, Mar.

21-June 6, 1995, AmundH 104. *No late fee through Mar. 14*

**CEBS 0006C (VI) ACCOUNTING AND FINANCE.** 4 certificate credits, tuition\*: \$294.

Places emphasis on the financial and accounting concepts essential in the administration of employee benefit plans. The role of accounting as a system of communicating information to users inside and outside an organization is discussed. Concepts, principles, and techniques of financial management are a major part of this course. (No prereq)

Winter Spec Term, Sec 1, T, 6:30-9, Mar. 21-

June 6, 1995, AkerH 211. *No late fee through Mar. 14*

**CEBS 0008C (VIII) HUMAN RESOURCES AND COMPENSATION ADMINISTRATION.** 4 certificate credits, tuition\*: \$294.

Examines human resources management and compensation administration. Includes human resource planning, wage determination, employee benefits, and non-economic rewards. Also includes institutional and economic issues such as seniority, management rights, and union security. (No prereq)

Fall Spec Term, Sec 1, M, 6:30-9, Sept. 26-Dec. 12, 1994, AkerH 319

**CEBS 0009C (IX) EMPLOYEE BENEFIT PLANS AND THE ECONOMY.** 4 certificate credits, tuition\*: \$294.

Reviews the economic principles underlying inflation, national income, business cycles, employment levels, money and banking, monetary and fiscal policy, and the overall effect on employee benefit planning and administration. (No prereq)

Fall Spec Term, Sec 1, Th, 6:30-9, Sept. 22-Dec. 15, 1994, AkerH 215

**CEBS 0010C (X) CONTEMPORARY BENEFIT ISSUES AND ADMINISTRATION.** 4 certificate credits, tuition\*: \$294.

Explores administering, implementing, and reviewing employee benefit plans along with management topics. The contemporary issues-related assignments will vary based on the employee benefits environment, but will focus on the areas of health care, current government regulations, and retirement issues. (No prereq)

Winter Spec Term, Sec 1, Th, 6:30-9, Mar. 23-

June 8, 1995, AkerH 319. *No late fee through Mar. 16*

## Engineering

**Engineering**—Extension Classes and the Institute of Technology offer regular IT classes in several areas of engineering. These are listed under Aerospace Engineering and Mechanics, Civil Engineering, I of T, Electrical Engineering, Industrial Engineering/Operations Research, Materials Science and Engineering, and Mechanical Engineering. See also related science offerings in Chemistry, Computer Science, Mathematics, and Physics.

**Engineering refreshers and special classes**—In addition to regular IT classes, Extension Classes and the Institute of Technology offer a number of refresher and noncredit special classes in engineering and science to meet the needs of the practicing engineer. Check the Institute of Technology listing for I of T 0001, *Fundamentals of Engineering*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



*Review*, which is the refresher course for the Engineer-in-Training Examination (E.I.T.). For information on advanced Professional Engineer (P.E.) review courses, see listings for CE 0005, EE 0001, and ME 0001C.

*Further details may be obtained by contacting the Office of Student Affairs, Institute of Technology, 105 Lind Hall, 207 Church Street S.E., University of Minnesota, Minneapolis, Minnesota 55455; (612) 624-5091.*

**Continuing Education programs in engineering and science**—For students wishing to pursue extended coherent programs in engineering and science, several have been developed. Your attention is called to the Undergraduate Development Certificate series in Engineering and Science page 510. For further information, call CEE Counseling, 625-2500.

**Please see the following departmental listings for course offerings:**

Aerospace Engineering and Mechanics  
Chemistry  
Civil Engineering  
Computer Science  
Electrical Engineering  
Engineering  
English (Composition and Communication)  
Engineering Graphics (Mechanical Engineering)  
Geological Engineering (Civil Engineering)  
Industrial Engineering/Operations Research  
Institute of Technology  
Mathematics  
Mechanical Engineering  
Materials Science and Engineering  
Physics

(See also Comp 3031, Technical Writing for Engineers)

## Engineering Graphics

See Mechanical Engineering

## English

(207 Lind Hall; 625-3363)

### College of Liberal Arts

Textbooks for most Engl and EngW courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Composition and Communication; and Interdepartmental Study courses, page 242)

Your attention is called to the Master of Arts in English. See the Degrees and Certificates section of this Bulletin.

Chester Anderson, Professor  
Christopher Anson, Associate Professor  
Carol Bly, Lecturer  
Lillian Bridwell-Bowles, Associate Professor  
Robert Brown, Associate Professor  
Michael Dennis Browne, Professor  
Thomas Clayton, Professor  
Lonnie Durham, Assistant Professor Emeritus  
Margery Durham, Associate Professor Emeritus  
Genevieve Escure, Professor  
Peter Firchow, Professor  
M. J. Fitzgerald, Associate Professor  
Norman Fruman, Professor  
Philip Furia, Professor  
Arthur Geffen, Associate Professor  
Patricia Hampl, Professor  
Gordon Hirsch, Professor  
Barbara Hodne, Teaching Assistant  
Karen Hoyle, Professor  
Dennis Hurrell, Professor Emeritus  
Angela Karstadt, Teaching Assistant  
Ellen Lansky, Teaching Assistant  
Archibald I. Leyasmeyer, Associate Professor  
David Luke, Assistant Professor  
Andrew MacLeish, Professor  
Valerie Miner, Associate Professor  
Donald Ross, Professor  
Edward Savage, Professor Emeritus  
Robert Solotaroff, Professor  
Madelon Sprengnether, Professor  
Ellen Stekert, Professor  
Charles Sugnet, Associate Professor  
Joel Weinsheimer, Professor

**A major in English can be completed in the evening.** Group information meetings are held quarterly. Call (612) 625-4592 for times and places.

The Department of English encourages students to purchase *The English Major Guidebook* at Copies on Campus, Coffman Union room 40. Included in this "must own" text for all English majors are current requirements, new requirements which go into effect August 1994, a "cosmic syllabus," faculty profiles, "tools of the trade," opportunities on and off campus, career resources, how to apply to graduate and professional schools, and more.

See the Degrees and Certificates section of this Bulletin for information on a master's degree in English.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### B.A. Major Sequence

**Required Preparatory Courses**—To be considered for acceptance into the major, all students must present the following: evidence of status as a College of Liberal Arts (CLA) student; a minimum of 60 degree credits; a minimum of 16 credits in English and/or English Writing course work (*not* including composition courses); an English GPA of at least 2.50; and results of the College English composition test. The prerequisite English courses must include at least one 4-credit 3000-level literature course, preferably Engl 3008, Techniques of Literary Study. Students are advised to maintain a portfolio of course papers, with instructors' comments, and to refer frequently to the *English Major Guidebook*. Acceptance to full major status is prerequisite to registering in 5000-level courses and to requesting a place in the required senior seminar course (Engl 3960 or EngW 3960). Students also should pay particular attention to the *department resident requirement* stated below.

CLA students who declare English as their major objective will be classified as "pre-Engl" by CLA and the department (by filing a formal intention to major in English in the Undergraduate Studies Office, 204 Lind Hall) until they meet the above prerequisites, apply formally for major status following the written procedures available in the English Undergraduate Studies Office, and are accepted by the faculty admissions committee. Written procedures require applicants to submit a portfolio of writing samples, including at least one paper written in a 3000-level English literature course. To request complete information, call the Undergraduate Studies Office, 204 Lind Hall, at (612) 625-4592. Address mail to Undergraduate Studies, Department of English, 207 Lind Hall, 207 Church Street S.E., Minneapolis, MN 55455.

**Deadlines for application**—The Friday of the first full week of each quarter (fall, winter, spring) annually. No applications are reviewed in the summer. 1994-95 deadlines are Sept. 30, 1994; Jan. 13, 1995; and Mar. 31, 1995.

**Application limits**—Admission is not guaranteed. Students may apply to the major only twice, and are advised to consult with CLA and department advisers.

Upon admission, students will plan their programs in conference with a departmental major adviser.

**English Composition Test**—The test is offered every Wednesday at 3 p.m. only by referral from the English Undergraduate Studies Office, 204 Lind Hall, (612) 625-4592. Cost is approximately \$17 (subject to change). Plan to take the test the quarter

before applying for English major status in order to have the score reported to the Undergraduate Studies Office by the application to major deadline.

**Major Requirements**—Twelve 4-credit courses in English, English Writing, or Composition (beyond those taken to satisfy the current CLA composition requirement) and Engl 3961 or Engl 3961H (1 cr): 11 courses at the 3xxx or 5xxx courses, including at least three at the 5xxx level, and including the following distribution:

*Foundation Courses (12 cr)*: Engl 3008; and any two of Engl 3111, 3112, 3113. Extension-only English majors may take Engl 3111, 3112, 3113 in Extension Independent Study, or may enroll in any two "age courses" (3115, 3116, 3117, 3118, 3119) which represent two different centuries of pre-20th century British literature

*Shakespeare (4 cr)*: Engl 3241 or 3242, or 3xxx Shakespeare in London through the Global Campus (telephone [612] 625-3379 for information)

*English language (4 cr)*: Engl 3851, 3852, 3853, 3860, 5815, 5831, 5843, 5851, 5862, or 5860

*Cluster of six elective courses chosen according to an area of academic interest or career plan*: Engl 1xxx or 3xxx or 5xxx (4 cr), Engl 3xxx or 5xxx (8 cr), and Engl 5xxx (12 cr). Clusters which have been developed, and are described in the *English Major Guidebook*, include American Literature; Women's Literature; Language/Linguistics; Poetry; Critical Theory; Drama; The Novel; Creative Writing. Others being developed include Folklore Studies; The Middle Ages; The Renaissance; other historical period studies; Post-Colonial Literature; Pre-Secondary Education. Students may propose their own coherent clusters, but the possibility for some clusters may be limited by the course available.

*Seminar or writing workshop*: Engl 3960 (4 cr) or EngW 3960 (4 cr) or EngW 5xxx Advanced Writing Workshop (4 cr). See prerequisites and application procedures in the course descriptions.

*Senior Paper*: Engl 3961, Senior Paper (1 cr), registered concurrently with the seminar or writing workshop; or Engl 3961H, Honors Senior Paper (1 cr), registered concurrently with the seminar or writing workshop, and prerequisite *cum laude* or *magna cum laude* candidacy; or Engl 3963H, Honors Thesis (4 cr), prerequisite *summa cum laude* candidacy and permission of the English honors adviser. Guidelines are printed in *The English Major Guidebook*.

*Grades*: No courses may be taken S-N, with the exception of Engl 3961. Courses in which D grades are earned may not be applied toward the major.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Independent Study:** Independent Study credits are limited to 16, at any number level, including Engl 3970, 3980, and 5970, and English or English Writing courses available through the University of Minnesota Extension Independent Study Bulletin.

**Department Resident Requirement:** Students must complete at least five courses (4 cr each) for the major (including Engl 3960 or EngW 3960) and the Senior Paper *after* admission to the major.

**Honors:** Students must apply for admission to the Honors Program (115 Johnston Hall) and talk with the English Director of Undergraduate Studies. English Honors requirements ask students to satisfy three honors requirements in English: 1) any one of the 3xxx-level honors sections offered by the department (3009H, 3241H, 3651H, 3671H, or others except 3963H); 2) an Honors Senior Paper—Engl 3961H (1 cr) or Engl 3963H (4 cr); 3) one of the following (some with printed criteria available in the Undergraduate Studies Office): an honors directed studies project, an honors contract for a 3xxx or 5xxx English course, an 8xxx English course, a second English honors section, an honors course in another department as agreed upon by the English Honors adviser, or others as agreed upon.

**You need not be majoring in English to register for these classes.**

**A Master of Arts in English can be completed in the evening.** See the degrees section of this Bulletin for further information.

**Joint Day/Extension Classes—**You may register through Extension for certain day school classes scheduled before 4 p.m. in English. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

## English language and literature courses (Engl)

(Creative writing and editing classes begin on page 187. See other literature courses in Afro-American and African Studies; American Studies; Classical Studies; Comparative Literature; French; General College; German; Humanities; Philosophy; Slavic Languages; Spanish; The Compleat Scholar; and Women's Studies)

**Continuing Education for Women (CEW) sections available in the following courses:** Engl 1016, 1591, 3851

**Engl 1005 INTRODUCTION TO THE STUDY OF LITERATURE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Understanding and enjoying literature. Readings of novels, short stories, poems, and plays. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, T, 6:20-8:50, LindH 217

Fall Qtr, ★Sec 2, W, 6:20-8:50, LindH 217

Winter Qtr, ★Sec 3, M, 6:20-8:50, LindH 229

Winter Qtr, ★Sec 4, Th, 6:20-8:50, LindH 229

Spring Qtr, ★Sec 5, M, 6:20-8:50, LindH 229

Spring Qtr, ★Sec 6, Th, 6:20-8:50, LindH 229

**Engl 1016 INTRODUCTION TO AMERICAN LITERATURE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Critical discussion of and writing about selected works of American literature. Typical authors: Poe, Hawthorne, Whitman, Dickinson, Twain, Frost, Fitzgerald. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, M, 1-3:30 p.m., MacP, Lansky

(Limit 45). *Offered through Continuing Education for Women*

Winter Qtr, ★Sec 2, T, 6:20-8:50, LindH 215

**Engl 1018 INTRODUCTION TO MODERN FICTION.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Critical discussion of and writing about selected modern novels and stories. Works are selected each quarter from authors such as Atwood, Drabble, Cather, Ellison, Hemingway, Joyce, Kingston, Lawrence, Morrison, Murdoch, Silko, Woolf, and others. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, LindH 203

Winter Qtr, ★Sec 2, W, 6:20-8:50, LindH 229

Spring Qtr, ★Sec 3, Th, 6:20-8:50, LindH 203

**Engl 1241 INTRODUCTION TO SHAKESPEARE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Survey of Shakespeare's work, treating approximately 10 plays. For students in all colleges of the University. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, M, 6:20-8:50, LindH 215

(See also CSch 0129, *Playing With Shakespeare*)

**Engl 1591 LITERATURE OF AMERICAN MINORITIES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Representative works by Afro-American, American Indian, Asian American, and Chicano/Chicana writers. Examination of relevant social factors. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, M, 6:20-8:50, LindH 215

Winter Qtr, ★Sec 2, Th, 6:20-8:50, Arch 45

Spring Qtr, ★Sec 3, M, 1-3:30, MacP, Hodne

(Limit 45). *Offered through Continuing Education for Women*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Engl 1595 INTRODUCTION TO "THIRD WORLD" LITERATURES IN ENGLISH.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Overview of work produced in English outside the United States and Britain. Works represent different cultures, but treat concerns from common (post-) colonial legacy: politics of language, psychology of colonization, implication of colonial education, culture as resistance to domination. Typical artists include novelists Chinua Achebe (Nigeria), Tsitsi Dangarembga (Zimbabwe), Fadia Faqir (Palestine), Salman Rushdie (India), filmmaker Kidlat Tahimik (Philippines), and "dub" poets Mutabaruka and Jena Binta Breeze (Jamaica). (No prereq. Limited to 40)  
Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 215,  
Sugnet

**Engl 1671 THE SHORT STORY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.  
Lecture introduction to short stories, with some emphasis on the history and diversity of the form. Typical authors: Poe, Chekhov, Lawrence, Joyce, Kafka, Welty, Faulkner. (No prereq. Limited to 40)  
Spring Qtr, ★Sec 1, W, 6:20-8:50, LindH 215

(See also CSch 0443, Forgotten Heirlooms: Short Stories of Famous Victorian Novelists)

**Engl 3008 TECHNIQUES OF LITERARY STUDY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Training and practice in the analysis of various literary forms, with a special emphasis upon poetry. Use of argument, evidence and documentation in literary papers; introduction to major developments in contemporary criticism. *This is a required foundation course for all English B.A. majors and the minor in English.* (Prereq English major, minor, or premajor. Limited to 30)

Fall Qtr, ★Sec 1, T, 6:20-8:50, FordH 115,  
Anderson

Winter Qtr, ★Sec 2, T, 6:20-8:50, FordH 115,  
Brown

Spring Qtr, ★Sec 3, Th, 6:20-8:50, FordH 115,  
Ross

**Engl 3115 THE MIDDLE AGES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Major and representative works of the Middle Ages (650-1485). Typical readings: *Beowulf*, Chaucer, ballads, *Sir Gawain and the Green Knight*, *Everyman*. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, LindH 217,  
Savage

**Engl 3118 THE ROMANTIC AGE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Major and representative works of the romantic period (1798-1832). Typical authors: Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. (No prereq. Limited to 40)

Spring Qtr, ★Sec 1, T, 6:20-8:50, LindH 229, Luke

**Engl 3241 SHAKESPEARE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Plays from Shakespeare's early and middle periods. All sections read *A Midsummer Night's Dream*, *Hamlet*, a history play, and three or four others. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, M, 6:20-8:50, LindH 302

Spring Qtr, ★Sec 2, T, 6:20-8:50, LindH 302

**Engl 3242 SHAKESPEARE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Plays from the middle and late periods. All sections read *King Lear*, *Macbeth*, *The Tempest*, and three or four other plays. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, LindH 215, Geffen

Spring Qtr, ★Sec 2, T, 6:20-8:50, LindH 215, L  
Durham

**Engl 3455 AMERICAN SHORT STORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Typical authors: Irving, Poe, Hawthorne, Twain, Crane, Cather, Faulkner, Welty, Bellow. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 203,  
Solotaroff

Winter Qtr, ★Sec 2, W, 6:20-8:50, LindH 302,  
Furia

**Engl 3851 THE ENGLISH LANGUAGE.** 4 credits, \$5851, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Introduction to the English language including English grammars, phonetics and phonology, British and American dialects, and native-language acquisition. (No prereq. Limited to 60)

Fall Qtr, ★Sec 1, T, 6:20-8:50, Phys 210, Anson

Winter Qtr, ★Sec 2, M, 1-3:30, MacP, Karstadt  
(Limit 45). Offered through Continuing  
Education for Women

Winter Qtr, ★Sec 3, Th, 6:20-8:50, LindH 203,  
Escure

Spring Qtr, ★Sec 4, M, 6:20-8:50, Arch 50,  
Bridwell-Bowles

(See also REX 0902, The Origin of English Words)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Engl 3853 WOMEN AND THE ENGLISH LANGUAGE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The connections between gender and the English language, including sexist language, feminist theories of language, and the language and style of women writers. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, M, 6:20-8:50, LindH 203,  
Bridwell-Bowles

**Engl 3860 TOPICS IN THE ENGLISH LANGUAGE: AMERICAN LITERACY AND CULTURAL DIVERSITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Links academic study with service learning through a unique arrangement with local community service agencies. Students study a range of perspectives on the nature, acquisition, and present state of literacy in the U.S. with special focus on issues of culturally diverse and disadvantaged members of society. Topics include development of literacy as a function of culture; nature of dialect communities and relationship of dialects to American schooling; bilingualism and language policy (especially educational) in U.S.; language, gender, and the educational process; and the politics of language relative to the institution of education. Participants are required to tutor children at a local agency for a minimum of two hours a week and reflect on their experiences in logs and class discussion. Tutoring arrangements provided in class. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, M, 6:20-8:50, LindH 203,  
Anson

**Engl 3910 TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: THE INTERNATIONAL SHORT STORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Short stories from around the world. Authors include Achebe, Calvino, Garcia-Marquez, Jolley, Lawrence, Munro, Tan. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, T, 6:20-8:50, LindH 203, L  
Durham

(See also CSch 0445, Epiphanies: The Short Stories of Early 20th-Century Writers)

**Engl 3940 FIGURES IN ENGLISH AND NORTH AMERICAN LITERATURE: HEMINGWAY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Although the course spans Hemingway's career, the emphasis is on the period of his greatest achievement, the 1920s, when he wrote two great novels (*The Sun Also Rises* and *A Farewell to Arms*) and two great story collections (*In Our Time* and *Men Without Women*). Class participants also will read one of the later novels—the class will choose the novel—and about 10 of the post-1930 stories. Attention will be paid to Hemingway's evolving fictional structures and stylistic developments as well as to large cultural influences upon his career. About four times during the quarter the class will break into discussion sections. There will be an in-class mid-quarter and an in-class final, one 3- to 5-page paper, and an optional paper of the same length which will count only if it improves the student's average. (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, LindH 302,  
Solotaroff

*Students must have English major status at the University of Minnesota Twin Cities campus before they can request a place in Engl 3960 or EngW 3960 Writing Workshop.*

**Engl 3960 JUNIOR-SENIOR SEMINAR: ON DEFINING THE NOVEL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

What is a novel? William James memorably described it as a "loose, baggy monster" because it has no single definite shape, and Bakhtin came to much the same conclusion when he decided that the novel is a super-genre that includes all other genres. In this course, class participants will examine several representative British and American novels for the purpose of thinking about the definition of a novel. Specifically, Austen's *Emma*, Dickens's *Great Expectations*, and Warren's *All the King's Men* will be studied. Call (612) 625-4592 for a seminar request form. Priority is given to University of Minnesota-Twin Cities English majors. (Prereq English major status, completion of Comp 3011 or 3012 or 3013, jr or sr and written Δ. Limited to 15)

Fall Qtr, Sec 1, T, 6:20-8:50, LindH 217,  
Weinsheimer

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Engl 3960 JUNIOR-SENIOR SEMINAR: HAWTHORNE AND THE BRONTËS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A juxtaposition of Nathaniel Hawthorne's four famous novels—*The Scarlet Letter*, *The House of the Seven Gables*, *The Blithedale Romance*, and *The Marble Faun*—with those of his contemporaries, the Brontës: Charlotte's *Jane Eyre* and *Villette*, Anne's *The Tenant of Wildfell Hall*, and Emily's *Wuthering Heights*. These four novelists treat common themes, place characters in similar circumstances, experiment with narrative techniques, and draw on ideas and values from their societies in interesting ways. Students will try to discover the combination of cultural and personal forces which may help account for these similarities and differences. Call (612) 625-4592 for a seminar request form. Priority is given to University of Minnesota-Twin Cities English majors. (Prereq English major status, completion of Comp 3011 or 3012 or 3013, jr or sr and written Δ. Limited to 15)

Winter Qtr, Sec 2, T, 6:20-8:50, LindH 229, Ross

**Engl 3961 SENIOR PAPER.** 1 credit, tuition\*: Resident \$77; Non-resident \$223.30.

Required of English majors, usually taken in the senior year. Critical analysis or research or creative writing paper usually in conjunction with Engl 3960 or EngW 3960. **Must be taken S-N.** Students should call the English department at (612) 625-4592 with questions. (Prereq English major, sr, concurrent or previous registration in Engl 3960 or EngW 3960, written Δ)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

**Engl 3961H HONORS SENIOR PAPER.** 1 credit, tuition\*: Resident \$77; Non-resident \$223.30.

Required of English majors, usually taken in the senior year. Critical analysis or research or creative writing paper usually in conjunction with Engl 3960 or EngW 3960. For English *cum laude* or *magna cum laude* degree candidates. **Must be taken S-N.** Students should call the English department at (612) 625-4592 with questions. (Prereq honors candidacy English major, sr, concurrent or previous registration in Engl 3960 or EngW 3960, and English honors adviser #)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

## Advanced Engl courses

*Prospective undergraduate English majors must apply for major status and be accepted before enrolling in 5000-level courses. These are advanced courses.*

**Engl 5133 19TH-CENTURY BRITISH POETRY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Major figures; historical and intellectual background; poetic theory. Such authors as Wordsworth, Coleridge, Keats, R. Browning, E. B. Browning, C. Rossetti, Tennyson, Arnold. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, LindH 305, Fruman

**Engl 5151 18TH-CENTURY ENGLISH NOVEL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Novels by such authors as Defoe, Richardson, Fielding, Smollett, Sterne, Austen. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 1, T, 6:20-8:50, LindH 305, Weinsheimer

**Engl 5152 19TH-CENTURY ENGLISH NOVEL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Novels by such authors as Scott, Dickens, the Brontës, Thackeray, Eliot, and Hardy. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 1, W, 6:20-8:50, LindH 215, Hirsch

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Engl 5174 MODERN DRAMA, 1880-1920.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617..

Beginnings of modern realism, naturalism, and expressionism in English and continental drama. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 1, M, 6:20-8:50, LindH 229, Hurrell

**Engl 5175 MODERN DRAMA SINCE 1920.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Chief dramatists, English, American, Continental. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 305, Leyasmeyer

**Engl 5221 CHAUCER: THE CANTERBURY TALES.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Reading *The Canterbury Tales*; introduction to Chaucer's language. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, M, 6:20-9:30, LindH 203, L Durham

**Engl 5483 FOLKLORE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Training in collection of folklore materials. (Prereq 5481 or 5482 or #, grad or Engl major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, M, 6:20-8:50, LindH 305, Stekert

**Engl 5711 CLASSICS OF LITERARY CRITICISM.** 4 credits, \$3711, §CICv 3711, §CICv 5711, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit

\$735; Non-resident Graduate School credit \$1617. Principles of criticism as expressed and employed in major works in the classic critical tradition, with emphasis on Aristotle and Coleridge. May include Plato, Horace, Longinus, Sidney, Dryden, Johnson, Hume, Eliot. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, LindH 305, Fruman

**Engl 5843 AMERICAN SOCIAL DIALECTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Methods for and results of investigating social and class variation in American English; urban dialects. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, W, 6:20-8:50, LindH 305, Brown

**Engl 5910 TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: OLD AGE IN MODERN FILM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A thematic study of how and why aging shapes the central focus of a selection of modern visual texts. Films include *On Golden Pond*, *Traveling North*, *The Whales of August*, *Grey Gardens*, *Wild Strawberries*, and *Providence*, supplemented by readings in Betty Friedan's *The Fountain of Age*. The subject is explored from philosophical, sociological, and psychological perspectives, and examines how contemporary narratives both presume and subvert stereotyped ideologies of aging. In addition to an increased appreciation of the varied representations of aging, the goal of the course is an enhanced understanding of how the experience of old age has as much to do with culture as with biology, and yet how it also has as much to do with the sometimes liberating possibilities of personal experience as with the often coercive expectancies of culture. In the words of one aged persona, it is hoped students will learn about some of the ways in which old people "can be destroyed but not defeated." (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 1, W, 6:20-8:50, LindH 229, Luke

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Engl 5910 TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: THE HOLLY-WOOD MUSICAL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A study of the lyrics of film musicals from the earliest "talkies" through the most recent films to incorporate classic popular songs into a dramatic context. The greatest emphasis is on the musical films of Fred Astaire and Ginger Rogers and other musicals such as *The Wizard of Oz*, *Love Me Tonight*, and *An American in Paris*, where lyrics are closely integrated into character and dramatic context. Such lyrical integration is contrasted with films such as *42nd Street* and *Singin' in the Rain*, where songs are presented purely as "performances" by characters playing the role of singers. The contrast between film musicals that integrate lyrics into a dramatic context and those that present songs as "performances" is explored as a central convention in the development of film musicals as a genre distinct from stage musicals. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 2, Th, 6:20-8:50, LindH 305, Furia

**Engl 5910 TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: FOLKLORE IN LESBIAN LITERATURE: American and British Literature from the 1890s to the 1990s.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Readings will include basic assignments in folklore, folklore studies, "feminist" practice and theory (e.g., both academic and popular), and selections from the works of Jewett, Cather, Bishop, Barnes, Hall, Winterson, Morrison, LeGuin, Russ, Lorde, Anz Idua, cartoon strips, "pulp novels," and others. Covers both canonical and a representation of "marginal" writers and literary genres. Includes the current literary, academic, and popular folklore of and about lesbians. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 3, M, 6:20-8:50, LindH 229, Stekert

**Engl 5910 TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: LIVELY IMAGINATION: Ethics and Aspects of Moral Thinking.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Gradu-

ate School credit \$735; Non-resident Graduate School credit \$1617.

A consideration of first-rate poems, stories, essays. The effects of telling, hearing, and interpreting stories; empathy with respect to stories and stage development theory. Creative writing involved. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with LS 5910. Limited to a combined total of 30)

Spring Qtr, ★Sec 4, Th, 6:20-8:50, LindH 217, Bly

**Engl 8250 SEMINAR: 17TH-CENTURY STUDIES: John Donne: The Poetry of Intellectual Passion.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Centers on the poems of John Donne and possibly one or several other metaphysical poets, with emphasis on their mimetic and expressive qualities as literary works, and on recent critical perspectives that increase understanding and facilitate interpretation. Attention also will be given to their historical and cultural contexts, especially in light of the findings of recent social historians. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 6 Extension students)

Spring Qtr, ★Sec 1, W, 6:20-8:35, LindH 216, Clayton

**Engl 8610 STUDIES IN 20TH-CENTURY BRITISH AND AMERICAN LITERATURE: THE BRITISH THIRTIES.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An examination of that low, dishonest decade which in retrospect turns out from a literary/cultural point of view to have been probably the most pivotal period in the century. Though human nature already might have changed—as Virginia Woolf put it in 1910 or, with more reason, D.H. Lawrence in 1915—society (and, what is more, literary perceptions of society) changed dramatically in the early Thirties. These momentous changes—as reflected in the poetry, fiction, drama, and criticism (literary and social)—are the focus of this course. Authors include Orwell, Auden, Isherwood, MacNeice, Spender, Tolkien, Bowen, Stevie Smith, Empson, and Greene. And, along with what clearly will be a lot of reading, there will be a brief report by each participant on one of the assigned works, as well as a research paper of 15 to 20 pages to be completed by the end of the quarter. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 6 Extension students)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, LindH 315, Firchow

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



## Creative writing (EngW)

(See also *Writing* in The Compleat Scholar non-credit section)

The program in Creative Writing is part of the Department of English and is partially supported by funds from the Edelstein-Keller Endowment for Creative Writing. The program offers courses that fulfill requirements for the M.A. degree with an emphasis on creative writing; courses at the undergraduate level are available as well, and advanced undergraduates and other interested students may also apply for admission to the graduate-level courses (see the instructions that appear before the listing of 5000-level courses).

**Visiting Writers**—Visiting writers funded by the Edelstein-Keller endowment may be in residence for varying periods during the year. You may obtain details of these visits from the program office, 209 Lind Hall; (612) 625-6366.

**EngW 1101 INTRODUCTION TO CREATIVE WRITING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Through a combination of small writers' groups and presentations by visiting writers, this course will help students begin writing poetry and prose. For those who want to try creative writing, improve their reading skills, and learn more about the creative process. This writers' workshop will meet once a week in the evening, but it will be related to presentations given by guest writers in the day school course EngW 1101, and students must be able to attend daytime sessions of that course (Thursdays, 2:30-3:45). (No prereq. Limited to 25)

Fall Qtr, ★Sec 1, T, 6:20-8:15, Phys 157

Fall Qtr, ★Sec 2, T, 6:20-8:15, KoltH S133

Fall Qtr, ★Sec 3, W, 6:20-8:15, AkerH 309

Spring Qtr, ★Sec 4, T, 6:20-8:15, FordH 115

Spring Qtr, ★Sec 5, W, 6:20-8:15, LindH 325

Spring Qtr, ★Sec 6, W, 6:20-8:15, LindH 340

(See also CSch 0301, Creative Writing)

**EngW 1102 INTRODUCTION TO FICTION WRITING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Beginning instruction in the art of fiction: characterization, plot, dialogue, and style. Writing exercises to help students generate ideas. Students will read and discuss published fiction as well as their own writing. (Prereq EngW 1101. Limited to 25)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FordH 60

Winter Qtr, ★Sec 2, W, 6:20-8:50, FordH 60

Spring Qtr, ★Sec 3, W, 6:20-8:50, LindH 303

**EngW 1103 INTRODUCTION TO POETRY WRITING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Beginning instruction in the art of poetry. Discussion of student poems and contemporary poetry, ideas for generating material, and writing exercises both in and out of class. (Prereq EngW 1101. Limited to 25)

Winter Qtr, ★Sec 1, T, 6:20-8:50, MurH 308

Spring Qtr, ★Sec 2, Th, 6:20-8:50, FordH 40

(See also CSch 0318, Reading and Writing Poetry)

**EngW 3102 INTERMEDIATE FICTION WRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

For students with experience in writing fiction. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1102 or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, T, 6:20-8:50, FordH 70

Spring Qtr, ★Sec 2, T, 6:20-8:50, FordH 70

**EngW 3103 INTERMEDIATE POETRY WRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

A workshop for students with experience in writing poetry. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq 1103 or equivalent. Limited to 20)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, LindH 303

**EngW 3110 TOPICS IN CREATIVE WRITING: INTRODUCTION TO PLAYWRITING.** 4 credits, §Th 3115, tuition\*: Resident \$308; Non-resident \$893.20.

Techniques of playwriting, completion of original one-act play. (Prereq EngW 1101 or equivalent. Meets concurrently with Th 3115, sec 1. Limited to a combined total of 16)

Fall Qtr, ★Sec 1, T, 6:20-8:50, RarigC 610

**EngW 3110 TOPICS IN CREATIVE WRITING: THE MEMOIR.** 4 credits, §Th 3115, tuition\*: Resident \$308; Non-resident \$893.20.

An introduction to autobiographical prose writing. Students read examples of memoir and write their own autobiographical pieces. (Prereq EngW 1101 or 1102 or 1103. Limited to 20)

Winter Qtr, ★Sec 2, W, 6:20-8:50, LindH 303

(See also CSch 0314, Childhood Memoir)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Courses Requiring Department's Permission

**Note**—Admission to courses that require permission to register (Δ) can be obtained only from the Creative Writing office. Students interested in these courses must submit an application form, a letter of introduction to the instructor, and (in most cases) a manuscript of about 10 pages, preferably in the genre of the course for which they are applying, to the Creative Writing office, 209 Lind Hall. Applications for fall classes must be submitted by Fri., Aug. 26, 1994; applications for winter classes by Fri., Nov. 11, 1994; and applications for spring classes by Fri., Feb. 17, 1995. Copies of the application form are available in the program office. *If you register without permission from the program office, you will forfeit your place in the class.* If you have questions or would like more information, please call the office at 625-6366. Full course descriptions are available in the Creative Writing office on a quarterly basis.

**EngW 5103 ADVANCED FICTION WRITING.** 4 credits each quarter, tuition\* each quarter: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Advanced workshop for students with considerable experience in writing fiction. For additional information, contact the Creative Writing office, 625-6366, 209 Lind Hall. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, T, 4:15-6:45, LindH 216, Fitzgerald

**EngW 5105, 5106, 5107 ADVANCED POETRY WRITING.** 4 credits each quarter, tuition\* each quarter: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Advanced workshop for students with considerable experience in writing poetry. The workshop gives students an opportunity to explore new poetic possibilities and to read widely in contemporary poetry and poetics. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Fall Qtr, 5105, ★○Sec 1, M, 4:15-6:45, LindH 302, Browne (A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, 5106, ★Sec 1, Th, 4:15-6:45, LindH 340

Spring Qtr, 5107, ★Sec 1, T, 4:15-6:45, LindH 217, Hampl. (A joint Day/Extension class limited to 5 Extension students)

**EngW 5110 TOPICS IN ADVANCED FICTION WRITING: WRITING OFF THE MAINSTREAM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An exploration of fictions that do not take the exploration of character and relationships as their main focus, but stem from a variety of other concerns: Borges, Kafka, Beckett, and Calvino are among the writers whose work is discussed. Depending on the composition of the class, there will be either discussion of the students' work or assignments, or both. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, T, 4:15-6:45, LindH 216, Fitzgerald

**EngW 5120 TOPICS IN ADVANCED POETRY WRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Contact the Creative Writing Program for course descriptions: 625-6366, 224 Lind Hall. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 4:15-6:45, LindH 216, Browne

Spring Qtr, ★○Sec 2, W, 6:20-8:50, LindH 302

**EngW 5204 ADVANCED PLAYWRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Advanced playwriting workshop for students with experience in creative writing. Students may wish to take 5310 sec 1 fall quarter. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Th 5115. A joint Day/Extension class limited to a combined total of 6 Extension students)

Winter Qtr, ★○Sec 1, W, 4:15-6:45, BlegH 205

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**EngW 5210 TOPICS IN ADVANCED NON-FICTION WRITING: LITERARY NONFICTION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A workshop for experienced writers. Readings in literary nonfiction by writers such as Susan Griffin, Roland Barthes, Tom Wolfe, and Eduardo Galeano will help individual students with their creative literary nonfiction projects. Some exercises and short assignments in addition to the longer project. This is *not* a course in "the essay." (Prereq written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students) Fall Qtr, ★ $\circ$ Sec 1, T, 4:15-6:45, LindH 302, Sugnet

**EngW 5210 TOPICS IN ADVANCED NON-FICTION WRITING: WRITING FROM LIFE—FINDING A SUBJECT, CREATING A VOICE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A course to assist students in defining and completing a nonfiction project of their own design in a workshop format, with frequent exercises focusing on specific issues and problems, such as (1) how to focus on a subject, (2) how much to fictionalize, (3) what to do about writing blocks with difficult material, and (4) where to find models. (Prereq written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★ $\circ$ Sec 2, Th, 4:15-6:45, LindH 325, Sprengnether

**EngW 5310 READING AS WRITERS: MEMOIR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Contact the Creative Writing Program for course descriptions: 625-6366, 209 Lind Hall. (Prereq written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★ $\circ$ Sec 1, M, 4:15-6:45, LindH 217, Hampf

**EngW 5310 READING AS WRITERS: CONTEMPORARY DRAMATIC LITERATURE.** 4

credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Wide reading of such authors as Sam Shepard, David Mamet, August Wilson, Caryl Churchill, Harold Pinter, Tom Stoppard, Athol Fugard, Peter Handke, Václav Havel, and Mbongeni Ngema. Attendance at some local performances will be required. Written responses and imitative exercises assigned. (Prereq written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Th 5950. Limited to 7)

Fall Qtr, ★Sec 2, W, 4:15-6:45, LindH 340

(See also EngW 5204, Advanced Playwriting, winter quarter)

**EngW 5310 READING AS WRITERS: THE STORIES WE TELL AND THE STORIES WE WRITE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A combined investigation and workshop in which students convert oral fictions into written ones and vice-versa, trying to figure out what things change and what remains the same when crossing the boundary between talk and print. A look at literature and performance with an eye to isolating continuities and differences in style. (Prereq written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★ $\circ$ Sec 3, Th, 4:15-6:45, LindH 216, Geffen

**EngW 5401 INTRODUCTION TO PROFESSIONAL EDITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Beginning editing, from substantive editing to the nature of the editor-writer relationship: manuscript reading, author queries, rewrite and style, some discussion of copy editing. Students develop editing awareness and skills by working on varied writing samples. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★Sec 1, T, 6:20-8:50, FordH 50

Fall Qtr, ★Sec 2, Th, 6:20-8:50, FordH 50

Winter Qtr, ★Sec 3, Th, 6:20-8:50, LindH 320

Spring Qtr, ★Sec 4, W, 6:20-8:50, LindH 320

(See also CSch 0356, Introduction to Copyediting)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**EngW 5402 ADVANCED PROFESSIONAL EDITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Opportunity for students with basic editing competence to advance their skills. Workshop/seminar setting provides experience in editing a long text and exposure to other specific types of editing such as fiction, children's literature, translations, indexing; discussion and guest lectures on areas of book publishing such as libel and contracts, small press; practice in editing one's own writing. (Prereq EngW 5401 and written Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, LindH 216

**EngW 8110 WRITING OF FICTION SEMINAR: THE NOVEL.** 4 credit, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Part 1 of a two-quarter course for graduate students who are interested and would like to embark on the challenging task of writing a novel. During the quarter the class will discuss plans, structures, beginnings, ends, and middles. Students will be expected to share their writing on a weekly basis, and the emphasis will be less on critiquing each other's writing than on helping each one to clarify what they want to achieve and in what way. Because the emphasis will be so much on process rather than achievement, the first quarter will not be graded. Students will come to the first class with a recently read novel they have particularly liked and admired. **Must be taken S-N.** *This course is a prerequisite for the spring quarter section of EngW 8110 sec 2 which follows.* (Prereq written Δ. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★Sec 1, W, 4:15-6:45, LindH 216, Fitzgerald

**EngW 8110 WRITING OF FICTION SEMINAR: THE NOVEL.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Part 2 of a two-quarter course. The main concentration during this quarter will be on the stretch of writing in the composition of a novel that lies between the exciting beginning and the exhausted end. How to sustain the readers' interest, how to sustain one's own interest, how structure, plan, beginning and end might change out of all recognition. Again students will be sharing their writing on a weekly basis, but the seminar may choose to share

more sustained portions of work. The second quarter work will be graded. (Prereq 8110 sec 1 and written Δ. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★Sec 2, M, 4:15-6:45, LindH 340, Fitzgerald

**EngW 8120 WRITING OF POETRY: SEMINAR.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Contact the Creative Writing Program for course description: 625-6366, 209 Lind Hall. (Prereq written Δ. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★Sec 1, T, 4:15-6:45, LindH 302, Browne

**EngW 8130 CREATIVE WRITING SEMINAR: FIRST PERSON SINGULAR.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Contact the Creative Writing Program for course description: 625-6366, 209 Lind Hall. (Prereq written Δ. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★Sec 1, T, 4:15-6:45, LindH 216, Hampl

## English as a Second Language (ESL)

(102 Klaeber Court: 624-1503)

### College of Liberal Arts

Textbooks for most ESL courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

**Note:** Students registering for ESL courses must contact the Minnesota English Center (MEC) at 624-1503 for testing and placement information. *Individuals are required to complete one of the following tests:* Minnesota Battery of English Language Proficiency (MNBatt), Test of English as a Foreign Language (TOEFL), English Placement Test (EPT), or Michigan English Language Assessment Battery (MELAB). Arrangements for the MNBatt can be made at MEC up to one week prior to enrollment. Information for TOEFL and MELAB is available at MEC, and registration must be completed several weeks prior to enrollment. *When registering for classes, your test score/placement forms must be attached to your registration form.*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**ESL 0314-0315 FUNDAMENTALS IN ENGLISH AS A SECOND LANGUAGE.** No credit, \$372.50 (includes \$5 course fee).

A low-intermediate course designed to give non-native speakers the basic knowledge and skills needed for daily communication in spoken English; grammatical structures are explained with reference to their uses in social situations; instruction is also provided in pronunciation. **Must be taken S-N.** (Prereq a satisfactory score on MBatt or TOEFL and written permission. Limited to 20)

Fall Qtr, 0314, ★Sec 1, TTh, 6:20-8:50, CivMinE 213

Winter Qtr, 0315, ★Sec 1, TTh, 6:20-8:50, KoltH S135

**ESL 0321 UPPER INTERMEDIATE GRAMMAR.** No credit, \$372.50 (includes \$5 course fee). (IS)

An upper intermediate course that reviews and adds to repertoire of structures with attention to meaning, use, and form; emphasizes verb phrase and control of grammar in writing. **Must be taken S-N.** (Prereq a satisfactory score on the MBatt or TOEFL and written permission. Limited to 20)

Spring Qtr, ★Sec 1, TTh, 6:20-8:50, KoltH S132

**ESL 0324-0325-0326 DEVELOPING FLUENCY IN ENGLISH AS A SECOND LANGUAGE.** No credit, \$372.50 (includes \$5 course fee).

An advanced course for non-native speakers who want to improve their communication skills for social, academic, and professional purposes; emphasis is placed on listening and speaking; content is drawn from the mass media. **Must be taken S-N.** (Prereq a satisfactory score on the MBatt or TOEFL and written permission. Limited to 20)

Fall Qtr, 0324, ★Sec 1, TTh, 6:20-8:50, WulIH S140

Winter Qtr, 0325, ★Sec 1, TTh, 6:20-8:50, KoltH S139

Spring Qtr, 0326, ★Sec 1, TTh, 6:20-8:50, KoltH S138

**ESL 0343 ADVANCED ACADEMIC WRITING.** No credit, \$372.50 (includes \$5 course fee).

An advanced writing course for graduate students who are non-native speakers of English; introduction to the use of the library system and to types of writing required in graduate school courses; designed to improve skills in developing and organizing ideas, drafting, revising and editing papers, writing essay exams. **Must be taken S-N.** (Prereq a satisfactory score on MBatt or TOEFL and written permission. Limited to 20)

Fall Qtr, ★Sec 1, MW, 4:20-5:15, KoltH 132

Spring Qtr, ★Sec 2, MW, 4:20-6:50, KoltH S139

**ESL 0351 INTERNATIONAL BUSINESS ENGLISH.** No credit, \$372.50 (includes \$5 course fee).

Focuses on English as it is used in business. Students work on reading, listening, speaking, and writing activities based on business topics. **Must be taken S-N.** (Prereq a satisfactory score on MBatt or TOEFL and written permission. Limited to 20)

Fall Qtr, ★Sec 1, MW, 6:20-8:50, CivMinE 213

**ESL 0352 ENGLISH FOR SCIENCE AND TECHNOLOGY.** No credit, \$372.50 (includes \$5 course fee).

Focuses on English as it is used in scientific fields, emphasizing the language involved in formulating hypotheses, describing experiments, and presenting results. Includes reading, writing, listening, and speaking activities based on scientific and technical English. **Must be taken S-N.** (Prereq a satisfactory score on MBatt or TOEFL and written permission. Limited to 20)

Winter Qtr, ★Sec 1, MW, 6:20-8:50, CivMinE 213

**Entomology (Ent)**

(219 Hodson Hall: 624-3636)

**College of Agriculture**

Textbooks for most Ent courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Catherine C. Reed, Lecturer

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Entomology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Ent 5920 SPECIAL LECTURES: USING INSECTS IN THE CLASSROOM.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Insect-related activities for the elementary classroom; insect ecology, classification and structure; use of insects in teaching and learning science skills; techniques for observing and maintaining insects in schools. *Text available at first class meeting.* (Prereq 1 course in general biology. Qualified students may register for graduate credit at the University of Minnesota. Limited to 24)

Spring Qtr, ★Sec 1, T, 4:30-6:30, HodsonH 480, StP Campus, Reed

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Family Education

See Vocational and Technical Education

### Family Practice and Community Health (FPCH)

(6-240 Phillips-Wangensteen: 624-2622)

#### Medical School

Textbooks for most FPCH courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Edmond (Eli) Coleman, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Family Practice and Community Health. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**FPCH 5950 CLINICAL ISSUES IN HUMAN SEXUALITY.** 3 credits, tuition\*: Resident \$396; Non-resident \$792; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An examination of clinical issues, assessment techniques, and treatment techniques to common sexual problems. (Prereq enrollment in Health Science grad program in Counseling and Student Personnel Psychology, Psychology, Public Health, Social Work, Family Social Science, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, T, 4:15-6, FMC Bldg,  
1300 S 2nd St, Suite 180, Mpls, Coleman

*For information about other courses in human sexuality, call the Program in Human Sexuality, 625-1500.*

### Family Social Science (FSoS)

(290 McNeal Hall: 625-1900)

#### College of Human Ecology

Textbooks for most FSoS courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Anth 5920, Topics in Anthropology; Anthropology of AIDS; PubH 5010, Public Health

Approach to AIDS; College of Human Ecology; General College; and The Practical Scholar non-credit courses)

Pauline Boss, Professor

Linda Budd, Adjunct Assistant Professor in Family Social Science

Philip L. Colgan, Director, Alcohol and Drug Counseling Education Program

William Doherty, Professor

Constance Fabunmi, Instructor, Alcohol and Drug Counseling Education Program

William J. Goodman, Adjunct Assistant Professor, Family Social Science

Harold Grotevant, Professor and Head of Family Social Science

Susan Hoffman, Teaching Specialist, Alcohol and Drug Counseling Education Program

M. Janice Hogan, Professor

Winifred Lilly-Taylor, Teaching Specialist, Alcohol and Drug Counseling Education Program

Pearl Rosenberg, Professor Emeritus, Medical School

Marilyn M. Rossmann, Associate Professor, Vocational Technical Education

Robert E. Yahne, Associate Professor, General College

**See the Alcohol and Drug Counseling Program, page 194.**

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Family Social Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**FSoS 1001 INTRODUCTION TO FAMILY RELATIONSHIPS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

General exploration of partner selection, interaction in committed relationships, parenting, gender roles, and the impact of social issues on family relationships. (No prereq)

Fall Qtr, Sec 1, M, 5:30-8:50, FordH 130

Fall Qtr, ●Sec 2, T, 5:30-8:50, McNH 198, StP Campus (A joint Day/Extension class)

Winter Qtr, ●Sec 3, T, 5:30-8:50, McNH 197, StP Campus (A joint Day/Extension class)

Spring Qtr, ●Sec 4, T, 5:30-8:50, McNH 197, StP Campus (A joint Day/Extension class)

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**FSoS 1025 PARENTHOOD.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Differing concepts of family roles—father, mother, son, daughter, sister, brother. Parent-child and sibling interaction. Effects of parenthood on husband-wife relations. (No prereq)

Spring Qtr, Sec 1, W, 5:30-8:50, McNH 197, StP Campus

**FSoS 5001 HUMAN SEXUAL BEHAVIOR.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25. (IS)

Multidisciplinary approach to sexual development through individual/family life cycles, emphasizing scientific knowledge to promote sexual health through individual, family, and community services; ethics and values issues. (Prereq 90 cr, 3600 or grad student in social or behavioral or educational or health science or human service program or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5027. A joint Day/Extension class limited to a combined total of 75)

Fall Qtr, ★●Sec 1, Th, 5:30-9:40, McNH 33, StP Campus

**FSoS 5025 PARENTING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

This course examines a number of parenting models while concurrently focusing on the child's development from infancy through adolescence. Students are trained to identify differing parenting techniques and to develop their own parenting approach. (Prereq 5200 or 5202, CPsy 1301. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, M, 4:05-7:30, McNH 197, StP Campus, Rossmann

Winter Qtr, ★●Sec 2, M, 4:30-7:50, McNH 197, StP Campus, Budd

**FSoS 5200 FAMILY SYSTEMS.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25. (IS)

Advanced survey of current developments in Family Social Science emphasizing families as complex

systems of interpersonal relationships that also interact with larger social systems. (Prereq Psy 1001 or equivalent, Soc 1001 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, T, 5:30-9:40, McNH 33, StP Campus

Winter Qtr, ●Sec 2, TTh, 6:45-8:55, McNH 33, StP Campus, Doherty

**FSoS 5202 FAMILY PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The study of processes of interaction and communication that take place in families of origin, families of choice, and other close relationships. Research and theory is multidisciplinary and taken from psychology, sociology, family therapy. Marriage, divorce, friendship, partnerships, being single will be considered as theories of attraction, love, intimacy, and sexuality are discussed. Issues of fairness, altruism, equity, power, violence, and communication will be presented as central to relationship formation and dissolution. The focus is on the dynamic processes of family and couple relationships within diverse social contexts. (Prereq 3600 for FSoS majors; or Psy 3204 for Psych majors and others. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 4:05-6:45, McNH 33, StP Campus, Boss

**FSoS 5218 FAMILY FINANCIAL MANAGEMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of family financial management principles. Financial planning for savings, investments; credit, mortgages; taxation; life, disability, health, property insurances; public, private pension; estate planning. (Prereq 3260 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, MW, 4:05-6:45, McNH 198, StP Campus, Hogan

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**FSoS 5240 SPECIAL TOPICS: EDUCATION FOR HEALTHY SEXUALITY.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A comprehensive approach to preparing teachers to develop, deliver, and evaluate educational programs oriented toward positive expression of individual and family sexuality. Focus will be on creating strategies to assist children, youth, and adults to acquire information, form positive attitudes and values, develop interpersonal skills, and exercise responsibility in all aspects of their sexual lives. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, M, 4:05-7:35, McNH 376, StP Campus, Maddock, Rossmann

**FSoS 5253 HUMANITIES, AGING, AND FAMILY LIVING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An overview of the humanities (novels, short fiction, nonfiction, poetry, educational films) as they relate to the study of aging and family living. Emphasizes the *experience* of aging as it is perceived from the *older person's point of view*, especially as it relates to the experience of family living. Students are encouraged to consider their attitudes toward their own aging and to analyze the significance of their relationships with older persons. (Prereq 5200 or SW 5024 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 4:05-7:35, McNH 198, StP Campus, Yahnke

**FSoS 5500 RACIAL AND ETHNIC DIVERSITY IN FAMILIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS) Overview of family issues of various American racial and ethnic populations. Combines a study of research and case studies with individual projects to develop and enrich understanding of cultural diver-

sity. (Prereq 5200. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, M, 4:05-7:30, McNH 197, StP Campus

### Alcohol and drug counseling education program (ADCEP)

(388 McNeal Hall: [612] 625-3778; FAX: [612] 625-4227)

Textbooks for most ADCEP courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

**Your attention is also called to the Alcohol and Drug Counseling Education Certificate, page 503.**

*To obtain a formal application for the certificate program, write to the Alcohol and Drug Counseling Education Program, University of Minnesota, Family Social Science, 388 McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108. Or call the program office at (612) 625-3778.*

For admission to the certificate program, a personal screening interview is required. In this instance, a nonrefundable \$25 screening interview fee will be assessed prior to the start of the interview process. A final evaluation is conducted for all certificate candidates upon completion of all program requirements. A nonrefundable \$25 final evaluation fee is required at the time of the final evaluation session.

*Call 625-3778 for room assignments if room is not listed below.*

*You must attend the entire first class session or your space in that class will be forfeited.*

**FSoS 3026 ASSESSMENT OF ALCOHOL AND DRUG USE PROBLEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Series of lectures and discussions with emphasis on theoretical views of the nature of dependency and drug use problems and approaches to diagnosis and/or assessment. *Students working toward the certificate must take this course A-F.* (No prereq. Students interested in graduate credit should see FSoS 5026. Meets concurrently with 5026)

Fall Qtr, Sec 1, T, 6:15-9:15, BorH 335, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**FSoS 3027 CURRENT ISSUES AND PHARMACOLOGY OF ALCOHOL AND DRUG ABUSE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Series of lectures with emphasis on the historical and cultural perspectives of drug use and abuse. Additional topics: men's, women's, adolescents', diversity, and sexuality issues. Fundamental principles of pharmacology as apply to the various classifications of mood altering chemicals. (No prereq. *Students working toward the certificate must take this course A-F.* Students interested in graduate credit should see FSoS 5027. Meets concurrently with 5027)

Winter Qtr, Sec 1, T, 6:15-9:15, BorH 365, StP Campus

**FSoS 3028 TREATMENT OF ALCOHOL AND DRUG USE PROBLEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Continuum of treatment responses and treatment planning for substance abusers. Topics covered include prevention, self-help groups, professional ethics, nutrition, alternative treatments, aftercare programming, evaluation, and some pragmatics of counseling. (No prereq. *Students working toward the certificate must take this course A-F.* Students interested in graduate credit should see FSoS 5028. Meets concurrently with 5028)

Spring Qtr, Sec 1, T, 6:15-9:15, BorH 335, StP Campus

**FSoS 3029 COUNSELING SKILLS PRACTICUM I.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Utilizes dyadic role-playing and group exercises to increase competency in the area of basic counseling skills. Topics include assessment of counselor needs and motivations, non-verbal communication, accurate empathy, self-disclosure, and questioning. Video tape will assist students in feedback. (No prereq. *Students working toward the certificate must take this course A-F.* Students interested in graduate credit should see FSoS 5029. Meets concurrently with FSoS 5029. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, W, 6-9, Sept. 28-Nov. 16, McNH 144, StP

Campus, and Sa, 9 a.m.-5, Oct. 8, McNH 144, StP Campus, Hoffman

Fall Spec Term, ★Sec 2, W, 6-9, Sept. 28-Nov. 16, McNH 144, StP Campus, and Sa, 9 a.m.-5, Oct 8, McNH 144, StP Campus

Winter Spec Term, ★Sec 3, W, 6-9, Jan. 4-Feb. 22, McNH 144, StP Campus, and Sa, 9 a.m.-5, Jan. 14, McNH 144, StP Campus

Spring Spec Term, ★Sec 4, W, 6-9, Mar. 29-May 17, McNH 144, StP Campus, and Sa, 9 a.m.-5, Apr. 8, McNH 144, StP Campus

**FSoS 3030 COUNSELING SKILLS PRACTICUM II.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Students to facilitate client's exploration of self and understanding of the problem, and assist in setting therapeutic goals. Topics covered include concreteness, advanced empathy, immediacy, confrontation, reframing, and problem solving. Use of video tape assists students in feedback. (Prereq 3029. *Students working toward the certificate must take this course A-F.* Students interested in graduate credit should see FSoS 5030. Meets concurrently with FSoS 5030. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, M, 6-9, Sept. 26-Nov. 14, McNH 144, StP Campus, and Sa, 9

a.m.-5, Oct. 1, McNH 144, StP Campus

Winter Spec Term, ★Sec 2, M, 6-9, Jan.

9-Mar. 6 (no meeting Jan. 16), McNH 144, StP Campus, and Sa, 9 a.m.-5, Jan. 14,

McNH 144, StP Campus, Fabunmi

Spring Spec Term, ★Sec 3, M, 6-9, Mar.

27-May 15, McNH 144, StP Campus, and Sa, 9 a.m.-5, Apr. 1, McNH 144, StP Campus,

Fabunmi

**FSoS 3031 COUNSELING SKILLS PRACTICUM III.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Designed to provide students with exposure to advanced therapeutic methods. Topics include double bind theory, use of paradox, working with resistant clients, neurolinguistic programming and self-care. (Prereq 3030 or #. *Students working toward the certificate must take this course A-F.* Students interested in graduate credit should see FSoS 5031. Meets concurrently with FSoS 5031. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, W, 6-9, Oct. 5-Nov.

9, McNH 197, StP Campus, Colgan, and Sa, 9 a.m.-4, Oct. 29, Nov. 5, McNH 197, StP

Campus. *No late fee through Sept. 28*

Spring Spec Term, ★Sec 2, W, 6-9, Apr.

5-May 10, McNH 198, StP Campus, Colgan, and Sa, 9 a.m.-4, Apr. 15, 22, McNH 198,

StP Campus. *No late fee through Mar. 29*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**FSoS 3032 CHEMICAL ABUSE AND FAMILIES: AN OVERVIEW.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An introduction to marriage and family counseling with particular application to the families in which alcohol or drug abuse is a problem. Topics include family types, family of origin, structural family therapy, family systems theory, and alcoholism. Review of literature. *Students working toward the certificate must take this course A-F.* (No prereq. Students interested in graduate credit should see FSOS 5032. Meets concurrently with FSOS 5032. Limited to a combined total of 40)

Fall Spec Term, ★Sec 1, Th, 6-9:30, Sept. 29-Nov. 10, McNH 274, StP Campus, and Sa, 9 a.m.-5, Oct. 22, McNH 274, StP Campus, Lilly-Taylor, Colgan

Spring Spec Term, ★Sec 2, Th, 6-9:30, Apr. 6-May 25, (no meeting May 11), McNH 198, StP Campus, and Sa, 9 a.m.-5, May 6, McNH 198, StP Campus, Lilly-Taylor, Colgan. *No late fee through Mar. 30*

**FSoS 3034 TOPICS IN ALCOHOL AND DRUG ABUSE.** 1-5 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30.

Selected readings and/or projects in alcohol and drug use and problems and evaluation of students' mastery of the assigned study. (Prereq written #. Requests for permission to register must be made to the Alcohol and Drug Counseling Education Program, Family Social Science, University of Minnesota, 388 McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108)

Fall Qtr, Sec 1, Arr., Colgan, Fabunmi, Goodman

Winter Qtr, Sec 2, Arr., Colgan, Fabunmi, Goodman

Spring Qtr, Sec 3, Arr., Colgan, Fabunmi, Goodman

**FSoS 3035 CLINICAL INTERNSHIP IN CHEMICAL USE PROBLEMS.** 2-18 credits, tuition\* plus \$25 special fee for each placement. Each credit: Resident \$77; Non-resident \$223.30. A 1000-hour rotating clinical internship designed to strengthen student competencies. Students are placed in 3 to 4 different community agencies/treatment centers. A separate registration is required for each placement. *Also required is a closed class permission slip which is available by calling the program office, 625-3778. Must be taken S-N.* (Prereq 3026, 3027, 3028, 3030, 3032, 3037 and written #. Students interested in graduate credit should see FSOS 5035, sec 1, 2, 3)

Fall Qtr, Sec 1, Arr., Fabunmi

Winter Qtr, Sec 2, Arr., Fabunmi

Spring Qtr, Sec 3, Arr., Fabunmi

**FSoS 3037 GROUP THERAPY: THEORY AND PRACTICE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90.

Lecture, and small group experience aimed at providing an introduction to group therapy concepts. Topics include stages of group development, stages of affective development, Hill Interaction Matrix, leadership roles and functions, Yalom's curative factors, and understanding group process. *Students working toward the certificate must take this course A-F.* (No prereq. Students interested in graduate credit should see FSOS 5037. Meets concurrently with 5037. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, ThFSa, 9 a.m.-5, Nov. 17-19, CofH 101, StP Campus, Colgan, Goodman. *No late fee through Nov. 10*

Winter Spec Term, ★Sec 2, ThFSa, 9 a.m.-5, Feb. 16-18, McNH 274, StP Campus. *No late fee through Feb. 9*

Spring Spec Term, ★Sec 3, ThFSa, 9 a.m.-5, May 11-13, McNH 274, StP Campus. *No late fee through May 4*

**FSoS 5008 INTROSPECTIVE WORKSHOP, ETHICS, AND CLINICAL SUPERVISION.** 1 or 2 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Special topics, ethical issues, nonregular program or course in Family Social Science for pre-service or in-service helping professionals. **Must be taken S-N.** (Prereq 3035. Qualified students may register for graduate credit at the University of Minnesota. Limited to 10)

Fall Qtr, ★Sec 1, Arr., Fabunmi

Winter Qtr, ★Sec 2, Arr., Fabunmi

Spring Qtr, ★Sec 3, Arr., Fabunmi

**FSoS 5026 ASSESSMENT OF ALCOHOL AND DRUG USE PROBLEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSOS 3026. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3026)

Fall Qtr, Sec 1, T, 6:15-9:15, BorH 335, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**FSoS 5027 CURRENT ISSUES AND PHARMACOLOGY OF ALCOHOL AND DRUG ABUSE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSoS 3027. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3027)

Winter Qtr, Sec 1, T, 6:15-9:15, BorH 365, StP Campus

**FSoS 5028 TREATMENT OF ALCOHOL AND DRUG USE PROBLEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSoS 3028. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3028)

Spring Qtr, Sec 1, T, 6:15-9:15, BorH 335, StP Campus

**FSoS 5029 COUNSELING SKILLS PRACTICUM I.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSoS 3029. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3029. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, W, 6-9, Sept. 28-Nov. 16, McNH 144, StP

Campus, and Sa, 9 a.m.-5, Oct. 8, McNH 144, StP Campus, Hoffman

Fall Spec Term, ★Sec 2, W, 6-9, Sept. 28-Nov. 16, McNH 144, StP Campus, and Sa, 9 a.m.-5, Oct. 8, McNH 144, StP Campus

Winter Spec Term, ★Sec 3, W, 6-9, Jan. 4-Feb. 22, McNH 144, StP Campus, and Sa, 9 a.m.-5, Jan. 14, McNH 144, StP Campus

Spring Spec Term, ★Sec 4, W, 6-9, Mar. 29-May 17, McNH 144, StP Campus, and Sa, 9 a.m.-5, Apr. 8, McNH 144, StP Campus

**FSoS 5030 COUNSELING SKILLS PRACTICUM II.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856;

Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSoS 3030. (Prereq 5029. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3030. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, M, 6-9, Sept. 26-Nov. 14, McNH 144, StP Campus, and Sa, 9 a.m.-5, Oct. 1, McNH 144, StP Campus

Winter Spec Term, ★Sec 2, M, 6-9, Jan.

9-Mar. 6 (no meeting Jan. 16), McNH 144, StP Campus, and Sa, 9 a.m.-5, Jan. 14, McNH 144, StP Campus, Fabunmi

Spring Spec Term, ★Sec 3, M, 6-9, Mar.

27-May 15, McNH 144, StP Campus, and Sa, 9 a.m.-5, Apr. 1, McNH 144, StP Campus, Fabunmi

**FSoS 5031 COUNSELING SKILLS PRACTICUM III.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for FSoS 3031. (Prereq 5030. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3031. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, W, 6-9, Oct. 5-Nov.

9, McNH 197, StP Campus, Colgan, and Sa, 9 a.m.-4, Oct. 29, Nov. 5, McNH 197, StP Campus. *No late fee through Sept. 28*

Spring Spec Term, ★Sec 2, W, 6-9, Apr.

5-May 10, McNH 198, StP Campus, Colgan, and Sa, 9 a.m.-4, Apr. 15, 22, McNH 198, StP Campus. *No late fee through Mar. 29*

**FSoS 5032 CHEMICAL ABUSE AND FAMILIES: AN OVERVIEW.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for FSoS 3032. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3032. Limited to a combined total of 40)

Fall Spec Term, ★Sec 1, Th, 6-9:30, Sept.

29-Nov. 10, McNH 274, StP Campus, and Sa, 9 a.m.-5, Oct. 22, McNH 274, StP Campus, Lilly-Taylor, Colgan

Spring Spec Term, ★Sec 2, Th, 6-9:30, Apr.

6-May 25, (no meeting May 11), McNH 198, StP Campus, and Sa, 9 a.m.-5, May 6, McNH 198, StP Campus, Lilly-Taylor, Colgan. *No late fee through Mar. 30*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**FSoS 5034 TOPICS IN ALCOHOL AND DRUG ABUSE.** 2-5 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Selected readings and/or projects in alcohol and drug use problems and evaluation of students' mastery of the assigned study. (Prereq written #. Requests for permission to register must be made to the Alcohol and Drug Counseling Education Program, Family Social Science, 388 McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr., Colgan, Fabunmi,  
Goodman

Winter Qtr, Sec 2, Arr., Colgan, Fabunmi,  
Goodman

Spring Qtr, Sec 3, Arr., Colgan, Fabunmi,  
Goodman

**FSoS 5035 CLINICAL INTERNSHIP IN CHEMICAL USE PROBLEMS.** 2-18 credits, tuition\* plus \$25 special fee (placement fee). Each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

See course description for FSoS 3035. A separate registration is required prior to the start of each individual internship placement. *Also required is a closed class permission slip which is available by calling the program office, 625-3778. Must be taken S-N.* (Prereq 3026, 3027, 3028, 3030, 3032, 3037, and written #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr., Fabunmi

Winter Qtr, Sec 2, Arr., Fabunmi

Spring Qtr, Sec 3, Arr., Fabunmi

**FSoS 5037 GROUP THERAPY: THEORY AND PRACTICE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

See course description for FSoS 3037. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3037. Limited to a combined total of 20)

Fall Spec Term, ★Sec 1, ThFSa, 9 a.m.-5, Nov. 17-19, CofH 101, StP Campus, Colgan, Goodman. *No late fee through Nov. 10*

Winter Spec Term, ★Sec 2, ThFSa, 9 a.m.-5, Feb. 16-18, McNH 274, StP Campus. *No late fee through Feb. 9*

Spring Spec Term, ★Sec 3, ThFSa, 9 a.m.-5, May 11-13, McNH 274, StP Campus. *No late fee through May 4*

Please call the Alcohol and Drug Counseling Education Program office for further information at (612) 625-3778.

For information on noncredit conferences or workshops in Family Social Science, please contact the Department of Conferences and Institutes, 107 Armory (625-3020).

For information on undergraduate degree programs, please call or write College of Human Ecology, University of Minnesota, St. Paul, Minnesota 55108 ([612] 624-1717).

## Finance (BFin)

(735 Management/Economics: 624-2888)

### Carlson School of Management

Textbooks for most BFin courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College; and The Practical Scholar noncredit courses)

Scott Haniford, Teaching Assistant  
Jaeuk Khil, Teaching Assistant  
Gahng Sohk Koh, Teaching Assistant  
John Reik, Adjunct Assistant Professor  
David Runkle, Adjunct Assistant Professor  
Greg Swinehart, Teaching Assistant

Your attention is called to the Credit and Financial Management Certificate program. See the Degrees and Certificates section of this Bulletin.

**Carlson School of Management degree students must take degree Finance courses A-F.**

**Note**—Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**BFin 3000 FINANCE FUNDAMENTALS.** 4 credits, tuition\*(includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Comprehensive, analytical introduction to the principal concepts in finance. The general business environment, valuation theory, financial management decisions concerning uses and sources of funds (capital budgeting), survey the nation's financial markets. **May not be taken S-N.** (Prereq Acct 1025 or 1050 and at least 90 credits completed or in progress. Limited to 60)

Fall Qtr, ★Sec 1, M, 5:30-9, AndH 370

Fall Qtr, ★Sec 2, Th, 5:30-9, AndH 370

Winter Qtr, ★Sec 3, T, 5:30-9, AndH 310

Winter Qtr, ★Sec 4, Th, 5:30-9, AndH 370

Spring Qtr, ★Sec 5, T, 5:30-9, AndH 370

Spring Qtr, ★Sec 6, W, 5:30-9, AndH 370

(See also financial planning courses in The Practical Scholar, page 435)

**BFin 3100 FINANCIAL MANAGEMENT.** 4 credits, tuition\*(includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Broad, case-oriented course building on concepts introduced in 3000. The viewpoint of a corporation's principal financial officer is generally used. Case discussions, augmented by lectures and readings, prepare students to apply finance principles in actual business situations. Experience in problem definition, specification of alternatives, analysis, and decisions. Effective verbal and written communication emphasized. (Prereq 3000 and at least 90 credits completed or in progress. Limited to 60)

Fall Qtr, ★Sec 1, W, 5:30-9, BlegH 215

**BFin 3200 FINANCIAL MARKETS AND INTEREST RATES.** 4 credits, tuition\*(includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Survey of financial markets in developed economies. Emphasis on fixed-income markets. The term structure of interest rates. The inflation rate and interest rates. Exchange rates and interest rates. Introduction to interest rate futures. **Must be taken A-F.** (Prereq 3000 and at least 90 credits completed or in progress. Limited to 50)

Winter Qtr, ★Sec 1, W, 6:10-9:40, BlegH 155

**BFin 3300 SECURITIES ANALYSIS AND PORTFOLIO MANAGEMENT.** 4 credits, tuition\*(includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Introduces decision procedures in a variety of financial markets. The banking system and other financial intermediaries, risk-return relationships

of various marketable securities, analytical techniques of portfolio management in the context of the nation's changing financial markets. (Prereq 3000 and at least 90 credits completed or in progress. Limited to 50)

Spring Qtr, ★Sec 1, W, 5:30-9, BlegH 105, Reik

**BFin 3601 FINANCIAL MANAGEMENT OF DEPOSITORY INSTITUTIONS.** 4 credits, tuition\*(includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Comprehensive introduction to the principles of bank financial management. Bank risk analysis, lending, investments, liquidity, asset-liability management. Lecture augmented with case discussions. (Prereq 3000 and at least 90 credits completed or in progress. Acct 1050 recommended. A joint Day/Extension class limited to 17 Extension students)

Fall Qtr, ★Sec 1 Th—5:30-9, HHCtr 20, Runkle

## Certified Financial Planner (CFP)

The University of Minnesota no longer offers CFP courses.

## Finnish

(See Scandinavian Languages)

## Fisheries and Wildlife (FW)

(200 Hodson Hall: 624-3600)

### College of Natural Resources

Textbooks for most FW courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Fisheries and Wildlife. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*No FW courses offered through Extension Classes 1994-95.*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Food Science and Nutrition (FScN)

(225 Food Science and Nutrition: 624-1290)

#### Colleges of Agriculture and Human Ecology

Textbooks for FScN courses on the Minneapolis campus are available at University of Minnesota Bookstore—Health Sciences (625-8600); at University of Minnesota Bookstore—St. Paul (624-9200) for courses on that campus.

Paul B. Addis, Professor

Elaine H. Asp, Associate Professor

Linda J. Brady, Associate Professor of Nutrition

William M. Breene, Professor of Food Science and Technology

Francis F. Busta, Professor; Department Head

Mary E. Darling, Assistant Professor and Extension Nutritionist

Daniel D. Gallaher, Associate Professor of Nutrition

Madge N. Hanson, Assistant Professor in Clinical Nutrition

Mindy S. Kurzer, Assistant Professor of Nutrition

Benjamin H. Senauer, Professor of Agricultural and Applied Economics

David E. Smith, Associate Professor of Dairy and Food Technology

Karl S. Willson, Lecturer

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in FScN. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**FScN 1102 TECHNOLOGY OF FOOD PROCESSING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Introduction to the technology of processing of foods with special reference to the prevention of biological, microbiological, physical, and chemical deterioration. Change in food composition, microbiological safety, food laws and regulations, technologies of the major food processes such as canning, freezing, and drying. (Prereq high school chemistry and biology. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 4:05-5:45, FScN 15, StP Campus

**FScN 1612 PRINCIPLES OF NUTRITION.** 4 credits, tuition\*: esident \$294; Non-resident \$852.60.

Fundamental concepts: Human nutritional requirements, function of nutrients, nature of deficiencies. Vegetarianism, weight loss, fad diets, activity, obesity, cancer, heart disease, food processing, safety, world food problems. (Prereq high school chemistry and biology. Lectures meet concurrently each quarter. Fall sections are joint Day/Extension and limited to 10 Extension students each. Spring sections are Extension only and limited to 30 each)

Fall Qtr, ★●Sec 1, Lect TTh, 4:15-5:30, PWB 2-470; Rec M, 5:45-6:35, Arch 45, Kurzer

Fall Qtr, ★●Sec 2, Lect TTh, 4:15-5:30, PWB 2-470; Rec T, 3:10-4, Arch 45, Kurzer

Fall Qtr, ★●Sec 3, Lect TTh, 4:15-5:30, PWB 2-470; Rec T, 5:45-6:35, Arch 60, Kurzer

Fall Qtr, ★●Sec 4, Lect TTh, 4:15-5:30, PWB 2-470; Rec T, 5:45-6:35, Arch 45, Kurzer

Fall Qtr, ★●Sec 5, Lect TTh, 4:15-5:30, PWB 2-470; Rec W, 5:45-6:35, Arch 15, Kurzer

Fall Qtr, ★●Sec 6, Lect TTh, 4:15-5:30, PWB 2-470; Rec W, 5:45-6:35, Arch 45, Kurzer

Fall Qtr, ★●Sec 7, Lect TTh, 4:15-5:30, PWB 2-470; Rec Th, 3:10-4, Arch 45, Kurzer

Fall Qtr, ★●Sec 8, Lect TTh, 4:15-5:30, PWB 2-470; Rec Th, 3:10-4, Arch 20, Kurzer

Fall Qtr, ★●Sec 9, Lect TTh, 4:15-5:30, PWB 2-470; Rec Th, 5:45-6:35, Arch 60, Kurzer

Fall Qtr, ★●Sec 10, Lect, TTh, 4:15-5:30, PWB 2-470; Rec Th, 5:45-6:35, Arch 45, Kurzer

Spring Qtr, ★Sec 11, Lect T, 6-8:30, PWB 2-470; Rec T, 4:55-5:45, Arch 30, Hanson

Spring Qtr, ★Sec 12, Lect T, 6-8:30, PWB 2-470; Rec T, 4:55-5:45, Arch 20, Hanson

Spring Qtr, ★Sec 13, Lect T, 6-8:30, PWB 2-470; Rec T, 8:45-9:35, Arch 30, Hanson

Spring Qtr, ★Sec 14, Lect T, 6-8:30, PWB 2-470; Rec T, 8:45-9:35, Arch 45, Hanson

Spring Qtr, ★Sec 15, Lect T, 6-8:30, PWB 2-470; Rec Th, 4-4:50, Arch 30, Hanson

Spring Qtr, ★Sec 16, Lect T, 6-8:30, PWB 2-470; Rec Th, 4-4:50, Arch 45, Hanson

Spring Qtr, ★Sec 17, Lect T, 6-8:30, PWB 2-470; Rec Th, 6-6:50, Arch 30, Hanson

Spring Qtr, ★Sec 18, Lect T, 6-8:30, PWB 2-470; Rec Th, 6-6:50, Arch 45, Hanson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**FScN 3610 COMMUNITY NUTRITION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Introduction to the goals of community food and nutrition programs including national, international, public, and private programs; an overview of cultural food patterns; and the management of (assessing needs, planning, implementing, and evaluating) food and nutrition programs for groups of people. (Prereq 1612 or equivalent, 5 cr Anth, Psy, or Soc. A joint Day/Extension class)

Spring Qtr, ●Sec 1, MW, 4:05-5:25, ABLMS 125, StP Campus, Darling

**FScN 5111 INDEPENDENT STUDY IN FOOD SCIENCE AND NUTRITION.** 1-5 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Individual laboratory or library research in an area related to food science and nutrition. (Prereq Δ. Call 624-6753 for more information. May be repeated for credit. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Time arr.

Winter Qtr, ●Sec 2, Time arr.

Spring Qtr, ●Sec 3, Time arr.

**FScN 5380 FOOD PACKAGING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Basics of packaging materials and the principles of packaging development and product protection as they apply to foods. (Prereq 1102, 3102, and Phys 1042. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, M, 6-8:30, FScN 23, StP Campus, Willson

**FScN 5474 FOOD MARKETING ECONOMICS.** 4 credits, §AgEc 5550, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Economics of food marketing in U.S. Covers food consumption trends; consumer food behavior; food expenditure and consumption data; consumer survey methodology; the food distribution and retailing system; food policy issues related to food marketing. Students pursue individual and group projects. (Prereq AgEc 3101 or #. Meets concur-

rently with AgEc 5550. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TTh, 4:30-6:10, McNH 33, 144, StP Campus, Asp, Senauer

**FScN 5512 MEAT TECHNOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Industrial processing of meat, fish, and poultry products, including protein functionality, thermal processing, curing, smoking, and deterioration during storage. Use of preblending and least-cost analysis in product development and formulation. (Prereq 5110. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Lect Th, 4:05-5:45, FScN 255, StP Campus, Addis and Lect Sa, 8-9 a.m., FScN 255, StP Campus, Addis. Lab Sa, 9 a.m.-12, ABLMS 135, StP Campus, Addis

**FScN 5524 SENSORY EVALUATION OF DAIRY PRODUCTS.** 1 credit, tuition\* plus \$10 course fee. Total: Resident \$96.50; Non-resident \$260.85; Resident Graduate credit \$117; Non-resident Graduate credit \$224; Resident Graduate School credit \$193.75; Non-resident Graduate School credit \$414.25.

Laboratory and commercial procedures for evaluating sensory properties and market quality of dairy products. Causes and identification of common defects in flavor, physical properties, and appearance. (Prereq 3102. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 5:30-7:30, FScN 150, StP Campus, Smith

**FScN 5622 MACRONUTRIENT METABOLISM.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Physiological function and metabolic fate of carbohydrates, lipids and proteins, and their involvement in fulfilling energy needs for maintenance, growth, and work. (Prereq 3612, Biol 5001, Phsl 3051. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, MW, 4:30-6:10, FScN 15, StP Campus, L Brady

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**FScN 5623 VITAMIN AND MINERAL METABOLISM.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Nutritional, biochemical and physiological function of essential vitamins and minerals in humans and experimental animal models. (Prereq 3612, Biol 5001, Phsl 3051. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, MW, 4:30-6:10, FScN 15, StP Campus, Gallaher

**FScN 5624 HUMAN PROTEIN AND ENERGY UTILIZATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Regulation of human protein and energy utilization, interactions, adaptations: critical evaluations of methods of determining requirements, technical and ethical problems in human experimentation and determination of recommended levels of intake. (Prereq 5622. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, MW, 4:30-6:10, FScN 15, StP Campus, Kurzer

**FScN 5643 WORLD FOOD PROBLEMS.** 3 credits, §AgEc 5790, §Agro 5200, §CAPS 5280, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A multidisciplinary approach to social, economic, and technical problems of feeding the world's growing population. Principles sought from social and economic sciences and plant, animal, and food sciences for their application to world food problems. (Prereq sr or grad student with #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AgEc 5790, LACS 5280, Agro 5200 and CAPS 5280. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 6-9, ClaOff B35, StP Campus, Breene, Busta

**FScN 5665 APPLIED CLINICAL NUTRITION I.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Nutritional assessment and support; fluid and electrolyte balance; diet drug interactions. Nutritional intervention in disorders of the gastrointestinal system and in cancer. (Prereq Biol 5001 or ¶5001; Phsl 3051 or 1002; LaMP 5177 or ¶5177. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Th, 4:30-7, ABLMS 125, StP Campus, Hanson

**FScN 5666 APPLIED CLINICAL NUTRITION II.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Continuation of 5665. Pathology, treatment, and nutritional therapy of diseases of the cardiovascular and respiratory systems and common disorders of the endocrine system, notably diabetes mellitus; nutrition intervention in obesity. (Prereq 5665; 5662 or ¶5662; or demonstrated equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 4:30-7, ABLMS 125, StP Campus, Hanson

**FScN 5667 APPLIED CLINICAL NUTRITION III.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Continuation of 5666. Pathology, treatment, and diet therapy in diseases of kidney and urinary tract. Therapeutic management of selected central nervous system disorders, inborn errors of metabolism, and allergies. Special nutritional considerations in care of pediatric patients with common pathological disorders. (Prereq 5665, 5666; or demonstrated equivalency. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Th, 4:30-7, ABLMS 125, StP Campus, Hanson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Foreign Studies SPAN (FSSP)**

(646 Social Sciences: 624-4525)

**College of Liberal Arts**

Textbooks are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000)

(See also Classical and Near Eastern Studies)

(For information about SPAN—Student Project for Amity Among Nations—see page 351.)

Theofanis Stavrou, Professor of History,

Modern Greek Studies

Soterios Stavrou, Lecturer, Modern Greek Studies

**FSSP 3001-3002-3003 LANGUAGE, CULTURE AND SOCIETY: MODERN GREEK.** 5 credits each quarter, \$MdGk 1101-1102-1103, tuition\* each quarter: Resident \$385; Non-resident \$1116.50.

A concentrated study of the fundamentals—reading, writing and conversation of Modern Greek. The emphasis is on the language as a key to understanding culture and society in Greece. The course is usually offered for SPANners going to Greece, but it is open to others. (No prereq for 3001; 3001 or equiv for 3002; 3002 or equiv for 3003. Meets concurrently with MdGk 1101-1102-1103)

Fall Qtr, 3001, Sec 1, Th, 6:20-8:50, BlegH 245, T Stavrou

Winter Qtr, 3002, Sec 2, Th, 6:20-8:50, BlegH 255, T Stavrou

Spring Qtr, 3003, Sec 3, Th, 6:20-8:50, BlegH 245, T Stavrou

**FSSP 3004-3005-3006 LANGUAGE, CULTURE AND SOCIETY: INTERMEDIATE MODERN GREEK.** 5 credits each quarter, \$MdGk 1104-1105-1106, tuition\* each quarter: Resident \$385; Non-resident \$1116.50.

A review of the fundamentals of syntax through a variety of readings from Modern Greek prose writers and poets. Provides additional grammatical elements which are reinforced through reading, conversation, and composition. Offered for SPANners returning from study in Greece or those with the equivalent of one year of Modern Greek. *There must be 10 or more students enrolled in order for a section to be held.* (Prereq 3003 or equiv for 3004; 3004 or equiv for 3005; 3005 or equiv for 3006. Meets concurrently with MdGk 1104-1105-1106)

Fall Qtr, 3004, Sec 1, M, 6:20-8:50, SocSci 1383, S Stavrou

Winter Qtr, 3005, Sec 2, M, 6:20-8:50, SocSci 101, S Stavrou

Spring Qtr, 3006, Sec 3, M, 6:20-8:50, SocSci 101, S Stavrou

**Forest Products (ForP)**

(203 Kaufert Laboratory: 624-9219)

**College of Natural Resources**

Textbooks for most ForP courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Robert W. Erickson, Professor

R. O. Gertjeansen, Professor

Patrick Huelman, Associate Professor

Robert T. Seavey, Research Associate

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Forest Products. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**ForP 5405 PAPER IN TODAY'S WORLD.** 3 credits, \$5305, tuition\* (includes \$15 course fee): Resident \$274.50; Non-resident \$767.55; Resident Graduate credit \$336; Non-resident Graduate credit \$657; Resident Graduate School credit \$566.25; Non-resident Graduate School credit \$1227.75.

Intended primarily for elementary and secondary school teachers although other interested students may enroll. Successful completion of the course will enable a teacher to prepare a teaching unit on pulp and paper for use in an elementary, junior high, or senior high school science class. The course consists of lectures, laboratories, and demonstrations on pulp and paper manufacture, properties and characteristics of paper, uses for paper, specialty papers, and recycling of paper. The Kaufert Laboratory is completely equipped with pulp and paper equipment, including a pilot plant paper machine. Course requirements include two laboratory reports and a final examination. For graduate credit, an additional report is required. **Not open to Forest Products majors.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Winter Spec Term, ★Sec 1, Fri., Jan. 27, 1995, 6-9; Sat., Jan. 28, 1995, 9 a.m.-4:30; Sun., Jan. 29, 1995, 9 a.m.-4:30; Mon., Jan. 30, 1995, 6-9; Kaufert Laboratory, room 125, StP Campus, Gertjeansen, Erickson. *No late fee through Jan. 6*

Winter Spec Term, ★Sec 2, Fri., Feb. 3, 1995, 6-9; Sat., Feb. 4, 1995, 9 a.m.-4:30; Sun., Feb. 5, 1995, 9 a.m.-4:30; Mon., Feb. 6, 1995, 6-9; Kaufert Laboratory, room 125, StP Campus, Gertjeansen, Erickson. *No late fee through Jan. 13*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ForP5410 UNDERSTANDING WOOD.** 2 credits, \$5305, tuition\* (includes \$10 course fee): Resident \$183; Non-resident \$511.70.

For the woodworking professional and the serious craftsman. This course provides in-depth instruction about the cellular structure of wood, the identification of hardwoods and softwoods, and about the interaction of water and wood. No prior technical training in wood properties is needed, although general experience with woodworking is helpful. **Not open to Forest Products majors.** (No prereq. May not be taken for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, Th, 6:30-8:30, KaufL 125, StP Campus, Seavey

**ForP 5412 UNDERSTANDING RESIDENTIAL CONSTRUCTION: THE HOUSE AS A SYSTEM.** 3 credits, \$5305, tuition\* (includes \$5 course fee): Resident \$264.50; Non-resident \$757.55; Resident Graduate credit \$326; Non-resident Graduate credit \$647; Resident Graduate School credit \$556.25; Non-resident Graduate School credit \$1217.75.

For the builder, architect, and the supplier of building materials, this course will investigate the dynamic and interrelated issues of energy, moisture control, and indoor air quality in residential buildings. The emphasis is on design, construction, and operational aspects of the house to provide an energy efficient, durable structure and a healthy living environment. Special considerations will be given to the interaction between moisture and wood products within the building system. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Winter Qtr, ★Sec 1, T, 6:30-9, KaufL 302, StP Campus, Huelman, Seavey

### Forest Resources (FR)

(110 Green Hall: 624-3400)

#### College of Natural Resources

Textbooks for most FR courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Alan R. Ek, Professor

Roger T. Johnson, Professor in Curriculum and Instruction

Carl E. Vogt, Instructor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Forest Resources. For a copy of the current daytime Class Schedule and procedures for registration through Extension,

call 624-2388 two weeks before mail registration for that quarter begins.

**FR 5403 FUNDAMENTALS OF NATURAL RESOURCE EDUCATION.** 3 credits, tuition\* (includes \$5 course fee): Resident \$264.50; Non-resident \$757.55; Resident Graduate credit \$326; Non-resident Graduate credit \$647; Resident Graduate School credit \$556.25; Non-resident Graduate School credit \$1217.75.

Intended for elementary school teachers. Focuses on an understanding of the forest community, the tools used by the forester, and an awareness of effective forest management practices. Forestry-related indoor and outdoor activities which can be translated for classroom use will be featured. Major forestry and natural resource issues are discussed. Development of outdoor teaching skills in an urban forest environment are emphasized. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Spec Term, ★Sec 1, Fri., Sept. 30, 1994,

6:30-9:30; Sat., Oct. 1, 1994, 8:30 a.m.-5;

Sun., Oct. 2, 1994, 9 a.m.-4; Tues., Nov. 22,

1994, 6:30-10. Wood Lake Nature Center,

Richfield (66th and Lakeshore Drive),

Johnson, Vogt

Spring Spec Term, ★Sec 2, Fri., Mar. 31, 1995,

6:30-9:30; Sat., Apr. 1, 1995, 8:30 a.m.-5;

Sun., Apr. 2, 1995, 9 a.m.-4; Tues., May 30,

1995, 6:30-10. Wood Lake Nature Center,

Richfield (66th and Lakeshore Drive),

Johnson, Vogt

### French (Fren)

(260 Folwell Hall: 624-4308)

French and Italian

#### College of Liberal Arts

Textbooks for most Fren courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also History; Humanities; and PSch 0982, French for Travelers)

F.R.P. Akehurst, Professor

Betsy Barnes, Associate Professor

Tom Conley, Professor

Peter Robinson, Associate Professor

Eileen Sivert, Associate Professor

Joseph Waldauer, Professor

Molly Wieland, Assistant Professor

Those CLA students who have already studied French are required to take a proficiency exam

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

before enrolling. Contact the Department of French and Italian for details on testing dates (624-4308).

*Beginning French*, Fren 1101-1102-1103 and *Intermediate French*, 1104-1105, stress pronunciation, aural comprehension, basic grammatical forms, patterns of French, and the ability to recombine them in new situations. Reading and writing skills will be developed as a complement to the acquisition of the spoken objectives. In 1106, verbal skills are developed through oral and written analysis of cultural readings and films.

Read about language laboratories on page 52.

**Language Help Sessions**—Extension Classes provides language help sessions for students enrolled in beginning (1101-1102-1103) Extension courses in French. In these sessions, tutors are available to assist students with language problems as well as with language practice. (No appointment is necessary.) Times and locations for each help session are announced by the language instructor at the beginning of each quarter.

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in French and Italian. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Fren 1101-1102-1103 BEGINNING FRENCH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

Basic listening, speaking, reading and writing skills. Stress on communicative competence. Some cultural readings. (No prereq for 1101; 1101 or 1 year high school French or # for 1102; 1102 or 2 years high school French or # for 1103. Limited to 25)

Fall Qtr, 1101, ★Sec 1, MTh, 6:20-8:25, KoltH S139

Fall Qtr, 1101, ★Sec 2, MTh, 6:20-8:25, AmundH 156

Fall Qtr, 1101, ★Sec 3, MTh, 6:20-8:25, KoltH S133

Winter Qtr, 1102, ★Sec 1, MTh, 6:20-8:25, FolH 134

Winter Qtr, 1102, ★Sec 2, MTh, 6:20-8:25, KoltH S137

Winter Qtr, 1102, ★Sec 3, MTh, 6:20-8:25, FordH 50, S136 (Limit 50)

Spring Qtr, 1103, ★Sec 1, MTh, 6:20-8:25, KoltH S136

Spring Qtr, 1103, ★Sec 2, MTh, 6:20-8:25, FordH 70, S135 (Limit 50)

**Fren 1104 INTERMEDIATE FRENCH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Discussion of literary and cultural readings. Grammar review and development of writing skills. (Prereq 1103 or #. Limited to 25)

Fall Qtr, ★Sec 1, MTh, 6:20-8:25, KoltH S132

Fall Qtr, ★Sec 2, MTh, 6:20-8:25, FolH 334

**Fren 1105 INTERMEDIATE FRENCH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Cultural and literary readings, progressively less structured discussion leading to free expression of ideas through speaking and writing. (Prereq 1104 or #. Limited to 25)

Winter Qtr, ★Sec 1, MTh, 6:20-8:25, FolH 116

Winter Qtr, ★Sec 2, MTh, 6:20-8:25, FordH 170

**Fren 1106 INTERMEDIATE FRENCH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Continued development of all four language skills. Provides an integrated presentation of contemporary French culture to increase student awareness and understanding of cultural differences. (Prereq 1105. Limited to 25)

Fall Qtr, ★Sec 1, MTh, 6:20-8:25, FordH 40

Spring Qtr, ★Sec 2, MTh, 6:20-8:25, AkerH 317

**Fren 3015 FRENCH COMPOSITION AND COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Emphasis on writing, development of communication skills, based on a consolidation of grammar. (Prereq 1106. Limited to 18)

Fall Qtr, ★Sec 1, T, 6:10-9:40, FolH 148

**Fren 3016 ADVANCED FRENCH COMPOSITION AND COMPOSITION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Builds on Fren 3015 with emphasis on aspects of expression and writing. Reading and discussion with attention to different cultural contexts. (Prereq 3015 or #. Limited to 18)

Winter Qtr, ★Sec 1, T, 6:10-9:40, FolH 426

**Fren 3017 STYLISTICS THROUGH TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Organized around various perspectives: the arts, economics, ecology, politics, sociology. (Prereq 3016 or superior achievement in 3015 or #. Limited to 18)

Spring Qtr, Sec 1, W, 6:20-9:30, FolH 334

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Fren 3020 FRENCH COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Intensive work in oral expression and listening; comprehension in French incorporating a wide variety of cultural topics. (Prereq 3015. Limited to 18) Spring Qtr, ★Sec 1, W, 6:10-9:15, FolH 326

**Fren 3513 FRENCH CIVILIZATION AND CULTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

French culture; contrasts between French and North American culture; 19th and 20th centuries since the 1789 Revolution. Taught in French. (Prereq 3015 or #)

Fall Qtr, Sec 1, W, 6:10-9:40, FolH 326

(See also CSch 0106, Art and Culture in Paris at the Turn of the Century)

**FrIt 3604 CINEMAS OF THE REAL.**

See French and Italian below.

### Reading French

**Fren 0001 READING FRENCH.** No credit, tuition\*: \$294. (IS)

This course is designed solely to impart a basic reading knowledge of the French language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals only with the reading aspect of the language, there are no sessions for oral-aural drills and composition, and great skill can be acquired in a short time. At the end of one quarter the student is given a reading examination in French. Students successfully completing the course should obtain the Language Certification form from the Graduate School and present it to the department for signature. **Must be taken S-N.** (No prereq. Limited to 25)

Fall Qtr, ★Sec 1, T, 6:20-8:50, CivMinE 214

Spring Qtr, ★Sec 2, T, 6:20-8:50, KoltH S134

Fren 0001 is also offered as a Summer Extension Class in first 5-week term.

## French and Italian (FrIt)

(260 Folwell Hall: 624-4308)

French and Italian

### College of Liberal Arts

Textbooks for most FrIt courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Tom Conley, Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in French and Italian. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**FrIt 3604 CINEMAS OF THE REAL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Film work of major vanguards: surrealism; Vigo, Renoir, Wells, Visconti, Rossellini, DeSica. Course varies in structure. Knowledge of French and Italian helpful but not necessary. (No prereq)

Winter Qtr, Sec 1, MW, 6:10-8:30, NichH 45, Conley

## General College (GC)

(140 Appleby Hall: 625-6663)

Textbooks for most GC courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

### General College Faculty

William Adamson, Associate Professor

Fred M. Amram, Professor

Thomas Brothen, Professor

Terence Collins, Professor

Robert C. delMas, Lecturer

James Dillemoth, Teaching Specialist

Victor Fung, Assistant Professor

Jill Gidmark, Professor

David Giese, Professor

Jay Hatch, Associate Professor

Dennis Hower, Professor

Murray S. Jensen, Assistant Professor

Allen Johnson, Associate Professor

Fred Johnson, Associate Professor

Peter Kahn, Assistant Professor

Laura Koch, Associate Professor

Patrick Kroll, Associate Professor

Sander Latts, Associate Professor

Shari L. Peterson, Assistant Professor

Ivan M. Policoff, Associate Professor

Douglas Robertson, Professor

Mary K. St. John, Associate Professor

William Schwabacher, Professor

Gail Thoen, Assistant Professor

Richard Uthe, Associate Professor

Kimerly J. Wilcox, Assistant Professor

Candido Zanoni, Professor

### General College Adjunct Faculty

Jeff Millikan, Lecturer

Allison Sciplin, Lecturer

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**GC Mission**

The mission of the General College is to enroll, and prepare for admission to University degree programs, students who require special preparation because of personal circumstances or previous education. Thus the General College provides a strong connection to the University community for students seeking to develop their academic potential. It also provides an environment for a diverse population of students, faculty, and staff and seeks to encourage multicultural perspectives in its activities.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in General College. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**General College Categories**

**Artistic Expression**

- 1311 Art: General Arts
- 1365 Literatures of the United States
- 1366 Women's Literature
- 1371 Literature: Reading Short Stories
- 1374 The Movies: An Introductory Course
- 1398 Special Topics: The Science of Music
- 1485 Creativity: Photography I
- 1816 African-American Literature

**Business Studies**

- 1235 United States: Law in Society
- 1275 Consumer Transactions and Law
- 1454 Statistics
- 1511 Introduction to Business
- 1513 Small Business Operations
- 1534 Practical Law
- 1540 Accounting Fundamentals I
- 1548 Introduction to Retail Merchandising
- 1551 Marketing: Introduction
- 1571 Introduction to Microcomputer Applications
- 1572 Introduction to Computer Programming
- 1575 Introduction to Computers

**Communication Skills**

- 1421 Writing Laboratory: Basic Writing
- 1422 Writing Laboratory: Communicating in Society
- 1456 Functions and Problems of Logic
- 1464 Oral Communication: Group Process and Discussion

**Family Life Studies**

- 1721 Marriage, Family, and Personal Fulfillment
- 1733 Contemporary Sex Roles

**Mathematical Studies**

- 0621 Elementary Algebra
- 0623 Plane Geometry: Programmed Study
- 0625 Intermediate Algebra, Part I
- 0631 Intermediate Algebra, Part II
- 0643 Basic Mathematics: Programmed Study
- 1454 Statistics
- 1571 Introduction to Microcomputer Applications
- 1572 Introduction to Computer Programming
- 1575 Introduction to Computers

**Natural Science**

- 1111 Science in Context: Weather and Climate
- 1112 Ecological Evaluation of Environmental Problems
- 1132 Biological Science: The Human Body
- 1133 Nature Study
- 1161 Physical Science: Solar System Astronomy
- 1162 Physical Science: Stellar Astronomy
- 1163 Physical Science: Principles of Physics
- 1166 Physical Science: Principles of Chemistry

**Psychology**

- 1281 Psychology in Modern Society
- 1283 Psychology of Human Development
- 1284 Behavior Problems of Children

**Social Issues**

- 1211 People and Problems
- 1236 The United States Crime Problem
- 1285 Cultural Anthropology

**General College Course Descriptions**

(Listed in numerical order)

**Continuing Education for Women (CEW) section available in the following course: GC 1513**

**Preparatory Mathematics Program**

Choosing the first mathematics class in college is difficult but very important. Students want to minimize the number of preparatory mathematics classes that they must take while at the same time maximizing their opportunity for success. Experience indicates that students choose an inappropriate advanced class more often than they choose a more elementary class. Be careful in your choice because your success in a mathematics class will depend, at least in part, on whether or not you have the appropriate background for the class.

It is to your advantage to take a placement test (see below) before registering for a mathematics course. Even if you have recently completed a

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

math course, you should still take a test to see what you know and understand today. Like other languages, mathematics is hierarchical: calculus assumes that you know algebra, and algebra assumes that you know arithmetic. If you have not worked with mathematics for some time, you may be surprised to find out how much you have forgotten. Also, you may be surprised to find that the level of sophistication of a "precalculus" course at the University is quite a bit higher than a "precalculus" course in high school. The names may be the same, but the level of complexity and abstraction may be quite different.

In general, students with substantial knowledge in algebra (including factoring, radicals, and complex numbers) should be able to register for GC 0631, Intermediate Algebra, Part II, while students with some background in elementary algebra (including signed numbers, polynomials, and equations) will want to try GC 0625, Intermediate Algebra, Part I. Students with good background in fractions, decimals, and percents should register for GC 0621, Elementary Algebra, while students who lack background in arithmetic should try GC 0643. GC 0643 is also the appropriate beginning course for anyone who has a fear of mathematics or needs to proceed at a pace different from that of other students. With the aid of an instructor, a student in GC 0643 is able to progress through arithmetic or introductory algebra at a pace more suited to his or her learning style.

### GC/CEE Mathematics Placement Testing

Placement tests may be taken prior to registration in GC mathematics courses and are highly recommended for those students who are uncertain about which mathematics course would be best for them to start with. The GC/CEE mathematics placement examination may be taken through the General College Mathematics Learning and Assessment Center (MLAC), 9 Appleby Hall. This service is offered free of charge.

**Testing schedule (appointments are not needed in advance to take tests):** Tests may be taken throughout the year during regular MLAC hours when GC classes are in session. Contact GC Central at (612) 625-6663 to find out the current quarter's hours for the MLAC. Prior to fall quarter, the test will be given at 6 p.m. on the following dates: *Monday, August 8; Tuesday, August 16; Tuesday, September 6; and Monday, September 12.* Placement tests also may be taken 11 a.m. to 1 p.m., Monday through Friday, September 6 to 16, 1994.

Test scores and enrollment recommendations will be provided as soon as possible—frequently on the same day as tests are taken.

After the term begins, the Mathematics Learning and Assessment Center provides tutorial assistance, and placement testing in mathematics for those unable to attend the above scheduled sessions. These services are available to students registered in any of the General College preparatory mathematics courses.

*See also math courses in The Practical Scholar noncredit section.*

### GC 0621 ELEMENTARY ALGEBRA. No credit, tuition\*: \$367.50. (IS)

For students with strong background in arithmetic. Sets, properties, signed numbers, equations, word problems, inequalities, graphing, polynomials, factoring, rational expressions and radicals. (Prereq GC math placement or GC 0611 or GC 0615. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6-8:15, ApH 11

Winter Qtr, ★Sec 2, MW, 6-8:15, ApH 11

Spring Qtr, ★Sec 3, MW, 6-8:15, ApH 11

### GC 0623 PLANE GEOMETRY. No credit, tuition\*: \$294.

Elements of plane geometry with some geometry of solids equivalent to one year of high school geometry. Logic, sets, systems of measurement, geometric figures, geometric relationships, area, volume, concurrence, constructions. Course is self-paced with no lectures. (Prereq GC math placement or elementary algebra, #. Entrance requirement for College of Liberal Arts and Institute of Technology. Meets concurrently with GC 0643. Limited to 15)

Fall Qtr, ★Sec 1, W, 5-8 (plus 1 hr arr), ApH 321, Koch

Winter Qtr, ★Sec 2, W, 5-8 (plus 1 hr arr), ApH 321, Koch

Spring Qtr, ★Sec 3, W, 5-8 (plus 1 hr arr), ApH 321, Koch

### GC 0625 INTERMEDIATE ALGEBRA, Part I. No credit, tuition\*: \$367.50 (IS)

For students with adequate background in elementary algebra. Sets, real numbers, linear equations, linear inequalities, absolute value equations and inequalities, exponents, polynomials, systems of equations, word problems, rational expressions, roots and radicals. *Sec. 1 only is computer-assisted instruction.* (Prereq GC math placement or elementary algebra with grade of C or better. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6-8:15, ApH 117, Giese

Winter Qtr, ★Sec 2, MW, 6-8:15, NichH 209

Spring Qtr, ★Sec 3, MW, 6-8:15, NichH 122

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**GC 0631 INTERMEDIATE ALGEBRA, Part II.** No credit, tuition\*: \$367.50 (IS)

*Good knowledge of linear and quadratic equations and inequalities, exponents, factoring, rational expressions, roots, radicals, and graphing assumed.*

Topics include complex numbers, quadratic equations, matrix solutions to systems of equations, general inequalities, conic sections, functions, logarithmic and exponential functions, sequences, series, and binomial theorem. *Sec. 2 and 3 only are computer-assisted instruction.* (Prereq GC math placement or GC 0625 with grade of C or better. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6-8:15, NichH 201

Winter Qtr, ★Sec 2, MW, 6-8:15, ApH 117,  
Giese

Spring Qtr, ★Sec 3, MW, 6-8:15, ApH 117,  
Giese

**GC 0643 MATHEMATICS: PROGRAMMED STUDY.** No credit, tuition\*: \$294.

With aid of instructor, topics selected from whole numbers, fractions, decimals, percents, signed numbers, formulas, graphs, ratio and proportion, sets, properties, equations, inequalities, rectangular graphs, polynomials, factoring, rational expressions, conic sections, functions, logarithms. Course is self-paced with no lectures. (Prereq #. Meets concurrently with GC 0623. Limited to 15)

Fall Qtr, ★Sec 1, W, 5-8 (plus 1 hr arr), ApH 321, Koch

Winter Qtr, ★Sec 2, W, 5-8 (plus 1 hr arr),  
ApH 321, Koch

Spring Qtr, ★Sec 3, W, 5-8 (plus 1 hr arr),  
ApH 321, Koch

**GC 1111 SCIENCE IN CONTEXT: WEATHER AND CLIMATE.** 4 credits, tuition\*: Resident \$294; Non-resident \$877.60.

Day-to-day and long-range weather patterns in terms of interactions among atmosphere, oceans, land surfaces, and earth motions. Storms, seasonal change, climatic change, fair weather, air pollution, and distribution of moisture and energy considered from theoretical as well as applied standpoints. Basic principles of science applied to analyzing and forecasting weather, interpreting climates and climatic change, and realizing the great extent to which individuals interact with the atmospheric environment. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, W, 5:30-8:30, Roseville Area  
HS 244, A Johnson

**GC 1112 ECOLOGICAL EVALUATION OF ENVIRONMENTAL PROBLEMS.** 4 credits, \$1113, tuition\*: Resident \$294; Non-resident \$852.60.

Concepts of ecology (organization of ecosystems, material cycling, energy flow and production, population dynamics, and community interactions) needed to understand proximate and ultimate causes of environmental problems such as world hunger, endangered species, deforestation, solid and hazardous wastes, global climate change, acid rain, and cultural eutrophication. Frameworks and methodologies for critically evaluating impacts and proposing interventions. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, Th, 5:30-8:30, ApH 303,  
Hatch

(See also EEB 3001, Introduction to Ecology; Interdepartmental Study; and CSch 0591, Can It Be a Fish Fry Without the Walleye? The Acid Rain Problem)

**GC 1132 BIOLOGICAL SCIENCE: THE HUMAN BODY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Problems of physical, mental, and social health are related to anatomy, physiology, and needs of the human organism. In studying the heart, for example, instructor shows what it is, how it works, its importance to overall functioning of the body, what can go wrong with it, and what is known about keeping it on the job. Films, televised dissections, and demonstrations supplement lectures. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, MW, 5-7:15, ApH 303,  
Jensen

Winter Qtr, ★Sec 2, MW, 5-7:15, ApH 303,  
Wilcox

Spring Qtr, ★Sec 3, MW, 4:30-6:45, ApH 303,  
Jensen

(See also Biology; and GC 1134, Cardiovascular Anatomy and Physiology)

**GC 1133 NATURE STUDY.** 4 credits, tuition\* (includes \$25 course fee): Resident \$319; Non-resident \$852.60.

General natural history for students with little or no prior training in biology. Common Minnesota plants and animals examined in the field from the viewpoint of the informed amateur naturalist. Natural habitat associations; field observation and identification techniques. (No prereq. Limited to 25)

Spring Qtr, ★Sec 1, W, 6-9, ApH 311, Hatch

(See also *Natural and Physical Sciences* in The Compleat Scholar noncredit section)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**GC 1161 PHYSICAL SCIENCE: SOLAR SYSTEM ASTRONOMY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Introductory survey of solar system: planets, satellites, asteroids, comets, meteorites. Celestial sphere, coordinate systems, time intervals, motion, physical attributes of various members of our solar system; space program findings. Opportunity to observe through University telescope. Four one-hour evening laboratories or independent study project arranged. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, M, 5:30-9, Phys 131, Policoff

**GC 1162 PHYSICAL SCIENCE: STELLAR ASTRONOMY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Introductory study of large-scale structure of universe. Definition and measurement of certain properties of stars: magnitude, distance, temperature, size. Spectral classification of stars, nebulae, pulsars, black holes, galaxies, quasars; theories of relativity, cosmology, cosmogony. Opportunity to observe through University telescope. Four one-hour evening laboratories or independent study project arranged. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 6-9, Phys 131, Policoff

**GC 1163 PHYSICAL SCIENCE: PRINCIPLES OF PHYSICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Basic physical principles; aspects of mechanics, electricity, magnetism, sound. Lectures, discussion, lecture experiments, demonstrations; no separate laboratory. Problem-solving geared to students' varying mathematical backgrounds; individual outside help available. (Prereq elementary algebra or 0621 or GC math level D. Limited to 35)

Spring Qtr, ★Sec 1, M, 6-9, Phys 131, Schwabacher

(See also CSch 0560, Quarks to Quasars: An Overview of 20th-Century Physics)

**GC 1166 PHYSICAL SCIENCE: PRINCIPLES OF CHEMISTRY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Fundamental principles and laws of chemistry; theory, development, application, roots in experience. Problem-solving techniques. Topics include classification of matter, elements, atomic and molecular structure, compounds and chemical bonding, chemical reactions and stoichiometry, gas laws. No separate laboratory. (No prereq. Limited to 50)

Fall Qtr, ★Sec 1, TTh, 6-9, SciCB 125, Uthe

**GC 1211 PEOPLE AND PROBLEMS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Interdisciplinary, cross-cultural study of major political and economic problems of human society. Problems such as unemployment, inflation, energy, pollution, war, and distribution of power examined from social sciences perspective. (No prereq. Limited to 24)

Fall Qtr, ★Sec 1, T, 6-9, ApH 127, Thoen

**GC 1235 UNITED STATES: LAW IN SOCIETY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

The role of law in our changing society; legal aspects of current topics. Topics include: court and court systems, corrections, police-community relations, environmental problems, domestic problems, wills and probate, and insurance. When possible on individual or group basis, students visit conciliation, municipal, or district courts, prisons, workhouses, jails, juvenile detention centers, or similar institutions. (No prereq. Limited to 24)

Fall Qtr, ★Sec 1, M, 5-8, ApH 127, Hower

**GC 1236 THE UNITED STATES CRIME PROBLEM.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

A study of the complex nature and causes of crime in the United States. Case examples of violent crime, individual white-collar crime, corporate crime and organized crimes are examined utilizing concepts drawn from several academic disciplines. Current and proposed public policies designed to reform the criminal justice system and alleviate the crime problem also are evaluated. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, M, 5-8, ApH 103, F Johnson

**GC 1275 CONSUMER TRANSACTIONS AND LAW.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Students investigate the relationship between the consumer marketplace and the law. Focus is on preventive law for the consumer seller-buyer at the pre-agreement, agreement, and post-agreement stages of consumer transactions. Legal self-sufficiency as a cost-saving, effective consumer technique is stressed in an applied skills perspective. Topics covered include a general introduction to consumer law; deceptive practices and legal regulation of marketing techniques; extending credit; usury regulation; product warranty issues; security agreement regulation; debtor default and creditor collection remedies; buyer/seller remedies for contractual non-performance; product liability for defective goods; and debt counseling and bankruptcy concerns. (No prereq. Limited to 24)

Winter Qtr, ★Sec 1, T, 6-9, ApH 223, Kahn

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**GC 1281 PSYCHOLOGY IN MODERN SOCIETY.** 5 credits, tuition\* (includes \$10 course fee): Resident \$377.50; Non-resident \$1075.75.

Introduction to science of human behavior. Topics include analysis of research methods used in observing and drawing conclusions about behavior, development of behavior, human biological and social motives, place of emotion and conflict in human adjustment, how the individual perceives the environment and learns from it, and psychology of behavior in groups. Course fee covers classroom computer use. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, M, 6-8:50 (plus 1.5 hr arr),

ApH 128, Brothen

Spring Qtr, ★Sec 2, M, 6-8:50 (plus 1.5 hr arr),

ApH 128, Brothen

**GC 1283 PSYCHOLOGY OF HUMAN DEVELOPMENT.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Focuses on growth and development of individual from conception through old age. Physical, motor, social, emotional, and psychological growth, and cognitive development. Integrated view of facets of development in order to understand human being as a complex organism functioning in a complex environment. The family as the main environmental factor in early development of individual. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, Th, 5:30-9, ApH 103, Latts

Winter Qtr, ★Sec 2, T, 5:30-9, ApH 103, Latts

Winter Qtr, ★Sec 3, Th, 5:30-9, ApH 103,

Latts

**GC 1284 BEHAVIOR PROBLEMS OF CHILDREN.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Identification of maladaptive behavior/coping with children demonstrating such behavior. Dynamics of behavior seen at home, in schools, and in social relationships. Examines effects of heredity, family experience, peer pressure, and socioeconomic class on development of behavior problems in children. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, Th, 6-9, ApH 303, Latts

**GC 1285 CULTURAL ANTHROPOLOGY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Human culture viewed as integrated system of learned and shared knowledge that guides behavior of all members of given society. Attempt to develop generalizations about influence of culture on human behavior by analyzing and comparing ways of life in wide range of cultures. Power of culture to shape personality and power of individuals to alter cultures. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, M, 5-8, ApH 103, F Johnson  
Spring Qtr, ★Sec 2, T, 5-8, ApH 103, F  
Johnson

(See also Anthropology)

**GC 1311 ART: GENERAL ARTS.** 4 credits, \$3311, tuition\*: Resident \$294; Non-resident \$852.60.

Examines representative works of art from genres of painting, sculpture, architecture, literature, and music to discover how and why art is created and to enable students to formulate and evaluate ideas and attitudes about it. (No prereq. Limited to 35)

Spring Qtr, ★Sec 1, Th, 5-8:30, ApH 302,

Adamson

(See also *The Arts* in The Compleat Scholar noncredit section)

**GC 1365 LITERATURES OF THE UNITED STATES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Ideals, values, and aspirations recorded by writers in the United States. Development of the democratic idea, emerging social problems, and great variety of people who participated in shaping the United States and issues that concerned them. Covers fiction, poetry, drama, essay, and biography. (No prereq. Limited to 35)

Winter Qtr, ★Sec 1, M, 5:30-8:30, ApH 302,

Gidmark

**GC 1366 LITERATURE: IMAGES OF WOMEN IN LITERATURE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Images of women (such as submissive wife, sex object, woman alone, and liberated woman) as presented in short fiction, drama, and poetry, and occasionally in advertising, movies, and television. Problems and concerns of women as writers, as expressed in diaries and essays of such writers as Virginia Woolf and Tillie Olson. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 5:30-8:30, ApH 302,

Gidmark

(See also CSch 0403, Women in Literature: The Portrayal of Women in Literature)

**GC 1371 LITERATURE: READING SHORT STORIES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Representative short stories by American, British, and continental writers. How individual writers have used the form of the short story to express their ideas about human experience. (No prereq. Limited to 35)

Spring Qtr, ★Sec 1, M, 5:30-8:30, ApH 302,

Gidmark

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**GC 1374 THE MOVIES: AN INTRODUCTORY COURSE.** 4 credits, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Films as art forms and as communication media. Students view films in class, may read film scripts, and may attend film showings locally to learn how to analyze films and to recognize their unique characteristics. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, T, 5-8:30, ApH 302,

Adamson

Winter Qtr, ★Sec 2, W, 5-8:30, ApH 302,

Adamson

(See also CSch 0148, Anatomy of a Film: The Western—New Trails Across an Old Frontier)

**GC 1398 SPECIAL TOPICS: THE SCIENCE OF MUSIC.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Examines music as a science. Physical properties of music, basic acoustical principles, basic concepts of music perception, and ways of manipulating musical sound. Helps students broaden the view of music being an art as well as a science. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, W, 5-8, ApH 302, Fung

### Writing Laboratories

*GC 1421 and GC 1422 (with a grade of C+ or better in GC 1422) will satisfy the College of Liberal Arts lower division Writing Practice requirement for General College students. For additional information, call CEE Counseling, 625-2500. Students in other colleges at the University should seek further information in the Composition section of this bulletin.*

**GC 1421 WRITING LABORATORY: BASIC WRITING.** 4 credits, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60. Students write on various topics in response to reading and discussion. Personal help with individual writing problems. Emphasis is on clear and effective written expression through extensive writing and revision. Microcomputer instruction; uses IBM PC. (No prereq. Limited to 18)

Fall Qtr, ★Sec 1, M, 5-8, ApH 204, Collins

Winter Qtr, ★Sec 2, T, 5-8, ApH 204

Spring Qtr, ★Sec 3, T, 5-8, ApH 204

**GC 1422 WRITING LABORATORY: COMMUNICATING IN SOCIETY.** 4 credits, \$1423, tuition\*: Resident \$294; Non-resident \$852.60. Primarily through writing, but also through reading and discussion, student analyzes how people com-

municate in society: how they perceive events, how they think about them, and how they write and talk about them. Extensive writing practice. Microcomputer instruction; uses IBM PC. (Prereq 1421 or #. Limited to 18)

Winter Qtr, ★Sec 1, M, 5-8, ApH 204, Collins

Spring Qtr, ★Sec 2, M, 5-8, ApH 204, Collins

**GC 1454 STATISTICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Introduction to modern statistics, emphasizing problem solving and hands-on experience with real data. Topics include data exploration, summary statistics, sampling, probability, distributions, estimation, and hypothesis testing. (Prereq GC math level D or elementary algebra. Limited to 35)

Fall Qtr, ★Sec 1, TTh, 5-7:15, ApH 117, Giese

Winter Qtr, ★Sec 2, TTh, 5-7:15, ApH 117,

delMas

Spring Qtr, ★Sec 3, TTh, 5-7:15, ApH 117,

delMas

**GC 1456 FUNCTIONS AND PROBLEMS OF LOGIC.** 4 credits, \$1442, tuition\*: Resident \$294; Non-resident \$852.60.

Introduction to logical thinking. Students apply critical analysis and techniques of precise reasoning to various types of discourse and argument, and develop habits of systematic thinking by learning about complexities of language, differences between good and bad evidence, and methods of deductive and inductive reasoning. (No prereq. Limited to 24)

Fall Qtr, ★Sec 1, M, 5:30-8:30, ApH 223,

Zanoni

Winter Qtr, ★Sec 2, M, 5:30-8:30, ApH 102,

Zanoni

Spring Qtr, ★Sec 3, M, 5:30-8:30, ApH 103,

Zanoni

**GC 1464 ORAL COMMUNICATION: GROUP PROCESS AND DISCUSSION.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Nature of groups, how they form and function, what purpose they serve in our society, and how leadership and other role behaviors emerge. Diverse group projects and activities. Skills and theory especially adapted for the professional setting. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, M, 4:30-7:30, ApH 102,

Amram

Winter Qtr, ★Sec 2, W, 4:30-7:30, ApH 102

Winter Qtr, ★Sec 3, Th, 4:30-7:30, ApH 102,

Amram

Spring Qtr, ★Sec 4, M, 4:30-7:30, ApH 102,

Amram

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**GC 1485 CREATIVITY: PHOTOGRAPHY I.** 4 credits, tuition\* (includes \$30 special fee): Resident \$324; Non-resident \$882.60.

Instruction in use of cameras, basic optics, film and paper emulsions, and similar topics. Work with basic darkroom techniques, film developing, and paper printing. Books available at the bookstore in Williamson Hall (625-6000). Students must have a camera; a 35mm camera is preferred, although not required. (No prereq. Limited to 24).

Fall Qtr, ★Sec 1, W, 6-9:45, MacP 31, Millikan

Winter Qtr, ★Sec 2, W, 6-9:45, MacP 31, Millikan

Spring Qtr, ★Sec 3, W, 6-9:45, MacP 31, Millikan

(See also The Compleat Scholar photography courses, page 395-398)

**GC 1511 INTRODUCTION TO BUSINESS AND SOCIETY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Overview of business in economic and social life of U.S. Topics include economics, marketing, management, finance, law, international business. Recurring themes of ethics, environmentalism, consumerism, cultural diversity. Students develop awareness of their role as consumer, worker, citizen. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, T, 5-8, ApH 226, St. John

Winter Qtr, ★Sec 2, T, 5-8, ApH 226, St. John

Spring Qtr, ★Sec 3, M, 5:30-8:30, ApH 226, Peterson

**GC 1513 SMALL BUSINESS OPERATIONS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Students evaluate opportunities to start a small business or to purchase an existing one. Topics include financing the business; marketing products; administering key resources; organizing, controlling, and writing the business plan. Designed for people who plan to own or operate a small business in a marketing-related area. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, Th, 6-9, ApH 303, Kroll

Winter Qtr, ★Sec 2, T, 6-9, ApH 303, Kroll

Spring Qtr, ★Sec 3, T, 5-8, ApH 226, St. John

Spring Qtr, ★Sec 4, Th, 1:30-4:30, MacP,

Kroll. Offered through Continuing Education for Women

**GC 1534 PRACTICAL LAW.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS) Practical topics in field of law. Topics include: definition and sources of law, formation and discharge of contracts, torts (personal injury and property damage suits), criminal law, bailments, nature and classification of real and personal property, and joint ownership and tenancy. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, T, 6-9, ApH 303, Kahn

Spring Qtr, ★Sec 2, T, 6-9, ApH 303, Kahn

(See also Business Law; and Soc 3102, Introduction to Criminal Behavior and Social Control)

**GC 1540 ACCOUNTING FUNDAMENTALS I.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Designed for those who plan continued study in accounting as well as for those interested in other business fields. Balance sheet and income statement methodology, the accounting cycle for both service and merchandising businesses, and an examination of special journals, inventories, receivables, and accounting for plant and equipment. Both lecture and class discussion; regular homework assignments. Midterm and final examinations. (No prereq. Limited to 25)

Spring Qtr, ★Sec 1, Th, 6-9, ApH 223, Kroll

**GC 1548 INTRODUCTION TO RETAIL MERCHANDISING.** 4 credits, §DHA 1211, DHA 1641, §GC 1511, TexC 1211, tuition\*: Resident \$294; Non-resident \$852.60.

Orientation to types of retailers; identification of and research on the retail consumer; retail functions including management and merchandise control. (No prereq. Meets concurrently with DHA 1211. Limited to a combined total of 35)

Winter Qtr, ★Sec 1, M, 5:30-9, ApH 226, Peterson

**GC 1551 MARKETING: INTRODUCTION.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Product pricing, distribution, and promotional principles; target market and segmentation analysis; current marketing strategies and trends. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 5:30-8:30, ApH 226, Peterson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**GC 1571 INTRODUCTION TO MICROCOMPUTER APPLICATIONS.** 5 credits, tuition\* (includes \$10 course fee): Resident \$377.50; Non-resident \$1075.75. (IS)

Self-paced course covering operating system (DOS), word processing (WordPerfect), spreadsheet (Lotus clone), and data base (dBASE III) applications. Emphasis on using microcomputers in practical ways. Course work may be done on classroom microcomputers or on student's own IBM-compatible microcomputer. (Prereq 0621 or elementary algebra. Meets concurrently with GC 1572. Limited to 18)

Fall Qtr, ★Sec 1, T, 5-9:10, ApH 319,  
Robertson

Winter Qtr, ★Sec 2, T, 5-9:10, ApH 319,  
Robertson

Spring Qtr, ★Sec 3, T, 5-9:10, ApH 319,  
Robertson

**GC 1572 INTRODUCTION TO COMPUTER PROGRAMMING.** 5 credits, \$3571, tuition\* (includes \$10 course fee): Resident \$377.50; Non-resident \$1075.75. (IS)

Self-paced course where students design, write, code, and run BASIC programs. Emphasis on writing structured programs for social sciences. Provides excellent background for further programming courses. Course work may be done on classroom microcomputers or student's own IBM-compatible microcomputer. (Prereq GC 1571 or IBM microcomputer experience. Meets concurrently with GC 1571. Limited to 7)

Fall Qtr, ★Sec 1, T, 5-9:10, ApH 319,  
Robertson

Winter Qtr, ★Sec 2, T, 5-9:10, ApH 319,  
Robertson

Spring Qtr, ★Sec 3, T, 5-9:10, ApH 319,  
Robertson

**GC 1575 (formerly 1535) INTRODUCTION TO COMPUTERS.** 4 credits, \$1535, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.60.

Emphasis is placed on developing computer literacy. Topics include historical development, hardware (input/output, memory, central processor), operating systems, data base management, system development, economic and social impact, and applications in various disciplines. (Prereq 0621 or elementary algebra. Limited to 35)

Spring Qtr, ★Sec 1, Th, 6-9, ApH 219

**GC 1721 MARRIAGE, FAMILY, AND PERSONAL FULFILLMENT.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Psychological, social, and biological aspects of marriage and family living. Helping students gain understanding of, and self-awareness concerning, such areas as dating, mate selection, getting married, having children, and sexuality. Adjustments outside of traditional marital and family relationships. (No prereq. Limited to 24)

Winter Qtr, ★Sec 1, T, 6-9, ApH 127, Thoen

(See also PSch 0815, Identity and Intimacy in Close Relationships)

**GC 1733 CONTEMPORARY SEX ROLES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Social roles and related expectations, informal and formal roles, role modification, and role reversal. Overcoming sexual stereotyping. Focus on analyzing the openness and rigidity of sex roles in childhood socialization; education; mate selection; marital, parental, and homemaking roles; occupations; and social trends. (No prereq. Limited to 24)

Spring Qtr, ★Sec 1, Th, 6-9, ApH 127, Thoen

**GC 1816 AFRICAN-AMERICAN LITERATURE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Students read and evaluate poetry, drama, folklore, short stories, and an African-American novel; through literature, students assess artists' own perceptions and interpretations of outlook, feelings, and psychological makeup of blacks in America. (No prereq. Limited to 24)

Fall Qtr, ★Sec 1, W, 5:30-8:30, ApH 127,  
Sclipin

Winter Qtr, ★Sec 2, M, 5:30-8:30, ApH 127,  
Sclipin

(See also CSch 0421, Zora Neale Hurston)

## Genetics and Cell Biology (GCB)

(250 Biological Science: 624-3003)

### College of Biological Sciences

Textbooks for GCB courses on the Minneapolis campus are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000); at University of Minnesota Bookstore—St. Paul (624-9200) for classes on that campus.

Robert Brooker, Associate Professor  
Robert McKinnell, Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Genetics and Cell Biology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**GCB 3002 HUMAN GENETICS, SOCIAL AFFAIRS.** 3 credits, §3022, §Biol 1101, §Biol 5003; 4 credits with term paper, tuition\* each credit: Resident \$86.50; Non-resident \$250.85.

For students in programs not directly related to biological sciences. Heredity and basic genetic mechanisms with an emphasis on humans. Relationship between human genetics and disease, family planning, gender, behavior, and race. Ethical/societal issues concerning human genetics and modern genetic technologies. (No prereq)

Winter Qtr, Sec 1, W, 6:20-8:50, FordH 115, Brooker

**GCB 3008 THE BIOLOGY OF CANCER.** 3 credits, §Nurs 5881, tuition\*: Resident \$259.50; Non-resident \$752.55.

Biological aspects of etiology, phylogeny, and cellular processes involved in neoplasia. Growth and differentiation of normal and cancer cells. The history of cancer research. (Prereq Biol 1009 or 1202. Meets concurrently with Nurs 5881)

Spring Qtr, Sec 1, W, 6:30-9, BioSci 12, StP

Campus, McKinnell

**GCB 3022 GENETICS.** 4 credits, §Biol 5003, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Not intended for biology majors. Mechanisms of heredity, their implications for biological populations and applications to practical problems. (Prereq Biol 1009 or 1202. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TT, 5:30-7:10, ClaOff B45, StP Campus

(See also Biology and Biochemistry)

## Geo-Engineering (GeoE)

(See Civil Engineering)

## Geography (Geog)

(414 Social Sciences: 625-6080)

College of Liberal Arts

Textbooks for most Geog courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College)

John S. Adams, Professor  
 Ward J. Barrett, Professor  
 John R. Borchert, Regents' Professor Emeritus  
 Dwight A. Brown, Professor  
 Philip J. Gersmehl, Professor  
 John Fraser Hart, Professor  
 Mei-Ling Hsu, Professor  
 Katherine M. Klink, Assistant Professor  
 Helga Leitner, Associate Professor  
 Fred E. Lukermann, Professor Emeritus  
 Judith A. Martin, Associate Professor  
 Robert B. McMaster, Associate Professor  
 Roger P. Miller, Associate Professor  
 Philip W. Porter, Professor  
 John G. Rice, Professor  
 Abdi I. Samatar, Associate Professor  
 Joseph E. Schwartzberg, Professor  
 Earl P. Scott, Professor  
 Eric S. Sheppard, Professor  
 Richard H. Skaggs, Professor  
 Roderick H. Squires, Associate Professor  
 Connie H. Weil, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Geography. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**For information on completing a major in Geography, contact either CEE Counseling (625-2500) or the Geography Undergraduate Advising Office (625-0133).**

**Geog 1973 GEOGRAPHY OF THE TWIN CITIES.** 4 credits, §3973, tuition\*: Resident \$294; Non-resident \$852.60.

Social and physical characteristics of the Twin Cities. Their place in the urban network of the United States. (No prereq. Meets concurrently with 3973. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 6:20-9, AndH 210, Adams

(See also walking tours of Twin Cities in The Compleat Scholar, page xxx)

**Geog 3121 LATIN AMERICA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Physical and human geography of Latin America. (No prereq. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 6:20-8:50, AndH 230

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Geog 3181 RUSSIA AND ENVIRONS.** 4 credits, §5181, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Physical and human geography of republics of the former USSR. Imprint of central planning and state socialism on regional economies, city systems, and internal structures of cities. Economic and cultural linkages among regions and republics. Conflicts rooted in religion, ethnicity, and tradition. Contacts with neighboring states and regions. Physical environmental problems. (No prereq. Meets concurrently with 5181. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 6-8, BlegH 415,  
Adams

**Geog 3331 ECONOMIC GEOGRAPHY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

World patterns of economic activity; levels of development; appraisal of resources, production, circulation, and consumption; principles, models, and planning of economic behavior. (No prereq. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Th, 6:20-8:50, AndH 330

**Geog 3371 INTRODUCTION TO URBAN GEOGRAPHY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Character, distribution, and development of cities in present-day world. Internal and external locational relationships. (No prereq. A joint Day/Extension class)

Spring Qtr, ●Sec 1, W, 6:20-8:50, BlegH 415

**Geog 3973 GEOGRAPHY OF THE TWIN CITIES.** 4 credits, §1973, tuition\*: Resident \$308; Non-resident \$893.20.

See 1973 for description. (No prereq. Meets concurrently with 1973. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 6:20-9, AndH 210,  
Adams

**Geog 5181 RUSSIA AND ENVIRONS.** 4 credits, §3181, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See Geog 3181 for course description. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3181. A joint Day/Extension class)

Spring Qtr, ●Sec 1, TTh, 6-8, BlegH 415,  
Adams

**Geog 5562 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Basic concepts of geographic information systems structure. Theory and application for geographic research, location and resource analysis, and regional planning. Location principles, data structure, variable attributes. (Prereq jr or sr geography major or grad or landscape architecture major or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, Lect M, 6:30-9, AndH 230; Rec T, 2:30-4:30, BlegH 455

Winter Qtr, ★●Sec 2, Lect M, 6:30-9, AndH 230; Rec W, 11:15 a.m.-1:15, BlegH 455

Winter Qtr, ★●Sec 3, Lect M, 6:30-9, AndH 230; Rec Th, 2:30-4:30, BlegH 455

Winter Qtr, ★●Sec 4, Lect M, 6:30-9, AndH 230; Rec Th, 6:30-8:30, BlegH 455

**Geog 8800 SEMINAR: DEVELOPMENT OF GEOGRAPHIC THOUGHT.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

(Prereq #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Spring Qtr, ●Sec 1, W, 7-9, BlegH 430,  
Lukermann

## Geology and Geophysics (Geo)

(106 Pillsbury Hall: 624-1333)

### Institute of Technology

Textbooks for most Geo courses are available at the University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also *Natural and Physical Sciences* in The Compleat Scholar noncredit section)

Hans-Olaf Pfannkuch, Professor  
Joseph Shapiro, Professor  
Robert E. Sloan, Professor  
James H. Stout, Professor  
Christian Teyssier, Associate Professor  
Paul W. Weiblen, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Geology. For a copy of the current daytime Class Schedule and

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Geo 1001 INTRODUCTION TO GEOLOGY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

A nonmathematical introduction to the Earth, its internal structure, processes that shape its surface, theory of plate tectonics, action of streams, waves, wind and groundwater, limnology, fossil fuels and mineral deposits, environmental geology, planetary geology, and the geology of Minnesota. **See Geo 1021 for laboratory.** (No prereq. Meets concurrently with 5051 lecture)

Fall Qtr, Sec 1, T, 6:30-9, SmithH 100, Weiblen

Spring Qtr, Sec 2, T, 6:30-9, SmithH 100, Teyssier

**Geo 1002 HISTORICAL GEOLOGY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Evolution of the Earth from its origin to the present, with special attention to the succession of physical and biological events of the past 600 million years. (No prereq. Meets concurrently with 5052. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Lect T, 6:30-9, PillsH 110, Sloan; Lab W, 5:30-7:30, FordH 85

Spring Qtr, ★Sec 2, Lect T, 6:30-9, PillsH 110, Sloan; Lab W, 7:30-9:30, FordH 85

Spring Qtr, ★Sec 3, Lect T, 6:30-9, PillsH 110, Sloan; Lab Th, 5:30-7:30, FordH 85

Spring Qtr, ★Sec 4, Lect T, 6:30-9, PillsH 110, Sloan; Lab Th, 7:30-9:30, FordH 85

(See also CSch 0551, Minnesota Geology: 3.6 Billion Years and Counting; GC 1112, Science in Context: Human Uses of the Environment; and BGS 3003, Business and the Natural Environment)

**Geo 1011 VOLCANOES OF THE EARTH.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

A nonmathematical introduction to volcanoes, their origin and distribution on Earth and through geologic time; theory of plate tectonics, origin of lava and the Earth's interior; the products of volcanoes, types of eruptions and hazards, and impact on climate, vegetation and society. (No prereq)

Fall Qtr, Sec 1, T, 6:30-9, PillsH 110, Stout

**Geo 1021 PHYSICAL GEOLOGY LAB: GEOLOGY OF MINNESOTA.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Ten laboratory exercises based on the geology of Minnesota. Labs will introduce bedrock, glacial history, topography, mineral resources, and environmental geology of the state through the use of appropriate minerals, rocks, topographic and geologic maps. **See Geo 1001 for lecture.** *Textbooks available only at Beckwith Copy Center, telephone 378-1433.* (Prereq 1001 or concurrent enrollment. Meets concurrently with 5051 lab. Limited to 25)

Fall Qtr, ★Sec 1, Th, 5-7, FordH 185

Fall Qtr, ★Sec 2, Th, 5-7, FordH 180

Fall Qtr, ★Sec 3, Th, 7-9, FordH 185

Fall Qtr, ★Sec 4, Th, 7-9, FordH 180

Spring Qtr, ★Sec 5, Th, 5-7, FordH 185

Spring Qtr, ★Sec 6, Th, 5-7, FordH 180

Spring Qtr, ★Sec 7, Th, 7-9, FordH 185

Spring Qtr, ★Sec 8, Th, 7-9, FordH 180

**Geo 3602 ALL ABOUT LAKES: THEIR ORIGINS, BEHAVIOR, AND MANAGEMENT.** 4 credits, \$5602, tuition\*: Resident \$346; Non-resident \$1003.40.

The origin of lakes, their responses to solar radiation and wind, the unique flora and fauna which exist in lakes, and the effects of these organisms on the chemistry of the lake waters and vice versa. The effects of human impact on lakes are described, and current methods of lake restoration and management are discussed. (No prereq. Meets concurrently with 5602)

Fall Qtr, Sec 1, M, 4:30-6:30, PillsH 110, Shapiro

**Geo 5051 PHYSICAL GEOLOGY FOR TEACHERS.** 4 credits, \$1001, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

An introduction to the scientific methods and the nature of the Earth. Survey of the main features of the physical world and the processes that have evoked them. (Prereq 1 term college chemistry or physics; only for students holding degrees in education. Qualified students may register for graduate credit at the University of Minnesota. Lecture meets concurrently with 1001; lab meets concurrently with 1021)

Fall Qtr, Sec 1, Lect T, 6:30-9, SmithH 100; Lab Th, 7-9, FordH 185

Spring Qtr, Sec 2, Lect T, 6:30-9, SmithH 100; Lab Th, 7-9, FordH 185

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Geo 5052 HISTORICAL GEOLOGY FOR TEACHERS.** 4 credits, \$1002, tuition\* (includes \$1.50 course fee): Resident \$ Resident \$347.50; Non-resident \$1004.90; Resident Graduate credit \$429.50; Non-resident Graduate credit \$857.50; Resident Graduate School credit \$736.50; Non-resident Graduate School credit \$1618.50.

An introduction to the origin of the Earth, the physical evolution of its crust through geological time and the biological changes that occurred during its history. (Prereq 1001 or 5051 or #; only for students holding degrees in education. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 1002. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Lect T, 6:30-9, PillsH 110, Sloan; Lab W, 5:30-7:30, FordH 85

Spring Qtr, ★Sec 2, Lect T, 6:30-9, PillsH 110, Sloan; Lab W, 7:30-9:30, FordH 85

Spring Qtr, ★Sec 3, Lect T, 6:30-9, PillsH 110, Sloan; Lab Th, 5:30-7:30, FordH 85

Spring Qtr, ★Sec 4, Lect T, 6:30-9, PillsH 110, Sloan; Lab Th, 7:30-9:30, FordH 85

**Geo 5108 ADVANCED ENVIRONMENTAL GEOLOGY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Human impact on the geological environment and the effect of geology/geologic processes on human life from the point of view of ecosystems and biogeochemical cycles. Geologic limits to resources and carrying capacity of the Earth. Land use planning, environmental impact assessment, ecogeologic world models. Term paper projects. (Prereq geology core curriculum through 5201 for majors or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, M, 6:30-9, PillsH 110, Pfannkuch

**Geo 5602 ALL ABOUT LAKES FOR TEACHERS: THEIR ORIGINS, BEHAVIOR, AND MANAGEMENT.** 4 credits, \$3602, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The origin of lakes, their responses to solar radiation and wind, the unique flora and fauna which exist in lakes, and the effects of these organisms on

the chemistry of the lake waters and vice versa. The effects of human impact on lakes are described, and current methods of lake restoration and management are discussed. *Students taking course for graduate credit will be required to write term paper.* (No prereq; only for students holding degrees in education. Meets concurrently with 3602. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, M, 4:30-6:30, PillsH 110, Shapiro

**Geo 5980 SEMINAR: CURRENT TOPICS IN GEOLOGY AND GEOPHYSICS.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Meets concurrently with a multidisciplinary course, ID 5615-5616-5617 (Ways of Knowing: Six Disciplines Examined), page 251. Faculty from six different disciplines meet together with students weekly for a full academic year to discover how various academic disciplines ask questions, gather information, and validate theories. Disciplines examined include, genetics, philosophy, and earth sciences, among others. Students must enroll each quarter for four credits of the ID 5615-5616-5617 or four credits of corresponding special topics courses; students must enroll all three quarters to receive credit. Limited to a combined total of 18 students. *For information about registration and graduate credit, call (612) 625-3898.*

## German (Ger)

(205 Folwell Hall: 625-2080)

### College of Liberal Arts

Textbooks for most Ger courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Dutch; History; Humanities; CSch 0112, German Impressionism: A Funny Thing Happened on the Way Back From Paris; PSch 0983, German for Travelers; and REX 0904, The German Language in Minnesota)

Evelyn Firchow, Professor  
Anatoly Liberman, Professor  
Hanna Schissler, Associate Professor  
Jochen Schulte-Sasse, Professor  
Wolfgang Taraba, Professor  
Ray Wakefield, Associate Professor

**Read about language laboratories on page 52.**

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Language Help Sessions**—Extension Classes provides language help sessions for students enrolled in beginning (1101-1102-1103) Extension courses in German. In these sessions, tutors are available to assist students with language problems as well as with language practice. (No appointment is necessary.) Times and locations for each help session are announced by the language instructor at the beginning of each quarter.

**Beginning German**—Beginning students of German have two course sequences available. Ger 1101-1102-1103 is a sequence with conventional classroom sessions and teacher-student interaction. German 1110 is an individually paced course which has neither obligatory attendance nor conventional classroom sessions. In Ger 1110, students work independently; teacher-student interaction is at the discretion of the student and usually involves tutorial consultation and testing. Ger 1110 is not recommended for students who have not had language-learning experience in a classroom course.

College of Liberal Arts students who have studied German outside the University of Minnesota are required to take a proficiency exam before enrolling in courses above 1103. All students are strongly urged to take a placement test. Contact the Department of German at 625-2080 for more information.

**A minor in German can be completed in the evening.**

**Required Preparatory Courses:** 1106 or the Graduation Proficiency Text.

**Minor Requirements:** 3011, 3012, 3104, 3105; 8 cr of 3xxx-5xxx elective German courses.

**All courses must be taken A-F.** Courses taught in translation, except 3604 and 5xxx-level film classes, do not count toward the minor. The minor program must be approved by the Director of Undergraduate Studies.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in German. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Ger 1000 INDIVIDUALIZED GERMAN FOR NON-DEGREE CREDIT.** *This course has been merged with Ger 1110. Former students of Ger 1000 may continue in Ger 1110.*

**Ger 1101-1102-1103 BEGINNING GERMAN.** 5 credits each quarter, \$1110, tuition each quarter\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Classroom instruction with emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (speaking and writing). (No prereq for 1101; 1101 or equivalent cr of 1110 or 1 year high school German for 1102; 1102 or equivalent cr of 1110 or 2 years high school German for 1103. Limited to 25)

Fall Qtr, 1101, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, FolH 208

Fall Qtr, 1101, ★Sec 2, M, 6:20-8:50; Th, 6:20-8, KoltH S136

Fall Qtr, 1101, ★Sec 3, M, 6:20-8:50; Th, 6:20-8, KoltH S134

Winter Qtr, 1102, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, KoltH S132

Winter Qtr, 1102, ★Sec 2, M, 6:20-8:50; Th, 6:20-8, KoltH S133

Spring Qtr, 1103, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, JonesH 4-11

Spring Qtr, 1103, ★Sec 2, MTh, 6:20-8:50, FolH 116

**Ger 1104-1105-1106 INTERMEDIATE GERMAN.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Classroom instruction with emphasis on proficiency according to the national ACTFL system. Listening, reading, speaking, writing at the Intermediate and Advanced levels on ACTFL scale. (Prereq 1103 or completion of 1110 or the Entrance Proficiency Test for 1104; 1104 for 1105; 1105 for 1106. Limited to 25)

Fall Qtr, 1104, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, FolH 246, Taraba

Winter Qtr, 1105, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, FolH 246, Taraba

Spring Qtr, 1106, ★Sec 1, M, 6:20-8:50; Th, 6:20-8, FolH 246, Taraba

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Ger 1110 INDIVIDUALIZED BEGINNING GERMAN.** 1-3 credits (15 credits maximum), §1101-1102-1103, tuition each credit\*: Resident \$73.50; Non-resident \$213.15.

Structure, writing, and comprehension (listening and reading). Students work at own pace with books, computer, audio- and videotapes, earning credit through testing as they progress through material. Teachers available for consultation and testing. Two weeks after the end of the quarter, students who have completed more credits than they registered for should come in to the 101 Wesbrook Hall Registration Office to pay for the additional credits. **No refunds will be given for uncompleted credits.** The continuation course is 1104. (No prereq. Limited to 75)

Fall Qtr, ★Sec 1, W, 6-8:30, first meeting in WaLib 15, subsequent meetings in FolH 147, Wakefield

Winter Qtr, ★Sec 2, W, 6-8:30, first meeting in WaLib 15, subsequent meetings in FolH 147, Wakefield

Spring Qtr, ★Sec 3, W, 6-8:30, first meeting in WaLib 15, subsequent meetings in FolH 147, Wakefield

**Ger 3011-3012-3013 CONVERSATION AND COMPOSITION.** 4 credits each quarter, tuition\*: Resident \$308; Non-resident \$893.20.

Spoken German; composition; development of vocabulary; grammar review. (Prereq 1106 and the Graduation Proficiency Test for 3011; 3011 for 3012; 3012 for 3013. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, 3011, ★●Sec 1, TTh, 5:15-7, FolH 240

Winter Qtr, 3012, ★●Sec 2, TTh, 5:15-7, FolH 240

Spring Qtr, 3013, ★●Sec 3, TTh, 5:15-7, FolH 104

**Ger 3021 BUSINESS GERMAN.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. Students learn and use the special terms and expressions needed to deal with everyday situations in business, banking, and personal affairs. This course should be of particular interest to anyone planning to live and do business in Germany. Material includes authentic documents from banks, courts, and public administration. (Prereq 3013 or equivalent. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, W, 6:20-8:50, FolH 116

**Ger 3104 READING AND ANALYSIS OF PROSE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Reading fluency; appreciation of literary values through literary interpretation and familiarization with critical terminology. *Introductory course for a major or minor in German.* (Prereq 3012 or ¶3012. Limited to 25)

Winter Qtr, ★Sec 1, M, 5:15-7:45, KoltH S134

**Ger 3105 READING AND ANALYSIS OF DRAMA AND POETRY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Reading fluency; appreciation of literary values through literary interpretation and familiarization with critical terminology. *Introductory course for a major or minor in German.* (Prereq 3012 or ¶3012. Limited to 25)

Spring Qtr, ★Sec 1, M, 5:15-7:45, FolH 208, Schulte-Sasse

**Ger 3604 LITERATURE, HISTORY, AND THE GERMAN FILM.** 4 credits, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

An introduction to German film, in which the German cinema is examined against the background of Germany's cultural and socio-political history. We will consider cinematic adaptations of literary works, cinematic depictions of twentieth-century German history, and the various formal strategies employed in such films. Filmmakers studied will include such directors of the "New German Cinema" as Brückner, Sanders-Brahms, Schlöndorff, von Trotta, etc. Literary works to be read will include texts from such authors as Heinrich Böll and Theodor Fontane. Requires no knowledge of German. *May be taken for credit toward major or minor in German if student registers A-F and does a portion of the reading in German.* (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, W, 5:40-9, FolH 38

**Ger 3641 INTRODUCTION TO GERMAN FOLKLORE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The traditional folklore genres; charms (magic), legends, fairy tales, ballads. *Not open for credit toward a major or minor in German.* Requires no knowledge of German. (No prereq)

Winter Qtr, Sec 1, W, 6:20-9, FolH 134, Liberman

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Ger 5011 ADVANCED COMPOSITION AND CONVERSATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Grammar review, oral presentations, many written assignments. (Prereq 3013 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, TTh, 4:40-6:20, FolH 134, Firchow

**Ger 5510 TOPICS IN CONTEMPORARY GERMAN CULTURE: PROBLEMS OF GERMAN IDENTITY AFTER UNIFICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The newly unified Federal Republic faces serious problems in defining a new identity. The former GDR has ceased to exist, and the "old" Federal Republic needs to rethink many of its assumptions. (Prereq 3513 and #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ●Sec 1, Th, 4:40-6:35, FolH 134, Schissler

**Reading German**—Ger 0221 and 0222 are specifically designed for individuals who desire only a reading knowledge of the language. The German language requirement for an advanced degree may be satisfied by passing Ger 0222 with a grade of B or better (0222 must be taken on an A-F basis). Graduate students should check with their advisers for specific language requirements in their field of study.

**Ger 0221 READING GERMAN.** No credit, tuition\*: \$294.

This course is designed to help students acquire a reading knowledge of basic German as rapidly as possible. No prior knowledge of German is required. Grammar is reduced to a minimum. The course progresses from intensive reading of simple material to selections of moderate difficulty. Vocabulary building and analysis of compound words are emphasized. **Must be taken S-N.** (No prereq)  
Fall Qtr, Sec 1, M, 6:20-9:30, AkerH 225

**Ger 0222 READING GERMAN.** No credit, tuition\*: \$294.

This course is designed to give students experience

in intensive reading of German scholarly texts and enable graduate students to satisfy departmental requirements for an advanced degree. Graduate students achieving a grade of B or better in 0222 should bring their Graduate School language certification cards to 231 Folwell for signature. **Must be taken A-F.** (Prereq 0221 or 2 quarters of beginning German or 2 years of high school German)

Winter Qtr, Sec 1, M, 6:20-9:30, AkerH 225

German 0221 and 0222 are also offered as Summer Evening Extension Classes.

## Gerontology

See page 499

## Global Campus

For information about study abroad opportunities, visit the Global Campus office at 106 Nicholson Hall, or telephone (612) 625-3379.

## Greek (Grk) and Modern Greek (MdGk)

See Classical and Near Eastern Studies

## Health

(See Public Health)

## Health Sciences

Please see the following alphabetical listings for course offerings:

- Adult Psychiatry
- Biochemistry
- Biological Sciences
- Cell Biology and Neuroanatomy
- Child and Adolescent Psychiatry
- Clinical Laboratory Science
- Family Practice and Community Health
- General College
- Health Science Units
- History of Medicine and Technology
- Hospital Administration
- Microbiology
- Nursing
- Pharmacognosy
- Physiology
- Physical Medicine and Rehabilitation

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

# Course Descriptions

## Public Health

### Health Science Units (HSU)

(W42 Centennial Hall: 624-7102)

#### Health Sciences

Textbooks for most HSU courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

(See also Anth 5920, Topics in Anthropology: Anthropology of AIDS; Family Social Science; and PubH 5010, Public Health Approach to AIDS)

- S. Bruce Benson, Associate Professor  
Rondell Berkeland, Director of Occupational Therapy  
Corine T. Ellingham, Associate Professor of Physical Medicine and Rehabilitation  
Maymie J. Eschwey, Lecturer, School of Public Health  
David Garloff, Director, Health Sciences Learning Resources  
Karen Karni, Associate Professor  
Thomas McKennell, Assistant Professor and Director of Pharmacy Continuing Education  
Kathleen Newell, Associate Professor  
Laura Pizer, Lecturer, Clinical Instructor, Physical Medicine and Rehabilitation  
Frank Rhame, Assistant Professor, Medical School, Infection Control Department  
James Rothenberger, Instructor, School of Public Health  
Greg Sales, Associate Professor, College of Education  
Suzanne J. Schoenfelt, Instructor, College of Pharmacy, School of Nursing  
Barbara A. Spradley, Associate Professor, Public Health Administration

**Graduate Credit**—Students who wish to offer 5-level Health Science Units (HSU) courses toward M.Ed., M.P.H., and PharmD may do so under the terms of their approved degree programs. However, HSU courses do not qualify for *Graduate School* credit. Students who wish to obtain Graduate School credit for a 5-level course that is jointly listed with an HSU course must register for the course *under the other department's course number and designator*.

**HSU 3003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE.** 2 credits, §PubH 3003, tuition\*: Resident \$214; Non-resident \$428.

See PubH 3003 for description. (No prereq. Meets concurrently with HSU 5032, PubH 3003, 5003)

Spring Qtr, Sec 1, Th, 6:35-8:35, MoosT 2-530, Rothenberger

**HSU 3005 ORIENTATION TO THE HEALTH SCIENCES.** 2 credits, tuition\*: Resident \$214; Non-resident \$428.

An overview of health science professions through lectures, demonstrations, videos, and tours. Designed to provide factual information and guidance for students considering a health science career. Evaluation will be based on class participation and individual student projects. Must be taken S-N. (No prereq. Limited to 100)

Winter Qtr, ★Sec 1, T, 4:15-6, MoosT 2-530, Karni, Newell

**HSU 5007 HEALTH LEADERSHIP AND EFFECTING CHANGE.** 3 credits, §PubH 5727, tuition\*: Resident \$321; Non-resident \$642.

Application of a broad theoretical base in planned change to solve managerial and organizational problems in students' roles as leaders in the health professions. (Prereq Public Health or other health sciences grad students interested in becoming more effective leaders and change agents in their professional roles or written #. See note about graduate credit above. Meets concurrently with PubH 5727. A joint Day/Extension class limited to a combined total of 5 Extension students)

Winter Qtr, ★Sec 1, W, 4:40-7:25, Mayo D326, Spradley

**HSU 5009 MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §CPsy 5305, Phar 5009, PA 5414, SW 5024, Soc 5960, PubH 5737, tuition\*: Resident \$428; Non-resident \$856.

See course description for Soc 5960. (No prereq. See note about graduate credit above. Meets concurrently with AdEd 5440, CPsy 5305, Phar 5009, PA 5414, PubH 5737, Soc 5960, SW 5024. A joint Day/Extension class)

Fall Qtr, ★Sec 1, MW, 4:40-6:25, MoosT 2-690 (Limited to a combined total of 37 Extension students)

Spring Qtr, Sec 2, MW, 4:40-6:25, MoosT 2-690

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**HSU 5010 PUBLIC HEALTH APPROACHES TO AIDS.** 3 credits, §PubH 5010, tuition\*: Resident \$321; Non-resident \$642.

A survey of HIV infection from a public health perspective with emphasis on intervention. Topics include epidemiological and clinical features of HIV infection, the impact and response of affected communities and populations, and behavior change principles as they apply to communities, schools, and social policy. Community resources supplement lectures with case presentations. (No prereq. See note above about graduate credit. Meets concurrently with PubH 5010. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 4:40-7:20, MoosT 2-530, Rothenberger, Rhame

Spring Qtr, ●Sec 2, W, 4:40-7:20, MoosT 2-620, Rothenberger, Rhame

**HSU 5011 THE TEACHING-LEARNING PROCESS IN THE HEALTH CARE SETTING.** 3 credits, §PubH 5064, tuition\*: Resident \$321; Non-resident \$642.

Learning activities include lectures, discussion, written assignments, and projects. Activities designed to meet the professional needs of the student. (No prereq. See note about graduate credit above. A joint Day/Extension class)

Spring Qtr, ●Sec 1, M, 3:35-6:20, MoosT 2-571, 2-585, Garloff

**HSU 5013 A SYSTEMATIC APPROACH TO DESIGNING INSTRUCTION.** 3 credits, §CI 5336, tuition\*: Resident \$321; Non-resident \$642.

See CI 5336 for course description. (No prereq. See note about graduate credit above. Meets concurrently with CI 5336. A joint Day/Extension class limited to a combined total of 25 Extension students)

Spring Qtr, ★●Sec 1, Th, 4:15-7, PeikH 335, Sales

**HSU 5017 WRITTEN COMMUNICATION SKILLS FOR HEALTH PROFESSIONALS.** 3 credits, §Nurs 5720, tuition\*: Resident \$321; Non-resident \$642.

Students meet in workshop sessions where they critique the work of class participants. Throughout the course, emphasis is on organization, style, clarity of presentation, conciseness, accuracy, transitions, consistency, and writing mechanics. Students also examine journal articles, style, the work of professional authors, and other writing guidelines. Depending on the interest of class members, some emphasis will be placed on writing journal articles

for publication. A fair amount of outside reading is required. The course works best for students who are already in the process of writing or trying to publish a paper. The class serves as the structure for students to compose their own work. (No prereq. Students seeking graduate credit should enroll in Nurs 5720. Meets concurrently with Nurs 5720. Limited to a combined total of 15)

Winter Qtr, ★Sec 1, T, 4-6:30, MoosT 15-250, Schoenfelt

**HSU 5027 HUMAN SEXUAL BEHAVIOR.** 5 credits, §FSoS 5001, tuition\*: Resident \$535; Non-resident \$1070.

Multidisciplinary approach to human sexuality, with emphasis on sexual development through individual and family life cycles. Oriented toward applying scientific knowledge to the promotion of sexual health through individual, family, and community services. (Prereq upper division standing and 12 credits in social, behavioral or health science; or graduate status in behavioral, social, educational, health science or human service program; or #. See note about graduate credit above. Meets concurrently with FSoS 5001. A joint Day/Extension class limited to a combined total of 50)

Fall Qtr, ★●Sec 1, Th, 5:30-9:40, McNH 33, StP Campus

**HSU 5031 BIOLOGY OF AGING.** 2 credits, §Phar 5007, §SAPh 5007, tuition\*: Resident \$214; Non-resident \$428.

*Offered via interactive television between two sites, with students at both locations.* Biological theories of aging are reviewed; biological changes associated with aging in selected organ and sensory systems are studied. Other topics examined are the nutritional needs of the elderly and their use of medications. Physical changes due to normal aging are contrasted with those having a pathological basis. (No prereq. See note about graduate credit above. Meets concurrently with Phar 5007 and SAPh 5007. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 4:40-6:25, MoosT 5-125, McKennell

**HSU 5032 FUNDAMENTALS OF ALCOHOL AND DRUG PROBLEMS.** 2 credits, §PubH 5003, tuition\*: Resident \$214; Non-resident \$428.

See PubH 3003 for description. (Prereq sr or grad. See note about graduate credit above. Meets concurrently with 3003, PubH 3003, 5003)

Spring Qtr, Sec 1, Th, 6:35-8:35, MoosT 2-530, 2-630, 2-690, Rothenberger

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

(See also Family Social Science)

**HSU 5040 DYING AND DEATH IN CONTEMPORARY SOCIETY.** 3 credits, §PubH 5040, §Mort 5040, tuition\*: Resident \$321; Non-resident \$642.

*Taught in conjunction with members of the Mortuary Science staff.* (Prereq Health Science major, School of Public Health major, education senior, Mortuary Science major, or written #. See note about graduate credit above. Meets concurrently with PubH 5040. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 4:40-7:20, MoosT  
2-690, Rothenberger

**HSU 5210 TERMINOLOGY OF THE HEALTH SCIENCES.** 2 credits, §Phar 5210, tuition\*: Resident \$214; Non-resident \$428.

A self-study course that has been designed to provide students with a working knowledge of the terminology utilized in the health sciences. There are no formal class sessions. Students take four tests during the term, and the schedule for these is provided at the beginning of each term, when orientation sessions are held. For information, call 624-2442 before the first day of the term, or go to room 5-120 HSUnitF during regular office hours. (No prereq. May not be taken for graduate credit at the University of Minnesota. Meets concurrently with Phar 5210. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Arr (call 624-2442),  
McKinnell

Winter Qtr, ●Sec 2, Arr (call 624-2442),  
McKinnell

Spring Qtr, ●Sec 3, Arr (call 624-2442),  
McKinnell

**HSU 5297 REHABILITATION: AN INTERNATIONAL PERSPECTIVE.** 3 credits, §PMed 5297, tuition\*: Resident \$321; Non-resident \$642.

Explores physical medicine and rehabilitation as well as prevention issues abroad. The seminar format focuses on cultural factors which influence health and health services. **Must be taken S-N.** (Prereq rehab, health or community professional qualified students, or #. See note about graduate credit above. Meets concurrently with PMed 5297. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, W, 4:45-7:30, MoosT 2-  
580, Ellingham, Eschwey, Pizer

## Health, Environmental

(See Public Health)

## Hebrew

See Ancient Near Eastern Studies for Hebr 1101-1102-1103.

## Higher Education (HiEd)

See Educational Policy and Administration (EdPA) for former HiEd listings, page 155.

## History (Hist)

(614 Social Sciences: 624-2800)

### College of Liberal Arts

Textbooks for most Hist courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Afro-American and African Studies; Ancient Studies; Area Studies Programs; the Institute of Languages and Literatures; Interdepartmental Study Courses, page 249; Political Science; General College social and behavioral science courses; The Compleat Scholar noncredit courses; History of Science and Technology; Religious Studies; and Women's Studies)

Bernard S. Bachrach, Professor

Hyman Berman, Professor

Marilyn Bowman, Lecturer in Chicano Studies

Kinley J. Brauer, Professor

Thomas Buckley, Associate Professor, General College

Caesar Farah, Professor

Edward Farmer, Professor

George Green, Associate Professor

Allen Isaacman, Professor

Thomas Kelly, Professor

David Kopf, Professor

Byron K. Marshall, Professor

Michael Metcalf, Professor

David Noble, Professor

Richard Rudolph, Professor

Balkacem Saadallah, Visiting Professor

Stuart Schwartz, Professor

Theofanis G. Stavrou, Professor

John Thayer, Professor

James D. Tracy, Professor

William E. Wright, Professor

**A major in History can be completed in the evening.**

Those courses required in the major are offered every two years. Interested students should discuss plans with an adviser (625-2500).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**B.A. Major Sequence****Required Preparatory Courses**

At least three introductory (1000-level) history courses (completed in first 2 years when possible). Juniors and seniors may substitute 3000-5000-level equivalent courses.

In addition to the CLA second language requirement, students planning a graduate program in history should acquire a reading knowledge of one or more languages early in their undergraduate studies.

**Major Requirements**

Minimum of 10 3000-5000-level history courses, to include: Four courses (excluding survey courses) in a field of concentration.

3955 Introduction to Historical Research—taken prior to 3961

3961 Major Paper—completed during senior year

**Distribution of the 13 Required Courses**

Among the 13 1000, 3000, and 5000-level courses required, students must satisfy both the chronological and the geographical distribution requirements:

1. *Chronological*—At least 2 courses from the pre-modern period, and at least 2 courses from the modern period.
2. *Geographical*—At least one course in each of three different geographical areas.

**You need not be majoring in History to register for these classes.**

A minor in History is also available. Interested students should call CEE Counseling, 625-2500.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in History. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) section available in the following course:** Hist 3823

**Hist 1017, 1018 INTRODUCTION TO WORLD HISTORY.** 4 credits each quarter, §1012, 1013, 1012H, 1013H, tuition each quarter\*: Resident \$294; Non-resident \$852.60. (IS 1012, 1013)

1017: World civilizations in the era of global contact, 1450-1960. Linking the globe through trade and migration; cultural, racial, and religious contact

and clash in the Americas, Asia, and Africa; family farms to plantation agriculture; European industrialization, individualism, nationalism, and imperialism; independence movements, decolonization, and the colonial heritage. 1018: The world today and its recent past. War and Cold War; expansion of the American and Soviet economic, political and cultural systems, dominant culture, and minority questions; contemporaneous developments in the Third World; global order; movements for peace, ecology, and human right. (No prereq)

Fall Qtr, 1017, Sec 1, M, 6-9, BlegH 205

Spring Qtr, 1018, Sec 1, M, 6-9, BlegH 140

**Hist 1026, 1027, 1028 HISTORY OF WESTERN CIVILIZATION.** 4 credits each quarter, §1021, 1022, 1023, tuition each quarter\*: Resident \$294; Non-resident \$852.60.

Fundamental survey of the political, cultural, and social development of the West. Writing is emphasized in this course. 1026: Surveys the civilizations of ancient Egypt, Mesopotamia, Greece, and Rome from the beginnings to 500 A.D. 1027: Covers Byzantine, Islamic, and Western European civilizations from 500 to 1650 A.D. 1028: Examines European civilizations from 1650 to the present day. Courses need not be taken in sequence. (No prereq)

Fall Qtr, 1027, Sec 1, M, 6-9, Law 1

Winter Qtr, 1028, Sec 1, M, 6-9, BlegH 255

Spring Qtr, 1026, Sec 1, M, 6-9, Law 1

**Hist 1101 INTRODUCTION TO MEDIEVAL HISTORY.** 4 credits, §Hist 1022, 3101, tuition\*: Resident \$294; Non-resident \$852.60.

Europe from the decline of Rome to the early Renaissance; politics, institutions, society, economy, and culture of the Middle Ages. (No prereq. Meets concurrently with 3101)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 5,  
Bachrach

**Hist 1307, 1308 AMERICAN HISTORY.** 4 credits each quarter, §1301, 1302, tuition each quarter\*: Resident \$294; Non-resident \$852.60. (IS)

Survey of political, economic, and social history of the United States with emphasis on forces that resulted in the emergence of Modern America. 1307: Colonial, early national period from the Revolution through Civil War and Reconstruction. 1308: Modern America from 1880 to the present. (No prereq)

Fall Qtr, 1307, Sec 1, W, 6:20-8:50, AndH 370

Spring Qtr, 1308, Sec 1, W, 6:20-8:50, AndH  
350

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Hist 3001, 3002, 3003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES.** 4 credits each quarter, §1001, 1002, 1003, tuition each quarter\*: Resident \$308; Non-resident \$893.20.

3001: Western European civilization to 1715. 3002: Revolution, liberalism, and nationalism to 1870. 3003: 1870 to recent times. (No prereq)

Fall Qtr, 3002, Sec 1, W, 6:20-8:50, BlegH 205  
Winter Qtr, 3003, Sec 1, W, 6:20-8:50, BlegH 210

Spring Qtr, 3001, Sec 1, W, 6:20-8:50, BlegH 210, Thayer

**Hist 3051 ANCIENT CIVILIZATION.** 4 credits, §1051, tuition\*: Resident \$308; Non-resident \$893.20.

The history of civilization of the ancient world to 500 B.C. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, BlegH 235, Kelly

**Hist 3052 ANCIENT CIVILIZATION.** 4 credits, §1052, tuition\*: Resident \$308; Non-resident \$893.20.

History and civilization of the ancient world. 500-146 B.C. (No prereq)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 420, Kelly

**Hist 3053 ANCIENT CIVILIZATION.** 4 credits, §1053, tuition\*: Resident \$308; Non-resident \$893.20.

History and civilization of the ancient world, 146 B.C. to A.D. 337. (No prereq)

Spring Qtr, Sec 1, T, 6:20-8:50, BlegH 105

**Hist 3101 INTRODUCTION TO MEDIEVAL HISTORY.** 4 credits, §Hist 1022, 1101, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Hist 3101. (No prereq. Meets concurrently with 1101)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 5, Bachrach

(See also MeSt 1001, An Introduction to the Middle Ages)

**Hist 3245 HISTORY OF EASTERN EUROPE: 19TH AND 20TH CENTURIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Poland, Czechoslovakia, Hungary, Romania, and Yugoslavia. Nationalism and formation of national states; fascism and World War II. Jews in Eastern Europe; communist takeovers; society in communist Eastern Europe today. (No prereq)

Spring Qtr, Sec 1, W, 6:20-8:50, BlegH 155, Rudolph

**Hist 3348 WOMEN IN MODERN AMERICA: 1890-1980.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Women in the United States from the late Victorian era to the present changes in labor force participation, family patterns, sexuality, education, feminism; images of women from Gibson girl to feminine mystique. (No prereq)

Spring Qtr, Sec 1, M, 6:20-8:50, BlegH 415

**Hist 3401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO 1800.** 4 credits, §LAS 3401, tuition\*: Resident \$308; Non-resident \$893.20.

The pre-Hispanic and colonial period to 1800, with emphasis on social, cultural, and economic aspects. (No prereq. Meets concurrently with LAS 3401)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 155, Schwartz

**Hist 3402 SURVEY OF LATIN AMERICAN HISTORY: 1800-1929.** 4 credits, §LAS 3402, tuition\*: Resident \$308; Non-resident \$893.20.

Development of new nations from independence to the emergence of dependent economics. (No prereq. Meets concurrently with LAS 3402)

Winter Qtr, Sec 1, M, 6:20-8:50, HHCtr 60

**Hist 3403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO PRESENT.** 4 credits, §LAS 3403, tuition\*: Resident \$308; Non-resident \$893.20.

Contradictions of modern societies: economic expansion, dependency, population growth and the social crisis, democratic and authoritarian politics. (No prereq. Meets concurrently with LAS 3403)

Spring Qtr, Sec 1, T, 6:20-8:50, Law 3

**Hist 3421 THE WORLD AND THE WEST.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of the political, economic, and cultural interaction between the peoples of Europe, Africa, America, and Asia. Era of Western dominance, 1500-1850. Sea power, colonialism, imperialism. (No prereq)

Winter Qtr, Sec 1, W, 6:20-8:50, Law 1, Kopf

**Hist 3424 HISTORY OF MEXICO: PRE-COLUMBIAN PERIOD THROUGH INDEPENDENCE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Indian cultures of Mexico prior to the conquest and subsequent contact between Europeans and Indians during the formation of Mexican society. (No prereq)

Winter Qtr, Sec 1, T, 6:20-8:50, Law 1, Schwartz

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Hist 3428 HISTORY OF RELATIONS BETWEEN UNITED STATES AND MEXICO, 1821 TO PRESENT.** 4 credits, §Chic 3428, tuition\*: Resident \$308; Non-resident \$893.20.

U.S.-Mexico relations in the 19th and 20th centuries. *Meets CLA World Studies requirement.* (No prereq. Meets concurrently with Chic 3428)

Winter Qtr, Sec 1, W, 6:20-8:50, ScottH 4,  
Bowman

**Hist 3431 HISTORY OF AFRICA TO 1800.** 4 credits, §Afro 3431, tuition\*: Resident \$308; Non-resident \$893.20.

Socioeconomic, political, and cultural development in pre-colonial Africa; emphasis on the slave trade, Islamic revolution, and European commercial penetration. (No prereq. Meets concurrently with Afro 3431)

Fall Qtr, Sec 1, Th, 6:20-8:50, RarigC 616

**Hist 3432 HISTORY OF AFRICA: 1800 TO PRESENT.** 4 credits, §Afro 3432, tuition\*: Resident \$308; Non-resident \$893.20.

Colonial rule, the forced restructuring and underdevelopment of African economies, African resistance, nationalism, and the problems of independence. (No prereq. Meets concurrently with Afro 3432)

Winter Qtr, Sec 1, T, 6:20-8:50, AndH 230

**Hist 3442 SURVEY OF CHICANO HISTORY, 1900 TO THE PRESENT.** 4 credits, §Chic 3442, tuition\*: Resident \$308; Non-resident \$893.20.

Twentieth century Chicano experience including migration and repatriation, contemporary politics, society, and culture. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with Chic 3442)

Spring Qtr, Sec 1, W, 6:20-8:50, WullH 140,  
Bowman

**Hist 3453 SURVEY OF ASIAN CIVILIZATIONS IN THE MODERN ERA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A comparative approach to East, South, Southeast, and West Asia from the decline of early modern empires through the establishment of European and American dominance, cultural renaissance and nationalist movements, and creation of independent nation-states. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 210, Kopf

**Hist 3463 INTRODUCTION TO EAST ASIA IN MODERN TIMES.** 4 credits, §EAS 1463, tuition\*: Resident \$308; Non-resident \$893.20.

Decline of Asian empires; European and American imperialism; Asian responses; nationalism, social

revolution, reintegration, modernization in China, Japan, Vietnam, Korea; retreat of European and American empires. (No prereq. Meets concurrently with EAS 1463)

Spring Qtr, Sec 1, M, 6:20-8:50, BlegH 255,  
Marshall

**Hist 3465 CHINA'S RESPONSE TO THE WEST, 1750-1911.** 4 credits, §5465, §EAS 3465, tuition\*: Resident \$308; Non-resident \$893.20.

Eighteenth-century demographic crisis; the growth of Western trade, opium wars and peasant rebellion; early reform efforts, cultural conflicts with the West, imperialism in China, and the first phase of the Chinese revolution. (No prereq. Meets concurrently with EAS 3465)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 140

**Hist 3468 PEOPLE'S REPUBLIC OF CHINA: THE COMMUNIST REVOLUTION, 1900 TO PRESENT.** 4 credits, §5468, §EAS 3468, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction of Marxism to China, rise of Communist Party, and development of a rural guerilla movement. The career of Mao Tse-tung and developments in the People's Republic. The Great Leap, Cultural Revolution, Gang of Four. (No prereq. Meets concurrently with EAS 3468)

Spring Qtr, Sec 1, Th, 6:20-8:50, BlegH 350

**Hist 3471 20TH-CENTURY JAPAN.** 4 credits, §5471, §EAS 3471, tuition\*: Resident \$308; Non-resident \$893.20.

The development of an industrial society, parliamentary government, mass culture, and imperialism from the Meiji reforms of the late 19th century through World War II to the contemporary period. (No prereq. Meets concurrently with 5471 and EAS 3471)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 135,  
Marshall

**Hist 3544 THE ARAB WORLD IN RECENT TIMES.** 4 credits, §MELC 3544, tuition\*: Resident \$308; Non-resident \$893.20.

Central Arab lands (the Arabian peninsula, Iraq, Syria, Jordan, Lebanon, Egypt) and North African region (Libya, Tunisia, Morocco, Algeria) from end of World War I to the present. Foreign occupation and struggle for independence, position in regional and international politics. (No prereq. Meets concurrently with MELC 3544)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 245,  
Saadallah

Winter Qtr, Sec 2, W, 6:20-8:50, BlegH 135,  
Saadallah

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Hist 3608 HISTORY OF THE CATHOLIC CHURCH IN THE MIDDLE AGES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An examination of the institutions, thought, and major personalities which dominated the church from the later Roman Empire to the Reformation. (No prereq)

Spring Qtr, Sec 1, W, 6:20-8:50, BlegH 350

**Hist 3624 FRANCE FROM THE RENAISSANCE TO RICHELIEU.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The religious wars and the growth of an absolute monarchy. (No prereq)

Fall Qtr, Sec 1, M, 6:20-8:50, RarigC 616,

Tracy

**Hist 3625 FRANCE IN THE AGE OF ENLIGHTENMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The writings of several leading thinkers of the Enlightenment, including Montesquieu, Voltaire, and Rousseau, examined in the context of 18th-century French history. (No prereq)

Winter Qtr, Sec 1, M, 6:20-8:50, RarigC 610,

Tracy

**Hist 3633 HISTORY OF GERMANY: EMPIRE TO HITLER, 1848-1945.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Unification, political and economic development, growth of socialism, World War I and revolution, the Weimar years, the Nazi seizure of power. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 155,

Rudolph

**Hist 3637 RUSSIAN HISTORY FROM PETER THE GREAT TO THE PRESENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A survey of Russian history since Peter the Great. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, HHHctr 30,

Stavrou

**Hist 3641 ANGLO-SAXON ENGLAND: FROM KING ARTHUR TO WILLIAM THE CONQUEROR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A history of medieval England from the end of Roman rule to the Norman Conquest. All aspects of society are examined in order to provide a rounded picture of the creation of Anglo-Saxon England and the Celtic frontiers.

Winter Qtr, Sec 1, W, 6:20-8:50, SocSci 1383,

Bachrach

**Hist 3721 EUROPE IN THE ERA OF WORLD WAR I.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Political, social, and diplomatic background of Europe on eve of World War I; origins of conflict; impact of war and revolution on European society; the peace settlement. (No prereq)

Winter Qtr, Sec 1, Th, 6:20-8:50, RarigC 616, Munholland

**Hist 3722 EUROPE IN THE ERA OF WORLD WAR II.** 4 credits, §3224, tuition\*: Resident \$308; Non-resident \$893.20.

The rise of fascism and totalitarian movements in Europe; political and military origins of World War II; the course of the war and its impact upon European society. (No prereq)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 235,

Munholland

**Hist 3723 EUROPE SINCE WORLD WAR II.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Reconstruction of European politics and society; emergence of cold war in Europe; decolonization; economic cooperation and development; East-West relations. (No prereq)

Spring Qtr, Sec 1, Th, 6:20-8:50, BlegH 330

**Hist 3748 THE AUSTRIAN REPUBLIC FROM WORLD WAR I TO PRESENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The First Republic; the state no one wanted; Anschluss and Hitler; World War II; decade of occupation; the new Austria. (No prereq)

Spring Qtr, Sec 1, T, 6:20-8:50, SocSci 1383,

Wright

**Hist 3812 CIVIL WAR AND RECONSTRUCTION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Politics and society from 1848 to 1877. The Compromise of 1850 and the "finality" period; nativism and the Know-Nothing movement; party realignment and the rise of the Republican Party; the West; Dred Scott, John Brown, and the coming of the Civil War; Lincoln, Douglas, and the crisis of secession; the rise and fall of the Confederacy; Grant, Sherman, and the politics of total war; emancipation; presidential and radical reconstruction; the Ku Klux Klan; the origins of the Gilded Age; redemption and the Compromise of 1877. (No prereq)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 415

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Hist 3821 UNITED STATES IN THE 20TH CENTURY: 1890-1917.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The growth of industrialism, the corporation and the city; the progressive movement; the emergence of the United States as a world power; World War I; prohibition and women's suffrage; social and cultural conflict in the 1920s; the coming of the Great Depression. (No prereq)

Spring Qtr, Sec 1, Th, 6:20-8:50, BlegH 205

**Hist 3822 UNITED STATES IN THE 20TH CENTURY: 1932-1960.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

The Great Depression and the New Deal; the challenge of fascism and the coming of World War II; the origins of the Cold War; the great red scare; the politics and culture of the Eisenhower era; the origins of the civil rights movement. (No prereq)

Winter Qtr, Sec 1, W, 6:20-8:50, AndH 350,  
Berman

**Hist 3823 UNITED STATES IN THE 20TH CENTURY: 1960-PRESENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The conflicts of the 1960s; the New Frontier and Great Society; the black struggle for freedom; the Vietnam War; the new left and counterculture; the women's movement and gay liberation; Watergate and the uncertainties of the 1970s; the Reagan counterrevolution. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, AndH 270,  
Berman

Spring Qtr, Sec 2, M, 1-3:30, MacP. *Offered through Continuing Education for Women*

**Hist 3841 AMERICAN BUSINESS HISTORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Development of the modern corporation and its managerial structure. Contributions of Eli Whitney, Edison, Ford, Carnegie, Rockefeller, J.P. Morgan, Alfred Sloan, and others. History of relations of business to economic development, social change, politics, and government policies. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 120

**Hist 3891 AMERICAN MILITARY HISTORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Impact of geography, politics, society, technology, and leadership in the development of the military from the colonial period to the Spanish-American War. (No prereq)

Winter Qtr, Sec 1, T, 1:30-4, CivMinE 213,  
Buckley

**Hist 3892 AMERICAN MILITARY HISTORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Impact of geopolitics, technology, society, and leadership in the rise of land, sea, and air forces to global dominance in the twentieth century. (No prereq)

Spring Qtr, Sec 1, W, 1:30-4, CivMinE 213,  
Buckley

**Hist 3955 INTRODUCTION TO HISTORICAL RESEARCH.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Practical course. Use of documents and different kinds of historical writing. Students read and discuss material representative of contrasting historical perspectives. Faculty guidance. Priority given to history majors. Sign up in department office, 672 SocSci on the West Bank campus. (Prereq written  $\Delta$ . Limited to 15)

Fall Qtr, ★Sec 1, W, 6:20-8:50, Law 1

Winter Qtr, ★Sec 2, W, 6:20-8:50, BlegH 350,  
Green

**Hist 3961 MAJOR PAPER.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Required of history majors, usually taken in senior year. Research papers on topics students choose; work largely with original materials (printed documents, memoirs, literature). Sign up in department office, 668 SocSci on the West Bank campus. (Prereq written  $\Delta$ . Limited to 15)

Winter Qtr, ★Sec 1, W, 6:20-8:50, Law 3

Spring Qtr, ★Sec 2, W, 6:20-8:50, SocSci 101,  
Green

**Hist 5265 MODERN RUSSIA: 19TH-CENTURY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Political, social, and cultural developments from Alexander to the 1905 revolution. The revolutionary movement and the consequences of the emancipation of the serfs; Russian industrialization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 6:20-8:50, Law 1,  
Stavrou

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Hist 5266 MODERN RUSSIA: THE 20TH CENTURY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Fall of the Russian monarchy, revolutions, and Soviet regime. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, M, 6:20-8:50, Law 3, Stavrou

**Hist 5471 20TH-CENTURY JAPAN.** 4 credits, §Hist 3471, §EAS 3471, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Hist 3471. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Hist 3471 and EAS 3471)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 135, Marshall

### History of Medicine (HMed)

(510 Diehl Hall: 624-4416)

#### Medical School

Most textbooks for HMed courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in History of Medicine. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*No HMed courses offered through Extension Classes 1994-95*

### History of Science and Technology (HSci)

(342E Physics: 624-7069)

#### Institute of Technology

Most textbooks for HSci courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

John Beatty, Associate Professor  
Jole Shackelford, Lecturer

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in History of Science and Technology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**HSci 1812 INTRODUCTION TO HISTORY OF SCIENCE: THE SCIENTIFIC REVOLUTION.** 4 credits, §HSci 3812, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

The revival of ancient scientific thought in the Renaissance, and the overthrow of old ideas and methods in the Scientific Revolution of the 17th century. Focuses on how Copernicus, Kepler, Galileo, Harvey, and Newton emphasized an experimental approach to studying nature. (No prereq. Meets concurrently with 3812)

Fall Qtr, Sec 1, W, 6:20-8:50, Phys 210, Shackelford

**HSci 3202 HISTORY OF BIOLOGY.** 4 credits, §HSci 5202, tuition\*: Resident \$346; Non-resident \$1003.40.

Biology in the 19th and 20th centuries. Scientific, philosophical, and social factors in the development of biology; changing styles of biological reasoning, and changing relationships between the biological and physical sciences. (No prereq. Meets concurrently with 5202)

Spring Qtr, Sec 1, Th, 6:20-8:50, Ecology 150, StP Campus, Beatty

**HSci 3812 INTRODUCTION TO HISTORY OF SCIENCE: THE SCIENTIFIC REVOLUTION.** 4 credits, §HSci 1812, tuition\*: Resident \$346; Non-resident \$1003.40.

See course description for 1812. (No prereq. Meets concurrently with 1812)

Fall Qtr, Sec 1, W, 6:20-8:50, Phys 210

**HSci 5202 HISTORY OF BIOLOGY.** 4 credits, §HSci 3202, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for 3202. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3202)

Spring Qtr, Sec 1, Th, 6:20-8:50, Ecology 150, StP Campus, Beatty

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Home Economics Education

(See *Family Education* in Vocational and Technical Education)

## Honors Opportunities

(115 Johnston Hall: 624-5522)

### College of Liberal Arts

Textbooks for HSem courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Mariah Snyder, Professor of Nursing  
Thomas Noonan, Professor of History

Special Honors Opportunities are offered by CLA through Extension Classes to all qualified Extension registrants to present appropriate challenges to highly motivated and intellectually superior students, to bring together the very best Extension students, and to provide students with close interaction with some of the University's outstanding faculty. Entry to Honors Opportunities is by special permission, with a 3.50 grade point average as the initial prerequisite.

**Honors Seminar (HSem):** Honors Seminars are one Honors opportunity. They are often of an interdisciplinary character, deal in some depth with topics not usually central to a regular course, and are intended for students not majoring in the discipline of the seminar instructor. Class size is small, and vigorous student participation is expected. Students with a GPA of at least 3.50 are invited to call the CLA Honors Office, 624-5522, to discuss their interest and qualifications.

**HSem 3050 STRESS, COPING, AND HEALTH.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Stress is a word commonly heard in modern society. What is this phenomenon? Is it true that stress is the most common cause of illness in our society? How can people "manage" stress? This course explores various theories of stress. The relationship between high levels of stress and overall well-being and illness will be explored. Techniques to assess stress and strategies to manage stress will be discussed. Implications of the recent research on the interrelatedness of body and mind will be examined. (Prereq 3.50 GPA, special written Δ. Limited to 15)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, HSUnitF 4-172, Snyder

**HSem 3060 CAN RUSSIA BE REFORMED? A HISTORICAL PERSPECTIVE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The era of reforms initiated by Mikhail Gorbachev in 1985 is often viewed solely within the context of the Soviet experience. This short-sighted perspective ignores the fact that efforts at fundamental change in Russia go back a thousand years to Grand Prince Vladimir's conversion to Christianity in 988. Major reform eras took place under Ivan (IV) the Terrible in the 1550s, Peter the Great in the early 18th century, Alexander II in the 1860s, Marxist revolutionaries in 1917, and Stalin from 1928 to 1938. The purpose of this course is to examine the major reform eras of the 500 years in order to explore what historical patterns or continuities may have existed and whether there are any lessons from the past which can help students better understand the problems facing the current leaders of Russia, Ukraine, and others formerly part of the U.S.S.R. Since reform in Russia has traditionally been associated with Westernization, the course also will examine the development of Russia's love-hate relationship with the West. Why do some Russians see Westernization as the only real solution for their problems, while others see it as the vehicle for the destruction of what is best and most distinctive in Russia? Can Russia modernize without becoming Western? Furthermore, these spurts of "forced" Western-inspired reforms usually produce a backlash that leads to long periods of stagnation and antagonism to Western ways. In sum, reform in Russia, it is claimed, has always failed; does the reform process begun by Gorbachev and continued by Yeltsin deviate from this historical "tradition" in any significant way? Is this current era of reform, like the others before it, doomed to failure? (Prereq 3.50 GPA, special written Δ. Limited to 15)  
Spring Qtr, ★Sec 1, W, 6:20-8:50, SocSci 1383, Noonan

## Horticultural Science (Hort)

(305 Alderman Hall: 624-4242)

### College of Agriculture

Textbooks for most Hort courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Landscape Architecture; Botany; and The Practical Scholar noncredit courses)

N. Anderson, Instructor  
Peter D. Ascher, Professor  
David W. Davis, Professor  
Anne Hanchek, Assistant Professor  
Leonard Hertz, Professor  
Peter Moe, Instructor  
D. B. White, Professor  
Michael Zins, Assistant Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Horticultural Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Hort 1010 HOME HORTICULTURE.** 4 credits, tuition\* (includes \$10 course fee): Resident \$304; Non-resident \$862.6. (IS)

For non-horticulture majors. Fundamental concepts of plant identification, growth, and culture with practical applications to home landscape, floral design, house plants, and fruit, flower, and vegetable gardening. Lecture and laboratory. (No prereq)

Fall Qtr, Sec 1, W, 6:10-9:30, HrG 172, StP Campus, Moe

(See also PSch 0958, Designing Gardens and Yards With the Environment in Mind)

The following courses are intended for those students who wish to pursue their study of garden culture, plant materials and landscape design beyond the basic levels. The instructional level is established for students interested in professional improvement in horticulture and landscape architecture as well as for the advanced amateur.

**Hort 1020 FLORAL DESIGN.** 4 credits, tuition\* (includes \$40 course fee): Resident \$334; Non-resident \$892.60.

Design for use in commercial flower shops or at home, including principles and elements of design, wedding and funeral arrangements, corsages, and the decorative use of dried materials. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, Th, 6-9:20, AlderH 415 (Lecture), StP Campus, Anderson (Lab meets in AlderH 423)

Winter Qtr, ★Sec 2, W, 6-9:20, AlderH 415 (Lecture), StP Campus, Anderson (Lab meets in AlderH 423)

**Hort 1021 WOODY PLANT MATERIALS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Taxonomy, ecology, and landscape use of trees, shrubs, and evergreens. Lectures, laboratories, and field trips. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, T, 6-10 (plus arr), AlderH 415, StP Campus, Zins

(See also PSch 0955, Selecting Trees, Shrubs, and Vines for Your Home and Garden)

**Hort 1022 HERBACEOUS LANDSCAPE PLANTS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Taxonomy, ecology, and landscape use of perennial and annual flowers, ferns, weeds, tender and hardy bulbs, grasses, herbs, and native plants. Lectures, laboratory, field trips, and garden experience. *Course packet required.* (No prereq. Limited to 32)

Spring Qtr, ★Sec 1, Th, 6-10 (plus arr), Snyder Research and Education Bldg, Minnesota Landscape Arboretum (West of Rt 41 on Hwy 5), Chanhassen, Hancock. (Books available at Arboretum Gift Shop and at Books Underground on the St. Paul campus)

**Hort 1036 PLANT PROPAGATION.** 5 credits, tuition\* (includes \$5 course fee): Resident \$372.50; Non-resident \$1070.75.

Principles and techniques of propagating plants by seeds, cuttings, grafts, buds, layers, division and plant tissue culture. Lectures on principles; laboratories on practice of various propagating techniques. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, TTh, 5:10-8:10, HrG 172, StP Campus, Ascher

Winter Qtr, ★Sec 2, TTh, 6:15-9:15, HrG 172, StP Campus, Ascher (Limit 30)

(See also PSch 0967, Growing and Propagating Wildflowers and Native Plants)

**Hort 3031 FRUIT SCIENCE.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Principles of tree and small fruit production in temperate climates. Site selection, cultural and management practices, physiological and environmental control of plant development, dwarfing, growth regulating compounds, pest and weed control. Lecture and laboratory. (No prereq)

Winter Qtr, Sec 1, W, 6:20-9:30, HrG 172, StP Campus, Hertz

(See also PSch 0961, Home Fruit Growing)

**Hort 3072 TURF MANAGEMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

General landscape maintenance and turf culture. Work in areas of industrial grounds maintenance, park and recreation area maintenance, and general lawn care. (Prereq Soil 3125, PBio 1103, Hort 1036 or Agro 3020)

Winter Spec Term, Sec 1, M, 6:10-9:30, Feb. 13-Apr. 17 (10 meetings), HrG 172, StP Campus, White. *No late fee through Feb. 6.*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Hort 5034 COMMERCIAL VEGETABLE AGRICULTURE.** 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25. Crop cultural and product handling and use systems in various world regions. History and evolution of species and product development. Seed and stand establishment; propagation; pest management. Applied physiology and genetics of fruit, bulb, tuber initiation; sink development, maturation and quality. Lectures, laboratories and field trips. (Prereq 3002 or Agro 1010, Soil 3125. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class) Spring Qtr, ○Sec 1, MW, 4-6 (plus arr), HrG 172, StP Campus, Davis

## Hospital and Health Care Administration

For information on noncredit conferences or workshops in hospital and ambulatory care administration, please contact Vernon Weckwerth, Box 97 Mayo, telephone 624-0603; or M. Perron, 624-1411.

## Housing

See Design, Housing and Apparel, page 138.

## College of Human Ecology

Courses are listed under the following units:

### Design, Housing, and Apparel

Includes what were formerly separate *Design*, and *Housing*, and *Textiles and Clothing* departments

### Family Social Science

Includes Alcohol and Drug Counseling Education

### Food Science and Nutrition

### Social Work

### Youth Studies

For information about credit courses given in suburban or out-state locations please write or call the College of Human Ecology, 32 McNeal Hall, 1985 Buford Avenue, University of Minnesota, St. Paul, MN 55108; telephone (612) 624-1717.

## Humanities (Hum)

(355 Ford Hall: 625-6563)

### College of Liberal Arts

Textbooks for most Hum courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also The Compleat Scholar noncredit courses)

Jackson Hershbell, Professor of Classical and Near Eastern Studies  
George Kliger, Assistant Professor  
Richard Rudolph, Professor, Institute of International Studies  
David Shupe, Lecturer  
Robert B. Tapp, Professor  
George T. Wright, Regents Professor of English

**Most of the courses for a minor in Humanities can be completed in the evening.**

### Requirements for a Humanities minor

25 credits: One course from the Introduction to Western Civilization sequence (Hist 1021, 1022, 1023 or Hist 1021H, 1022H, 1023H) (5 credits). Three courses from the European Heritage and Modern West sequences (12 credits); two additional 3xxx-5xxx Humanities courses (8 credits). The minor program must be approved by the Humanities Curriculum Coordinator. Not more than one Humanities course in the Minor course program may be taken at the 1xxx level. Not more than one course at the 3xxx-5xxx level in the minor program may be taken on a Directed Study, Directed Instruction or Independent Study basis. Not more than one course at the 3xxx-5xxx level in the Minor program may be taken on an S-N basis. All courses must be completed with a grade of C or higher (exception: one course may be completed with a grade of S).

**You need not be minoring in Humanities to register for these classes.**

**Continuing Education for Women (CEW) section available in the following course:** Hum 1003, Hum 3003

**Hum 1001 HUMANITIES IN THE MODERN WEST I.** 4 credits, \$3001, \$Rhett 1301, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Eighteenth-century Europe. Old Regime through French Revolution and Napoleon; rococo, neoclassicism, incipient romanticism. Integrative study of works by creative figures such as Pope, Voltaire, Rousseau, Diderot, Goethe, Watteau, Boucher, Hogarth, David, Goya, Mozart, Haydn. (No prereq. Meets concurrently with 3001)

Fall Qtr, Sec 1, T, 6:20-8:50, BlegH 225, Wright

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Hum 1002 HUMANITIES IN THE MODERN WEST II.** 4 credits, §3002, §Rhet 1302, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Romanticism, liberalism, socialism; Industrial Revolution, materialism, cult of the individual and some counterstatements; realism, naturalism. Integrative study of works by creative figures such as Wordsworth, Byron, Adam Smith, Bentham, Marx, Mill, Stendhal, Flaubert, Ibsen, Dostoevsky, Delacroix, Courbet, Daumier, Beethoven, Berlioz, Liszt. (No prereq. Meets concurrently with 3002) Winter Qtr, Sec 1, W, 6:20-8:50, BlegH 245, Rudolph

**Hum 1003 HUMANITIES IN THE MODERN WEST III.** 4 credits, §3003, §Rhet 1303, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Impact of science, especially evolution theory, on religious and humanistic thought; roots of existentialism; disorientation in modern culture; impressionism. Integrative study of selected works by creative figures such as Kierkegaard, Darwin, Nietzsche, Chekhov, Joyce, Mann, Manet, Monet, Renoir, Degas, Wagner, Debussy, Mahler. (No prereq. Meets concurrently with 3003)

Fall Qtr, Sec 1, Th, 9:30 a.m.-12, MacPhail, Tapp. *Offered through Continuing Education for Women*

Spring Qtr, Sec 2, M, 6:20-8:50, FolH 104, Shupe

**Hum 1004 HUMANITIES IN THE MODERN WEST IV.** 4 credits, §Hum 3004, §Rhet 3381, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Europe, 1914-1940. Ideas and forms of society and culture: Leninist, fascist-Nazi, Freudian, neo-orthodox. Expressionism, dada, surrealism. Integrative study of works by creative figures such as Lenin, Freud, Kafka, Eliot, Duchamp, Klee, Kollwitz, Dali, Picasso, Stravinsky, Schönberg, Bartók, Wright, Gropius. (No prereq. Meets concurrently with Hum 3004)

Fall Qtr, Sec 1, W, 6:20-8:50, FordH 55, Kliger

**Hum 1005 HUMANITIES IN THE MODERN WEST V.** 4 credits, §Hum 3005, tuition\*: Resident \$294; Non-resident \$852.60.

The Western world, 1940-1970. Existentialism, "the absurd;" searches for identity, commitment; religious trends; influence of oriental spiritual traditions. Integrative study of works by such creative figures as Camus, Sartre, Ionesco, Bultmann, Watts, Pollock, Warhol, Stockhausen, Cage, LeCorbusier, Fellini. (No prereq. Meets concurrently with 3005)

Winter Qtr, Sec 1, W, 6:20-8:50, FordH 55, Kliger

**Hum 1111 EUROPEAN HERITAGE: GREECE.** 4 credits, §3111, §Rhet 3321, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Greek civilization; literary and artistic works that have influenced modern Western culture. Epic and lyric poetry, drama, architecture, sculpture, philosophy, religion; Homer, Hesiod, Aeschylus, Sophocles, Euripides, Aristophanes, Plato, Aristotle. (No prereq. Meets concurrently with 3111) Winter Qtr, Sec 1, M, 6:20-8:50, FordH 55, Hershbell

**Hum 1113 EUROPEAN HERITAGE: ROME.** 4 credits, §3113, §Rhet 3322, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Roman civilization of the late republic and empire; rise of Christianity. Literature, religion, philosophy, art, architecture. Integrative study of selected works influential in modern Western culture; Caesar, Lucretius, Virgil, Ovid, Seneca, Petronius, Augustine, Boethius. (No prereq. Meets concurrently with 3113)

Spring Qtr, Sec 1, M, 6:20-8:50, FordH 120, Hershbell

(See also CSch 0200, Rome in Africa)

**Hum 3001 HUMANITIES IN THE MODERN WEST I.** 4 credits, §1001, §Rhet 1301, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Hum 1001. (No prereq. Meets concurrently with 1001)

Fall Qtr, Sec 1, T, 6:20-8:50, BlegH 225, Wright

**Hum 3002 HUMANITIES IN THE MODERN WEST II.** 4 credits, §1002, §Rhet 1302, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Hum 1002. (No prereq. Meets concurrently with 1002)

Winter Qtr, Sec 1, W, 6:20-8:50, BlegH 245, Rudolph

**Hum 3003 HUMANITIES IN THE MODERN WEST III.** 4 credits, §1003, §Rhet 1303, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Hum 1003. (No prereq. Meets concurrently with 1003)

Fall Qtr, Sec 1, Th, 9:30 a.m.-12, MacP, Tapp. *Offered through Continuing Education for Women*

Spring Qtr, Sec 2, M, 6:20-8:50, FolH 104, Shupe

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Hum 3004 HUMANITIES IN THE MODERN WEST IV.** 4 credits, §Hum 1004, §Rhet 3381, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

See course description for Hum 1004. (No prereq. Meets concurrently with Hum 1004)

Fall Qtr, Sec 1, W, 6:20-8:50, FordH 55, Kliger

**Hum 3005 HUMANITIES IN THE MODERN WEST V.** 4 credits, §Hum 1005, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for Hum 1005. (No prereq. Meets concurrently with 1005)

Winter Qtr, Sec 1, W, 6:20-8:50, FordH 55, Kliger

**Hum 3111 EUROPEAN HERITAGE: GREECE.** 4 credits, §Hum 1111, §Rhet 3321, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

See course description for Hum 1111. (No prereq. Meets concurrently with 1111)

Winter Qtr, Sec 1, M, 6:20-8:50, FordH 55, Hershbell

**Hum 3113 EUROPEAN HERITAGE: ROME.** 4 credits, §1113, §Rhet 3322, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

See course description for Hum 1113. (No prereq. Meets concurrently with 1113)

Spring Qtr, Sec 1, M, 6:20-8:50, FordH 120, Hershbell

**Hum 3910 TOPICS IN THE HUMANITIES: TECHNOLOGY AND THE HUMANITIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

For the past two hundred years, the relationship between technology and the humanities has been primarily antagonistic, occasionally compatible, rarely neutral. The most thorough criticisms of technology have been those prepared by humanists who view technology as undermining essential human qualities. Standing now on what some believe to be the beginning of an electronic transformation of both text and image, the class will reassess this relationship. An examination of recent and anticipated developments in the use of electronic technology in the arts and humanities (e.g., novels in hypertext) and a discussion of how well the criticisms apply: What is gained? What is lost? Might the widespread use of electronic technology lead to the demise of the humanities or their renaissance? (Prereq jr or sr or grad or #. Meets concurrently with 5910 sec 1)

Fall Qtr, Sec 1, M, 6:20-8:50, FordH 359, Shupe

**Hum 3910 TOPICS IN THE HUMANITIES: MASSES, ELITES—LEADERS, FOLLOWERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Mass movements and cults, fired by ideological fanaticism, led by so-called "charismatic personalities," (e.g., Adolf Hitler, Mao Tse Tung, Jim Jones, David Koresh) often resulting in catastrophic events such as reigns of terror, genocide, the holocaust, collective suicide, and enormously destructive wars, have been frequent in the 20th century. This century also has been characterized by the prevalence of what can best be called mass societies, particularly in the industrially and technologically advanced regions of the globe. Drawing on interdisciplinary sources, this seminar will explore the following issues: the nature of mass society; the tendency to conform; unquestioned obedience to authority; susceptibility to be influenced, swayed, manipulated by advertisement, propaganda, demagoguery, special circumstances which make masses of people more susceptible to falling under the spell of charismatic figures and the ideologies they advocate than in normal times; antidotes to such vulnerability; the relationships of elites to masses, leaders to followers. (Prereq jr or sr or #. Meets concurrently with 5910 sec 2. Limited to a combined total of 20)

Spring Qtr, ★Sec 2, W, 6:20-8:50, FordH 50, Kliger

**Hum 5910 TOPICS IN THE HUMANITIES: TECHNOLOGY AND THE HUMANITIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Hum 3910 sec 1. (Prereq jr or sr or grad or #. May not be taken for graduate credit at the University of Minnesota. Meets concurrently with 3910 sec 1)

Fall Qtr, Sec 1, M, 6:20-8:50, FordH 359, Shupe

**Hum 5910 TOPICS IN THE HUMANITIES: MASSES, ELITES—LEADERS, FOLLOWERS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Hum 3910 sec 2. (Prereq jr or sr or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3910 sec 2. Limited to a combined total of 20)

Spring Qtr, ★Sec 2, W, 6:20-8:50, FordH 50, Kliger

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

---

## Course Descriptions

---

### Human Relations

See EPsy 5135, Workshop in Human Relations

### Human Resource Development

See Vocational and Technical Education

### Industrial Education

(See *Business and Industry Education* in Vocational and Technical Education)

### Industrial Engineering/ Operations Research (IEOR)

(121 Mechanical Engineering: 625-5842)

#### Institute of Technology

Textbooks for most IEOR courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Sant R. Arora, Professor of Mechanical Engineering

Edward Barnett, Lecturer in Mechanical Engineering  
Russell D. Melton, Lecturer

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in IEOR. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**IEOR 3000 (formerly IEOR 5000) INTRODUCTION TO INDUSTRIAL ENGINEERING ANALYSIS.** 4 credits, §IEOR 5000, tuition\*: Resident \$346; Non-resident \$1003.40.

Elements of manufacturing and production systems, types of industrial problems solved by the industrial engineer, programming, artificial intelligence techniques, methods engineering for process improvement, critical path method, and PERT, fundamentals of engineering economy, cost estimation, value engineering, concurrent engineering, design for manufacture. Applications may include production scheduling, facility layout, quality engineering, manufacturing automation, product design. (Prereq Math 1252. May not be taken for graduate credit)

Spring Qtr, Sec 1, Th, 6:10-9:10, MechE 202, Barnett

**IEOR 5020 ENGINEERING COST ACCOUNTING, ANALYSIS AND CONTROL.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Basic accounting concepts, financial statements, analysis and control of current assets such as cash, receivables, and inventory; income tax planning, cost analysis, standard costs for product costing, time value of money, quantification of risk and uncertainty, utility theory, cost of capital and capital structure, capital budgeting under capital rationing, management decisions, and investment decisions. (Prereq 3000 and ME 3900 recommended. May not be taken for graduate credit by IEOR grad students)

Fall Qtr, Sec 1, Th, 6:10-9:10, LindH 302, Barnett

**IEOR 5030 QUALITY ENGINEERING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Definition of quality, quality strategy, economics of quality, quality improvement teams, improvement methodologies, the 7 QC tools, control charts, rational sampling, process capability analysis, quality in product design, quality function deployment, total quality management. Deming management methods. (Prereq IT or grad student, Math 1261, ME 3900. IEOR 3000 recommended. May not be taken for graduate credit by IEOR grad students)

Spring Qtr, Sec 1, W, 6:10-9:10, Arch 50, Arora

**IEOR 5311 MANAGEMENT FOR ENGINEERS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Historical development of management concepts; organizational systems and authority relationships; planning, communication and management responsibility. (Prereq IT student or grad, 3000. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, Th, 6:10-9, MurH 311, Barnett

---

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**IEOR 5321 INDUSTRIAL SAFETY.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Definition and philosophy of safety, safety training, safety requirements for production processes, equipment and plants, industry standards, safety devices, and product safety. (Prereq IT student or grad; IEOR 3000. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)  
Spring Qtr, ★Sec 1, Th, 6:10-9, MechE 221

**Industrial Relations (IR)**

(537 Management/Economics: 624-2500)

**Carlson School of Management**

Textbooks for most IR courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Spch 5441, Communication in Human Organizations; and Economics)

- Dawn Addy, Lecturer
- Ross E. Azevedo, Associate Professor
- James W. Beaton, Lecturer
- Charles H. Davis, Lecturer
- Kenneth L. Gagala, Lecturer
- Edward R. Goettl, Industrial Relations Consultant
- Raymond A. Noe, Associate Professor
- Robert T. Weaver, Associate Professor, Bethel College

Your attention is called to the Industrial Relations Certificate program. See the Degrees and Certificates section of this Bulletin.

**Evening Master of Arts in Industrial Relations program**—an evening program is offered in Plan A (thesis) or Plan B (non-thesis). Students usually enroll for up to 8 credits a quarter and can complete the program within 8 quarters. Applicants are required to submit scores from the General Aptitude section of the Graduate Record Examination. For GRE information, call (612) 624-3323. For further information about the master's program, call Edie French at (612) 624-5810; or write the Director of Graduate Studies, Industrial Relations Center, University of Minnesota, 271 19th Ave. S., Minneapolis, MN 55455.

**Business degree students must take Industrial Relations courses A-F.**

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in IR. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Note:** Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**IR 0001C SUPERVISION I: ELEMENTS OF SUPERVISION.** 3 certificate credits, tuition\* (includes \$16 special fee and \$2 course fee): \$238.50. (IS)

A general discussion of basic principles of supervision in the office and factory. Survey of principles for the handling of day-to-day problems of supervisors, with emphasis upon human relations aspects of such problems. Deals with problems such as selection, induction and training of new employees, employee appraisal, giving orders, handling grievances, discipline, and employee morale. Extensive use of class discussion of practical problems drawn from office and plant situations. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, T, 6-9, BlegH 5

**IR 0002C SUPERVISION II: ADVANCED TECHNIQUES OF SUPERVISION.** 3 certificate credits, tuition\* (includes \$16 special fee and \$2 course fee): \$238.50.

Emphasizes specialized supervisory techniques based upon principles outlined in Supervision I. Includes discussion of research in supervisory methods and practices and their relative success in application in the office and plant. Methods of supervisory training, morale measurement, job analysis and job evaluation, safety programs, wage and salary administration, principles of organization and communications are among the topics discussed. Extensive use is made of discussion method and case studies. (Prereq 0001C or #)

Winter Qtr, Sec 1, M, 6-9, RarigC 616

**IR 3000 LABOR ARBITRATION.** 4 degree credits. Tentatively scheduled for 1996-97.

**IR 3000 POLICY AND PRACTICE IN LABOR LAW.** 4 credits. Tentatively scheduled for 1995-96.

**IR 3000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR.** 4 credits. Tentatively scheduled for 1995-96.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**IR 3002 PERSONNEL AND INDUSTRIAL RELATIONS.** 4 credits, \$8002, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. An introduction to the human resource management function in organizations. Coverage includes the labor market, recruitment, selection, training, compensation, and labor relations. Topics to be covered are the changing nature of the world of work, emerging legal issues, discrimination in pay and employment, comparable worth, work performance and its assessment, and the effects of technological change on jobs and employment. Involves lecture presentations, discussion, case studies, and simulation exercises. (Prereq at least 90 credits completed or in progress; Econ 1101, Econ 1102, Psy 1001. Sec 2 meets concurrently with IR 8002. Limited to 65)

Fall Qtr, ★Sec 1, Th, 6-9, BlegH 250

Winter Qtr, ★Sec 2, T, 6-9, AndH 330 (Limited to a combined total of 65)

Spring Qtr, ★Sec 3, W, 6-9, BlegH 250

**IR 3007 COLLECTIVE BARGAINING AND LABOR RELATIONS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Analysis of the roles of unions and collective bargaining in contemporary American society. Topics covered include negotiations and related policies and practices of employers, employees, unions, legislative bodies, and the public in dealing with questions of worker representation in the private sectors. Coverage includes impact and transference of collective bargaining principles from the union sector to the non-union sector. Involves lecture presentations, discussion, case studies, and bargaining simulations. (Prereq at least 90 credits completed or in progress)

Fall Qtr, Sec 1, M, 6-9, BlegH 350

**IR 3010 THE INDIVIDUAL IN THE ORGANIZATION.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

An introduction to the human side of organizations, focusing on workers and how they enter and succeed in the work setting. Coverage includes theories and techniques of employment interviewing; training needs analysis; career planning; management development; turnover, out-placement, and retirement; understanding leadership roles and styles; work motivation, organization culture and job design; and planning for change. Involves lecture presentations, discussion, case studies, and simulation exercises. (Prereq at least 90 credits completed or in progress)

Fall Qtr, Sec 1, W, 6-9, SocSci 1383

Winter Qtr, Sec 2, Th, 6-9, BlegH 210

Spring Qtr, Sec 3, T, 6-9, RarigC 610

**IR 5000 PERSONNEL AND INDUSTRIAL RELATIONS LAW.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Designed for the student who needs to understand the growing body of laws and their application to the workplace. Human rights, equal employment, compensation and benefit laws, employee protection laws, labor relations laws, as well as special issues such as wrongful discharge, sexual harassment, defamation, are discussed in the context of Minnesota Federal statutes, case law and their application in the work setting. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, M, 6-9, BlegH 210, Beaton

**IR 5000 INTERNATIONAL PERSONNEL AND INDUSTRIAL RELATIONS PRACTICES.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Designed for the student who needs to understand how the American practices of personnel and industrial relations compare with those practices internationally. Laws, selection, performance management, compensation, and training and development are discussed. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 2, W, 6-9, SocSci 101, Beaton

**IR 5000 MANAGING DIVERSITY.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

To manage diverse employees, managers should ask themselves if they are fully tapping the potential capacities of everyone in their department; and if not, if this failure is hampering their ability to meet performance standards. In this course, students investigate diversity and strategize ways to use it. They will examine the theoretical debates surrounding the work force participation of women and minorities as well as the historical position of these groups in the labor force. Through analysis of trait theory and other leadership theories, they explore social phenomena which contribute to the continuation of discriminatory practices. Such practices and

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

the laws surrounding them will be examined. These practices will be framed with a systems, paradigmatic analysis. Students will have the opportunity to examine the formation of their own value systems, learn methods to modify their behavior, and enhance their abilities to manage and utilize diversity. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Spring Qtr, ★Sec 3, W, 6-9, BlegH 260, Addy

**IR 5000 EMPLOYEE PERFORMANCE: DESIGN APPRAISAL AND MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Designed for the student who needs to understand how work and employee performance are organized, appraised, and managed in the firm for employee satisfaction and to meet the goals of the firm. Job design standards, employee appraisal systems, and worker satisfaction are discussed. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 4, Th, 6-9, RarigC 610, Beaton

**IR 5002 SYSTEMS OF CONFLICT AND DISPUTE RESOLUTION.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Theoretical and practical treatment of the settlement of conflict in interpersonal, work-related, community, business, and international settings. Includes lecture presentations, discussion, observation of actual dispute resolution sessions, and laboratory exercises, with participation in various dispute resolution simulations applied to real world conflicts. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★Sec 1, T, 5:30-9, BlegH 260

**IR 8000 LABOR ARBITRATION.** 4 credits. Tentatively scheduled for 1996-97.

**IR 8000 POLICY AND PRACTICE IN LABOR LAW.** 4 credits. Tentatively scheduled for 1995-96.

**IR 8000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR.** 4 credits. Tentatively scheduled for 1995-96.

**IR 8002 PERSONNEL AND INDUSTRIAL RELATIONS.** 4 credits, tuition\* Resident Graduate credit \$735; Non-resident Graduate Credit \$1617. See description for IR 3002. (Prereq Econ 1101, 1102, Psy 1001. Open only to students admitted to the University of Minnesota Graduate School. Meets concurrently with IR 3002, sec 2. Limited to a combined total of 65)

Winter Qtr, ★Sec 1, T, 6-9, AndH 330

### Certified Employee Benefits Specialist (CEBS)

See Employee Benefits Specialist section of this bulletin.

### Information and Decision Sciences (IDSc)

(395 Humphrey Center: 624-8030)

#### Carlson School of Management

Textbooks for most Information and Decision Sciences courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Operations and Management Science)

Carl Adams, Professor  
 Norm Chervany, Professor  
 Shawn Curley, Associate Professor  
 Fred Davis, Associate Professor  
 Gordon Davis, Professor  
 George D'Elia, Associate Professor  
 Gretchen Donahue, Lecturer  
 Gordon Everest, Associate Professor  
 Dale Goodhue, Assistant Professor  
 Thomas Hoffmann, Professor  
 Paul Johnson, Professor  
 Douglas C. Lund, Lecturer and Coordinator  
 Salvatore T. March, Professor  
 J. David Naumann, Associate Professor  
 Robert Van Cleave, Lecturer and Coordinator, MBA Program  
 Les Wanninger, Lecturer and Coordinator, Extension Classes  
 James Wetherbe, Professor

Courses in the IDSc area make up a program designed for students with a variety of backgrounds:

1. Undergraduates in the Carlson School or other schools who want one or more IDSc courses as electives

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

2. Working students who want IDSc electives or an information technology-focused emphasis program as part of their mid-career education, but who are not necessarily working toward a degree
3. Undergraduate Carlson School business majors who want to focus on information technology in a self-designed emphasis program as part of their Carlson School B.S.B. degree

### Starting Points

Students who have been accepted into, or who plan to apply to the Carlson School, should begin with the Core Courses of IDSc 1010, OMS 1020, and IDSc 3030. IDSc 3030 is a requirement for Carlson School students as part of the B.S.B. program. IDSc 3030 is required prior to taking the other 3xxx and 5xxx courses below. That requirement may be waived by the IDSc Extension coordinator (Les Wanninger, 624-8030) for those students who have equivalent experience.

### Core Courses

This sequence of three courses (IDSc 1010, OMS 1020, IDSc 3030) is intended to help students develop the capability to acquire, analyze, and manage data as business professionals. The courses are a mix of skill development and general knowledge in information technology.

### Carlson School of Management degree students must take upper division (3xxx-5xxx) IDSc courses A-F.

**Note:** Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**IDSc 1010 (formerly MSci 1010) FUNDAMENTALS OF INFORMATION DEVELOPMENT AND USE.** 4 credits, \$MSci 1010, tuition\* (includes \$16 special fee); Resident \$310; Non-resident 868.60.

Overview of the process of understanding, developing, and presenting data to support management decision making. Information development topics include management decision making and the need for the availability and proper use of data; measurement principles and data quality; methods for the acquisition of secondary and primary data including surveys, quasi-experimental, and true experiments, simulation, and time-oriented process models. Information use topics include methods for organizing, summarizing, interpreting, and presenting complex data types. Models of data analysis include data displays or graphics; exploratory data

analysis; frequency distributions; measures of location, variability, and association; elementary probability operations; and time-oriented process models. (Prereq 30 credits, Math 1111 or ¶1111. Limited to 45)

Fall Qtr, ★Sec 1 Lect, M, 5:30-8:15, BlegH 125; Rec, M, 8:15-9:15, BlegH 125

Fall Qtr, ★Sec 2, Lect, T, 5:30-8:15, ClaOff B35, StP Campus (Limit 36); Rec, T, 8:15-9:15, ClaOff B35, StP Campus

Fall Qtr, ★Sec 3, Lect, W, 5:30-8:15, BlegH 125; Rec, W, 8:15-9:15, BlegH 125

Winter Qtr, ★Sec 4, Lect, M, 5:30-8:15, BlegH 125; Rec, M, 8:15-9:15, BlegH 125

Winter Qtr, ★Sec 5, Lect, W, 5:30-8:15, BlegH 125; Rec, W, 8:15-9:15, BlegH 125

Spring Qtr, ★Sec 6, Lect, M, 5:30-8:15, BlegH 130; Rec, M, 8:15-9:15, BlegH 130

Spring Qtr, ★Sec 7, Lect, W, 5:30-8:15, BlegH 130; Rec, W, 8:15-9:15, BlegH 130

**OMS 1020 DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS.** See page 290.

**IDSc 3030 (formerly MSci 3030) INFORMATION SYSTEMS AND INFORMATION MANAGEMENT.** 4 credits, \$MSci 3030, §IDSc 3002, §MIS 3100, 5100, 3101, 3300, 5101, tuition\* (includes \$16 special fee); Resident \$362; Non-resident 1019.40.

Defining information requirements. Developing information systems applications. Using information systems. Defining data structures and building and using databases. Formulating database retrievals. Building and using models and expert systems to support decision making. Obtaining external data to support model building and decision making. Evaluating information. Skill development in database software. This course is equivalent to MIS 3100, 5100, 3101, 3300, and 5101. **Limits are strictly enforced due to facility limitations. No permission to register will be given when a section closes. Must be taken A-F.** (Prereq IDSc 1010 and OMS 1020. Limited to 30)

Fall Qtr, ★Sec 1, Lect, M, 5:30-8:15, BlegH 440; Lab, M, 8:15-9:15, BlegH 440

Fall Qtr, ★Sec 2, Lect, W, 5:30-8:15, BlegH 440; Lab, W, 8:15-9:15, BlegH 440

Winter Qtr, ★Sec 3, Lect, M, 5:30-8:15, BlegH 440; Lab, M, 8:15-9:15, BlegH 90

Winter Qtr, ★Sec 4, Lect, W, 5:30-8:15, BlegH 440; Lab, W, 8:15-9:15, BlegH 90

Spring Qtr, ★Sec 5, Lect, T, 5:30-8:15, BlegH 440; Lab, T, 8:15-9:15, BlegH 440

Spring Qtr, ★Sec 6, Lect, W, 5:30-8:15, BlegH 440; Lab, W, 8:15-9:15, BlegH 440

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**IDSc 1075 (formerly MIS 1075) COBOL.** 2 credits, \$MIS 1075, 3098, tuition\* (includes \$50 special fee): Resident \$197; Non-resident \$476.30. Introduction to the programming language COBOL, a widely used business data processing language. Through lecture, in-class exercises, assignments, and exams, students learn the basics of COBOL program design, coding, testing, and debugging. **Must be taken S-N.** (No prereq. Limited to 28)

Fall Qtr, ★Sec 1, Th, 5:30-7:30, BlegH 440

**IDSc 3132 (formerly MIS 3132) DATA COMMUNICATIONS SYSTEMS.** 4 credits, \$MIS 3132, tuition\* (includes \$16 special fee): Resident \$362; Non-resident 1019.40.

Characteristics of transmission facilities and networks, concentrators and multiplexors, terminals, modems and front-end processors. Control hardware and software systems. The role of data communications in management information systems. *Open to nondegree students with equivalent experience.* (Prereq 5102 or MIS 5102 and at least 90 credits completed or in progress. Limited to 30)

Winter Qtr, ★Sec 1, T, 5:30-9, BlegH 210, Naumann

**IDSc 5102 (formerly MIS 5102) INTRODUCTION TO INFORMATION SYSTEMS ANALYSIS.** 4 credits, \$MIS 5102, tuition\* (includes \$16 special fee): Resident \$362; Non-resident 1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

The phases within the systems life cycle for development of an information system application. Emphasis on the standards, tools and techniques required in the analysis of information requirements and in logical design. Processing alternatives and alternative approaches to systems design. *Open to nondegree students with equivalent experience.* (Prereq 3030 or 3001 or 3002 and at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Credits may not be applied to MBA programs begun after Dec. 15, 1979. Limited to 30)

Fall Qtr, ★Sec 1, T, 5:30-9, BlegH 125, Naumann

**IDSc 5103 DATABASE DESIGN, MANIPULATION, AND MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident 1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Use of computer technology and software to represent, manipulate, and manage data. For users of

databases and DBMS. Facilities for ad hoc interactive use and system development. Principles and techniques of logical database design. Introduction to physical representation and storage of data in a computer system. Database management system (DBMS) tools to manage data and high-level languages to retrieve and manipulate data. (Prereq IDSc 3030 or IDSc 3001 or 3002. Qualified students may register for graduate credit at the University of Minnesota. Credits may not be applied to the MBA program. Limited to 30)

Winter Qtr, ★Sec 1, W, 5:30-9, BlegH 145, Everest

**IDSc 5410 DECISION SUPPORT AND EXPERT SYSTEMS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident 1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633. Overview of technical and organizational aspects of decision support systems. Management of DSS within the end-user computing environment. Conceptual foundations of DSS, DSS software reviews, and case examples. *Open to nondegree students with equivalent experience.* (Prereq 3030 or MSci 3030 or MBA 8025 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 7 Extension students)

Fall Qtr, ★Sec 1, T, 5:30-9, BlegH 335

**IDSc 5430 (formerly 3131) ADVANCED DATABASE DESIGN AND ADMINISTRATION.** 4 credits, \$8430, tuition\* (includes \$16 special fee): Resident \$362; Non-resident 1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Perspective of data administrator serving the users of information and DBMS. Role, organization, functions, and tools of data administration. Data planning and information architectures. Advanced logical database design. Advanced database manipulation with high-level languages and natural languages. Object-oriented DBMS and support for graphics and CAD/CAM applications. Data security, maintaining database integrity, and managing data in a shared, networking, or distributed environment. Strategies for using advanced DBMS tools in systems development and operations. *Open to nondegree students with equivalent experience. Credits may not be applied to the Carlson School of Management MBA program.* (Prereq 5103. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 1, Th, 5:30-9, BlegH 115, Everest

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### **APEX (Academy Practitioner Exchange) Project.** 4 credits (may be repeated for credit).

A special program designed to provide a productive interaction between faculty and practitioners who are interested in developing the frontiers of knowledge and practice. Opportunity to study special topics in Information and Decision Sciences in depth. Participative inquiry formats address current interests. Designed to sharpen concept and practice. Interaction with faculty, practitioners, and resource person in team settings. (Prereq minimum of two years of managerial experience. Qualified students may register for graduate credit at the University of Minnesota)

**For further information about the courses listed below, contact the course coordinator at (612) 624-8030.** Course sites to be announced.

**IDSc 5998 SPECIAL TOPICS: APEX PROGRAM: Business Process Re-Engineering.** 4 credits, tuition\* (includes \$450 special fee): Resident \$796; Non-resident 1453.40; Resident Graduate credit \$878; Non-resident Graduate credit \$1306; Resident Graduate School credit \$1185; Non-resident Graduate School credit \$2067.

Business process redesign (BPR) is an approach for fundamentally rethinking and radically redesigning business systems, including an overhaul of job designs, organizational structures, and management systems. The objectives of BPR are to make processes effective, flexible, and consistently high quality. A new, advanced, automated methodology will be presented and used as part of the course. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, ★Sec 1, M, 5:30-9, HHHctr 20  
Winter Qtr, ★Sec 2, M, 5:30-9, HHHctr 20  
Spring Qtr, ★Sec 3, M, 5:30-9, BlegH 335

**IDSc 5998 SPECIAL TOPICS: APEX PROGRAM: CASE Technology.** 4 credits, tuition\* (includes \$450 special fee): Resident \$796; Non-resident 1453.40; Resident Graduate credit \$878; Non-resident Graduate credit \$1306; Resident Graduate School credit \$1185; Non-resident Graduate School credit \$2067.

CASE (Computer Assisted Software Engineering) is one of the fastest growing attempts to use computing technology in support of development of computing applications. It offers significant potential, but is not short of its own issues and limitations. This APEX program investigates CASE practice and relates that to what has been learned about applying other technology. A variety of teaching methods are used, including site visits, literature

summary, lecture, case discussions, and group research. *Enrollment is by permission of the instructor, Gordon Everest, because of the developmental and research nature of the project, and the expectation that all project members will contribute as well. Call 624-1874 for a complete description and to discuss your participation.* (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr, ★Sec 4, Th, 6-9:30, Law 1, Everest

**IDSc 5998 SPECIAL TOPICS: APEX PROGRAM: Multimedia.** 4 credits, tuition\* (includes \$450 special fee): Resident \$796; Non-resident 1453.40; Resident Graduate credit \$878; Non-resident Graduate credit \$1306; Resident Graduate School credit \$1185; Non-resident Graduate School credit \$2067.

Multimedia is the use of combinations of data, text, pictures, sound, animation, and graphics on a computer system. In essence then, the application of multimedia technologies involves the integration, introduction, and infusion of new technologies into new applications in an environment of changing jobs, roles, and requirements. Individuals who may be classified as innovators and early adopters will likely lead the introduction of multimedia technologies. However, development of a supporting infrastructure of people and technology will be necessary for multimedia use to expand beyond a few innovators to widespread use. This research course will examine multimedia from the perspective of how it can be used strategically in pursuit of organizational objectives. Class participants will investigate a variety of multimedia applications, the capabilities that are used, benefits that are derived, and issues and limitations. Implementation issues will include defining a supporting infrastructure, managing change, legal issues, changes brought about by the technology, and project definition and management. Students will have access to the multimedia lab. *Enrollment is by permission of the instructor. Call 624-1874 for a complete description and to discuss your participation.* (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 5, Arr, Wanninger

## **Institute of Languages and Literatures**

(192 Klaeber Court: 624-3331)

### **College of Liberal Arts**

Textbooks for most courses offered through the Institute of Languages and Literatures on the East Bank campus are available at University of Minne-

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



sota Bookstore—East Bank in Williamson Hall (625-6000); at University of Minnesota Bookstore—West Bank (625-3000) for West Bank campus offerings; at University of Minnesota Bookstore—St. Paul (624-9200) for classes on that campus.

- Teirab AshShareef, Assistant Professor of Afro-American and Middle Eastern Languages and Cultures  
 Amalendu Chakrabarty, Lecturer in South Asian Languages and Cultures  
 Bruce T. Downing, Associate Professor of Linguistics  
 Caesar Farah, Professor of History and Middle Eastern Studies  
 Gary Jahn, Associate Professor of Slavic Languages and Literatures  
 Indira Junghare, Professor of South Asian Languages and Cultures  
 William Malandra, Associate Professor of Classical and Near Eastern Studies and South Asian Studies  
 Leonard A. Polakiewicz, Associate Professor of Slavic Languages and Literatures  
 Belkacen Saadallah, Lecturer  
 Ivancica Schrunk, Lecturer in Slavic Languages and Literatures  
 Nancy J. Stenson, Associate Professor of Linguistics

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in courses offered through the Institute of Languages and Literatures. For a copy of the current daytime *Class Schedule* and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

## East Asian Languages and Literatures

### *Chinese (Chn)*

**Chn 1011-1012-1013 BEGINNING CHINESE.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Reading, writing, and speaking Chinese. Completion of 1013 prepares students for 3021. **Note:** All students should register in Sec 1 fall quarter; sec 1 winter quarter; and sec 1 spring quarter. Assignments to other sections will be made as necessary, and section and building/room noted on the student's registration receipt. Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter. (No prereq for 1011; 1011 or 1006 or # for 1012; 1012 or 1007 or # for 1013. Limited to 20)

Fall Qtr, 1011, ★Sec 1, MW, 6:20-8:50, FolH 114

Fall Qtr, 1011, ★Sec 2, MW, 6:20-8:50, FolH 240

Winter Qtr, 1012, ★Sec 1, MW, 6:20-8:50, KoltH S135

Winter Qtr, 1012, ★Sec 2, MW, 6:20-8:50, FolH 142

Spring Qtr, 1013, ★Sec 1, MW, 6:20-8:50, KoltHS138

Spring Qtr, 1013, ★Sec 2, MW, 6:20-8:50, FolH 426

**Chn 3021-3022-3023 INTERMEDIATE MODERN CHINESE.** 5 credits each quarter, tuition\* each quarter: Resident \$385; Non-resident \$1116.50. Modern standard Chinese, expanded through conversation and reading. 3022 and 3023 will be offered only if there is sufficient enrollment in 3021. Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter. (Prereq 1013 or 1008 or # for 3021; 3021 or # for 3022; 3022 or # for 3023. Limited to 20)

Fall Qtr, 3021, ★Sec 1, MW, 6:20-8:50, FolH 340

Winter Qtr, 3022, ★Sec 1, MW, 6:20-8:50, FolH 114

Spring Qtr, 3023, ★Sec 1, MW, 6:20-8:50, FolH 114

**Chn 3161 CHINESE POETRY IN ENGLISH TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Major poets examined in context of their intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. Section will be offered only if there is sufficient enrollment of 10 or more students. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, KoltH S132

**Chn 3162 CHINESE FICTION IN ENGLISH TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Chinese narrative prose, 1200 to 1900. Intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. Section will be offered only if there is sufficient enrollment of 10 or more students. (No prereq)

Spring Qtr, Sec 1, T, 6:20-8:50, FolH 240

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Japanese (Jpn)

**Jpn 1011-1012-1013 BEGINNING JAPANESE.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Reading, writing, and speaking Japanese. Completion of 1013 prepares students for 3021. *Students must attend the first class meeting or risk losing their place in the class. Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (No prereq for 1011; 1011 or 1006 or # for 1012; 1012 or 1007 or # for 1013. Limited to 20)

Fall Qtr, 1011, ★Sec 1, MW, 6:20-8:50, KoltH S137

Winter Qtr, 1012, ★Sec 1, MW, 6:20-8:50, KoltH S140

Spring Qtr, 1013, ★Sec 1, MW, 6:20-8:50, KoltH S140

**Jpn 3021-3022-3023 INTERMEDIATE JAPANESE.** 5 credits each quarter, tuition\* each quarter: Resident \$385; Non-resident \$1116.50.

Foundation for reading knowledge of Japanese. Review and pattern drill. *Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (Prereq 1013 or 1008 or # for 3021; 3021 or # for 3022; 3022 or # for 3023. Limited to 20)

Fall Qtr, 3021, ★Sec 1, MW, 6:20-8:50, FolH 116

Winter Qtr, 3022, ★Sec 1, MW, 6:20-8:50, FolH 240

Spring Qtr, 3023, ★Sec 1, MW, 6:20-8:50, FolH 142

**Jpn 3031-3032-3033 THIRD-YEAR JAPANESE.** 5 credits each quarter, tuition\* each quarter: Resident \$385; Non-resident \$1116.50.

Hearing, speaking, and writing Japanese. Development of reading proficiency in modern Japanese prose and poetry. Formal written Japanese. *Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (Prereq 3023 or # for 3031; 3031 or # for 3032; 3032 or # for 3033. Limited to 20)

Fall Qtr, 3031, ★Sec 1, TTh, 6:20-8:50, KoltH S140

Winter Qtr, 3032, ★Sec 1, TTh, 6:20-8:50, FolH 148

Spring Qtr, 3033, ★Sec 1, TTh, 6:20-8:50, KoltH S140

### Korean (Kor)

**Kor 3021-3022-3023 INTERMEDIATE KOREAN.** 5 credits each quarter, tuition\* each quarter: Resident \$385; Non-resident \$1116.50.

Modern standard Korean, expanded through conversation and reading. Korean 3022 and 3023 will be offered only if there is sufficient enrollment in 3021. *Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (Prereq 1013 or # for 3021; 3021 or # for 3022; 3022 or # for 3023. Limited to 20)

Fall Qtr, 3021, ★Sec 1, TTh, 6:20-8:50, FolH 142

Winter Qtr, 3022, ★Sec 1, TTh, 6:20-8:50, FolH 142

Spring Qtr, 3023, ★Sec 1, TTh, 6:20-8:50, FolH 142

**Kor 1011-1012-1013, Beginning Korean.** Tentatively scheduled for 1995-96.

### Language, Teaching, and Technology (LgTT)

**LgTT 5101 TECHNOLOGY IN THE LANGUAGE CLASSROOM.** 2 credits, tuition\*: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Uses of technology in language teaching. Theoretical background, application, and demonstration. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr, ★Sec 1, W, 4:15-6, FolH 234, Stenson

### Linguistics (Ling)

(See also English as a Second Language; Interdepartmental Study; Engl 3851, The English Language; and Research Explorations)

**Ling 1005 LANGUAGE AND SOCIETY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

The role of language in human social interaction; linguistic indicators of social status and attitudes; language and sex roles; linguistic ecology; language planning for multilingual communities; implications for educational and public policy. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, KoltH S136

Spring Qtr, Sec 2, T, 6:20-8:50, KoltH S136

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Ling 3001 INTRODUCTION TO LINGUISTICS.** 5 credits, \$3005, 5001, tuition\*: Resident \$385; Non-resident \$1116.50.

Systematic survey of phonetics, phonology, morphology, syntax, semantics, and historical-comparative linguistics; language learning and psychology of language; linguistic universals; language in society. (No prereq. Sec 1, 3, 4 meet concurrently with 5001)

Fall Qtr, Sec 1, T, 6:20-9:35, Arch 15

Fall Qtr, Sec 2, W, 6:20-9:35, Arch 55

Winter Qtr, Sec 3, T, 6:20-9:35, Arch 15

Spring Qtr, Sec 4, T, 6:20-9:35, Arch 35

**Ling 5001 INTRODUCTION TO LINGUISTICS.** 5 credits, \$3001, 3005, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

See course description for Ling 3001. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3001, sec 1, 3, 4)

Fall Qtr, Sec 1, T, 6:20-9:35, Arch 15

Winter Qtr, Sec 2, T, 6:20-9:35, Arch 15

Spring Qtr, Sec 3, T, 6:20-9:35, Arch 35

## Slavic and Central Asian Languages and Literatures

### *Croatian and Serbian Language (CrSr)*

**CrSr 1104-1105-1106 INTERMEDIATE CROATIAN AND SERBIAN LANGUAGE.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Building effective communication skills (speaking and writing) and reading capability in Serbo-Croatian while widening the student's knowledge of the cultural context. *Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (Prereq 1103 or # for 1104; 1104 or # for 1105; 1105 or # for 1106)

Fall Qtr, 1104, Sec 1, T, 6:10-9:30, FolH 234,  
Schrunk

Winter Qtr, 1105, Sec 1, T, 6:10-9:30, FolH 234,  
Schrunk

Spring Qtr, 1106, Sec 1, T, 6:10-9:30, FolH 234,  
Schrunk

### *Polish (Plsh)*

**Plsh 1101-1102-1103 BEGINNING POLISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Speaking, understanding, and reading basic Polish. *Sections will be offered only if there is sufficient enrollment of 10 or more students each quarter.* (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. Limited to 20)

Fall Qtr, 1101, ★Sec 1, W, 6:10-9:30, FolH 214,  
Polakiewicz

Winter Qtr, 1102, ★Sec 1, W, 6:10-9:30, FolH  
344, Polakiewicz

Spring Qtr, 1103, ★Sec 1, W, 6:10-9:30, FolH  
344, Polakiewicz

### *Russian (Russ)*

**Russ 1101-1102-1103 BEGINNING RUSSIAN.** 5 credits each quarter, tuition\* each quarter: Resident R Resident \$367.50; Non-resident \$1065.75. (IS)

Grammar, pronunciation, reading, and practice in speaking. **Note:** *All students should register in Sec 1 fall quarter; sec 1 winter quarter; and sec 1 spring quarter. Assignments to other sections will be made as necessary, and section and building/room noted on the student's registration receipt.* (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. Limited to 20)

Fall Qtr, 1101, ★Sec 1, M, 6:10-9:30, FolH 318

Fall Qtr, 1101, ★Sec 2, M, 6:10-9:30, FolH 426

Fall Qtr, 1101, ★Sec 3, M, 6:10-9:30, JonesH 11

Winter Qtr, 1102, ★Sec 1, M, 6:10-9:30, FolH  
312

Winter Qtr, 1102, ★Sec 2, M, 6:10-9:30, FolH  
344

Spring Qtr 1103, ★Sec 1, M, 6:10-9:30, FolH  
344, Polakiewicz

Spring Qtr, 1103, ★Sec 2, M, 6:10-9:30, FolH  
318

**Russ 1104-1105-1106 INTERMEDIATE RUSSIAN.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Expansion of experience in speaking, reading, and understanding Russian; reading contemporary texts. (Prereq 1103 or equivalent. Limited to 20)

Fall Qtr, 1104, ★Sec 1, T, 6:10-9:30, FolH 312,  
Jahn

Winter Qtr, 1105, ★Sec 1, T, 6:10-9:30, FolH  
208, Jahn

Spring Qtr, 1106, ★Sec 1, T, 6:10-9:30, FolH  
312, Jahn

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Russ 1111-1112 RUSSIAN FOR READING KNOWLEDGE I & II.** 4 credits each quarter, tuition\* each quarter: Resident \$294; Non-resident \$852.60.

Prepares students to read Russian scholarly prose. *1111*: Presents the basic structures of Russian grammar and inculcates effective strategies of reading. *1112*: Completes the survey of grammar and offers a practicum in the application of the methods learned. (No prereq)

Winter Qtr, 1111, ★Sec 1, W, 6:20-8:50, FolH 318, Jah

Spring Qtr, 1112, ★Sec 1, W, 6:20-8:50, FolH 318, Jah

### *Serbian (Serb)*

Croatian and Serbian Language courses are offered above with the CrSr designator.

### *Slavic (Slav)*

**Slav 3511 SOUTHEAST EUROPE: SLAVIC CULTURAL DIVERSITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Understanding the roots of cultural and ethnic diversity among the Slavic peoples; the study of the processes which shaped it from the beginnings to the present. *Section will be offered only if there is sufficient enrollment of 10 or more students.* (No prereq)

Winter Qtr, Sec 1, Th, 6:20-8:50, FolH 208, Schrunk

### South Asian and Middle Eastern Languages and Cultures

#### *Marathi (Mar)*

*No Mar courses offered through Extension Classes 1994-95*

#### *Middle Eastern Languages and Cultures (MELC)*

(See also CSch 0137, *Melodies From the Desert: Musical Cultures of the Middle East*; and CSch 0212, *New Miracle in the Middle East? Problems and Possibilities of the Palestinian-Israeli Agreement*)

**MELC 1536 THE RELIGION OF ISLAM.** 4 credits, §ReIS 1036, tuition\*: Resident \$294; Non-resident \$852.60.

The rise of Islam in historical context; the role of Muhammad, Koran traditions; fundamentals and observances of the faith; sectarian movements; the

spread of Islam into Asia, Africa, and America; reformist movements and current trends. (No prereq. Meets concurrently with ReIS 1036)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 105, Farah

**MELC 3213 THE QUR'AN AS LITERATURE.** 4 credits, §Arab 3213, tuition\*: Resident \$308; Non-resident \$893.20.

Texts and commentaries in translation. Knowledge of Arabic not required. (No prereq. Meets concurrently with Arab 3213. Limited to 10)

Spring Qtr, ★Sec 1, M, 4:15-7, BlegH 245, AshShareef

**MELC 3544 THE ARAB WORLD IN RECENT TIMES.** 4 credits, §Hist 3544, tuition\*: R Resident \$308; Non-resident \$893.20.

Central Arab lands (the Arabian peninsula, Iraq, Syria, Jordan, Lebanon, Egypt) and North African region (Libya, Tunisia, Morocco, Algeria) from end of World War I to the present. Foreign occupation and struggle for independence, position in regional and international politics. (No prereq. Meets concurrently with Hist 3544)

Fall Qtr, Sec 1, W, 6:20-8:50, BlegH 245, Saadallah

Winter Qtr, Sec 2, W, 6:20-8:50, BlegH 135, Saadallah

#### *Persian (Per)*

*No Per courses offered through Extension Classes 1994-95*

### *South Asian Languages and Cultures (SALC)*

**SALC 1504 INTRODUCTION TO THE RELIGIONS OF SOUTH ASIA.** 4 credits, §ReIS 1031, tuition\*: Resident \$294; Non-resident \$852.60.

Introduction to Hinduism, Buddhism, and Jainism. (No prereq. Meets concurrently with ReIS 1031)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 104, Malandra

**SALC 3412 HINDUISM.** 4 credits, §SoAS 5412, §ReIS 3412, 5412, tuition\*: Resident \$308; Non-resident \$893.20.

Development of Hinduism, focusing on sectarian trends, modern religious practices, myths and rituals, pilgrimage patterns and religious festivals, and the interrelationship of Indian social structure and Hinduism. (Prereq 3411 or ReIS 1031 or #; Meets concurrently with 5412 and ReIS 3412, 5412. Limited to 25)

Fall Qtr, ★Sec 1, W, 6:20-8:50, FolH 306, Junghare

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**SALC 3413 BUDDHISM.** 4 credits, \$5413, \$ReIS 3413, 5413, tuition\*: Resident \$308; Non-resident \$893.20.

Historical account of the Buddhist religion in terms of its rise, development, various schools, and common philosophical concepts. Focuses on Indian Buddhism, compares it with Hinduism, and discusses its demise and revival on the Indian subcontinent. (Prereq 3411 or ReIS 1031 or #. Meets concurrently with 5413 and ReIS 3413, 5413. Limited to 25)

Spring Qtr, ★Sec 1, W, 6:20-8:50, FolH 50, Junghare

**SALC 3414 COMPARATIVE RELIGIONS OF SOUTHASIA.** 4 credits, \$5414, \$ReIS 3414, 5414, tuition\*: Resident \$308; Non-resident \$893.20.

Compares and contrasts basic philosophical concepts, literatures, ideologies, and ritualistic practices of Hinduism, Buddhism, and Jainism with those of Islam and Sikhism. (No prereq. SALC 3412 or ReIS 3413 recommended. Meets concurrently with 5414 and ReIS 3414, 5414. Limited to 20)

Winter Qtr, ★Sec 1, W, 6:20-8:50, FolH 208, Junghare

**SALC 3521 GANDHI AND NON-VIOLENT REVOLUTION.** 4 credits, \$856, \$ReIS 3521, 3521, tuition\*: Resident \$308; Non-resident \$893.20.

Character of Gandhi, his influence over contemporaries, and his hold on the world today. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FolH 148, Chakrabarty

**SALC 5412 HINDUISM.** 4 credits, \$3412, \$ReIS 3412, 5412, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for SALC 3412. (Prereq 3411 or ReIS 1031 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3412 and ReIS 3412, 5412. Limited to 10)

Fall Qtr, ★Sec 1, W, 6:20-8:50, FolH 306, Junghare

**SALC 5413 BUDDHISM.** 4 credits, \$3413, \$ReIS 3413, 5413, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428;

Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for SALC 3413. (Prereq 3411 or ReIS 1031 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3413 and ReIS 3413, 5413. Limited to 10)

Spring Qtr, ★Sec 1, W, 6:20-8:50, FolH 50, Junghare

**SALC 5414 COMPARATIVE RELIGIONS OF SOUTHASIA.** 4 credits, \$3414, \$ReIS 3414, 5414, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for SALC 3414. (No prereq. SALC 3412 and 3413 recommended. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3414 and ReIS 3414, 5414. Limited to 10)

Winter Qtr, ★Sec 1, W, 6:20-8:50, FolH 208, Junghare

## Turkish (Turk)

*No Turkish courses offered through Extension Classes 1994-95*

## Translation and Interpreting (TrIn)

(133 Klaeber Court: 624-4055)

**Curriculum in Translation and Interpreting—** Students who have developed a high degree of proficiency in both English and a language other than English can earn academic credit by completing a pre-professional program designed as preparation for employment in translation and interpreting. No major or minor is offered through this program, and the courses are presently available only through the Department of Extension Classes. Instructional staff and course consultants include certified interpreters, English language specialists, and bilingual tutors. *Courses will be offered, contingent on sufficient enrollment, for persons bilingual in the following language pairs for which well qualified interpreters are in demand locally: English-Cambodian, English-Hmong, English-Lao, English-Russian, English-Spanish, and English-Vietnamese.*

For information about these courses, call the Program in Translation and Interpreting at (612) 624-4055.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**TrIn 3001 INTRODUCTION TO TRANSLATION.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90.

An introductory course in translation, oriented toward the translation of everyday documents of the sort that bilinguals working in the community are often asked to translate. Course includes both theory and supervised practice. As an exercise in re-expressing meaning in a second language, the course will be a good preliminary to training in interpreting. Open to anyone with adequate skills in the languages included at each offering. Subject languages vary with each offering. *Call the Program in Translation and Interpreting at (612) 624-4055 before you register to learn how to obtain the instructor's permission to enroll in this course.* (Prereq # and bilingual proficiency in English and another language spoken in Minnesota, e.g., Cambodian, Hmong, Lao, Vietnamese, Spanish, and Russian. Limited to 30)

Fall Qtr, ★Sec 1, W, 6:10-9, JonesH 11, Downing

**TrIn 3101 INTRODUCTION TO COMMUNITY INTERPRETING.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90.

A practical and theoretical introduction to interpreting in a variety of community settings. This course may serve bilingual individuals already functioning as nonprofessional interpreters while professionally employed in some other capacity, as well as persons already employed full or part time as interpreters without specific training, and others interested in future employment. An introduction to professional modes of interpreting and professional standards designed to enhance the skills of persons called upon to do interpreting. *Open to anyone with adequate skills in the language pairs listed above. Register by language.* Admission is dependent on adequate scores on language proficiency tests in English and the other language in which training is desired (applicants may be exempted from testing in the native language). Tests are given at scheduled times on an annual basis. There is a testing fee of \$25. TrIn 3101 is prerequisite for all courses numbered higher in the sequence. (Prereq written #; TrIn 3001 recommended. Limited to 25)

Fall Qtr, Sec 1, Cambodian, W, 6:10-9, FolH 142

Fall Qtr, Sec 2, Hmong, W, 6:10-9, FolH 234

Fall Qtr, Sec 3, Lao, W, 6:10-9, JonesH 2

Fall Qtr, Sec 4, Russian, W, 6:10-9, FolH 318

Fall Qtr, Sec 5, Spanish, W, 6:10-9, FolH 334

Fall Qtr, Sec 6, Vietnamese, W, 6:10-9, FolH 344

**TrIn 3102 INTERMEDIATE COMMUNITY INTERPRETING I.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A practical and theoretical course aimed at achieving professional proficiency in community interpreting. This course will cover consecutive interpreting and sight translation skills, vocabulary research and storage, intercultural issues, and analysis of the interpreting process. Students' performance will be assessed through audio- and videotaping. *Register by language.* TrIn 3101 is prerequisite for this and all courses numbered higher in the sequence. **Note:** TrIn 3102 and 3103 are a linked sequence. You must complete TrIn 3103 in order to receive credit for either course. TrIn 3103 will be offered in an intensive format during the first five-week summer session in 1995. Be sure that both courses fit your schedule before registering. (Prereq 3101. Limited to 25)

Spring Qtr, Sec 1, Cambodian, Sa, 8:30 a.m.-12:30, FolH 116

Spring Qtr, Sec 2, Hmong, Sa, 8:30 a.m.-12:30, FolH 134

Spring Qtr, Sec 3, Lao, Sa, 8:30 a.m.-12:30, FolH 138

Spring Qtr, Sec 4, Russian, Sa, 8:30 a.m.-12:30, FolH 104

Spring Qtr, Sec 5, Spanish, Sa, 8:30 a.m.-12:30, FolH, Downing 208

Spring Qtr, Sec 6, Vietnamese, Sa, 8:30 a.m.-12:30, FolH, Downing 214

*Planned future course offerings in the Program in Translation and Interpreting:*

- Intermediate Community Interpreting II (TrIn 3101—summer)
- American Law for Interpreters (Hamline University Law School)

## Institute of Technology (IoT)

(106 Lind Hall: 624-5091)

The textbook for IoT 0001 is available at the first class meeting.

Allen J. Baldwin, Consulting Engineer  
Russell K. Hobbie, Associate Dean, Institute of Technology

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in the Institute of Technology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

*Information regarding the Engineer-in-Training Examination can be obtained by contacting the Board of Architecture, Engineering, Land Surveying and Landscape Architecture, Room 162, Metro Square, Seventh and Robert Streets, St. Paul, MN 55101 (296-2388) or by contacting the Institute of Technology Student Affairs Office, 106 Lind Hall (624-5091). Courses that review for the Advanced Professional Engineering exams are offered as CE 0005, EE 0001, and ME 0001C.*

**IofT 0001 FUNDAMENTALS OF ENGINEERING REVIEW. (E.I.T. REFRESHER).** No credit, tuition\*: \$220.50.

Particularly designed as a refresher course to help graduates of engineering colleges prepare for the Engineer-in-Training Examination, the first of two written examinations required for registration as a Professional Engineer. Covers a review of mathematics, chemistry, materials, statics, dynamics, strength of materials, thermodynamics, electric circuits, fluid mechanics, and engineering economics. *Advance application for the E.I.T. test must be made to the State Board of Registration; telephone (612) 296-2388. Must be taken S-N. (Prereq bachelor's degree in engineering)*

Fall Spec Term, Sec 1, TTh, 6:10-8:40, Sept. 13-Oct. 13, (10 meetings), Phys 166, Baldwin.  
*No late fee through Sept. 6*  
 Winter Qtr, Sec 2, W, 6:10-8:40, Phys 133, Baldwin

**Insurance and Risk Management (Ins)**

(537 Management/Economics: 624-2500)  
**Carlson School of Management**

Textbooks for most Ins courses are available at University of Minnesota Bookstore—West Bank (625-3000).

Andrew F. Whitman, Professor  
 C. Arthur Williams, Professor Emeritus

**Business degree students must take Insurance courses A-F.**

**Note:** All Ins courses have been approved by the Commissioner of Commerce for insurance and real estate continuing education credit.

**Note:** Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Ins. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Ins 5100 RISK MANAGEMENT AND INSURANCE.** 4 credits, \$3100, \$8100, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

How to recognize and evaluate the property, liability, and personnel risks facing a business firm, a family, or some other economic unit. The tools of risk management—mainly retention, loss control, and insurance—and the conditions under which they should be used. How to select and deal with an insurer. Public Policy issues—such as availability of insurance, insurance pricing, employee benefits, workers' compensation, automobile, professional and product injury/compensation systems, and social insurance. **May be taken S-N only by non-business degree students.** (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 5:30-8:30, BlegH 210, Whitman  
 Spring Qtr, Sec 2, Th, 5:30-8:30, HHH Ctr 20, Whitman

**Interdepartmental Study (ID)**

(225 Johnston Hall: 624-5701)

**College of Liberal Arts**

Textbooks for most ID courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

- Terence Ball, Professor of Political Science
- Subir K. Banerjee, Professor of Geology
- Carl Brandt, Director of Special Learning Opportunities, College of Liberal Arts
- Terence Cooper, Associate Professor of Soil Sciences
- William Cunningham, Professor of Genetics and Cell Biology
- Roger S. Jones, Associate Professor, Physics and Astronomy
- Stephen Klein, Program Director, CLA Career Development
- Paul T. Magee, Professor of Genetics and Cell Biology
- Naomi Scheman, Professor of Philosophy

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ID 3201 AIDS/HIV: CULTURAL PERSPECTIVES.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Interdisciplinary study of AIDS/HIV integrating philosophical, medical, historical, artistic, and sociological approaches. Academic articles, short stories and poems, music videos, documentary films, and other sources of understandings of AIDS are examined. Faculty and community guests present their expertise on history of disease; community activism, AIDS and women, epidemiology, AIDS education, and the arts. Special attention given to how AIDS is understood within different communities. Active participation outside the classroom is expected and individually negotiated. Students may, for example, engage in community service; participate in a project at their place of employment, church, or elsewhere; conduct interviews; or do a research project. Participation in class discussion and small-group activities is expected. The class is intended to be a forum to discuss candidly controversial issues in a supportive and respectful manner. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, TTh, 6:20-8:45, FordH 175, Brandt

**ID 3335 PHYSICS AS A LIBERAL ART.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Can physics nourish the human heart and soul or only the intellect? Does physics illuminate culture, art, and the humanities, or merely reveal nature in an objective light? As one of the sciences, physics is presumably limited to quantitative facts and truth. It does not deal with matters of meaning and interpretation, as do the liberal arts. Yet the roots of physics are firmly planted in philosophy and the age-old quest to make sense of human existence. Only changing fashions in culture have made physics more a technical than a humanistic field. In this course, physics is returned to its rightful place among the liberal arts. Class participants survey modern physics and explore how its aesthetic, ethical, and spiritual implications shed light on some of the most elusive and yet profound questions of human existence. The 1992 book, *Physics for the Rest of Us*, written by the instructor, is one of the main texts for this offering. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, Phys 166, Jones

**ID 3925 LIFE/CAREER PLANNING.** 2 credits, tuition\* (includes \$12 special fee): Resident \$166; Non-resident \$458.60.

Provides an opportunity for individuals of all ages and backgrounds to reassess their interests, values, skills, and formulate post-graduation plans. Acquaints the student with concepts of career development offering a systematic approach to lifelong career planning and career management. Content

includes issues of career selection, maximizing a university degree in the world of work, career-pathing, preparing an effective résumé, conducting a pro-active job search, interviewing practice, and coping with transition issues. Each student will develop an individualized career plan. *Non-journalism majors should register for Jour 3925. Journalism pre-majors and majors should register for this section. Must be taken S-N.* (Prereq CLA jr or sr; others by #. Meets concurrently with Jour 3925. Limited to a combined total of 25)

Fall Qtr, ★Sec 1, Th, 6:20-8:15, MurH 311, Klein  
Spring Qtr, ★Sec 2, W, 6:20-8:15, MurH 311, Klein

(See also *Career Development* in The Practical Scholar noncredit section)

**ID 5525-5526† GARBAGE, GOVERNMENT, AND THE GLOBE.** 4 credits each quarter, tuition\* each quarter: Resident \$308; Non-resident \$893.20.

Different topics covered each quarter. Students may register for one or two quarters. Call (612) 626-8144 for information as to when specific topics will be offered, and for availability of graduate credit. A rigorous analysis of how garbage affects not only the economy, politics, environment, and health, but also the lives of untold future generations of humans and other species. The problem of garbage does not lend itself to narrow disciplinary approaches, but calls for cooperation among many fields. Reflecting the need for boundary crossing, this course offers an interdisciplinary approach to learning about messy, real-world problems. Faculty from the Institute of Technology, the Carlson School of Management, and the Colleges of Agriculture, Biological Sciences, and Liberal Arts join students in examining topics such as the movement of toxic materials through the environment; the management of solid wastes, especially those generated by incinerators, power plants, and municipal water treatment plants; the philosophical grounding of environmental exploitation in the ethics of humanism; the physical, chemical, and biological aspects of soils in environmental planning and conservation decisions; and the effect of environmental problems on economic competitiveness and domestic and international corporate operations. The courses include lectures, exams, projects, films, visiting speakers, and field trips. (No prereq. Inquire about graduate credit at the time of registration. Limited to 50)

Winter Qtr, 5525, ★Sec 1, T, 6:20-8:50, BorH 375, StP Campus

Spring Qtr, 5526, ★Sec 1, T, 6:20-8:50, BorH 375, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**ID 5615-5616-5617† WAYS OF KNOWING: SIX DISCIPLINES EXAMINED.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

How do biologists know what genes cause cancer? Join a seminar with six faculty members drawn from such areas of the humanities as philosophy, from such sciences as genetics, and from the social sciences such as history. All six faculty meet together with the students each week for a full academic year to discover how these kinds of questions are examined in six very different disciplines. Become a biologist for five weeks, a philosopher for another five, and so on through the year. In Ways of Knowing, you will spend time learning how to think about different problems as if you were a scholar in each of the six disciplines, along with the other students, including the faculty. The purpose is to understand the similarities and differences among the various modes of inquiry represented in the course. **Students must enroll for all three quarters in order to receive any credit. Enrollment is by application only: Call 625-3898 or go to 202 Westbrook Hall.** (Prereq written # for 5615; 5615 for 5616; 5616 for 5617. Inquire about graduate credit when applying. Meets concurrently with arranged sections of Biol 5950, Geo 5980, Phil 5760, and LS 5615-5616-5617. Limited to a combined total of 22)

Fall Qtr, 5615, ★Sec 1, T, 6:20-8:50, FordH 60  
Winter Qtr, 5616, ★Sec 1, T, 6:20-8:50, FordH 60

Spring Qtr, 5617, ★Sec 1, T, 6:20-8:50, FordH 60

## Interdisciplinary Archaeological Studies (InAr)

(215 Ford Hall: 625-2503)

### College of Liberal Arts

Textbooks for most InAr courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Interdisciplinary Archaeological Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

(See also Anthropology and The Compleat Scholar noncredit courses)

*No InAr courses offered through Extension Classes 1994-95.*

## Interdisciplinary Offerings

See Economics 1102 and Political Science 1001

## International Relations (IntR)

(248 Social Sciences: 624-9353)

### College of Liberal Arts

Textbooks for most IntR courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Political Science; Journalism and Mass Communication; The Compleat Scholar noncredit courses; and History)

Kinley Brauer, Professor  
Karlyn Eckman, Lecturer  
Nicholas Hayes, Visiting Professor  
Barbara Knudson, Professor  
Patrick Mendis, Lecturer  
August Nimitz, Associate Professor  
Gary Prevost, Visiting Professor  
Richard Rudolph, Professor  
Karen Brown Thompson, Graduate Teaching Assistant  
Paula Tuchman, Graduate Teaching Assistant  
William Wright, Professor

**IntR 3101 THEORETICAL APPROACHES TO INTERNATIONAL RELATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Interdisciplinary study of international relations; contributions of various disciplines to the analysis of significant contemporary world problems. **Must be taken A-F.** (Prereq international relations major or #)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 225

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: DEVELOPMENT ASSISTANCE PROGRAMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Prepares students interested in working in Third World development projects by providing an overview of relevant development history, theory, and approaches to foreign aid, development project organization, impacts of foreign aid, and the structure and function of various types of development assistance organizations. (No prereq)

Fall Qtr, Sec 1, M, 6:20-8:50, BlegH 350,  
Eckman

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: POST-COLD WAR ASIAN SECURITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examines the likely power configurations in, and threats to, Asian security in the 1990s and beyond. Whether Asian security is maintained in the post-Cold War period has direct implications for global peace. (No prereq)

Winter Qtr, Sec 2, M, 6:20-8:50, BlegH 210, Tuchman

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: THE POLITICS OF THE MEDIA IN THE COLD WAR ERA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Focuses on the role of the media in U.S./Soviet relations in the Cold War Era with the emphasis on the period from the early 1980s through the collapse of the Soviet Union in 1991. (No prereq)

Spring Qtr, Sec 3, T, 6:20-8:50, BlegH 225, Hayes

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: CONTEMPORARY REVOLUTIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Analyzes revolution as a political, economic, and sociological phenomenon. Uses writings on revolution by both politicians and social scientists. Countries for case studies include Iran, Nicaragua, El Salvador, and South Africa. (No prereq)

Fall Qtr, Sec 4, W, 6:20-8:50, BlegH 350, Prevost

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: AUSTRIA AND THE NEW CENTRAL EUROPE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The special relationship of Austria to Slovenes, Croats, Bosnians, Serbs, Hungarians, Poles, Slovaks, and Czechs stems from the Austro-Hungarian monarchy when they shared—wholly or in part—a common government. An examination of that relationship as it is being reinvigorated and redefined with new Austrian influences and responsibilities in this newly freed and newly troubled region since the end of Russian hegemony there. (No prereq)

Winter Qtr, Sec 5, W, 6:20-8:50, BlegH 225, Wright

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: WOMEN AND WAR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Explores the gendered nature and effects of war, and the relationship between war and women's lives in the United States and other countries. Topics include military service, citizenship, national security, and peace movements. (Prereq interna-

tional relations (No prereq)

Spring Qtr, Sec 6, W, 6:20-8:50, BlegH 245, Thompson

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: POLITICAL ECONOMY AND THE DEVELOPING WORLD.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examines the theoretical and empirical aspects of economic and political relations in the global economy. Covers the study of international economic relationships and interactions between developed and developing countries. (No prereq)

Winter Qtr, Sec 7, Th, 6:20-8:50, BlegH 225, Mendis

**IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: INTERNATIONAL GOVERNANCE IN THE NEXT CENTURY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

1994 marks the United Nations 50th birthday. This course examines the historical, present, and future role of the United Nations in the international arena. Many critical issues will be addressed: the ever-changing peace scene, environmental degradation, and international governance. (No prereq)

Spring Qtr, Sec 8, Th, 6:20-8:50, BlegH 225, Knudson

**IntR 3981 MAJOR PROJECT SEMINAR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Supports senior project requirement by allowing students to formulate their own research questions, select a topic, develop and produce a 25-30 page undergraduate research paper. **Must be taken A-F.** (Prereq non-honors IntR maj, sr, or #. Limited to 15) Fall Qtr, ★Sec 1, T, 6:20-8:50, Law 1, Rudolph  
Winter Qtr, ★Sec 2, Th, 6:20-8:50, Law 3, Nimitz  
Spring Qtr, ★Sec 3, M, 6:20-8:50, SocSci 1383, Brauer

## Islamic

(See Area Studies Programs, and the Institute of Languages and Literatures)

## Italian (Ital)

(260 Folwell Hall: 624-4308)

### College of Liberal Arts

Textbooks for most Ital courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also PSch 0981, Italian for Travelers)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

Susanna Ferlito, Assistant Professor  
 Ronald Martinez, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Italian and French. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Read about language laboratories on page 52.**

**Ital 1101-1102-1103 BEGINNING ITALIAN.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS 1101)

Speaking, reading, and cultural objectives based on audiolingual approach. Students learn to understand and express fundamental ideas, to write anything they can say, and to master fundamental structures of the language. Includes audiovisual aids. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. Limited to 25)

Fall Qtr, 1101, ★Sec 1, MTh, 6:20-8:25, AkerH 211, 309 (Limit 75)

Fall Qtr, 1101, ★Sec 2, MTh, 6:20-8:25, Arch 15 (Limit 75)

Winter Qtr, 1102, ★Sec 1, MTh, 6:20-8:25, JonesH 11

Spring Qtr, 1103, ★Sec 1, MTh, 6:20-8:25, KoltH S134

**Ital 1104 INTERMEDIATE ITALIAN.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Consolidation of basic structures and development of oral fluency through readings and discussions. (Prereq 1103 or equivalent. Limited to 25)

Fall Qtr, ★Sec 1, MTh, 6:35-8:40, FolH 344

**Ital 1105 INTERMEDIATE ITALIAN.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Literary and cultural readings, leading to introductory knowledge of Italian literature and civilization. (Prereq 1104 or equivalent. Limited to 25)

Winter Qtr, ★Sec 1, M, 6:20-8:25, FolH 426; Th, 6:20-8:25, FolH 426

**Ital 1106 INTERMEDIATE ITALIAN.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Further development of reading, writing, listening, and speaking skills through the study of contemporary Italian culture. (Prereq 1105 or equivalent. Limited to 25)

Spring Qtr, ★Sec 1, MTh, 6:20-8:25, FolH 148

**Ital 3015 INTERMEDIATE ITALIAN COMPOSITION AND CONVERSATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Conversation and composition practice to achieve command of Italian in speaking and writing. Conversation based on readings and discussions. (Prereq 1105 or 1104 with grade of A and recommendation of instructor)

Fall Qtr, Sec 1, T, 6:10-9:40, FolH 334

**FrIt 3604 CINEMAS OF THE REAL.**

See French and Italian

## Reading Italian

**Ital 0001** is specifically designed for individuals who desire only a reading knowledge of the language. The Italian language requirements for a graduate degree may also be satisfied by successfully passing an examination given at the end of the course. Graduate students should check with their advisers for specific language requirements in their field of study.

**Ital 0001 READING ITALIAN.** No credit, tuition\*: \$294.

This course is designed solely to impart a basic reading knowledge of the Italian language. At the end of one quarter the student may take a reading examination in Italian. Students successfully completing the course should obtain the Language Certification form from the Graduate School and present it to the Department of Italian for signature. **Must be taken S-N.** (No prereq. Limited to 25)

Spring Qtr, ★Sec 1, W, 6:20-8:50, KoltH S134

## Japanese

(See Institute of Languages and Literatures)

## Jewish Studies

(See Ancient Near Eastern Studies)

## Journalism and Mass Communication (Jour)

(111 Murphy Hall: 625-9824)

### College of Liberal Arts

Textbooks for most Jour courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also English; and The Compleat Scholar)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Irving Fang, Professor

Stephen Klein, Program Director, CLA Career Development

**Joint Day/Extension Classes**—You may register through Extension for day school classes that do not require preregistration. You must have written permission from **both** the department and from the instructor in order to enroll in a Joint Day/Extension section. Joint Day/Extension classes are listed in the back of the daytime Class Schedule. For a copy of the current schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Classes Open to Non-Majors**—The following classes are open to non-majors and do not require preregistration: *Jour 1001, Jour 3614, Jour 3745, Jour 3796, Jour 3925, and Jour 5251*

Journalism majors must have these 3xxx/5xxx courses approved on program plan. Pre-jour majors should not enroll in these 3xxx/5xxx courses.

**Classes Requiring Preregistration**—Classes that require preregistration are designed for majors, but non-majors may attend these courses if two conditions are met: (1) space is available, and (2) students have the instructor's permission.

Instructor permission is generally given if students have appropriate academic or professional background for the course. If you are a non-major and interested in one of these classes, call (612) 625-0120 for further information.

Classes that require preregistration are designated by a Δ symbol and a note stating that preregistration and course override are required. Preregistration for majors is generally held Monday through Friday during the week that regular registration begins. Dates are published each quarter in a newsletter distributed in all journalism classes. Copies are also available at the beginning of each quarter in the Undergraduate Studies Center (see below).

**For Journalism Majors**—A current transcript is required each time journalism majors preregister for these courses. Registration overrides are issued at the time of preregistration if the student has met all prerequisites, including admission to major status (see below), and the course is approved on the major program plan.

**For Non-Majors**—About three weeks after preregistration, a late preregistration date for majors will be scheduled. After that date, registration overrides will be issued to non-majors who have instructor permission for courses that have space available. Non-majors do not need to supply a copy of their current transcript.

**Admission to the Journalism Major**—Students must apply for admission to the major. In order to get specific information about application procedures and requirements, students planning to major in journalism must attend a pre-major information meeting. Students must be admitted to the College of Liberal Arts and attend a pre-major information meeting before enrolling in Journalism 3003.

**Undergraduate Studies Center**—Further information about preregistration or declaring pre-journalism major status is available from the Undergraduate Studies Center, 15 Murphy Hall; telephone (612) 625-0120. Office hours are weekdays 9 a.m. to noon, and 1 to 4 p.m.

**Continuing Education for Women (CEW) section available in the following course:** Jour 1001

**Jour 1001 INTRODUCTION TO MASS COMMUNICATION.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

The nature, functions, and responsibilities of communication media and agencies examined from the point of view of the professional journalist. News, opinion, entertainment, and persuasion functions; current trends. Specialized communications, aspects of advertising. *Open to non-majors. Must be taken A-F.* (No prereq)

Fall Qtr, Sec 1, M, 1:30-4, MacP. *Offered through Continuing Education for Women*

Fall Qtr, Sec 2, Th, 6-9, MurH 105

Winter Qtr, Sec 3, Th, 6-9, MurH 105

Spring Qtr, Sec 4 M, 6-9, MurH 105

**Jour 3006 VISUAL COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Study of form, content, and meaning in visual communication. Introduction to basic visual elements and techniques. Issues in perception, picture use, and the sources of visual conventions. Attention to the organization and production of visual media. Applications to photography, film, television, advertising, and documentary work. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major or minor status, 3004 or ¶3004, Δ. **Preregistration and course override required; see above.** Limited to 50)

Spring Qtr, ★Sec 1, Th, 6-9, MurH 105

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Jour 3008 MASS COMMUNICATION PROCESSES AND STRUCTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Analysis of a variety of communication theories as they relate to mass communication processes; examination of major structural aspects of mass communication systems as they impact on mass communication processes. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major or minor status, 3004 or J3004, Δ. **Preregistration and course override required; see page 254.** Limited to 50)  
Winter Qtr, ★Sec 1, Th, 6-9, MurH 308

**Jour 3159 PUBLIC RELATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

History and development of public relations practice and principles. Process and applications in a variety of institutional settings. Analysis and critique of public relations in contemporary society. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3101 or 3201, Δ. **Preregistration and course override required; see page 254.** Limited to 25)  
Fall Qtr, ★Sec 1, W, 6-9, MurH 311  
Winter Qtr, ★Sec 2, W, 6-9, MurH 311

**Jour 3173 MAGAZINE WRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Writing feature articles for general, class, and trade publications; study of market free-lance methods. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3101, pass 40 wpm keyboarding test with 6 or fewer errors, Δ. **Preregistration and course override required; see page 254.** Limited to 16)  
Fall Qtr, ★Sec 1, M, 6-9, MurH 212  
Winter Qtr, ★Sec 2, T, 6-9, MurH 212

(See also The Compleat Scholar noncredit magazine writing courses, page xxx)

**Jour 3241 ADVERTISING COPYWRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Advertising appeals and strategy; advertising for print and broadcast. Individual and group projects. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3201, Δ. **Preregistration and course override required; see page 254.** Limited to 16)  
Winter Qtr, ★Sec 1, M, 4-7, MurH 311

**Jour 3301 BASIC PHOTOGRAPHIC COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Photography as creative communication. Fundamentals of photography; use of news cameras; dark-room processes. Film and processing expenses. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, Δ. **Preregistration and course override required; see page 254.** Limited to 16)  
Fall Qtr, ★Sec 1, TTh, 6-9, MurH 20

(See also photography courses in The Compleat Scholar noncredit section)

**Jour 3321 BASIC MEDIA GRAPHICS.** 4 credits, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Basic introduction to mass media graphics, including design principles and history, production technology, typographic legibility, research and analysis of printing and production costs. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, Δ. **Preregistration and course override required; see page 254.** Limited to 16)  
Spring Qtr, ★Sec 1, TTh, 4:40-7, MurH 315, 320

**Jour 3614 HISTORY OF MASS COMMUNICATION TECHNOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

How people have used the tools of communication from earliest times to the present. The impact of new technologies on society. The road to the information superhighway. *Open to non-majors. Pre-jour majors should not enroll in course. Must be taken A-F.* (No prereq; Jour majors must have course approved on program plan. Limited to 180)  
Winter Qtr, ★Sec 1, T, 6-9, MurH 105

**Jour 3745 MASS MEDIA AND POPULAR CULTURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examination of the mass media's role in the formation of popular culture and cultural discourse. Special attention given to media representations of culture, ethnicity, religion, social status, and gender. Analysis of media metaphors, caricatures, and stereotypes. Discussion of the social and industrial pressures influencing media representation. *Open to non-majors. Pre-jour majors should not enroll in course. Must be taken A-F.* (No prereq; Jour majors must have course approved on program plan. Limited to 180)  
Winter Qtr, ★Sec 1, M, 6-9, MurH 105

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Jour 3796 MASS MEDIA AND POLITICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Analysis of role of mass media in politics; emphasis on television and electoral campaigns; news coverage versus newsmaking. Free press in democracy. *Open to non-majors. Pre-jour majors should not enroll in course. Must be taken A-F.* (Prereq Jour 1001 or Pol 1001 or #; Jour majors must have course approved on program plan. Limited to 72)  
Spring Qtr, ★Sec 1, Th, 6-9, MurH 308

(See also CSch 0270, Cold War Politics, Spies, and the Press)

**Jour 3925 LIFE/CAREER PLANNING.** 2 credits, tuition\* (includes \$12 special fee): Resident \$166; Non-resident \$458.60.

Provides an opportunity for individuals of all ages and backgrounds to reassess their interests, values, skills, and formulate post-graduation plans. Acquaints the student with concepts of career development offering a systematic approach to lifelong career planning and career management. Content includes issues of career selection, maximizing a university degree in the world of work, career-pathing, preparing an effective résumé, conducting a pro-active job search, interviewing practice, and coping with transition issues. Each student will develop an individualized career plan. *Open to non-journalism majors. Journalism pre-majors and majors should register for ID 3925. Must be taken S-N.* (Prereq CLA jr or sr; others by #. Meets concurrently with ID 3925. Limited to a combined total of 25)

Fall Qtr, ★Sec 1, Th, 6:20-8:15, MurH 311,  
Klein

Spring Qtr, ★Sec 2, W, 6:20-8:15, MurH 311,  
Klein

(See also *Career Development* in The Practical Scholar noncredit section)

**Jour 5159 CASE STUDIES IN PUBLIC RELATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Case study approach to the application of public relations principles in the solution of problems in business, government, education, and community. Designed to enable students to sharpen their perceptions, insights, and judgments in examining practical and ethical questions. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3159, Δ.

**Preregistration and course override required; see page 254.** Inquire about graduate credit at time of registration. Limited to 25)

Spring Qtr, ★Sec 1, M, 6-9, MurH 311

**Jour 5170 ARTS AND ENTERTAINMENT REPORTING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

News and feature writing about arts and entertainment industry. Assignments follow Twin Cities arts/entertainment news, emphasizing campus events. Weekly writing assignments, readings, guest lectures from local artists and journalists. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq major status, 3004, 3101, pass 40 wpm keyboarding test with 6 or fewer errors, Δ for Jour students; or # and Δ for outside majors. **Preregistration and course override required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 16)

Fall Qtr, ★Sec 1, T, 6-9, MurH 212

**Jour 5171 ARTS REVIEWING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Book, theatre, visual media reviews. Analysis of leading critics and critical periodicals. Weekly reviews. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq major status, 3004, 3101, pass 40 wpm keyboarding test with 6 or fewer errors, Δ for Jour students; or # and Δ for professional writers and reporters and majors in performing and studio arts. **Preregistration and course override required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 16)

Spring Qtr, ★Sec 1, T, 6-9, MurH 212

**Jour 5174 MAGAZINE EDITING AND PRODUCTION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Writing, editing, illustration, design, layout, photo-composition of a single-issue magazine. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3173 or 3321 or 5302, #, Δ. **Preregistration and course override required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 24)

Winter Qtr, ★Sec 1, TTh, 4:15-6, MurH 315, 320

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Jour 5221 PUBLICATION GRAPHICS.** 4 credits, tuition\* (includes \$10 course fee): Resident \$318; Non-resident \$903.20.

Role of printing processes in graphic communication. Technique and production of illustrations. Significant developments in graphic arts technology. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major or minor status, 3004, 8 cr in 3xxx- or 5xxx-level courses in graphics and design or #;  $\Delta$ . **Preregistration and course override required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 16)

Winter Qtr, ★Sec 1, T, 6-9, MurH 315, 320

**Jour 5251 PSYCHOLOGY OF ADVERTISING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Psychological principles, research techniques, and applications in advertising and selling. Consumer attitudes and behavior. Psychological mechanisms upon which effectiveness of advertisements and commercials depends. *Open to non-majors. Pre-jour majors should not enroll in course. Must be taken A-F.* (Prereq Psy 1001; Jour majors must have course approved on program plan. Inquire about graduate credit at the time of registration. Limited to 180)

Spring Qtr, ★Sec 1, W, 6-9, MurH 105

**Jour 5261 ADVERTISING: MEDIA ANALYSIS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Print and electronic media, their role in advertising; selection and scheduling; rate structures and policies; evaluation and use of media and market measurements and data. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3201 or #,  $\Delta$ . **Preregistration and course override required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 16)

Winter Qtr, ★Sec 1, Lect T, 6:30-8:30, MurH 311; Lab Th, 6:30-8:30, MurH 212

**Jour 5272 ADVANCED ADVERTISING COPYWRITING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Advanced work in formulating creative strategy and writing advertising copy for print and broadcast media for various kinds of advertisers. *Non-majors may register after late preregistration if space is available and after obtaining instructor approval. Must be taken A-F.* (Prereq Jour major, 3004, 3241,  $\Delta$ . **Preregistration and course override**

**required; see page 254.** Inquire about graduate credit at the time of registration. Limited to 16) Fall Qtr, ★Sec 1, M, 6:15-9, MurH 311

## Kinesiology (Kin)

(224 Cooke Hall: 625-1007)

### College of Education

(School of Kinesiology and Leisure Studies)

Textbooks for most Kin courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Dance; Physical Education; and Recreation)

**School of Kinesiology and Leisure Studies, Continuing Education**—A wide variety of programs in kinesiology, physical education, and recreation are available to local school districts who wish to jointly design a continuing education experience to meet unique local staff needs. For further information in regard to individually designed programs for a particular district or building staff contact: Michael Wade, Coordinator, Continuing Education for the School of Kinesiology and Leisure Studies, Cooke Hall, 1900 University Ave. S.E., University of Minnesota, Minneapolis, MN 55455; or call (612) 625-2360.

Bruce D. Anderson, Associate Professor

Mary Ann Bayless, Lecturer

Allen Burton, Associate Professor

Jean K. Freeman, Head Coach, Swimming and Diving, Women's Intercollegiate Athletics

Peter Hancock, Associate Professor

Clem Haskins, Head Basketball Coach

Mary Jo Kane, Associate Professor

Dan Kosmoski, Assistant Basketball Coach

March Krotee, Associate Professor

Arthur Leon, Professor

Mary Ann McNeil, Life Support Program Manager

Robert Pickert, Assistant Professor

Robert Serfass, Associate Professor

Lela June Stoner, Professor

Karen Swanson, Head Women's Athletic Trainer

Michael Wade, Professor and Director of the School of Kinesiology and Leisure Studies

Diane Wiese-Bjornstal, Assistant Professor

**Sports Management**—The School of Kinesiology and Leisure Studies offers a certificate in Sports Management through Continuing Education and Extension. For information, call 625-1007.

**Coaching Licensure**—Beginning Fall 1993, all courses necessary for the Minnesota State Coaching Licensure will be offered through Continuing

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Education and Extension and the summer session over a two-year period. For information, call (612) 625-1007.

**PEL Courses—Note:** Courses which may be applied to physical education teaching, adapted physical education, and/or state coaching licensure are designated as such by **PEL** at the end of the course description, before the prerequisite information, and include the following: Kin 3144, 5100, 5101, 5102, 5103, 5120, 5122, 5126, 5135, 5136, 5152, and 5980.

**Kin 3110 HUMAN ANATOMY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55. Emphasizes bones, nerves, and muscles and their significance in physical education. **Must be taken A-F.** (No prereq)

Fall Qtr, Sec 1, T, 4:15-6:30, CookeH 214, Serfass

**Kin 3112 FIRST RESPONDER FOR ATHLETIC COACHES AND ATHLETIC TRAINERS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

First Responder curriculum specifically tailored to meet the needs of the injured amateur or professional athlete. Lectures and skills focused on preparing the athletic coach and/or athletic trainer to recognize, initially stabilize, and appropriately transport the injured athlete. Successful completion will entitle the student to First Responder certification. Includes AHA CPR training. **Must be taken A-F.** Attendance is mandatory at all sessions, in their entirety. There will be no make-up sessions. **Note:** In order for this course to be offered, a minimum of 12 students must enroll. For questions regarding the status of the class, telephone (612) 625-3333. (Prereq #. Limited to 25)

Fall Spec Term, ★Sec 1, TTh, 6-10, Sept. 27-Oct. 27, Mayo C365, McNeil

Winter Spec Term, ★Sec 2, TTh, 6-10, Jan. 3-Feb. 2, Mayo C365, McNeil

Spring Spec Term, ★Sec 3, TTh, 6-10, Mar 28-Apr. 27, Mayo C365, McNeil

**Kin 3114 PREVENTION AND CARE OF INJURIES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Policies for conditioning athletes in interscholastic and intercollegiate sports; safety controls. **Must be taken A-F. PEL.** (Prereq 3110 or CBN 1027. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★Sec 1, T, 6-8:30, BFAB 210

**Kin 3115 PHYSIOLOGICAL APPLICATION TO SPORTS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55.

Muscular contraction for strength development programs; contributions of training programs to endurance, speed, and skill acquisition; influence of training on the cardiovascular system; fatigue and recovery; early season training, pregame meals, and ergogenic aids in athletes. **Must be taken A-F. PEL.** (Prereq coaching licensure student or #. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★Sec 1, M, 6:15-8:30, CookeH 215

**Kin 3144 ADMINISTRATION.** 2 credits, \$3120, tuition\*: Resident \$173; Non-resident \$501.70.

Principles, policies, and procedures involved in the coaching of interscholastic sports. **Must be taken A-F. PEL.** (Prereq kinesiology major, sr. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★Sec 1, W, 4:15-6:15, CookeH 215, Krotee

**Kin 3171 BASKETBALL COACHING.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70.

Techniques, styles of offense and defense, conditioning and handling of players. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★Sec 1, W, 6:15-8, CookeH 206, Pickert, Kosmoski, Haskins

**Kin 3176 SWIMMING AND DIVING COACHING.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70.

Instruction in and practice of the basic techniques used in competitive swimming and diving; rules and regulations governing staging of competition. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★Sec 1, T, 4:15-6:15, Aquatic Center, Freeman

**Kin 5100 TEACHING PHYSICAL EDUCATION FOR THE HANDICAPPED.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to the role of physical education in the education of the handicapped individual emphasizing understanding, principles of organization, administration, curriculum, supervision, and evaluation. **Must be taken A-F. PEL.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★Sec 1, W, 6:15-8:15, (plus 1 hr arr), CookeH 214, 215, Burton

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Kin 5101 PHYSICAL EDUCATION ACTIVITIES FOR THE HANDICAPPED.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Adaptation of methods, materials, and physical activities to meet the needs of the physically, mentally, or emotionally atypical student applied to specific handicaps in selected activity areas. **Must be taken A-F. PEL.** (Prereq 5100 or EPsy 5601. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, M, 6:15-8:45, CookeH 214, Burton

**Kin 5102 PRACTICUM: PHYSICAL EDUCATION FOR THE HANDICAPPED IN AN ADAPTED SETTING.** 1-6 cr (max 6 cr), tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Opportunity for teaching in schools or community settings, providing instruction for atypical individuals in the segregated or adapted environment; includes seminar for review of current theory and exchange of ideas and problems. **Must be taken S-N. PEL.** (Prereq 5100, 5101 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, T, 6:30-8:45, CookeH 215, Burton

Spring Qtr, ★○Sec 2, M, 6:15-8:45, CookeH 214, Burton

**Kin 5111 SPORT FACILITIES.** 3 credits, §Rec 5111, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning of areas and facilities for physical education and athletes, with emphasis on current trends and problems in the field. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Rec 5111. A joint Day/Extension class limited to a combined total of 5 Extension students)

Winter Qtr, ★○Sec 1, T, 4:15-6:30, CookeH 214, 215, Anderson

**Kin 5121 CONTRIBUTIONS OF BASIC SCIENCE TO KINESIOLOGY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Recent research in related physical sciences; application in selected areas. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students) Winter Qtr, ★○Sec 1, Th, 6:15-8:15 (plus 1 hr arr), NorrisH 3, Hancock

**Kin 5122 APPLIED PHYSIOLOGY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of concepts in human physiology to exercise physiology, sports training, and physical activities with particular reference to respiratory and cardiovascular systems. **Must be taken A-F. PEL.** (Prereq 3386 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, M, 6:15-8:15 (plus 1 hr arr), CookeH 214, 215, Serfass

**Kin 5126 ADVANCED PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Advanced insight into the substance, nature, and significance of these dimensions of physical activity; focus on current research, issues, and trends as well as potential contributions. **Must be taken A-F. PEL.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, T, 4:15-6:15 (plus 1 hr arr), CookeH 400, Wiese-Bjornstal

Spring Qtr, ★○Sec 2, M, 4:15-6:15 (plus 1 hr arr), CookeH 215, Wiese-Bjornstal

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Kin 5127 OBSERVATION AND ANALYSIS OF TEACHING PHYSICAL ACTIVITY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The development of initial competence in the use of observation and supervision tools to analyze the teaching of physical activity. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, M, 4:15-6:15, CookeH 214

**Kin 5132 MOTOR DEVELOPMENT.** 3 credits, \$5131, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Development aspects of motor skill acquisition from birth to physical maturity. **Must be taken A-F.** (Prereq 3132 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, W, 4:15-6:15 (plus 1 hr arr), CookeH 214, 215, Wade

**Kin 5135 MOTOR LEARNING AND HUMAN PERFORMANCE.** 3 credits, \$5130, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Mechanisms of human motor skill learning, emphasis on theories of motor learning and control of movement, motor memory, and individual differences. **Must be taken A-F. PEL.** (Prereq 3113 or 3135 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, T, 4:15-6:15 (plus 1 hr arr), NorrisH 3, Hancock

**Kin 5136 PSYCHOLOGY OF COACHING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Psychological aspects of coaching at the elementary, secondary, and college levels. **Must be taken A-F. PEL.** (No prereq. Qualified students may

register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, W, 4:15-6:15 (plus 1 hr arr), CookeH 400, Wiese-Bjornstal

Spring Qtr, ★●Sec 2, Th, 4:15-6:15 (plus 1 hr arr), CookeH 215, Krotee

**Kin 5140 BIOMECHANICS OF SPORT SAFETY.** 3 credits tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Forces and torques developed in sports activities; tolerances of the human body; techniques for preventing injury; design of protective equipment. **Must be taken A-F.** (Prereq undergrad kinesiology. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:15-6:15 (plus 1 hr arr), CookeH 206, Stoner

**Kin 5152 CURRICULUM DEVELOPMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Trends, issues, and problems at selected levels of interests: elementary, secondary, junior college; for experienced teachers. **Must be taken A-F. PEL.** (Prereq 5151 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, M, 4:15-6:15 (plus 1 hr arr), CookeH 400

**Kin 5163 DEVELOPMENT OF MOTOR ASSESSMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An in-depth view of concepts, problems, and issues in the assessment of the motor functioning of children who may be handicapped or nonhandicapped, including a critical survey of existing assessment tools and experience in developing a specific assessment tool. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, W, 6:15-8:45, CookeH 206, Burton

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Kin 5170 FOUNDATIONS OF KINESIOLOGY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Establishing guidelines for individual and group professional action; examining pertinent social forces, educational philosophical philosophies, and general ethics. **Must be taken A-F.** (Prereq grad or MEd student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, M, 4:30-6:25, NorrisH 3, Hancock

**Kin 5375 COMPETITIVE SPORT FOR CHILDREN AND YOUTH.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A number of cognitive, behavioral, and biological factors having important implications for competitive sport participants from early childhood through high school age are examined. Emphasis is placed on translating sport science research into practical implications for youth sports coaches, teachers, and administrators. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, Th, 4:15-6:15 (plus 1 hr arr), CookeH 215, Wiese-Bjornstal

**Kin 5387 DETECTION AND PREVENTION OF CORONARY HEART DISEASE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Introduction to causes, detection, and prevention of major cardiovascular diseases emphasizing risk factor identification and modification, role of exercise in prevention, and measurement and interpretation of exercise electrocardiograms. **Must be taken A-F.** (Prereq 3386 or equiv or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, MW, 4:30-6:30, CookeH 214, Leon

**Kin 5388 EXERCISE TESTING, CONDITIONING, AND CARDIAC REHABILITATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Administration and interpretation of exercise test, cardiopulmonary resuscitation, and exercise prescription; survey of exercise programs for apparently healthy adults and CHD patients; familiarization with principles for establishment of intervention and rehabilitative programs. **May not be taken S-N by Education majors.** (Prereq 3386 or equivalent, 5387 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, MW, 4:15-6:15 (plus 1 hr arr), CookeH 109, Serfass

**Kin 5455 RECREATIONAL SPORTS.** 3 credits, §Rec 5455, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

In-depth analysis of processes and benefits of recreational sports programming and participation. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Rec 5455. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, M, 4:15-6:30, CookeH 206, Anderson

**Kin 5620 PRACTICUM: PREVENTION AND CARE OF ATHLETIC INJURIES.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of problems (recognition, principles, responsibilities) related to athletic injuries in secondary and college programs; demonstration and practice in training techniques and familiarity with the use of instruments for athletic rehabilitation. **Must be taken A-F.** (Prereq CBN 1027 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, T, 5:30-8, BFAB 285, Swanson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Kin 5980 RESEARCH METHODOLOGY.** 3 credits, \$Rec 5980, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Methods and design for research in health, kinesiology, and recreation. **Must be taken A-F. PEL.** (Prereq education or grad student. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Rec 5980. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 4:15-6:45, CookeH 214, 215, Kane

*For information on noncredit conferences and workshops in Kinesiology, please contact the Department of Professional Development and Conferences Services, 214 Nolte Center for Continuing Education: telephone 625-6616.*

**Day School Classes**—In addition to the Extension Classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

### Labor Education

For information on the Union Leadership Academy and other noncredit courses and workshops in labor education, please contact Labor Education Service, 437 Mgmt/Econ, University of Minnesota, 271 19th Avenue S., Minneapolis, MN 55455 (624-5020).

### Landscape Architecture (LA)

(125 Architecture: 625-6860)

#### College of Architecture and Landscape Architecture

Textbooks for most LA courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Architecture; The Practical Scholar noncredit courses; and Horticultural Science)

Julie Bargmann, Assistant Professor of Landscape Architecture

Craig Churchward, Lecturer in Landscape Architecture

Paul Damon, Lecturer in Landscape Architecture  
Susan Galatowitsch, Assistant Professor of Horticultural Science

Robert J. Gunderson, Lecturer in Landscape Architecture

Deborah Karasov, Adjunct Assistant Professor in Landscape Architecture

Roger Martin, Professor of Landscape Architecture

Richard T. Murphy, Adjunct Assistant Professor of Landscape Architecture

Joan Nassauer, Professor of Landscape Architecture

Lance Neckar, Associate Professor of Landscape Architecture

Katherine Solomonson, Assistant Professor of Architecture

Robert D. Sykes, Associate Professor of Landscape Architecture

Leon Satkowski, Associate Professor of Architecture

**Pre-Landscape Architecture Studies**—The Department of Landscape Architecture offers the following courses to be taken by students preparing for admission to the Bachelor of Environmental Design degree program. These courses along with other general distribution requirements constitute the pre-Landscape Architecture curriculum, most of which are offered through Continuing Education and Extension. Students admitted to the MLA professional degree program will receive advanced standing if they have completed LA 1025, 1026, or 3098. For more information on Landscape Architecture curricula, call Professor Roger Martin at 625-6052.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Landscape Architecture. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**LA 1024 THEORY OF LANDSCAPE DESIGN.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Analysis of design elements and forms involving line, direction, shape, proportion, and color, with emphasis on their function in design; a study of perception and man's relationship to his environment, and the social effects and psychological basis for design. Lectures and reference reading. Students will apply the theories studied to their own particular interest areas such as community development, issues in environmental quality, and residential landscape design. (No prereq)

Fall Qtr, Sec 1, T, 6-9:30, Arch 55, Churchward

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**LA 1301 INTRODUCTION TO LANDSCAPE ARCHITECTURAL DRAWING.** 4 credits, §Arch 1301, tuition\*(includes \$25 course fee): Resident \$319; Non-resident \$877.60.

A beginning drawing course that emphasizes visualization and drawing of form and space in the physical environment. Exploration of basic elements of form using design drawing systems and conventions. Development of skills in visual literacy and expression through drawing. Recommended for entry-level students and for professionals desiring additional graphic skills. **Must be taken A-F.** *Required for the major.* (Prereq Arch or BED or LA major or #)

Fall Qtr, Sec 1, MW, 6:30-9:30, Arch 50, Damon

**LA 1401 THE DESIGNED ENVIRONMENT.** 4 credits, tuition\*(includes \$5 course fee): Resident \$299; Non-resident \$857.60.

Principles and traditions within the design disciplines of architecture, landscape architecture, and urban design, along with references in the arts, sciences, and literature, will be explored in this review of the formal constructs of the designed environment. **Must be taken A-F.** (No prereq. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TTh, 5-6:45, SmithH 100, Bargmann

**LA 3098 LANDSCAPE ARCHITECTURE DESIGN.** 4 credits, tuition\*(includes \$25 course fee): Resident \$371; Non-resident \$1028.40.

A design course with emphasis on spatial design at all scales. Design projects which focus on exploration of place and space-making qualities of plants, land form and structures. Class size allows instruction to adjust to various student needs and ability levels. Recommended for entry level LA students and for professionals desiring additional design skills. (No prereq. Limited to 15)

Winter Qtr, ★Sec 1, MW, 6:30-9:30, Arch 10

**LA 3311 DRAWING FOR DESIGN.** 4 credits, §Arch 3311, tuition\*(includes \$25 course fee): Resident \$371; Non-resident \$1028.40.

Exploration of drawing processes as modes of perception, cognition, and reflection. Study of representational aspects of drawing systems and conventions. Development of the understanding of space, light, and order. **Must be taken A-F.** *Required for the BED.* (Prereq Arch or BED or LA major, Arch/LA 1301 or #)

Spring Qtr, Sec 1, MW, 6:30-9:30, Arch 30

**LA 3411 HISTORY OF ARCHITECTURE TO 1750.** 4 credits, §Arch 3411, §Arth 3411, tuition\*(includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

History of architecture and city planning from antiquity to 1750, as illustrated by major monuments from Western and non-Western cultures. **Must be taken A-F.** (No prereq. Meets concurrently with Arch 3411, Arth 3411. Limited to a combined total of 100)

Fall Qtr, ★Sec 1, Th, 5:30-8:40, Arch 25, Satkowski

**LA 3412 HISTORY OF ARCHITECTURE SINCE 1750.** 4 credits, §Arch 3412, §Arth 3412, tuition\*(includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

A history of the major monuments, concepts, and theories of urbanism and architecture since 1750. **Must be taken A-F.** (No prereq. Meets concurrently with Arch 3412, Arth 3412. Limited to a combined total of 100)

Winter Qtr, ★●Sec 1, Th, 5:30-8:40, Arch 25, Solomonson

**LA 3413 HISTORY OF LANDSCAPE ARCHITECTURE.** 4 credits, §Arch 3413, tuition\*(includes \$5 course fee): Resident \$351; Non-resident \$1008.40.

Lecture course introduction to history and theoretical issues of landscape architecture in typologically based survey format. Course covers landscape design from the ancient to the modern periods. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 100)

Spring Qtr, ★●Sec 1, TTh, 4:30-6:20, SmithH 100, Karasov

**Continuing Education Courses Offered for Practicing Landscape Architects**—The following are courses offered by the Department of Landscape Architecture as continuing education courses for practicing landscape architects and others interested in specific aspects of the profession of landscape architecture. In most instances, qualified students may register for graduate credit at the University of Minnesota.

**LA 5621 PROFESSIONAL PRACTICE.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. Office and project management is analyzed using the case study method. Subject areas include organizational behavior, marketing, sales, strategic planning, financial and cost accounting, insurance, legal issues, and contracts. **Must be taken A-F.** (No prereq. May not be taken for graduate credit. A joint Day/Extension class)

Winter Qtr, ●Sec 1, TTh, 6-8, Arch 20, Murphy

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Noncredit Landscape Architecture Courses**—For complete information about these courses, telephone (612) 625-0174 *before* registering. All 0xxx-level LA courses must be taken S-N.

**LA 0010 IRRIGATION DESIGN FOR LANDSCAPE ARCHITECTS.** No credit, tuition\*: \$294. Intended for those who have a need to know the basics and more about irrigation—whether from a design, installation, or administrative review position—in order to enhance their professional development. Focuses on why irrigation is needed, when and when not to irrigate, the theory of irrigation, and practical solutions to problems. Topics include hydraulics, piping, head layout, irrigation systems, programming, water balance, and specialized applications. Participants receive hands-on familiarity with irrigation components throughout the course and are introduced to the latest technical and product innovations. By the end of the course, participants should be able to design a simple irrigation system, be conversant in technical specifications, and know how to evaluate the effectiveness of irrigation designs and built systems. **Must be taken S-N.** (No prereq)

Winter Qtr, Sec 1, Th, 5-8:30, NorH 305,  
Gunderson

## Languages

See Area Studies Programs; Classical and Near Eastern Studies; Dutch; French; German; Hebrew; the Institute of Languages and Literatures; Italian; Portuguese; Scandinavian Languages and Literature; and Spanish.

## Language Laboratories

(See page 52)

## Latin

(See Classical Studies)

## Latin American Studies

(See Area Studies Programs; and the Institute of Languages and Literatures)

## Law, Business

(See Business Law)

## Learning and Academic Skills (LASK)

(104 Eddy Hall: 624-3323)

College of Liberal Arts

Textbooks for most courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Susan A. Aase, Associate Education Specialist

Joyce D. Weinsheimer, Program Director of Learning and Academic Skills Center

(See also Rhetoric; General College; *University Access* in The Compleat Scholar noncredit section; and other study helps, page 464)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in LASK. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*A student who does not attend the first class meeting of a LASK course will not be allowed to continue. A written verification of non-attendance must be obtained from the instructor for a student to receive a 100% tuition refund.*

**LASK 1001 BECOMING A MASTER STUDENT.** 2 credits, tuition\* (includes \$30 special fee): Resident \$177; Non-resident \$456.30.

Practical assistance to the student in developing efficient study habits, organizing materials, preparing for examinations, and improving the speed and comprehension of reading. Diagnosis and practice in basic skill areas such as reading, spelling, vocabulary, and elementary composition also are provided through individualized learning projects. (No prereq. Limited to 30)

Fall Qtr, ★Sec 1, MW, 11:15 a.m.-12:05, EddyH 20

Fall Qtr, ★Sec 2, T, 6:20-8:50, EddyH 102

Fall Qtr, ★Sec 3, W, 6:20-8:50, EddyH 102

Winter Qtr, ★Sec 4, MW, 11:15 a.m.-12:05, EddyH 20

Winter Qtr, ★Sec 5, T, 6:20-8:50, EddyH 102

Winter Qtr, ★Sec 6, W, 6:20-8:50, EddyH 102

Spring Qtr, ★Sec 7, MW, 11:15 a.m.-12:05, EddyH 20

Spring Qtr, ★Sec 8, T, 6:20-8:50, EddyH 102

Spring Qtr, ★Sec 9, W, 6:20-8:50, EddyH 102

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**LASK 1301 CAREER PLANNING FOR DISABLED STUDENTS.** 2 credits. Tuition\*: Resident \$147; Non-resident \$426.30.

Assess interests, values, needs, and learning style as it relates to occupational choices. Learn decision-making strategies to identify possible career options. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, W, 4:30-6:30, KoltH S133, Aase

**LASK 1302 JOB-SEEKING SKILLS FOR DISABLED STUDENTS.** 2 credits. Tuition\*: Resident \$147; Non-resident \$426.30.

Develop skills necessary to conduct a productive job search. Learn strategies to write a resume, complete the application process, and interview effectively. (Prereq 1301. Limited to 20)

Winter Qtr, ★Sec 1, W, 4:30-6:30, KoltH S136, Aase

**LASK 1303 INTERNSHIP EXPERIENCE FOR DISABLED STUDENTS.** 2 credits. Tuition\*: Resident \$147; Non-resident \$426.30.

Gain work experience through a paid or volunteer internship. (Prereq 1302. Limited to 20)

Spring Qtr, ★Sec 1, W, 4:30-6:30, KoltH S136, Aase

**Legal Studies Education**

(See General College)

**Liberal Studies (LS)**

(306 Wesbrook Hall: 625-3898)

**Continuing Education and Extension**

**The Master of Liberal Studies (L.S.) program is currently under review by the Higher Education Coordinating Board. If approved, the program can be completed in the evening.**

Textbooks for most LS courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

The Graduate School and Continuing Education and Extension offer the Master of Liberal Studies program for adult and part-time students. See the Degrees and Certificates section of this bulletin for general admission and curriculum requirements. Interested students may call the M.L.S. office in Extension Classes for more information: (612) 625-3898.

Subir Banerjee, Professor of Geology  
Terence W. Ball, Professor of Political Science  
Carol Bly, Lecturer in English

Kevin Dooley, Associate Professor of Mechanical Engineering

Paul Magee, Professor of Genetics and Cell Biology  
Naomi Scheman, Professor of Philosophy  
David Taylor, Dean, General College

Priority in assignment of space in classes is given to students admitted to the M.L.S. degree program. Students not admitted to the program may register on a space-available basis. Check with a CEE adviser at (612) 625-2500 on applicability of credits in LS courses if you are working on another University of Minnesota degree.

Students admitted to the M.L.S. degree program should pay the Graduate School tuition rate listed with the course. Students not admitted to a graduate program also should pay the Graduate School tuition rate and register for graduate credit if they plan to apply these courses later to the M.L.S. or another advanced degree program offered through the Graduate School at the University of Minnesota.

For students in master's degree programs at other institutions, or those offered by other University colleges (other than the Graduate School), check with your graduate studies adviser before registering; pay the graduate tuition rate.

*Approval is pending on the following course:*

**CHAOS AND COMPLEXITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Chaos theory and related approaches which are often included under the name "complexity" are changing how we think of order itself. Because of this, they are influencing not only natural science but social science and the humanities as well. This course will examine these ideas and their effect in different disciplines. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20.)

Fall Qtr, ★Sec 1, Arr, Dooley

**LS 5610 ENVIRONMENTAL ETHICS, POLITICS, AND PUBLIC POLICY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The central focus is duties within and beyond "borders," and the question: who or what belongs to the mortal community of creatures deserving protection and respect? The borders within and beyond which humans act are to be understood both literally (as legal/political boundaries) and metaphorically (as borders between generations of human beings or

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

between human and non-human animal species). Asking who belongs to the community of those deserving protection and respect, class participants pay attention to their roles, relations, and actions as citizens and as members of the planet's most powerful and potentially dangerous species. To that end, the class will examine moral obligations, ask what "freedom" means, and examine what responsibilities are entailed by that freedom and what legitimate limits might be placed on the freedom to speak and act. Beyond such civic concerns, class members will look closely at unexamined assumptions about nature, the natural environment, other species, and future generations. Course readings include such classic and contemporary sources as John Stuart Mill, Alexis de Tocqueville, Wendell Berry, Aldo Leopold, Ruth Macklin, and Peter Singer. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Pol 5610, sec 1. Limited to a combined total of 30)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160, Ball

**LS 5615-5616-5617 WAYS OF KNOWING: SIX DISCIPLINES EXAMINED.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

How do biologists know what genes cause cancer? Join a seminar with six faculty members drawn from such areas of the humanities as philosophy, from such sciences as genetics, and from the social sciences such as history. All six faculty meet together with the students each week for a full academic year to discover how these kinds of questions are examined in six very different disciplines. Become a geophysicist for five weeks, a philosopher for another five, and so on through the year. In Ways of Knowing, you will spend time learning how to think about different problems as if you were a scholar in each of the six disciplines, along with the other students, including the faculty. The purpose is to understand the similarities and differences among the various modes of inquiry represented in the course. **Students must enroll for all three quarters in order to receive any credit. Enrollment is by application only: Call 625-3898 or go to 202 Wesbrook Hall.** (Prereq written # for 5615; 5615 for 5616; 5616 for 5617. Meets concurrently with arranged sections of Biol 5950, Geo 5980, Phil 5760, and ID 5615-5616-5617. Limited to a combined total of 22)

Fall Qtr, 5615, ★Sec 1, T, 6:20-8:50, FordH 60  
Winter Qtr, 5616, ★Sec 1, T, 6:20-8:50, FordH 60  
Spring Qtr, 5617, ★Sec 1, T, 6:20-8:50, FordH 60

**LS 5910 LIVELY IMAGINATION: ETHICS AND ASPECTS OF MORAL THINKING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A consideration of first-rate poems, stories, essays. The effects of telling, hearing, and interpreting stories; empathy with respect to stories and stage development theory. Creative writing involved. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Engl 5910, sec 4. Limited to a combined total of 30)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, LindH 217, Bly

*Approval is pending on the following course:*

**INTRODUCTION TO GRADUATE LIBERAL STUDIES.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

This seminar, which is required for and limited to students admitted to the M.L.S. degree program, will orient students to the character of interdisciplinary liberal studies at the graduate level. Each specific seminar will have a unique topic chosen by the graduate faculty teaching that seminar. (Prereq Δ. Limited to 20)

Winter Qtr, ★Sec 1, Arr

## Linguistics (Ling)

See Institute of Languages and Literatures.

## Logistics Management (LM)

(1235 Management/Economics: 624-5055)

### Carlson School of Management

Textbooks for most LM courses are available at University of Minnesota Bookstore—West Bank (625-3000).

Frederick J. Beier, Professor  
Donald V. Harper, Professor  
Judy Ohannesian, Lecturer

**Logistics Management courses may not be taken S-N by Carlson School of Management students.**

**Note**—Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**LM 3000 INTRODUCTION TO LOGISTICS MANAGEMENT.** 4 credits, §Tran 3064, §Tran 8264, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Managing the flow of an organization's physical products (physical supply and distribution) and the linkages between the process of controlling the physical flow of products and the organization's major functions, i.e., finance, marketing, and operations management. Logistics topics and analysis of the impact of logistics decisions on other functional areas. Simulation exercise. **May not be taken S-N.** (Prereq Econ 1101 or equivalent and at least 90 credits completed or in progress. Open to nondegree students with equivalent experience. Limited to 40) Fall Qtr, ★Sec 1, T, 5:30-8:30, BlegH 245 Winter Qtr, ★Sec 2, T, 5:30-8:30, Law 3

**LM 5020 (formerly 3020/8020) ADVANCED LOGISTICS MANAGEMENT.** 4 credits, §3020, §8020, §Tran 3064, §Tran 8264. **Tentatively scheduled for 1995-96.**

**LM 5030 (formerly 3010/8010) PRINCIPLES OF TRANSPORTATION.** 4 credits, §3010, §8010, §Tran 3054, §Tran 8154, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633. Organizational, economic, and service aspects of the United States' transportation system, including rail, highway, water, pipeline, and air; decision making in transportation companies; government promotional and regulatory policy regarding transportation. **Must be taken A-F.** (Prereq Econ 1101 or equivalent and at least 90 credits completed or in progress. Open to nondegree students with equivalent experience. Qualified students may register for graduate credit at the University of Minnesota) Spring Qtr, Sec 1, T, 5:30-8:30, BlegH 135

**MacPhail Center**

See Music

**MBA Program**

See page 94.

**Management (Mgmt)**

(835 Management/Economics: 624-5232)

**Carlson School of Management**

Textbooks for Mgmt courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Business, Government, and Society; Interdepartmental Study; and the Management Advancement Program)

Charles Flaherty, Lecturer/Coordinator of Management

John M. Hasselberg, Lecturer

Dileep Rao, Lecturer

Raoul Schander, Lecturer

William Seeley, Lecturer

Paul M. Vaaler, Teaching Assistant

**Business degree students must take Management courses A-F.**

**Note**—Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**Mgmt 3001 FUNDAMENTALS OF MANAGEMENT.** 4 credits, §8001, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Leadership and management functions such as those required to establish goals, policies, procedures, and plans are studied. Motivation, planning, and control systems, and concepts of organizational structure and behavior are also reviewed. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 125)

Fall Qtr, ★Sec 1, M, 5:45-8:45, AndH 330,

Flaherty

Fall Qtr, ★Sec 2, T, 5:45-8:45, AndH 330, Flaherty

Winter Qtr, ★Sec 3, T, 5:45-8:45, AndH 270,

Flaherty

Spring Qtr, ★Sec 4, M, 5:45-8:45, AndH 270,

Flaherty

Spring Qtr, ★Sec 5, T, 5:45-8:45, AndH 270,

Flaherty

**Mgmt 3002 PSYCHOLOGY IN MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Centers on development and application of behavior principles, methods, and skills which underlie managerial competence in preventing and solving problems within and between individuals and groups and aid in effective utilization of human resources. Various laboratory procedures are used to highlight concepts, methods and skills and furnish practice in applying them to management problems. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 36)

Fall Qtr, ★Sec 1, W, 5:45-8:45, BlegH 135

Winter Qtr, ★Sec 2, M, 5:45-8:45, BlegH 215

Winter Qtr, ★Sec 3, T, 5:45-8:45, HHCtr 20

Spring Qtr, ★Sec 4, W, 5:45-8:45, BlegH 140

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Mgmt 3004 BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION.** 5 credits, tuition\* (includes \$16 special fee): Resident \$448.50; Non-resident \$1270.25. (IS)

Undergraduate-level capstone course designed to develop skill in the general management functions of identifying and analyzing strategic issues and problems, establishing corporate or divisional goals, and designing realistic programs of action. Case analysis and discussion in class. Students also meet in small groups to prepare cases and occasionally presentations to be made to the entire class. Concepts and approaches to strategic planning are taught in this course. These concepts as well as concepts, tools, and theories previously presented in other courses are applied to solve goal selection and strategy implementation problems. Usually the viewpoint of the general line manager (department, division, or executive level) is taken. **May not be taken S-N.** (Prereq senior and completion of business core or ¶final core course. Limited to 36)

Fall Qtr, ★Sec 1, T, 5:30-9, BlegH 255

Winter Qtr, ★Sec 2, W, 5:30-9, BlegH 215

Spring Qtr, ★Sec 3, M, 5:30-9, BlegH 330

**Mgmt 3006 SMALL BUSINESS MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Focuses attention on the role of small business, alternative entry strategies, and functional expertise required as the firm competes in its environment. **May not be taken S-N.** (Prereq at least 90 credits completed or in progress. Limited to 36)

Winter Qtr, ★Sec 1, M, 5:45-8:45, BlegH 245, Flaherty

**Mgmt 3008 ENTREPRENEURSHIP AND THE SMALLER ENTERPRISE.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Assessment of opportunities and constraints in establishing and managing one's own firm; topics include structuring a new venture, buying into an existing enterprise, owning an enterprise versus becoming a principal employee in a new venture. Case method. **May not be taken S-N.** (Prereq completion of business core courses or #. Limited to 30)

Spring Qtr, ★Sec 1, M, 5:45-8:45, HHCtr 60, Rao

**Mgmt 3080 TOPICS IN ETHICS: MANAGERIAL ETHICS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. Introduction to various ethics theories with application to business problems in negotiation,

truth-telling, insider trading, corporate responsibility, international business, and other selected topics. Emphasis on developing practical strategies for ethical decision making on the job. *May be taken as an Auditor.* (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 36)

Winter Qtr, ★Sec 1, T, 5:45-8:45, BlegH 425, Vaaler

**Mgmt 3090 TOPICS IN LEADERSHIP: PERSPECTIVES ON MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Students are challenged to understand, develop, and adopt a personal leadership position and values profile. Participants examine organizations with effective and compassionate leadership in order to understand how they empower their associates. Discussion will go beyond simple participative management and will delve into world-class competitive organizations where people are valued for their individual leadership and unique creativity. *May be taken as an Auditor.* (Prereq at least 90 credits completed or in progress. Limited to 36)

Fall Qtr, ★Sec 1, W, 5:45-8:45, BlegH 235, Schander

## Management Advancement Program

See Professional and Career Development.

## Management Information Systems

(See Information and Decision Sciences)

## Management Science

See Information and Decision Sciences; also see Operations and Management Science.

## Marketing (Mktg)

(1235 Management/Economics: 624-5055)

### Carlson School of Management

Textbooks for most Mktg courses are available at University of Minnesota Bookstore—West Bank (625-3000).

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

Stowe Badenoch, University of Wisconsin-Stout

Terry Childers, Professor

John Grubb, ADC Telecommunications

Welcome Jerde, W. Jerde Marketing

James Johnson, St. Cloud State University

John Nicolay, Crossroads Business Services, Inc.

Robert Ruckert, Associate Professor

Allan Shocker, Professor

Pam Weisenberger, Minnesota Mutual Life Insurance Co.

**Business degree students must take Marketing courses A-F.**

**Note**—Students pursuing the B.S.B. with a marketing emphasis should contact the Undergraduate Studies Office in 290 HHCtr to learn about upcoming course changes. Telephone (612) 624-3313

**Note**—Students taking Carlson School of Management upper division undergraduate courses through CEE are expected to have completed the equivalent of 90 quarter college credits with a minimum of a "B-" grade average.

**Mktg 3000 PRINCIPLES OF MARKETING.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Study of the basic policy and strategy issues in marketing and the environmental factors that affect these issues. Legal, behavioral, ethical, competitive, economic, and technological factors are examined as they affect product, pricing, promotion, and marketing channel decisions. (Prereq Econ 1101 or equivalent and at least 90 credits completed or in progress. **May not be taken S-N.** Limited to 250)

Fall Qtr, ★Sec 1, T, 5:30-8:30, AndH 310

Fall Qtr, ★Sec 2, Th, 5:30-8:30, Richfield HS 143

(Limit 30)

Winter Qtr, ★Sec 3, W, 5:30-8:30, BlegH 5

Spring Qtr, ★Sec 4, M, 5:30-8:30, Roseville Area HS 143 (Limit 35)

Spring Qtr, ★Sec 5, W, 5:30-8:30, BlegH 5

**Mktg 3010 BUYER BEHAVIOR AND MARKETING ANALYSIS.** 4 credits, ¶3098, 3095, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Identifying and applying secondary and primary data to solve marketing problems. Special consideration is given to consumer and organizational buyer behavior. Topics include survey and experimental research techniques, market segmentation, data analysis, behavior concepts and processes, consumer and organizational decision-making models, and managerial applications of these models. (Prereq 3000 and OMS 1020 or equivalent, and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★Sec 1, W, 5:30-8:30, BlegH 250

Winter Qtr, ★Sec 2, T, 5:30-8:30, AndH 350

Spring Qtr, ★Sec 3, M, 5:30-8:30, BlegH 235

**Mktg 3020 MARKETING OPERATIONS MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Development of marketing plans, primarily for manufacturing organizations. Analytical methods for developing and appraising marketing programs, factors important in shaping marketing plans. Planning for selling, communication, distribution, pricing, product development and marketing research activities. (Prereq 3010 and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★Sec 1, T, 5:30-8:30, HHCtr 20

Winter Qtr, ★Sec 2, Th, 5:30-8:30, HHCtr 20

**Mktg 3030 SALES AND DISTRIBUTION MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

The design and management of marketing systems for distributing goods and services to industrial users and ultimate consumers. Institutional, functional, and social aspects of distribution channels, with emphasis on the managerial problems of channel design, integration, and control. Managing the personal selling function as an integral part of the overall distribution system, with emphasis on salesforce organization, selection, training, motivation, compensation, forecasting, budgeting, and control. (Prereq 3020 and at least 90 credits completed or in progress. Limited to 45)

Winter Qtr, ★Sec 1, M, 5:30-8:30, BlegH 335

**Mktg 3050 MARKETING COMMUNICATIONS.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

The communications aspect of the marketing mix and the communication process. Emphasis on advertising, media alternatives, and research. Integration of the sales force in communications strategy is discussed. (Prereq 3020 and at least 90 credits completed or in progress. Limited to 45)

Spring Qtr, ★Sec 1, T, 5:30-8:30, BlegH 120

**Mktg 3065 RETAIL MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Retailing principles, problems, and trends as they relate to various types of retailing institutions. Assignment of trade journals and supplementary readings for in-store study (buying and pricing) with a local retailer. (Prereq 3010 and at least 90 credits completed or in progress. Limited to 45)

Spring Qtr, ★Sec 1, Th, 5:30-8:30, BlegH 155

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Mktg 3090 MARKETING TOPICS: BUSINESS-TO-BUSINESS MARKETING (formerly Industrial Marketing).** 4 credits (may be repeated for credit), tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

An analysis of business-to-business markets and the role of the marketing function. Formulation of marketing programs in a variety of business-to-business marketing situations. Includes pricing, communication, and distribution policies and marketing strategy. (Prereq 3010 and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr, ★ Sec 1, M, 5:30-8:30, BlegH 235

### Materials Science and Engineering (MatS)

(151 Amundson Hall: 625-1313)

#### Institute of Technology

Textbooks for most MatS courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Leonard Laskow, ASM

**MatS 0001C INTRODUCTION TO MATERIALS.** 3 certificate credits, tuition\*: \$220.50.

Structure of Metals; Solidification of Metal; Phase Diagrams; Solid Solutions; Heat Treatment Steel; Deformation of Metals; Alloy Selection; Stainless Steels; Metal Joining; Failure Analysis. (No prereq. High school chemistry and high school physics strongly recommended. Limited to 35)

Fall Qtr, ★ Sec 1, M, 6:20-8:40, AmundH 116, Laskow

### Mathematics (Math)

(127 Vincent Hall: 625-8883)

#### Institute of Technology

Textbooks for most Math courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

*Your attention is called to the Mathematics and Science Certificate Program, and the Undergraduate Development Certificates in Engineering and Science—45 credits, in the Degrees and Certificates section of this Bulletin.*

(See also mathematics courses in General College; and The Practical Scholar's First Step: Preparation for University Mathematics noncredit courses, page 430)

Stephen Agard, Professor  
Glenn S. Ballard, Lecturer

John Corbett, Lecturer

William A. Dolid, Instructor, Minneapolis Community College, Lecturer

Zoltan Fischer, Instructor, Minneapolis Community College, Lecturer

David Frank, Associate Professor

James E. Guswiler, Lecturer

Shamlell Gupta, Lecturer

Lawrence R. Harper, Associate Professor

Harlan Hewitt, Instructor, North Hennepin Community College, Lecturer

Steve J. Hlusak, Instructor, North Hennepin Community College, Lecturer

Howard Jenkins, Associate Professor

Gary B. Kampf, Computer Engineer, Honeywell, Lecturer

Nickolas Konopliv, Lecturer

Richard A. Langlie, Instructor, North Hennepin Community College, Lecturer

Edwin Lundgren, Instructor, Lakewood Community College, Lecturer

Norman Meyers, Professor

Chester L. Miracle, Associate Professor

Richard B. Moeckel, Professor

Duane R. Nelson, Lecturer

Flauren Ricketts, Instructor, Normandale Community College, Lecturer

Robert N. Sackett, Instructor, Normandale Community College, Lecturer

U. Kurt Scholz, Associate Professor of Mathematics, College of St. Thomas, Lecturer

Bernard P. Smith, Instructor, Normandale Community College, Lecturer

James G. Swenson, Lecturer

V. C. Varadachari, Instructor, Lakewood Community College, Lecture

**Most courses needed to complete the B.A. in mathematics are available through Extension Classes. Interested students should call CEE Counseling, 625-2500, for details.**

**A minor is available in mathematics. Interested students should call CEE Counseling, 625-2500, for details.**

#### Mathematics prerequisites

Any student who has completed four years of high school mathematics, including solid geometry and trigonometry within the last two years with above average grades may register in Math 1211. However, even if a student has had four years of high school mathematics, but it has been more than two years since the last mathematics course was completed, then the student should register in Math 1111 or Math 1201. Also the following rule usually applies: a student who has been out of high school five years or more, or who did not have second-year

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

algebra in high school, should register either for Math 1051, General College 0625, Intermediate Algebra, Part I, or General College 0631, Intermediate Algebra, Part II. A student who knows very little about algebra should register for General College 0621, Elementary Algebra. See the General College course listings for descriptions.

**Placement Exam**—There is a regular placement exam to advise students which course they should register for. If you would like to take this placement exam before you register, it will be given at the beginning of registration this fall at 6 p.m. on Tues., Aug. 9, 1994, in Nolte Center 229. It is also given at 6 p.m. on Wed., Nov. 2, 1994, in Nolte Center 229, and at 6 p.m. on Wed., Feb. 1, 1995, in Nolte Center 125 (Library). There is no fee or pre-registration for this exam. The test lasts approximately 1 hour. Students may not use calculators. For further information about math placement, telephone Professor Miracle at (612) 625-2095.

The entrance requirement for the Institute of Technology is four years of high school mathematics, including solid geometry and trigonometry or Math 1111 and Math 1008.

All mathematics classes have prerequisite courses. For students who have not had the prerequisite courses, several mathematics courses have math placement scores as one of the ways to satisfy the prerequisites. Students will be given this exam on the first night of class. Students who do not pass this exam and have not passed the prerequisite courses will be asked to cancel the course and register for the prerequisite class.

**Mathematics for nonmajors and prebusiness students**

Math 1131 and Math 1142 are designed in cooperation with the Carlson School of Management for benefit of prebusiness students. However, both courses are the second course of a two-course sequence. The first course in both sequences is Math 1111. Business, accounting, and MBA students usually take Math 1111 followed by either Math 1131 or Math 1142.

**Calculus refresher course**

Math 5090 is for students who have completed at least one year of calculus within the last 4 to 6 years. If a student finished calculus 7 or more years ago, then it is usually best to start the calculus sequence again by taking Math 1211. A student may not take this course unless he or she has had at least one year of calculus in college. Math 5090 provides students who have been out of school for several years with the necessary background to enter more advanced courses that require a fresh knowledge of calculus.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Mathematics. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

The Practical Scholar program offers a series of review and skill-building courses which are especially valuable for people who encounter blocks in mathematics, or who are afraid of mathematics. For a complete listing of courses and supportive services, refer to page 430.

**Note**—Students interested in noncredit introductory mathematics courses should see the Preparatory Mathematics Program in the General College section of this bulletin, page 207.

**Continuing Education for Women (CEW) sections available in the following courses:** Math 1111, 1211

**Math 1005 INTRODUCTION TO ELEMENTARY MATHEMATICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

For pre-elementary education students. Elementary computer programming (BASIC), progressions, financial mathematics, counting problems, other selected topics. (Prereq 1111 or equivalent or #. Limited to 30)

Winter Qtr, ★Sec 1, TTh, 6:10-8, VinH 6

**Math 1006 INTRODUCTION TO ELEMENTARY MATHEMATICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Topics selected from areas such as probability theory, geometry, and number theory. Usage of computer continues. Restricted to elementary education students. (Prereq 1005 and pre-elementary education student. Limited to 30)

Spring Qtr, ★Sec 1, TTh, 6:10-8, VinH 6

**Math 1008 TRIGONOMETRY.** 4 credits, §1201, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Analytic trigonometry, identities, equations, properties of trig functions; right and oblique triangles. See **Mathematics prerequisites, page 270.** (Prereq plane geometry and 2 years of high school algebra and mathematics placement score or grade of C or better in GC 0631 and plane geometry. A student who has already had Math 1201 may not receive credit for this course. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:10-8, VinH 213

Fall Qtr, ★Sec 2, TTh, 6:10-8, VinH 213

Winter Qtr ★Sec 3, MW, 6:10-8, VinH 301

Spring Qtr, ★Sec 4, TTh, 6:10-8, VinH 301

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Advising Note**—A 5-credit college algebra course will transfer to more colleges than will a 4-credit course.

**Math 1031 COLLEGE ALGEBRA AND PROBABILITY.** 4 credits, §1051, §1151, §1111, §1201, tuition\*: Resident \$294; Non-resident \$852.60.

Algebra and analytic geometry explored in greater depth than is usually done in three years of high school mathematics. Additional topics from combinations, permutation, and probability. A suitable prerequisite for 1131 or 1142, but not for 1211 or 1251. **See Mathematics prerequisites, page 270.** (Prereq 3 years high school math and mathematics placement score or GC 0631. Limited to 30)

Fall Qtr, ★Sec 1, TTh, 6:30-8:20, Richfield HS

Winter Qtr ★Sec 2, MW, 5:30-7:20, VinH 2

Spring Qtr, ★Sec 3, TTh, 6:10-8, VinH 1

**Math 1051 PRECALCULUS I.** 4 credits, §1031, §1111, §1201, §1151, tuition\*: Resident \$294; Non-resident \$852.60.

Algebra, analytic geometry, and trigonometry beyond the usual coverage found in a three-year high school mathematics program. First of two courses. Prepares students for a full calculus sequence. Not an acceptable prerequisite for 1131 or 1142. **See Mathematics prerequisites, page 270.** (Prereq 3 years high school math and mathematics placement exam or GC 0631. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:10-8, VinH 1

Fall Qtr, ★Sec 2, TTh, 6:10-8, VinH 1

Winter Qtr ★Sec 3, MW, 6:10-8, VinH 1

Winter Qtr ★Sec 4, TTh, 6:10-8, VinH 1

Spring Qtr, ★Sec 5, MW, 6:10-8, VinH 1

**Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY.** 5 credits, §1201, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Functions and graphs, quadratic equations, progressions, inequalities, complex numbers, theory of equations, permutations and combinations, probability, systems of equations, determinants, graphing of linear and quadratic equations, conics in standard position, logarithms. *May be used to replace 1031.* **See Mathematics prerequisites, page 270.** (Prereq plane geometry, 2 years high school algebra and mathematics placement score or 1051 or GC 0631. Limited to 35)

Fall Qtr, ★Sec 1, MW, 6:10-8:20, VinH 20

Fall Qtr, ★Sec 2, MW, 5:30-7:40, VinH 2

Fall Qtr, ★Sec 3, MW, 6:30-8:40, Roseville Area HS 143

Fall Qtr, ★Sec 4, TTh, 6:10-8:20, VinH 20

Fall Qtr, ★Sec 5, TTh, 5:30-7:40, KoltH S137

Winter Qtr, ★Sec 6, MW, 6:10-8:20, VinH 20

Winter Qtr, ★Sec 7, TTh, 5:30-7:40, MechE 202

Winter Qtr, ★Sec 8, TTh, 6:10-8:20, KoltH S138

Winter Qtr, ★Sec 9, TTh, 1-3:10, MacP. *Offered through Continuing Education for Women*

Spring Qtr, ★Sec 10, MW, 6:10-8:20, VinH 20

Spring Qtr, ★Sec 11, TTh, 6:10-8:20, VinH 20

**Non-business students interested in the Master of Business Administration degree should take Math 1131.**

**Math 1131 FINITE MATHEMATICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

(For students in prebusiness and social and behavioral sciences.) Elementary computer programming, financial math, probability, linear algebra, linear programming, Markov chains. **See Mathematics prerequisites, page 270.** (Prereq 1111 or Mathematics placement score. Limited to 35)

Fall Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 6

Winter Qtr, ★Sec 2, MW, 6:10-8:20, VinH 6

Spring Qtr, ★Sec 3, MW, 6:10-8:20, VinH 6

**Math 1142 SHORT CALCULUS.** 5 credits, §1211, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

(A second course of a two-quarter sequence for students in prebusiness administration curriculum and for other students requiring a minimal amount of calculus. Students pursuing an Institute of Technology degree or who plan to take several quarters of calculus should not register for this course) Derivatives, integrals, differential equations, maxima and minima, partial differentiation, applications. **See Mathematics prerequisites, page 270.** (Prereq 1111 or mathematics placement score. Limited to 35)

Fall Qtr, ★Sec 1, MW, 6:10-8:20, VinH 209

Fall Qtr, ★Sec 2, TTh, 6:10-8:20, VinH 209

Winter Qtr, ★Sec 3, MW, 6:30-8:40, Roseville Area HS 146

Winter Qtr, ★Sec 4, TTh, 6:10-8:20, VinH 209

Spring Qtr, ★Sec 5, MW, 6:10-8:20, VinH 209

Spring Qtr, ★Sec 6, TTh, 6:10-8:20, VinH 209

**Advising Note**—A 5-credit precalculus course will transfer to more colleges than will a 4-credit course.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Math 1151 PRECALCULUS II.** 4 credits, §1008, §1111, §1201, tuition\*: Resident \$294; Non-resident \$852.60.

Second of two courses in algebra, analytic geometry, and trigonometry. Prepares students for a full calculus sequence. Not an acceptable prerequisite for 1131 or 1142. **See Mathematics prerequisites, page 270.** (Prereq 3 1/2 years of high school math and placement exam or 1051. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:30-8:20, Roseville Area HS

Winter Qtr, ★Sec 2, TTh, 5:30-7:20, VinH 211

Spring Qtr, ★Sec 3, TTh, 6:10-8, VinH 364

**Math 1201 PRE-CALCULUS.** 5 credits, §1008, 1111, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, and trigonometric, exponential and logarithmic functions. *May be used to replace 1151.* **See Mathematics prerequisites, page 270.** (Prereq 1051 or GC 0631 or 4 years of high school math including trigonometry and mathematics placement score. For students in both IT and CLA who need a quick review of high school higher algebra and trigonometry before taking the calculus sequence. Limited to 35)

Fall Qtr, ★Sec 1, MW, 6:10-8:20, VinH 364

Fall Qtr, ★Sec 2, TTh, 6:10-8:20, VinH 364

Winter Qtr, ★Sec 3, MW, 6:10-8:20, VinH 364

Winter Qtr, ★Sec 4, TTh, 6:10-8:20, VinH 213

Spring Qtr, ★Sec 5, MW, 6:10-8:20, VinH 364

**Advising Note**—Students who have taken one calculus course at a school other than the University of Minnesota fit best in the sequence 1211-1221. Students who are starting calculus and intend to take at least two quarters through Extension Classes may take Math 1251-1252 or 1211-1221, but the sequence 1211-1221 gives students more flexibility in scheduling and more time is also spent in class. Students who have had 15 or more quarter credits (9 or more semester credits) at another school will find it to their advantage to take a course from the sequence 1241-3311-3321-3331. The sequence 1241-3311-3321-3331 (20 credits) covers the same material as 1261-3251-3252-3261-3262 (20 credits). Students who are working on a degree or certificate program at the University of Minnesota and who plan to take all their mathematics classes through Extension will find scheduling and related matters easier if they enroll in the sequence 1241-3311-3321-3331. **For further information, contact a CEE adviser at 625-2500.**

**Math 1211 CALCULUS I.** 5 credits, §1142, 1311, 1611, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Analytic geometry and calculus of functions of one variable, applications. Infinite series and sequences. May be used to replace 1251. **See Mathematics prerequisites, page 270.** (Prereq 1201 with grade of C or better, or 1111 and 1008 with grade of C or better, or 4 years of high school math and math placement score. Limited to 35)

Fall Qtr, ★Sec 1, MW, 6:10-8:20, VinH 206

Fall Qtr, ★Sec 2, TTh, 6:10-8:20, VinH 206

Winter Qtr, ★Sec 3, MW, 6:10-8:20, VinH 206

Winter Qtr, ★Sec 4, TTh, 6:10-8:20, VinH 206

Spring Qtr, ★Sec 5, MW, 6:10-8:20, VinH 206

Spring Qtr, ★Sec 6, TTh, 6:10-8:20, VinH 206

Spring Qtr, ★Sec 7, TTh, 1-3:10, MacP. *Offered through Continuing Education for Women*

**Math 1221 CALCULUS II.** 5 credits, §1321, 1421, tuition\*: Resident \$367.50; Non-resident \$1065.75.

A continuation of the course described under 1211. May be used to replace 1252. (Prereq grade of C or better in 1211. Limited to 35)

Fall Qtr, ★Sec 1, MW, 6:10-8:20, AkerH 215

Winter Qtr, ★Sec 2, MW, 6:10-8:20, AkerH 215

Winter Qtr, ★Sec 3, TTh, 6:10-8:20, AkerH 215

Spring Qtr, ★Sec 4, MW, 6:10-8:20, AkerH 215

**Math 1241 LINEAR AND NONLINEAR MULTIVARIABLE ANALYSIS I.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Linear algebra, geometry, and linear transformations in two, three, and more generally n-dimensional space; curves; limits and continuity in the multi-variable setting. May be used to replace 1261. (Prereq grade of C or better in 1221 or 1252. Limited to 35)

Fall Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 2

Winter Qtr, ★Sec 2, MW, 6:10-8:20, VinH 209

Spring Qtr, ★Sec 3, TTh, 6:10-8:20, VinH 113

**Math 1251 ONE VARIABLE DIFFERENTIAL AND INTEGRAL CALCULUS I.** 4 credits, §1211, §1551H, §1411H, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Calculus of functions of one variable and related geometry and applications. (Prereq 4 years of high school math and math placement score, 1201 with grade of C or better, or 1111 and 1008 with grade of C or better. Limited to 30)

Fall Qtr, ★Sec 1, MW, 5:30-7:20, VinH 6

Fall Qtr, ★Sec 2, TTh, 6:30-8:20, Richfield HS

Winter Qtr, ★Sec 3, MW, 6:30-8:20, Roseville Area HS

Spring Qtr, ★Sec 4, MW, 6:10-8, VinH 2

Spring Qtr, ★Sec 5, TTh, 6:10-8, VinH 2

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Math 1252 ONE VARIABLE DIFFERENTIAL AND INTEGRAL CALCULUS II.** 4 credits, §1221, §1552H, §1421H, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

A continuation of the course described under 1251. (Prereq grade of C or better in 1251. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:10-8, VinH 113

Fall Qtr, ★Sec 2, TTh, 6:10-8, KoltH S138

Winter Qtr, ★Sec 3, MW, 5:30-7:20, AkerH 209

Spring Qtr, ★Sec 4, MW, 6:30-8:20, Roseville Area HS

Spring Qtr, ★Sec 5, TTh, 6:10-8, AkerH 209

**Math 1261 THE ALGEBRA AND GEOMETRY OF EUCLIDEAN SPACE.** 4 credits, §1241, §3142, §3211, §3221, tuition\*: Resident \$294; Non-resident \$852.60.

Vectors and their operations, matrices and matrix algebra, linear algebraic equations, Gaussian elimination, determinants and their applications, linear transformations, subspaces, quadratic forms, rigid motions, and orthogonal matrices. (Prereq 1251 or equivalent. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:10-8, VinH 301

Fall Qtr, ★Sec 2, TTh, 6:10-8, VinH 301

Winter Qtr, ★Sec 3, TTh, 6:10-8, VinH 301

Spring Qtr, ★Sec 4, MW, 6:10-8, VinH 301

**Math 3251 MULTIVARIABLE DIFFERENTIAL CALCULUS.** 4 credits, §3211, §3311, §3521H, §3552H, tuition\*: Resident \$346; Non-resident \$1003.40.

Differentiation of parametric curves. Partial differentiation and the derivative as a local linear approximation. The chain rule. Applications to max/min problems with attention to boundaries and constraints including Lagrange multipliers. Taylor's theorem (multivariable) and the second derivative test. (Prereq 1261. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6:10-8, VinH 311

Winter Qtr, ★Sec 2, MW, 6:10-8, MechE 102

Spring Qtr, ★Sec 3, TTh, 6:10-8, VinH 311

**Math 3252 MULTIVARIABLE INTEGRAL CALCULUS.** 4 credits, §3311, tuition\*: Resident \$346; Non-resident \$1003.40.

Double and triple integrals; change of variable procedures, with emphasis on polar and spherical coordinates; mass and centroid; integration on curves and surfaces; vector fields and the theorems of Green, Gauss, and Stokes. (Prereq 3251 or equivalent. Limited to 30)

Winter Qtr, ★Sec 1, MW, 6:10-8, VinH 211

Spring Qtr, ★Sec 2, TTh, 6:10-8, VinH 211

**Math 3261 DIFFERENTIAL EQUATIONS WITH LINEAR ALGEBRA.** 4 credits, §3221, §3321, tuition\*: Resident \$346; Non-resident \$1003.40.

A basic course in differential equations, including first order equations, linear equations with constant coefficients, and linear systems. Companion topics from linear algebra, general vector spaces, independence, spanning sets, basis, dimension, eigenvalues, eigenvectors. (Prereq 1261 or 1241. Limited to 30)

Winter Qtr, ★Sec 1, TTh, 6:10-8, VinH 364

**Math 3311 LINEAR AND NONLINEAR MULTIVARIABLE ANALYSIS II.** 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25. (IS)

Differentiation, extreme values, and integration of functions of several variables. *May be used to replace 3251 or 3252.* (Prereq grade of C or better in 1241. Limited to 30)

Fall Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 311

Winter Qtr, ★Sec 2, TTh, 6:10-8:20, VinH 311

Spring Qtr, ★Sec 3, MW, 6:10-8:20, VinH 311

**Math 3321 DIFFERENTIAL EQUATIONS AND GENERAL VECTOR SPACES.** 5 credits, §3066, 3142, 3212, 3511H, tuition\*: Resident \$432.50; Non-resident \$1254.25.

Vector spaces, especially vector spaces of functions; linear transformations and eigenvalues; first order differential equations; linear differential equations and linear differential systems. *May be used to replace 3261.* (Prereq grade of C or better in 1241 or 3311 or equivalent. Limited to 30)

Fall Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 211

Winter Qtr, ★Sec 2, MW, 6:10-8:20, VinH 213

Spring Qtr, ★Sec 3, TTh, 6:10-8:20, VinH 213

**Math 3331 INFINITE SEQUENCES AND SERIES; VECTOR INTEGRAL CALCULUS.** 5 credits, §1231, §1431H, tuition\*: Resident \$432.50; Non-resident \$1254.25.

Convergence issues and calculational techniques for infinite sequences and series; line and surface integrals, the divergence theorem and the theorems of Green and Stokes. *May be used to replace 3252.* (Prereq 3311 or equivalent. Limited to 30)

Winter Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 2

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Math 5056 THEORY OF INTEREST.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Application of compound interest formulas to annuities, sinking funds, bonds, and similar items. Primarily for mathematics and business majors interested in actuarial science. (Prereq 1241 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)  
 Winter Qtr, Sec 1, M, 6:10-9, VinH 207

**Math 5090 CALCULUS REFRESHER.** 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

A course designed for students who have already had calculus, but who have been away from it for a while and need a quick review. This course will cover the topics of a standard course in calculus of one variable: differentiation of elementary functions, differentials, the definite integrals, techniques of integrations, applications of integration, polar coordinates, infinite series, approximation. **May be taken S-N.** (Prereq 1 year calculus. Qualified students may register for graduate credit at the University of Minnesota, except for mathematics majors. Limited to 40)

Fall Qtr, ★Sec 1, TTh, 6:10-8:20, VinH 113  
 Winter Qtr, ★Sec 2, MW, 6:10-8:20, VinH 113  
 Spring Qtr, ★Sec 3, MW, 6:10-8:20, VinH 113

**Math 5242-5243 LINEAR ALGEBRA WITH APPLICATIONS.** 4 credits each quarter, tuition\* each quarter: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Systems of linear equations, finite dimensional linear spaces, bases, linear transformations, matrices, determinants, eigenvalues, reduction to canonical forms, quadratic and bilinear forms, applications. (Prereq 3221 or 3142 or 3511 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, 5242, Sec 1, Th, 6:10-9, VinH 207  
 Winter Qtr, 5243, Sec 1, Th, 6:10-9, VinH 207

**Math 5245 INTRODUCTION TO MODERN ALGEBRA I.** 4 credits, \$5282, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Basic algebra course, a more concrete level than 5282-5283-5284. Group theory including normal subgroups, homomorphism, automorphism, the theory of Lagrange and rings and fields. Linear algebra including rings, polynomial rings and fields. Linear algebra including an abstract approach to vector spaces and their linear transformations, and their structure. (Prereq 3321, 3221, 3511H, or equivalent. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 1, Th, 6:10-9, VinH 207

**Math 5457-5458-5459 METHODS OF APPLIED MATHEMATICS.** 4 credits each quarter, tuition\* each quarter: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Modern analytic tools used in applications of mathematics; emphasis on technique. Linear algebra, ordinary and partial differential equations, calculus of variations, Fourier series, complex variables, optimizations, numerical methods. (Prereq 3212 and 3213 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, 5457, ★Sec 1, T, 6:10-9, VinH 207  
 Winter Qtr, 5458, ★Sec 1, T, 6:10-9, VinH 207  
 Spring Qtr, 5459, ★Sec 1, T, 6:10-9, VinH 207

## Mathematics Education (MthE)

(125 Peik Hall: 625-6372)

### College of Education

(Department of Curriculum and Instruction)

Textbooks for most MthE courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Rob Orton, Associate Professor  
 Thomas Post, Professor  
 James E. Stochl, Professor

*These courses are subject to frequent changes in time and rooms. Check for correct day, time, and room in a day school class schedule.*

**Master's Degree**—A Master of Education degree with a focus in Teacher Leadership is available through the departments of Curriculum and Instruction and Educational Policy and Administration. For more information, see page 500.

*Enrollments in limited classes in this department are strictly enforced. Neither the department nor the course instructor will give written permission*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

*for registration in these classes once the limit is reached and the class closes. However, you may check for openings in day school.*

**MthE 5101 WORKSHOP: ELEMENTARY SCHOOL MATHEMATICS.** 1-12 cr (max 12 cr). This offering 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Modern trends, methods, and materials used to convey mathematical ideas. Not open to majors in mathematics education. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students) Fall Qtr, ★●Sec 1, Sa, 9 a.m.-12, PeikH 375, Stochl

**MthE 5101 WORKSHOP: PROGRAMS AND PROCEDURES OF CURRICULUM DEVELOPMENT.** 1-12 cr (max 12 cr). This offering 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Leadership in procedures; operational processes; major considerations in planning and organizing; interpersonal relationships, and evaluation of improvement programs. **Must be taken A-F.** (Prereq elem tchg, exper, #; open only to Rosemount trainees. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, ★Sec 2, Arr, Post

**MthE 5150 TOPICS IN RECREATIONAL MATHEMATICS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Survey including magic squares; palindromes, repunits, repdigits from number theory; geometric dissections, topological recreations, cryptarithms; uses as problem-solving modes in mathematical classrooms. (Prereq education or graduate student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 6 Extension students) Winter Qtr, ★●Sec 1, Th, 4:30-7:15, PeikH 375, Stochl

**MthE 5311 TEACHING AND SUPERVISION OF MATHEMATICS CLASSROOM IN THE ELEMENTARY SCHOOL.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Present practices and trends in methods, evaluation, and diagnosis; objectives, psychology, and philosophy related to improvement of instruction. **Must be taken A-F.** (Prereq Elem 3391 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 5312. A joint Day/Extension class limited to 3 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7:15, PeikH 375, Stochl

**MthE 5312 TEACHING AND SUPERVISION OF MATHEMATICS CLASSROOM IN THE SECONDARY SCHOOL.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Methods, materials, and curriculum development; principles of learning; review of research; preparation and evaluation of tests, units, and materials of instruction. **Must be taken A-F.** (Prereq mathematics teaching experience or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 5311. A joint Day/Extension class limited to 3 Extension students)

Fall Qtr, ★●Sec 1, T, 4:30-7:15, PeikH 375, Stochl

**MthE 5321 MATERIALS LABORATORY FOR ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Printed and programmed materials, audiovisual techniques of using mathematical devices and instruments. (Prereq 5311 or Elem 3391 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, T, 4:30-7:15, PeikH 375

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**MthE 5322 MATERIALS LABORATORY FOR SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Sources and types of materials; laboratory projects and techniques of using mathematics devices and instruments, visual aids, and community resources. (Prereq 5312 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★○Sec 1, T, 4:30-7:15, PeikH 375

**MthE 5331 CURRENT DEVELOPMENTS IN ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Contemporary literature, trends and experimentation with content; criteria for program evaluation. **Must be taken A-F.** (Prereq 5312 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 5332. A joint Day/Extension class limited to 3 Extension students)

Spring Qtr, ★○Sec 1, T, 4:30-7:15, PeikH 375, Stochl

**MthE 5332 CURRENT TRENDS AND ISSUES IN SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Recent developments in mathematics curriculum and instructional alternatives; issues in teaching and learning, providing for special student needs; program planning and evaluation. **Must be taken A-F.** (Prereq 5213 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 5331. A joint Day/Extension class limited to 3 Extension students)

Spring Qtr, ★○Sec 1, T, 4:30-7:15, PeikH 375, Stochl

**MthE 5355 MATHEMATICS FOR SLOW LEARNING CHILDREN.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25;

Non-resident Graduate School credit \$1212.75.

Units of instruction emphasizing mathematical concepts essential for vocational competence; experimental materials and methods designed to improve performance of low achievers. (Prereq 5311 or Elem 3391 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★○Sec 1, M, 4:30-7, PeikH 375, Post  
Spring Qtr, ★○Sec 2, T, 4:30-7:15, PeikH 385, Post

**Day School Classes**—In addition to the Extension Classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

## Mechanical Engineering (ME)

(121 Mechanical Engineering: 625-5842)

### Institute of Technology

Textbooks for most ME courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Your attention is called to the Undergraduate Development Certificate in Mechanical Engineering—95 credits, page 514.

Students interested in degrees and certificates in Mechanical Engineering should see the Degrees and Certificates section of this Bulletin.

Sant Ram Arora, Professor  
Al Baldwin, Instructor  
Avram Bar-Cohen, Professor  
Tasfahun Berhe, Lecturer  
Arthur G. Erdman, Professor  
Darrell A. Frohrib, Professor  
Virgil A. Marple, Professor  
J.W. Ramsey, Professor  
Ephraim M. Sparrow, Professor  
Paul J. Strykowski, Associate Professor

Through registration in Extension Classes, students may earn all but approximately 24-30 credits towards a Bachelor's degree in Mechanical Engineering. The degree may then be completed after a limited amount of day school attendance or through University-Industry Television for Education (UNITE). **Students who plan to complete a degree program in Mechanical Engineering must follow the admission and residency requirements of the Institute of Technology.** (See chart on page 495.)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

A student may not transfer upper division courses into the M.E. degree program unless he or she previously has been admitted to the Upper Division in the Mechanical Engineering curriculum and has the written prior approval of the department. *Extension courses taken while a student is on academic probation may not be applied toward graduation requirements or removal of probationary conditions without the explicit prior permission of the Mechanical Engineering Scholastic Standards Committee.* It is the responsibility of the student to follow these rules.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Mechanical Engineering. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**ME 0001C REFRESHER COURSE FOR MECHANICAL ENGINEERS.** No credit, tuition\*: \$220.50.

Review of mechanical engineering fundamentals in preparation for Minnesota Professional Engineering Examination. Designed to assist the mechanical engineer to prepare for the examination by presenting an organized review of topics in the mechanical engineering program. Emphasis is on problem solving, organization of information and notes, and trial examinations. **Must be taken S-N.** (No prereq)

Winter Qtr, Sec 1, Th, 6:10-8:40, MechE 212, Baldwin

**ME 1025 (formerly EG 1025) ENGINEERING GRAPHICS.** 4 credits, §EG 1025, tuition\*: Resident \$294; Non-resident \$852.60.

Engineering representation in pictorial and multiview; sketching techniques, size description, standard and simplified practices applied to graphical communication. Analysis of systems of projection; correlation of graphical, numerical, and computer solutions of space problems, intersections, and development. Methods of computer-aided graphics. *Textbooks plus supplies for this course cost approximately \$100.* (Prereq Math 1251 or equivalent. Limited to 50)

Fall Qtr, ★Sec 1, M, 6:10-9:30, Arch 10, Berhe  
Spring Qtr, ★Sec 2, M, 6:10-9:30, Arch 10,

Berhe

**ME 3201 MECHANICAL ENGINEERING SYSTEMS ANALYSIS.** 4 credits, §AEM 3401, tuition\*: Resident \$346; Non-resident \$1003.40.

Determination of response of engineering systems utilizing transfer function representation. Anal-

gies between engineering systems based upon transfer function equivalence. (Prereq AEM 3036, upper division MechE or AEM major, or practicing professional with bachelor's degree in engineering. Limited to 60)

Spring Qtr, ★Sec 1, W, 6:10-9:30, MechE 221

**ME 3203 ANALYSIS OF MECHANISM SYSTEMS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Diagnostics of the performance of mechanism systems involving linkage, hydraulic, pneumatic, and electro-mechanical components. Energy balance techniques used to describe energy flow through machine systems. Preparation should include basic dynamics. (Prereq AEM 3036, upper division MechE or AEM major, ME 3020, or practicing professional with bachelor's degree in engineering)

Fall Qtr, Sec 1, W, 6:10-9:30, Arch 10

**ME 3205 ENGINEERING SYSTEMS DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Application of fundamental concepts to the design of typical mechanical components. Engineering approach to the analysis and synthesis of machines and systems. Specification of materials in engineering design. Optimum design criteria. (Prereq AEM 3016, upper division MechE major, or practicing professional with bachelor's degree in engineering)

Winter Qtr, Sec 1, W, 6:10-9:30, Arch 50

**ME 3301 THERMODYNAMICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Properties, equations of state, processes and cycles for various thermodynamic systems. Development of first and second laws of thermodynamics, correlating heat, work and mass transfer. Equilibrium, irreversibility and mixtures. Necessary preparation, introductory thermodynamics and basic calculus. (Prereq Chem 1052 or equivalent or Phys 1253 and Math 3261 or equivalent. Limited to 45)

Fall Qtr, ★Sec 1, T, 6:10-9:30, Arch 40

**ME 3303 APPLIED THERMODYNAMICS.** 4 credits, §3305, tuition\*: Resident \$346; Non-resident \$1003.40.

Application of laws of thermodynamics to chemically reacting systems and engineering systems. Vapor cycles, gas engine cycles, propulsion systems, refrigeration and air-water vapor mixtures. (Prereq 3301 or equivalent, upper division MechE or AEM major, or practicing professional with bachelor's degree in engineering. Limited to 45)

Winter Qtr, ★Sec 1, T, 6:10-9:30, Arch 10

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**ME 3701-3702 BASIC MEASUREMENTS LABORATORY I AND II.** 2 credits each quarter, tuition\* each quarter: Resident \$173; Non-resident \$501.70.

Treatment of experimental data, analysis and study of experimental systems via the computer. Static and dynamic characteristics of measurement systems. Fundamental principles of measurement and calibration. Measurement of temperature, pressure, vacuum, humidity, density, viscosity, heating values, speed, power, force, stress-strain, and radioactivity. Courses meet concurrently. (Prereq 3301 and upper division MechE major for 3701; 3701 and upper division MechE major for 3702. 1 lect and 2 lab hrs per wk. Each section limited to 30)

Spring Qtr, 3701, ★Sec 1, Th, 6:30-9:30, Arch 50  
Spring Qtr, 3702, ★Sec 1, Th, 5:30-8:30, Arch 55

**ME 3741-3742-3743 INDUSTRIAL ASSIGNMENT.** 2 credits each quarter, tuition\* each quarter: Resident \$173; Non-resident \$501.70.

Industrial work assignment in engineering co-op program. Evaluation based on formal written report accomplished by the student covering the quarter's work assignment and self-study in a technical area related to the work assignment. **Note:** 3743 is an optional substitute for only one of the required courses ME 5741 or 5742. (Prereq registration in Engineering Co-op Program with written permission of the director of the co-op program for 3741; 3741 for 3742. A joint Day/Extension class)

Fall Qtr, 3741, ○Sec 1, Arr, Marple

Fall Qtr, 3742, ○Sec 1, Arr, Marple

Fall Qtr, 3743, ○Sec 1, Arr, Marple

Winter Qtr, 3741, ○Sec 2, Arr, Marple

Winter Qtr, 3742, ○Sec 2, Arr, Marple

Winter Qtr, 3743, ○Sec 2, Arr, Marple

Spring Qtr, 3741, ○Sec 3, Arr, Marple

Spring Qtr, 3742, ○Sec 3, Arr, Marple

Spring Qtr, 3743, ○Sec 3, Arr, Marple

**ME 3900 INTRODUCTION TO ENGINEERING STATISTICS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Elements of probability, descriptive statistics, binomial and Poisson distributions; normal distribution, estimation, hypothesis testing, regression analysis and analysis of variance. (Prereq Math 1261 or equivalent)

Fall Qtr, Sec 1, W, 6:10-9:10, MechE 221

**ME 5225 FINITE ELEMENTS IN MECHANICAL DESIGN.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Introduction to the fundamentals of finite element analysis, oriented toward mechanical engineering design applications. Includes extensive examples from industry and student projects involving actual set-up and solution of descriptive problems using industry-accepted analysis codes and interactive graphics for model generation. **Must be taken A-F.** (Prereq 3205, 5342 and programming; IT or grad. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, M, 4:15-7, MechE 18

**ME 5254 DESIGN MORPHOLOGY WITH APPLICATIONS.** 4 credits. **Tentatively scheduled for Summer 1995.**

**ME 5342 HEAT TRANSFER.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Steady and unsteady conduction of heat. Convection heat transfer in boundary layer and duct flows; forced and free convection; condensation and boiling; heat exchangers. Heat transfer by thermal radiation; radiative properties of black bodies and real surfaces. (Prereq 3301, CE 3400 or AEM 3200, IT upper div or grad, or equivalent. Not open for graduate credit to M.E. students. Other qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, T, 6:10-9:30, Arch 10,

Sparrow

**ME 5344 THERMODYNAMICS OF FLUID FLOW.** 4 credits, \$AEM 5201, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Compressible flow of gases in engineering systems such as noHles, ducts, combustion chambers, ramjets, pipe lines, etc. Isentropic flow in variable area passages. Shock waves. Flow with wall friction, heat transfer, and mass transfer. (Prereq 3301 and CE 3400 or AEM 3200 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, T, 6:10-9:30, MechE 221,

Sparrow

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ME 5345 HEAT TRANSFER IN ELECTRONIC EQUIPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Development and application of analytical models of thermal phenomena occurring in electronic equipment. Thermal characteristics and thermal failure modes of microelectronics components. Packaging configurations used for various microelectronic applications. (Prereq IT or grad student, 5342. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, Th, 6:10-9:30, MechE 221, Bar-Cohen

**ME 5603 THERMAL ENVIRONMENTAL ENGINEERING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Thermodynamic properties of moist air; h-W diagram for moist air; solar radiation; heat and water vapor transmission in structures; effects of thermal environmental control systems. (Prereq 3303 and 5342 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 6:10-9:30, MechE 221, Ramsey

**ME 5712 SOLAR ENERGY UTILIZATION.** 4 credits. **Tentatively scheduled for Fall 1995 and alternate years thereafter.**

**ME 5741-5742 INDUSTRIAL ASSIGNMENT AND DESIGN PROJECT.** 4 credits each quarter, tuition\* each quarter: Resident \$346; Non-resident \$1003.40.

**Note:** Evaluation and credit will be based upon a written report describing a design-oriented project, preferably one that is work based. (Prereq 3742 and #. May not be taken for graduate credit. A joint Day/Extension class)

Fall Qtr, 5741, ⓪Sec 1, Arr, Marple

Fall Qtr, 5742, ⓪Sec 1, Arr, Marple

Winter Qtr, 5741, ⓪Sec 2, Arr, Marple

Winter Qtr, 5742, ⓪Sec 2, Arr, Marple

Spring Qtr, 5741, ⓪Sec 3, Arr, Marple

Spring Qtr, 5742, ⓪Sec 3, Arr, Marple

## Medical Terminology

(See Health Science Units, page 224)

## Medieval Studies (MeSt)

(304 Walter Library: 626-0805)

### College of Liberal Arts

Center for Medieval Studies

Textbooks for most MeSt courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Susan Noakes, Professor of French

**MeSt 3610 TOPICS IN MEDIEVAL STUDIES: WOMEN, POWER, AND MONEY IN THE LITERATURE OF EARLY CAPITALIST EUROPE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Consideration of the major impact the change from a feudal to capitalist economic system had on family structure and thus on women's lives. In addition to readings from social and economic history, the course will draw on the literature, art, and culture of the period in order to understand women's responses to these changes. (No prereq. Meets concurrently with 5610, WoSt 3500, 5500. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160, Noakes

**MeSt 5610 TOPICS IN MEDIEVAL STUDIES: WOMEN, POWER, AND MONEY IN THE LITERATURE OF EARLY CAPITALIST EUROPE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Consideration of the major impact the change from a feudal to capitalist economic system had on family structure and thus on women's lives. In addition to readings from social and economic history, the course will draw on the literature, art, and culture of the period in order to understand women's responses to these changes. (No prereq. Meets concurrently with 3610, WoSt 3500, 5500. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160, Noakes

## Medicine

For information on noncredit conferences or workshops in medicine, please contact Office of Continuing Medical Education, Radisson Hotel Metrodome; telephone 626-7600.

(See also History of Medicine)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Microbiology (MicB)

(1460 Mayo: 624-6190)

### Medical School

Textbooks for most MicB courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Russell Bey, Associate Professor  
Thomas Molitor, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in MicB. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**MicB 3103 GENERAL MICROBIOLOGY.** *Offered alternate years.* 5 credits, \$5105, \$Biol 5013, \$VPB 3103, tuition\*: Resident \$660; Non-resident \$1320.

Morphology, physiology, taxonomy, and ecology of bacteria and other microorganisms. General biology of microorganisms. Practical applications of fundamental principles to industry, agriculture and health. *Offered alternate years.* (Prereq sophomore with C avg in prereq courses to major sequence or junior with 10 cr in chemistry and 5 cr in biological sciences or #. Microscope required. [Inquire at first class meeting about rental.]

Fall Qtr, Sec 1, Lect TTh, 6:15-7:45, MoosT 2-690; Lab TTh, 7:45-10, MoosT 2-252, Bey

**MicB 5218 IMMUNOLOGY.** 3 credits, tuition\*: Resident \$396; Non-resident \$792; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Cellular, protein, and genetic bases of humoral immunity; methods used to measure antibodies and antigens. T lymphocytes: interaction of T helper cells with B lymphocytes and other T cells in cell-mediated immunity. Clinical immunology: immunodeficiency, allergy, autoimmunity, transplantation. (Prereq BioC 3021. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, TTh, 6:15-7:45, MoosT 2-620, Molitor

## Middle Eastern Languages and Cultures

(See Area Studies Programs; and the Institute of Languages and Literatures)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Military Science (Mil)

(110 Armory: 624-7300)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Military Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

## Minnesota Courses

(For courses about the State of Minnesota, see the following departments: History; Geography; The Compleat and Practical Scholar noncredit courses; and Compleat Scholar Weekends)

## Minnesota Extension Service

Minnesota Extension Service (MES) is a major educational outreach arm of the University of Minnesota. Its mission is to involve people in improving the quality of life and enhancing the economy and the environment through education, applied research and the resources of the University of Minnesota.

In its 80-plus years of service to Minnesotans, MES continues to direct and define its programs by the changing issues facing citizens and what they ask of their land-grant university to help them deal with those issues. MES extends the University by a network of faculty in every county, expedited by a statewide computer and satellite downlink system; over 30,000 volunteers; and by collaborative relationships with other agencies and organizations—schools, churches, human services, local governments—to help identify, prioritize, and meet individual and community educational needs.

For general information, call the Dean and Director's office (624-1222); for information on insect and plant problems, call DIAL U, a user fee service (off-campus, 1-976-0200; secretary, 624-5353); for other information, call your local county extension office.

## Modern Greek

(See Classical Studies)

## Course Descriptions

### Music (Mus)

(100 Ferguson Hall: 624-5740)

#### College of Liberal Arts

Most textbooks for Mus courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also music courses in General College; Music Education; MacPhail Center for the Arts; and The Compleat Scholar noncredit courses)

John E. Anderson, Professor of Music

Mark P. Bjork, Assistant Professor of Continuing Education

David Damschroder, Associate Professor of Music

James Hepokoski, Professor of Music

Babette Lightner, Lecturer

Stephen Schultz, Associate Professor of Music Education

Clifton Ware, Associate Professor of Music

**Noncredit Courses**—Applicants who wish to enroll for noncredit instruction in applied music should contact the MacPhail Center—telephone 627-4020—for information about availability of instruction, and tuition and fee costs.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Music. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Mus 1051-1052-1053 PIANO CLASS FOR NON-MUSIC MAJORS.** 2 credits each quarter, tuition\* each quarter: Resident \$147; Non-resident \$426.30.

A beginning course for non-music majors with little or no keyboard background. Emphasis on functional skills, such as reading, harmonizing, playing by ear and improvising, along with basic technique and elementary repertoire. (No prereq for 1051; 1051 for 1052; 1052 for 1053. Limited to 16)

Fall Qtr, 1051, ★Sec 1 M, 6:15-8:15, FergH 259

Fall Qtr, 1051, ★Sec 2, T, 6:15-8:15, FergH 259

Fall Qtr, 1051, ★Sec 3, MW, 4:40-5:30, FergH 259

Fall Qtr, 1051, ★Sec 4, TTh, 4:40-5:30, FergH 259

Winter Qtr, 1051, ★Sec 5, M, 6:15-8:15, FergH 259

Winter Qtr, 1052, ★Sec 1, T, 6:15-8:15, FergH 259

Winter Qtr, 1051, ★Sec 6, MW, 4:40-5:30, FergH 259

Spring Qtr, 1051, ★Sec 7, M, 6:15-8:15, FergH 259

Spring Qtr, 1052, ★Sec 2, TTh, 4:40-5:30, FergH 259

Spring Qtr, 1053, ★Sec 1, T, 6:15-8:15, FergH 259

Spring Qtr, 1051, ★Sec 8, MW, 4:40-5:30, FergH 259

**Mus 1160 VOICE: CLASS LESSONS.** 2 credits, tuition\*: Resident \$147; Non-resident \$426.30.

Fundamentals of healthy voice production in speaking and singing—posture, relaxation, breathing/breath management, tone placement, diction and vocal hygiene. Vocal Performance skills learned in the study and performance of simple songs. (Prereq ability to learn and perform simple songs. Limited to 16)

Fall Qtr, ★Sec 1, M, 6:15-8:15, FergH 90, Ware

Winter Qtr, ★Sec 2, M, 6:15-8:15, FergH 90, Ware

Spring Qtr, ★Sec 3, M, 6:15-8:15, FergH 90, Ware

**Mus 1171-1172 GUITAR: CLASS LESSONS.** 2 credits each quarter, tuition\* each quarter: Resident \$147; Non-resident \$426.30.

Fundamentals for the beginning guitarist. Progressive development of skills. **1171:** basic strumming techniques, harmonizations in basic keys. **1172:** advanced strumming techniques, bass runs, finger-picking strums. Students must furnish acoustic guitar. (No prereq for 1171; 1171 or # for 1172; 1171 and 1172 meet concurrently. Limited to 16)

Fall Qtr, 1171, ★Sec 1, T, 6:15-8:15, FergH 123

Fall Qtr, 1171, ★Sec 2, Th, 6:15-8:15, FergH 123

Winter Qtr, 1171, ★Sec 3, T, 6:15-8:15, FergH 203

Winter Qtr, 1172, ★Sec 1, Th, 6:15-8:15, FergH 203

Spring Qtr, 1171, ★Sec 4, T, 6:15-8:15, FergH 123

Spring Qtr, 1172, ★Sec 2, Th, 6:15-8:15, FergH 123

### Group performance

School of Music ensembles are available through joint Day/Extension enrollment. An audition should be arranged with the instructor in advance of the class opening. Telephone 624-5056 for information.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



## Music theory, history, literature, pedagogy

**Mus 1001 FUNDAMENTALS OF MUSIC.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Investigation of music notation and fundamental concepts underlying musical structure. Intervals, clefs, chords, scales, cadences, harmonic analysis; rhythm and meter. Emphasis on active participation: playing the piano, singing, clapping rhythms, aural perception. Weekly laboratory assignments in vocal and piano performance. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 6:15-9:45, FergH 107

Fall Qtr, ★Sec 2, Th, 6:15-9:45, FergH 107

Winter Qtr, ★Sec 3, T, 6:15-9:45, FergH 107

Winter Qtr, ★Sec 4, Th, 6:15-9:45, FergH 107

Spring Qtr, ★Sec 5, T, 6:15-9:45, FergH 105

Spring Qtr, ★Sec 6, Th, 6:15-9:45, FergH105

**Mus 1003 INTRODUCTION TO MUSIC THEORY.** 2 credits, tuition\*: Resident \$147; Non-resident \$426.30.

Fundamental concepts of music theory and notation, including key signatures, scales, rhythm, and chordal construction. See Mus 1004 below; 1004 meets immediately after 1003. (Prereq music major or #)

Winter Qtr, Sec 1, MTh, 6:15-7:05, FergH 123

**Mus 1004 INTRODUCTION TO EAR TRAINING.** 2 credits, tuition\*: Resident \$147; Non-resident \$426.30.

Fundamental concepts of ear training and sight singing, with emphasis upon intervals, scales, and basic rhythmic patterns. See Mus 1003 above; 1003 meets immediately before 1004. (Prereq music major or #)

Winter Qtr, Sec 1, MTh, 7:15-9, FergH 123

**Mus 1507-1508 THEORY REVIEW I-II.** 3 credits each quarter, tuition\* each quarter: Resident \$220.50; Non-resident \$639.45.

Melodic and harmonic structure. See also Mus 1531, Theory I. **Must be taken A-F.** (Prereq placement exam)

Fall Qtr, 1507, Sec 1, TTh, 7:15-9, FergH 149

Winter Qtr, 1508, Sec 1, TTh, 7:15-9, FergH 149

**Mus 1511 EAR-TRAINING AND SIGHT-SINGING I.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15. (IS)

Melodic, harmonic, and rhythmic dictation; sight-singing; clef-reading; musicianship drills. See also Mus 1531, Theory I. (No prereq. Concurrent registration with Mus 1531 required)

Spring Qtr, Sec 1, MTh, 6:15-7:05, FergH 149

**Mus 1517-1518 EAR-TRAINING AND SIGHT-SINGING REVIEW I-II.** 1 credit each quarter, tuition\* each quarter: Resident \$73.50; Non-resident \$213.15.

Aural skills: sight-singing, interval recognition, melodic and harmonic dictation. See also Mus 1531, Theory I. **Must be taken A-F.** (Prereq placement exam)

Fall Qtr, 1517, Sec 1, TTh, 6:15-7:05, FergH 149

Winter Qtr, 1518, Sec 1, TTh, 6:15-7:05, FergH 149

**Mus 1531 THEORY I: FOUNDATIONS OF TONAL THEORY.** 3 credits, tuition\*: Resident \$220.50; Non-resident \$639.45. (IS)

Two-part counterpoint (species approach); consonance and dissonance; melodic contours; review of music fundamentals. **Note:** Music theory courses and their corresponding ear-training labs (Mus 1511 and 1531; 1507 and 1517; 1508 and 1518) must be elected concurrently unless the student demonstrates proficiency in one or the other area through the Music Theory Placement Exam, offered by the School of Music at the beginning of each term. *Call 624-5740 for exam date and time.* Mus 1511 and 1531 require prior exposure to music fundamentals. Students who have not completed 1003/1004 at the University must demonstrate their proficiency through a special Entrance Examination offered periodically throughout the year. *Call 624-5740 for dates and times.* (No prereq)

Spring Qtr, Sec 1, MTh, 7:15-9, FergH 149

**Mus 1804 WORLD MUSIC.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Music in universal perspectives. Traits, distinguishing styles, and cultural factors that influence musical creativity. Music of different cultures compared to examine forms and traits, to develop listening abilities, and to develop an understanding of human musical expressions. (No prereq)

Winter Qtr, Sec 1, MW, 7:15-9:10, FergH 105

(See also CSch 0138, Music of the Whole Earth)

**Mus 3021 INTRODUCTION TO MUSIC.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Introduction to music in the repertory of our culture, exploring selected forms and styles from the 17th through 20th centuries. Aural analyses, relationships of large units of musical form. (No prereq)

Fall Qtr, Sec 1, W, 6-10, FergH 107, Hepokoski

Winter Qtr, Sec 2, W, 6-10, FergH 107,

Hepokoski

Spring Qtr, Sec 3, W, 6-10, FergH 105,

Hepokoski

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Mus 5150 BODY AWARENESS IN ACTIVITY: THE ALEXANDER TECHNIQUE FOR MUSICIANS.** 2 credits each quarter, tuition\*: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Introduction to the Alexander Technique with specific applications to music performance. Emphasis on body/mind awareness to promote technical ease and freedom. **May be repeated for credit.** (Prereq music major or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 12)

Fall Qtr, ★Sec 1, Th, 6:15-8:15, FergH 105

Spring Qtr, ★Sec 2, Th, 6:15-8:15, FergH 225

**Mus 5321-5322-5323 SUZUKI VIOLIN PEDAGOGY.** 2 credits each quarter, tuition\* each quarter: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

An intensive examination of the philosophy and teaching techniques of Japanese pedagogue Shinichi Suzuki, and their applications in Western culture. Students will be involved with discussions, playing experience, and observations of children's lessons in the MacPhail Center Suzuki Program, 1128 LaSalle Ave. in downtown Minneapolis. **For information about the course, contact Mark Bjork at 625-3328.** (Prereq undergrad or grad string major with violin as principal performing instrument or #; 5321 for 5322; 5322 for 5323. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, 5321, ○Sec 1, W, 12:20-2:15, FergH 203, Bjork

Winter Qtr, 5322, ○Sec 1, W, 12:20-2:15, FergH 203, Bjork

Spring Qtr, 5323, ○Sec 1, W, 12:20-2:15, FergH 203, Bjork

**Mus 5324-5325-5326 ADVANCED SUZUKI VIOLIN PEDAGOGY.** 2 credits each quarter, tuition\* each quarter: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

An intensive examination of techniques for the intermediate and advanced violin student using the techniques of Shinichi Suzuki in Western society. Class will involve discussion, playing experience, and observation of children's lessons in the MacPhail Center Suzuki Program (1128 LaSalle Ave. in down-

town Minneapolis) and practical teaching experience. **For information about the course, contact Mark Bjork at 625-3328.** (Prereq 5323 or equiv or # plus an audition for 5324; 5324 for 5325; 5325 for 5326. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, 5324, ○Sec 1, M, 9:05-10:30 a.m.,

FergH 224, Bjork

Winter Qtr, 5325, ○Sec 1, M, 9:05-10:30 a.m.,

FergH 224, Bjork

Spring Qtr, 5326, ○Sec 1, M, 9:05-10:30 a.m.,

FergH 224, Bjork

**Noncredit Music Classes at MacPhail Center for the Arts**—Noncredit courses in music are offered at MacPhail Center for the Arts, 1128 LaSalle Ave., in downtown Minneapolis. *Registration is through MacPhail Center only; telephone 627-4020 for information and a copy of their bulletin.*

## Music Education (MuEd)

(100 Ferguson Hall: 624-5740)

### College of Liberal Arts

Textbooks for most MuEd courses available at University of Minnesota Bookstore—West Bank (625-3000).

Robert Borg, Associate Professor  
Charles Furman, Associate Professor  
Paul Haack, Professor  
Claire McCoy, Associate Professor  
Stephen Schultz, Associate Professor

*Enrollments in limited classes in this department are strictly enforced. Neither the department nor the course instructor will give written permission for registration in these classes once the limit is reached and the class closes.*

**MuEd 5111 RESEARCH IN MUSIC EDUCATION: BIBLIOGRAPHY.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Sources, materials, and techniques. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Th, 4:30-6:45, FergH 70,  
Schultz

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**MuEd 5112 RESEARCH IN MUSIC EDUCATION: TECHNIQUES.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Methods and techniques employed in investigating and reporting of music education problems; review of significant research. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, **Sec 1, Th, 4:30-6:45, FergH 151, Furman**

**MuEd 5115 RESEARCH IN MUSIC EDUCATION: MEASUREMENT.** 3 credits tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Current status in music testing; principles; survey of evaluative, accountability, and testing materials in music. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, **Sec 1, Th, 4:30-6:45, FergH 107, McCoy**

**MuEd 5211 PHILOSOPHIES OF MUSIC EDUCATION.** 3 credits tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis and interpretation of philosophies in music and education; objectives, trends, curriculum, evaluation. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, **Sec 1, M, 4:30-6:45, FergH 157, Borg**

**MuEd 5611 TECHNIQUES AND MATERIALS: MUSIC AND RELATED ARTS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Teaching music to reflect the major developments of Western culture. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, **Sec 1, M, 4:30-6:45, FergH 107, Haack**

**MuEd 5666 MICROCOMPUTERS IN THE MUSIC CLASSROOM.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Using the microcomputer to enhance instruction; materials for theory, ear training, composition, electronic music; developing a data base for music libraries, instrument inventories, budgets. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, **Sec 1, MWF, 9:05-9:55 a.m., AndH 250, Schultz**

**MuEd 5668 COMPUTERIZED MUSIC NOTATION.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Fundamentals of music notation and printing utilizing the Macintosh computer. MIDI keyboards, and the Finale software program. Preparation of instrumental and vocal scores, part extraction, and page layout. **May be taken A-F or S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 12)

Fall Qtr, **Sec 1, T, 6-9, FergH 113, Schultz**

Winter Qtr, **Sec 2, M, 6-9, FergH 113, Schultz**

Spring Qtr, **Sec 3, T, 6-9, FergH 113, Schultz**

**MuEd 5804 MUSIC IN THERAPY.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles and methods related to public school, hospital, and other community mental health and education settings; observation and laboratory sessions. **Must be taken A-F.** (Prereq grad student in mus educ or in mus therapy or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, **Sec 1, Arr, Furman**

Winter Qtr, **Sec 2, Arr, Furman**

Spring Qtr, **Sec 3, Arr, Furman**

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**MuEd 5970 INDEPENDENT STUDY.** 1-4 credits, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent study project organized by the student in consultation with the appropriate instructor. **Must be taken A-F.** (Prereq education or graduate student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, **★**Sec 1, Arr, Borg, Furman, Haack, McCoy, Schultz

Winter Qtr, **★**Sec 2, Arr, Borg, Furman, Haack, McCoy, Schultz

Spring Qtr, **★**Sec 3, Arr, Borg, Furman, Haack, McCoy, Schultz

*A wide variety of workshops in music education is available to local school districts who wish to jointly design a continuing education experience to meet unique local needs.*

**Day School Classes**—In addition to the Extension classes listed above, day school classes are sometimes offered to educators during late afternoon, early evening, and weekend hours. For registration information about day school College of Education courses, see page 154 or call 625-6501.

For further information in regard to planning an individually designed workshop for a particular district or building staff contact: Chairman, Music Education Program, Ferguson Hall (West Bank), University of Minnesota, Minneapolis, MN 55455; or telephone 624-1091.

### Naval Science (Nav)

(203 Armory: 625-6677)

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Naval Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before registration for that quarter begins.

### Near and Middle Eastern Studies

See Area Studies Programs, and the Institute of Languages and Literatures)

### Neighborhood Centers

(See page 529)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Noncredit Classes

(See page 379)

### Norwegian

(See Scandinavian Languages)

### Nursing (Nurs)

(6-101 Health Sciences Unit F: 624-9600)

#### School of Nursing

Textbooks for most Nurs courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Pat Camillo, Lecturer

Ellen Egan, Associate Professor

Bernadine Feldman, Associate Professor

Marilyne Gustafson, Assistant Professor

Barbara Leonard, Associate Professor

Kathleen Krichbaum, Assistant Professor

Robert McKinnell, Professor, Genetics and Cell Biology

Sharon Ostwald, Associate Professor

Deborah Ringdahl, Associate Clinical Specialist

Muriel B. Ryden, Professor

Suzanne J. Schoenfelt, Instructor, College of Pharmacy

Mariah Snyder, Professor

Kathleen Sodergren, Assistant Professor

**Nurs 5609 SPECIAL EDUCATIONAL EXPERIENCES IN NURSING: MENOPAUSE—A MULTIDIMENSIONAL APPROACH.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

A study of menopause through an exploration of the physiological, developmental, historical, socio-cultural, nursing, and medical interfaces associated with this uniquely female experience. Issues and research involving hormone replacement therapy will be addressed as well as alternative interventions. **May be taken S-N.** (Prereq for undergraduate credit: upper division student, baccalaureate degree, or R.N. Prereq for graduate credit: R.N. with baccalaureate degree. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, **★**Sec 1, T, 4:40-6:35, HSUnitF 4-180, Camillo

**Nurs 5609 SPECIAL EDUCATIONAL EXPERIENCES IN NURSING: AMERICAN INDIAN HEALTH AND HEALTH CARE.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examines the health of American Indians primarily in the Upper Midwest and North Central states. Health status and health care are considered within historic and cultural contexts. The epidemiology of major health conditions across the life span are reviewed and discussed together with current Indian health care and traditional Indian medicine and health beliefs and practices. Open to both nursing students and non-nursing students. **May be taken S-N.** (Prereq upper division, graduate student, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students) Spring Qtr, ★○Sec 2, Th, 4:40-7:40, HSUnitF 4-180, Leonard

**Nurs 5634 WOMEN'S ISSUES: A HEALTH PERSPECTIVE.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Focuses on exploration and analysis of a wide range of women's health issues. Content includes a multidisciplinary analysis of sexual and reproductive health, victimization, poverty, work, nutrition, physical activity, body image, and mental health, with emphasis on health promotion. Open to both nursing students and non-nursing students. **May be taken S-N.** (Prereq upper division, graduate student, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★○Sec 1, T, 2:30-5:30, HSUnitF, Ringdahl

**Nurs 5640 COMMON RESPONSE PATTERNS TO ILLNESS.** 3 credits. Offered alternate years. Tentatively scheduled for Spring 1996.

**Nurs 5642 BEHAVIORAL PROBLEMS IN PERSONS WITH DEMENTIA.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70.

An exploration of the theories and research that contribute to understanding behavioral problems in dementia, and their relationship to clinical management. **May be taken S-N.** Offered alternate years. (Prereq for undergrad credit, R.N.; for grad credit, R.N. with baccalaureate degree; a knowledge of the research process and #. Qualified students may

register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, T, 4:40-6:35, HSUnitF 4-180, Ryden

**Nurs 5650 THERAPEUTIC TOUCH: PRACTICE AND RESEARCH.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Therapeutic touch as a healing modality is explored. Research literature related to therapeutic touch and its effects are analyzed and a number of explanations for the effects are considered. Selected examples of other kinds of caring touch used as nursing interventions will be addressed. Students will have opportunity to learn the practice of therapeutic touch and observe its effects. **Must be taken S-N.** (Prereq for undergraduate credit, R.N.; for grad credit, R.N. with baccalaureate degree. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★○Sec 1, Th, 4:40-6:35, HSUnitF 4-180, Egan, Sodergren

**Nurs 5660 BASIC MANAGEMENT IN LONG-TERM CARE FACILITIES: ORGANIZATION MANAGEMENT.** 1-4 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Provides a critical basis for the practice of management of nursing in long-term care facilities. Emphasis on analysis of management theory and its relevance to current practice. Course is divided into four modules: organization management; organization theory; regulation mechanisms; organization behavior. **Note:** *Students wishing to register for fewer than 4 credits must call 624-4866 for instructions.* Course is taught using interactive television (ITV) at three sites off campus. **Please indicate your location preference by section number on the registration form.** **May be taken S-N.** (Prereq for undergraduate credit, R.N.; for graduate credit, R.N. with baccalaureate degree. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★○Sec 1, Th, 4:40-8:45, Capitol View Ctr, Roseville, Krichbaum

Fall Qtr, ★○Sec 2, Th, 4:40-8:45, Spring Lake Park HS, Spring Lake Park, Krichbaum

Fall Qtr, ★○Sec 3, Th, 4:40-8:45, Tartan HS, Oakdale, Krichbaum

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Nurs 5711 SPIRITUALITY AND NURSING PRACTICE.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Exploration of the concept of spirituality as integral to the whole person. Discussion of spiritual nursing care interventions within the context of the nursing process. **May be taken S-N.** Offered via interactive television between two sites, with students at both locations. (Prereq for undergraduate credit, R.N. with baccalaureate degree. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Spring Qtr, ★●Sec 1, Th, 4:40-6:35, MoosT 5-125, Gustafson

**Nurs 5720 WRITTEN COMMUNICATION SKILLS FOR HEALTH PROFESSIONALS.** 3 credits, §HSU 5017, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Students meet in workshop sessions where they critique the work of class participants. Throughout the course, emphasis is on organization, style, clarity of presentation, conciseness, accuracy, transitions, consistency, and writing mechanics. Students also examine journal articles, style, the work of professional authors, and other writing guidelines. Depending on the interest of class members, some emphasis will be placed on writing journal articles for publication. The course works best for students who are already in the process of writing or trying to publish a paper. The class serves as the structure for students to compose their own work. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5017. Limited to a combined total of 15) Winter Qtr, ★Sec 1, T, 4-6:30, MoosT 15-250, Schoenfelt

**Nurs 5738 TRANSCULTURAL NURSING: THEORIES AND ISSUES.** 2 or 3 credits, tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Study of cultural factors which influence theories, issues, and nursing care practice in diverse cultures

and subcultures. Emphasis is on nursing within international systems of health care and on nursing practices related to various health-illness systems in this country and worldwide. **May be taken S-N.** May be offered via interactive television between two sites, with students at both locations. (Prereq for undergraduate credit, R.N.; for graduate credit, R.N. with baccalaureate degree; cultural anthropology course or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:40-6:35 (plus 1 hr arr), MoosT 5-125, Gustafson

**Nurs 5780 MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §CPsy 5305, §HSU 5009, §Phar 5009, §PA 5414, §PubH 5737, §SW 5024, §Soc 5960, tuition\*: Resident \$346; Non-resident \$1003.40.

Biological, social, psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems; public policy and legislation; environments and housing; advocates; retirements. (No prereq. May not be taken for graduate credit. Meets concurrently with AdEd 5440, CPsy 5305, HSU 5009, Phar 5009, PA 5414, PubH 5737, Soc 5960, and SW 5024. A joint Day/Extension class limited to a combined total of 37 Extension students)

Fall Qtr, ★●Sec 1, MW, 4:40-6:25, MoosT 2-690

Spring Qtr, ★●Sec 2, MW, 4:40-6:25, MoosT 2-690

**Nurs 5881 THE BIOLOGY OF CANCER.** 3 credits, §GCB 3008, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Biological aspects of etiology, phylogeny, and cellular processes involved in neoplasia. Growth and differentiation of normal and cancer cells. The history of cancer research. (Prereq Biol 1009. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with GCB 3008)

Spring Qtr, Sec 1, W, 6:30-9, BioSci 12, StP Campus, McKinnell

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Nurs 5941 CARE OF THE ELDERLY I: PHYSIOLOGICAL CONCEPTS.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Exploration of functional patterns related to physiological aspects of aging; examination of research-based interventions used to maintain or restore optional functioning of elderly. **May be taken S-N.** *May be offered via interactive television between two sites, with students at both locations.* (Prereq for undergraduate credit, R.N.; for graduate credit, R.N. with baccalaureate degree. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, W, 4:40-6:35, MoosT 5-125, Snyder

**Nurs 5943 CARE OF THE ELDERLY II: PSYCHOSOCIAL CONCEPTS.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Examination of psychosocial theoretical concepts related to the care of aged persons. Exploration of assessment and research-based interventions with an emphasis on promotion and restoration of health and supportive care. **May be taken S-N.** (Prereq Human Development Across the Life Span course, #; RN for undergraduate credit; RN with baccalaureate degree for graduate credit. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 8 Extension students)

Fall Qtr, ★●Sec 1, W, 2:30-4:25, HSUnitF, Ryden

**Nurs 5946 PROFESSIONAL ISSUES IN ADVANCED GERONTOLOGICAL NURSING PRACTICE ROLES.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Examination of professional and policy-related issues common to advanced practice roles including reimbursement, certification, professional relationships, standards of care, legislation, and regulation as they pertain to nurse practitioners, professional practice, the health care system, and the care of older adults. **May be taken S-N.** (Prereq minimum of 6 credits in Gerontological Nursing focus, #; RN for undergraduate credit; RN with baccalaureate degree for graduate credit. Qualified students may

register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 8 Extension students)

Fall Qtr, ★●Sec 1, W, 4:40-6:35, HSUnitF, Feldman

**Nurs 5947 PHARMACOTHERAPEUTICS FOR THE ELDERLY.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Examines pharmacological actions of prescription and over-the-counter medications commonly used by aged persons. A major focus will be the recognition of and interventions for adverse drug effects, side effects, drug incompatibilities, and iatrogenic problems, as well as assessment of drug misuse and/or abuse. Therapeutic dosages for common chronic and acute health problems of the elderly will be examined. **May be taken S-N.** (Prereq for undergraduate credit, R.N.; for graduate credit, R.N. with baccalaureate degree. Students must have instructor override. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 8 Extension students)

Fall Qtr, ★●Sec 1, W, 2:30-4:25, HSUnitF, Camillo

**Nurs 5966 PUBLIC HEALTH PROGRAM PLANNING AND GRANT WRITING.** 4 credits, §PubH 5731, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Provides knowledge and skills necessary for planning health promotion and disease prevention programs and writing grants to fund these programs. Uses the PRECEDE-PROCEED model as a framework for program planning. **May be taken S-N.** (Prereq grad student in PHA, nursing or #; grad course in epidemiology recommended. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with PubH 5731. A joint Day/Extension class limited to a combined total of 20 Extension students)

Fall Qtr, ★●Sec 1, T, 2:30-6, HSUnitF 4-150, Ostwald

*See also Independent Study bulletin for nursing courses on human growth and development through the lifespan: Nurs 3690/5690 and Nurs 3691/5691.*

**Registered nurses who wish to continue their studies toward a degree in nursing should contact the School of Nursing Admissions Office, 5-140 UnitF, 308 Harvard St. S.E., University of Minnesota, Minneapolis, MN 55455; (612) 624-3108.**

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Operations and Management Science (OMS)

(332 Management/Economics: 624-7010)

#### Carlson School of Management

Textbooks for most OMS courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also the Management Advancement Program)

John C. Anderson, Associate Professor  
Rajiv Banker, Professor  
Norm Chervany, Professor  
Gretchen Donahue, Adjunct Professor  
Arthur V. Hill, Professor  
Thomas R. Hoffmann, Professor  
Charles Hunt, Adjunct Professor, Management Systems, Alliant Techsystems, Inc.  
David Kelton, Professor  
Inder Khosla, Assistant Professor  
John Knauff, Adjunct Professor, Knauff & Associates, Inc.  
Abbas Kurawarwala, Assistant Professor  
James R. Luck, Adjunct Professor, Minnesota Technology, Inc.  
Chris Nachtsheim, Professor  
Dale Nelson, Adjunct Professor, Partner, Nelson-Anderson Group  
John Nicolay, Adjunct Professor, President, Crossroads Management Advisors  
Roger G. Schroeder, Professor  
James R. Schroer, Executive Fellow and Adjunct Professor  
Howard Strauss, Senior Executive Fellow and Adjunct Professor  
Michael Taaffe, Associate Professor  
Lee Wickstrom, Extension Coordinator and Adjunct Professor

**Carlson School of Management degree students must take Operations and Management Science courses A-F.**

**Professional Advancement and Promotion**—Students interested in advancement and promotion in the operations management profession should prepare by taking OMS courses in this order: (1) 1020, (2) 3000, (3) 3041, 3056, 3059, and (4) 3850 or any OMS 5xxx-level course. These courses are required for both the undergraduate emphasis and a proposed certificate in Operations Management, and thus serve as a fundamental prerequisite to a successful professional career in operations or general management.

**OMS 1020 (formerly MSci 1020) DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS.** 4 credits, §MSci 1020, tuition\* (in-

cludes \$16 special fee): Resident \$310; Non-resident \$868.60. (IS)

Introduction to probabilistic and statistical techniques for decision making, including data analysis, sampling, estimation, and hypothesis testing and regression. Using computer software and computer-stored data in statistical analysis. Introduction to modeling and linear programming. (Prereq MSci 1010 or IDSc 1010, Math 1111; Math 1131 recommended. Limited to 45)

Fall Qtr, ★Sec 1, Th, 5:30-8:50, BlegH 125

Winter Qtr, ★Sec 2, T, 5:30-8:50, BlegH 125

Winter Qtr, ★Sec 3, Th, 5:30-8:50, BlegH 125

Spring Qtr, ★Sec 4, T, 5:30-8:50, BlegH 125

Spring Qtr, ★Sec 5, Th, 5:30-8:50, BlegH 125

**OMS 3000 (formerly OM 3000) INTRODUCTION TO OPERATIONS MANAGEMENT.** 4 credits, §OM 3000, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Concepts and principles related to the management of operations functions, including operations strategy, process design, just-in-time, forecasting, inventory management, principles of scheduling, and quality improvement. Taught from a managerial perspective, this course uses examples from service industries, nonprofit organizations, and manufacturing, and stresses the relationships between operations and the environment. (Prereq at least 90 credits completed or in progress. *Open to nondegree students with equivalent experience.* Limited to 50)

Fall Qtr, ★Sec 1, M, 5:30-8:50, BlegH 140

Fall Qtr, ★Sec 2, Th, 5:30-8:50, BlegH 135

Winter Qtr, ★Sec 3, M, 5:30-8:50, BlegH 150

Winter Qtr, ★Sec 4, Th, 5:30-8:50, BlegH 250

Spring Qtr, ★Sec 5, M, 5:30-8:50, BlegH 130

Spring Qtr, ★Sec 6, Th, 5:30-8:50, BlegH 250

**OMS 3041 (formerly OM 3041) PROJECT MANAGEMENT.** 4 credits, §OM 3041, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40. (IS)

Principles and methods useful for planning and controlling a project, including development of project plan, resource planning and scheduling, and project monitoring and control. Selected computerized packages are studied, including PERT and CPM, and examples of different types of projects from manufacturing and service industries are used. Open to IT seniors and graduate students in place of CE 5703 or IEOR 5703, Engineering Project Management. (Prereq 3000 or OM 3000 and at least 90 credits completed or in progress. *Open to nondegree students with equivalent experience.* Limited to 35)

Spring Qtr, ★Sec 1, Th, 5:30-8:50, BlegH 435

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**OMS 3056 (formerly OM 3056) PRODUCTION AND INVENTORY MANAGEMENT.** 4 credits, §OM 3056, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Inventory planning, production planning, Materials Requirements Planning (MRP), just-in-time concepts, finite loading systems, distribution systems, forecasting, master scheduling, capacity management, production activity control, and purchasing. Taught from a planning and control systems point of view with managerial orientation. (Prereq 3000 or OM 3000 and at least 90 credits completed or in progress. *Open to nondegree students with equivalent experience.* Limited to 35)

Winter Qtr, ★Sec 1, Th, 5:30-8:50, BlegH 205

**OMS 3059 (formerly OM 3059) QUALITY MANAGEMENT.** 4 credits, §OM 3059, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Key issues of quality management, including planning and organizing for quality improvement, cost of quality, customer and vendor relations, process control, quality control, management of the improvement process. The course introduces concepts and principles relevant to both service and manufacturing environments, and involves lecture and case instruction. (Prereq 3000 or OM 3000 and at least 90 credits completed or in progress. *Open to nondegree students with equivalent experience.* Limited to 35)

Fall Qtr, ★Sec 1, W, 5:30-8:50, AndH 350

**OMS 3850 TOPICS IN OMS: OPERATIONS MANAGEMENT IN SERVICE INDUSTRIES.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

The current and growing importance of service industries (such as health care, recreation, banking, accounting, insurance, and advertising) in the national economy has created a need for a better understanding of the management of such operations. This course analyzes current practices in the service industries with particular attention to human resources, process effectiveness, quality, and costs. **Must be taken A-F.** (Prereq 3000, OM 3000 or #. Limited to 45)

Fall Qtr, ★Sec 1, M, 5:30-8:50, AndH 350

**OMS 3850 TOPICS IN OMS: INTERNATIONAL OPERATIONS MANAGEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Topics offered are the following: global operations planning, strategy development, product and process design, technology transfer, supplier alliances, licensing and facility location in the most favorable environment for attaining global goals. Competing in the international marketplace as a world class

manufacturer or service operator is the theme of the course. **Must be taken A-F.** (No prereq)

Winter Qtr, Sec 2, M, 5:30-8:50, BlegH 140

**OMS 3850 TOPICS IN OMS: MANAGING THE ENTREPRENEURIAL OPERATION.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Entrepreneurial companies have special needs and often limited resources and differ substantially from large company in the way that their operations are managed or led. This course teaches the principles of strategic planning, facility start-up, systems thinking, innovation, and team management, total quality control, activity-based costing, volume forecasting, and operation scheduling. These subjects apply to the small firm as well as the new operations in a medium-sized company in both the manufacturing and service industries. **Must be taken A-F.** (Prereq 3000 or OM 3000 or OMS 8050. Limited to 45)

Spring Qtr, ★Sec 3, M, 5:30-8:50, BlegH 120

**OMS 3850 TOPICS IN OMS: BUSINESS LAB TEAM PROJECT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40.

Prepares students to lead inter-functional teams solving real-world business problems at the 3M Business Lab using data collected from 3M customers and operations. Topics include project team planning, consensus via story-boarding, team leadership skills, definition of work detail, analysis of findings, development of creative solutions, and presentation of recommendations to 3M with instructor. **Must be taken A-F.** (Prereq 3000, OM 3000 or #. Limited to 45)

Spring Qtr, ★Sec 4, W, 5:30-8:50, BlegH 330

**OMS 5100 MANUFACTURING FOR COMPETITIVE ADVANTAGE.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Overview of the manufacturing function, particularly as manufacturing can contribute to the competitiveness of the firm. Intended primarily for students in engineering and management disciplines. Topics include manufacturing strategy, technology issues, quality issues, and integration of the work force into the effort. The course is affiliated with the Center for the Development of Technological Leadership (CDTL). **Must be taken A-F.** (Prereq 3000 or IEOR 3000 or MBA 8050 or written #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 1, T, 5:30-8:50, BlegH 210

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

---

## Course Descriptions

---

**OMS 5155 STATISTICAL METHODS FOR QUALITY AND PRODUCTIVITY IMPROVEMENT.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Methods for on-line and off-line quality control. Quality management philosophy, Pareto analysis, control charts, experimental design, and sampling inspection. Applications to administrative service, and production operations. (Prereq OMS 1020 or MSci 1020 or #. Qualified students may register for graduate credit at the University of Minnesota. *Open to nondegree students with equivalent experience.* A joint Day/Extension class limited to 7 Extension students)

Winter Qtr, ★Sec 1, Th, 5:30-9, BlegH 330

**OMS 5170 SIMULATION MODELING.** 4 credits, tuition\* (includes \$16 special fee): Resident \$362; Non-resident \$1019.40; Resident Graduate credit \$444; Non-resident Graduate credit \$872; Resident Graduate School credit \$751; Non-resident Graduate School credit \$1633.

Survey of probabilistic modeling, with emphasis on computer simulation of complex systems. Event-scheduling simulation models, process-interaction using a high-level simulation language, structural and quantitative simulation modeling, overview of simulation methodological issues, and animation. Use of computers and various languages to carry out actual simulation studies. Business applications. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. *Open to nondegree students with equivalent experience.* A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★Sec 1, M, 5:30-9, BlegH 340

---

### **APEX (Academy Practitioner Exchange) Project**

**APEX PROJECT COURSES.** 4 credits (may be repeated for credit). Tuition\* (includes \$450 special fee): Resident \$796; Non-resident \$1453.40; Resident Graduate credit \$878; Non-resident Graduate credit \$1306; Resident Graduate School credit \$1185; Non-resident Graduate School credit \$2067.

A special program designed to provide a productive interaction between faculty and practitioners who are interested in developing the frontiers of knowledge and practice. Opportunity to study special topics in operations and management science in depth. Participative inquiry formats address current interests. Designed to sharpen concept and practice.

Interaction with faculty, practitioners, and resource person in team settings. (Prereq minimum of two years of managerial experience. Qualified students may register for graduate credit at the University of Minnesota.) *Call Jill Patterson, Extension Classes, for information on registration and necessary materials, 625-0566.* The course is offered on Thursday evenings each quarter from 5:30-8:30.

**For further information about courses listed below, contact the course coordinator at (612) 624-7558.**

### **OMS 5998 SEMINAR: BETTER PRODUCTS TO MARKET SOONER.**

How to reduce the time normally needed to develop a new product. The steps in the new product introduction cycle are defined and organized into logical phases. Ideas and approaches of concurrent and simultaneous engineering are explained, evaluated, and implemented. The approach uses cross-functional teamwork. The team may have a mix of market specialists, product planners, design analysts, process/manufacturing engineers, tooling designers, and other specialists as required in certain businesses. The facilitator will emphasize design for manufacturability and design for assembly. Participants may bring actual problems to class. Class will work out when the optimal time is to start-and-stop development. The objective is to get to the market first or sooner. Typical participant in this seminar should have an undergraduate engineering degree and might be working on or managing a design-to-production transition team. (Limited to 15)

Fall Qtr, ★Sec 1, Th, 5:30-8:50, Law 3

### **OMS 5998 BUSINESS PROCESS RE-ENGINEERING.**

Many of our current systems resulted from automating existing forms and old procedures. Some were developed as long as 20 to 30 years ago to reflect the then-popular over-control or to support individual functions only. Our business needs have changed and we have outgrown these legacy systems which do not support the competitive needs of our corporations. Today's needs are for a system that supports a new enterprise vision which uses time-based management, activity-based costing, and TQM. Students learn how to develop a vision, benchmark operations, gain consensus, map processes, eliminate bottlenecks and non-value-added activities, resequence significant steps, allocate work to person or computer, and how to interface with a CASE (Computer-Aided Software Engineering) system. Participants may bring actual problems to be solved by seminar teams under facilitator guidance. (Limited to 15)

Winter Qtr, ★Sec 2, Th, 5:30-8:50, SocSci 101

---

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**OMS 5998 STRATEGIC QUALITY LEADERSHIP: THE NEXT WAVE.**

The quality movement has traditionally focused on process improvement, using a manufacturing model. The next wave of quality leadership shifts the focus to product design, customer expectations, and continuous innovation for those of us who don't personally make widgets. This course teaches and provides a unique quality management system for organizations which provide internally or externally directed service. Students learn a new way of thinking about quality and leadership, which is both stimulating and enlightening. These new concepts, tools, and strategy are specifically designed for the information and service age of the 21st century. The new knowledge is so compelling and intuitively appealing, students will learn how some leaders are getting significantly improved business performance. Participants will learn to define knowledge/service work as tangible products; differentiate three customer roles; identify customer expectations; develop and apply measures to knowledge/service work; reduce process times by 80%; and transform the organization's culture. This course provides a new way of thinking about leadership, quality, and innovation as used by Baldrige Award winners such as Motorola and AT&T, and is sponsored by the University's Quality Leadership Center. (Limited to 15)

Spring Qtr, ★Sec 3, Th, 5:30-8:50, Law 3

*APEX Project orientation sessions are conducted regularly to acquaint participants with the scope and practice. Prospective participants should contact the APEX Project coordinator for further details on orientation sessions and APEX Project courses: (612) 624-7558.*

**Ophthalmology**

(Your attention is called to the Ophthalmology Technician Certificate in the Degrees and Certificates section of this Bulletin)

**Persian**

See Area Studies Programs, and the Institute of Languages and Literatures)

**Pharmaceutics (Phmc)**

(9-177 Health Sciences Unit F: 624-5151)

**College of Pharmacy**

Textbooks for most Phmc courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

*No courses offered through Extension Classes 1994-95*

**Pharmacognosy (Phcg)**

(5-110 Health Sciences Unit F: 624-9490)

**College of Pharmacy**

Textbooks for most Phcg courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

John Staba, Professor of Pharmacognosy

**Phcg 1800 NATURE'S REMEDIES.** 3 credits, tuition\* (includes \$10 special fee): Resident \$230.50; Non-resident \$649.45.

Evaluation of those substances obtained from nature that are medicinally used. Chemical and physiological terms defined. History and literature; vitamins and enzymes; drugs from animals (hormones); drugs from the sea and microorganisms (antibiotics and vaccines); spices and herbs; tranquilizing plants; stimulating and hallucinogenic plants; poisonous plants and mushrooms. Herbal tea discussions. **Must be taken S-N.** (No prereq. Limited to 25)

Spring Qtr, ★Sec 1, T, 6:20-8:50, HSUnitF 7-193, Staba

**Pharmacy Practice (Phar)**

(5-110 Health Sciences Unit F: 624-9490)

**College of Pharmacy**

Textbooks for most Phar courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Thomas M. McKennell, Assistant Professor and Director of Pharmacy Continuing Education

Robert E. Yahnke, Associate Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Phar 5007 BIOLOGY OF AGING.** 2 credits, §SAPh 5007, §HSU 5031, tuition\*: Resident \$290; Non-resident \$580.

Biological theories of aging are reviewed; biological changes associated with aging in organ and sensory systems are studied. Other topics examined are the nutritional needs of the elderly, and their use of medications. Physical changes due to normal aging are contrasted with those having a pathological base. (No prereq. Students who wish to take this course for undergraduate credit should register for either Phar 5007 or HSU 5031. Students who wish to take this course for graduate credit should register for SAPH 5007. Meets concurrently with HSU 5031 and SAPH 5007. A joint Day/Extension class) Winter Qtr. ●Sec 1, Th, 4:40-6:25, MoosT 5125, McKennell

**Phar 5009 MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §CPsy 5305, §HSU 5009, §Nurs 5780, §PA 5414, §PubH 5737, §SW 5024, §Soc 5960, tuition\*: Resident \$580; Non-resident \$1160.

Biological, social, psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems; public policy and legislation; environments and housing; advocates; retirements. (No prereq. May not be taken for graduate credit. Meets concurrently with AdEd 5440, CPsy 5305, HSU 5009, Nurs 5780, PA 5414, PubH 5737, Soc 5960, and SW 5024. A joint Day/Extension class)

Fall Qtr, ★●Sec 1, MW, 4:40-6:25, MoosT 2-690 (Limited to a combined total of 37 Extension students)

Spring Qtr. ●Sec 2, MW, 4:40-6:25, MoosT 2-690

**Phar 5210 TERMINOLOGY OF THE HEALTH SCIENCES.** 2 credits, §HSU 5210, tuition\*: Resident \$290; Non-resident \$580.

A self-study course that has been designed to provide students with a working knowledge of the terminology utilized in the health sciences. There are no formal class sessions. Students take four tests during the term and the schedule for these is provided at the beginning of each term, when orientation sessions are held. For information, call 624-2442 before the first day of the term, or go to room 5-120 HSUnitF during regular office hours. (No prereq. May not be taken for graduate credit. Meets concurrently with HSU 5210. A joint Day/Extension class)

Fall Qtr, ●Sec 1, Arr, McKennell

Winter Qtr, ●Sec 2, Arr, McKennell

Spring Qtr, ●Sec 3, Arr, McKennell

**Pharmacy, Continuing Education in**—For information about continuing education programs in Pharmacy, please contact the Office of Continuing Education in Pharmacy, University of Minnesota, 308 Harvard Street S.E., 5-120 Health Sciences Unit F, Minneapolis, MN 55455. Telephone (612) 624-2442.

## Philosophy (Phil)

(355 Ford Hall: 625-6563)

### College of Liberal Arts

Textbooks for most Phil courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also English; Humanities; and Interdepartmental Study)

Keith Gunderson, Professor  
William H. Hanson, Professor  
Jasper S. Hopkins, Professor  
Douglas E. Lewis, Professor  
Joseph Owens, Associate Professor  
Michael Root, Associate Professor  
C. Kenneth Waters, Associate Professor

### A major in Philosophy can be completed in the evening.

Those courses required in the major are offered yearly. Interested students should discuss their plans with an adviser (625-2500).

### B.A. Major Sequence

A coherent major program signed by an adviser (samples of coherent major programs are available from the Director of Undergraduate Studies)

Phil 1001 or 3201, or 5201, Logic

Phil 3001 and Phil 3003, History of Philosophy

Phil 3105 or 3601 or 5105 or 5601, Epistemology

Phil 3311 or 5311 or 5312 or 5321 or 5415, Ethics

A major project (for further information consult the Director of Undergraduate Studies—625-6563)

A total of eleven 4- or 5-credit philosophy courses, at most two of which are at the 1xxx level, at least three of which are at the 5xxx level, at least four of which are courses completed at the University of Minnesota, and all of which have grades of C or higher (exception: 2 courses may have grades of S). The courses in the list above count toward the total of eleven.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Minor Sequence**

**Minor Requirements**

Minimum of 20 3000-5000 cr in philosophy. Course selections must be approved by a philosophy faculty adviser. For further information consult the Director of Undergraduate Studies (625-6563).

(Consult the department for possible changes in major or minor sequences)

**You need not be majoring in Philosophy to register for these classes.**

*Students interested in the major or minor should call CEE Counseling for advising assistance (625-2500).*

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Philosophy. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) sections available in the following courses:** Phil 1001

**Phil 1001 LOGIC.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Application of formal techniques for evaluating arguments. (No prereq. Limited to 45)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FordH 155

Fall Qtr, ★Sec 2, W, 6:20-8:50, FordH 115

Fall Qtr, ★Sec 3, T, 1-3:30, MacP. *Offered through Continuing Education for Women*

Winter Qtr, ★Sec 4, W, 6:20-8:50, Richfield HS 143 (Limit 30)

Winter Qtr, ★Sec 5, T, 6:20-8:50, FordH 55

Winter Qtr, ★Sec 6, Th, 6:20-8:50, FordH 155

Spring Qtr, ★Sec 7, M, 6:20-8:50, FordH 155

Spring Qtr, ★Sec 8, W, 6:20-8:50, FordH 155

**Phil 1002 INTRODUCTION TO PHILOSOPHY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Problems, principal methods and schools of philosophy; historical and contemporary views. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, FordH 349

Fall Qtr, Sec 2, Th, 6:20-8:50, FordH 115

Winter Qtr, Sec 3, M, 6:20-8:50, FordH 40

Winter Qtr, Sec 4, W, 6:20-8:50, FordH 150

Spring Qtr, Sec 5, T, 6:20-8:50, FordH 130

**Phil 1003 ETHICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Problems that arise when human beings attempt to think systematically about conduct and value. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, FordH 150

Winter Qtr, Sec 2, T, 6:20-8:50, FordH 150

Spring Qtr, Sec 3, Th, 6:20-8:50, FordH 150

**Phil 3003 GENERAL HISTORY OF WESTERN PHILOSOPHY.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Survey of major developments in Western philosophic thought: Modern philosophy from Descartes through Hume. (No prereq)

Spring Qtr, Sec 1, W, 5:20-7:50, FordH 160, Gunderson

**Phil 3004 GENERAL HISTORY OF WESTERN PHILOSOPHY.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Later modern philosophy from Kant through 19th century. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, AmundH 104, Hopkins

**Phil 3105 INTRODUCTION TO THE THEORY OF KNOWLEDGE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theories and problems concerning evidence, belief, and knowledge. (Prereq 1001 or #)

Winter Qtr, Sec 1, T, 6:20-8:50, FordH 170, Waters

**Phil 3231 INTRODUCTION TO THE PHILOSOPHY OF LANGUAGE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Elementary issues concerning the nature of reference, linguistic convention, linguistic truth, translation, synonymy or the relation between language and thought. (Prereq 1001 or #)

Fall Qtr, Sec 1, M, 6:20-8:50, FordH 175, Owens

**Phil 3607 PHILOSOPHY OF PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Major theories of mind, including the "invention" of the mind by Descartes, classical empiricism, the impact of Darwinism, Freud's theories, Gestalt psychology, behaviorism, Chomsky's rationalism, contemporary functionalism, the computer model. (Prereq one course in philosophy or psychology or #)

Spring Qtr, Sec 1, T, 6:20-8:50, FordH 285, Root

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Phil 3781 EXISTENTIALISM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Aims at a preliminary understanding of some central concepts and themes of existentialism: freedom, contingency, commitment, aloneness. And exploration of the themes through text, film, and discussion. Works by Dostoevsky, Sartre, Camus, Murdoch, Duras, Baldwin, and Beauvoir will be discussed. Attention is paid to the contrasts between atheistic and Christian existentialism, and the possibility of an existentialist ethics. Students also learn the rules for good discussion. (Prereq 3003 or 3004 or #)

Winter Qtr, Sec 1, W, 6:20-8:50, FordH 175, Lewis

**Phil 5201 SYMBOLIC LOGIC I.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Development of a formalized language. Syntax and semantics of sentential and first-order logic. Deductive systems. (Prereq 1001 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, Th, 6:20-8:50, FordH 130, Hanson

**Phil 5615 MINDS, BODIES, AND MACHINES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Philosophical relevance of cybernetics, artificial intelligence, and computer simulation. (Prereq 4 cr in philosophy or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 6:20-8:50, FordH 70, Owens

**Phil 5760 SELECTED TOPICS IN PHILOSOPHY.** 2 credits, tuition\*: Resident \$154; Non-resident \$446.60; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Meets concurrently with a multidisciplinary course, ID 5515-5516-5517 (Ways of Knowing: Six Disciplines Examined). Faculty from six different disciplines meet together with students weekly for a full academic year to discover how various academic disciplines ask questions, gather information, and validate theories. Disciplines examined include genetics, philosophy, and geology. Students must

enroll each quarter for four credits of the ID 5515-5516-5517 or four credits of corresponding special topics courses; students must enroll all three quarters to receive credit. Limited to a combined total of 18 students. **For information about registration and graduate credit, call (612) 625-3898.**

## Photography

(See Art History; Studio Arts; General College; and The Compleat Scholar noncredit courses)

## Physical Education (PE)

(224 Cooke Hall: 625-1007)

### College of Education

(School of Kinesiology and Leisure Studies)

Textbooks for most PE courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Dance; Kinesiology; Recreation; and The Practical Scholar noncredit courses)

*Courses listed below are ranked numerically according to activity level, i.e., the level or skill required. The activity level of each course is indicated by the second digit in the course number, 0=first level, 1=second level, and so on. Thus 1007, for example, is a first-level course and 1107 is a second-level course. In most cases, the lower level course is a prerequisite for the higher; however, students who can demonstrate sufficient skill in an activity may usually register for the most advanced course without completing the prerequisite(s).*

*Most of the courses are considered high intensity, that is, they require a high level of physical exertion. Thus students are encouraged to consider carefully any limits on their health or physical fitness and to consult a physician if they have any questions about their health or about their ability to participate safely in the physical activities involved in any course for which they wish to register.*

**Students who do not attend the first and/or second meeting of a class forfeit their place. If a class is closed at the time of registration, a student may report to the first class meeting to ask about possible cancellations.**

**Sports Management**—The School of Kinesiology and Leisure Studies offers a certificate in Sports Management through Continuing Education and Extension. For information, call (612) 625-1007.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Coaching Licensure**—Beginning Fall 1993, all courses necessary for the Minnesota State Coaching Licensure will be offered through Continuing Education and Extension and the summer session over a two-year period. For information, call (612) 625-1007.

**Physical activity courses (numbered through 1499) may be taken S-N. Those numbered 1500 and above may not be taken S-N by Education students.**

**PE 1007 SWIMMING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Designed for the beginner including aquatic breathing, floating, treading water, finning, human stroke, elementary backstroke, sidestroke, front crawl. (Prereq non-swimmer. Limited to 22)

Fall Qtr, ★ Sec 1, MW, 6:10-7:10, CookeH 10  
Winter Qtr, ★ Sec 2, MW, 6:10-7:10, CookeH 10

Spring Qtr, ★ Sec 3, MW, 6:10-7:10, CookeH 10

**PE 1014 CONDITIONING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Improvement of physical fitness and general appearance through the use of running, circuit training, and progressive exercises. (No prereq. Limited to 40)

Fall Qtr, ★ Sec 1, W, 6-8, FieldHse  
Winter Qtr, ★ Sec 2, T, 6-8, FieldHse  
Spring Qtr, ★ Sec 3, T, 6-8, FieldHse  
Spring Qtr, ★ Sec 4, Th, 6-8, FieldHse

(See also PSch 0936, Fitness for the Advanced Exerciser: Making Knowledgeable Choices)

**PE 1015 WEIGHT TRAINING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamentals including techniques, theory, and individualized exercise prescription. (No prereq. Limited to 30)

Fall Qtr, ★ Sec 1, T, 8-10, URecCtr  
Winter Qtr, ★ Sec 2, T, 8-10, URecCtr  
Spring Qtr, ★ Sec 3, T, 8-10, URecCtr

(See also PSch 0934, The Human Body Shop: A Weight-Lifting Workshop)

**PE 1029 HANDBALL.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Basic fundamentals of skills and shots; rules and game strategy. (No prereq. Limited to 22)

Fall Qtr, ★ Sec 1, T, 8-10, URecCtr  
Winter Qtr, ★ Sec 2, T, 8-10, URecCtr  
Spring Qtr, ★ Sec 3, T, 8-10, URecCtr

**PE 1033 FOIL FENCING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Developing necessary physical and perceptual skills. Includes history, rules, and practical bouts experience. (No prereq. Limited to 28)

Fall Qtr, ★ Sec 1, W, 6-8, CookeH 308

**PE 1035 KARATE.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Emphasis on learning basic stances, blocks, and attacks; hand and foot techniques. (No prereq. Students should be aware they will be asked to pay a facilities fee. Consult the instructor at the first class meeting. Limited to 40)

Fall Qtr, ★ Sec 1, T, 6-8, U-Tech Bldg, Fusaro  
Winter Qtr, ★ Sec 2, T, 6-8, U-Tech Bldg, Fusaro

**PE 1036 RACQUETBALL.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamentals of skills and shots; rules and game strategy. (No prereq. Limited to 22)

Fall Qtr, ★ Sec 1, Sa, 9-11, URecCtr  
Winter Qtr, ★ Sec 2, Sa, 9-11, URecCtr  
Spring Qtr, ★ Sec 3, Sa, 9-11, URecCtr

**PE 1037 SQUASH RACQUETS.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamental strokes and rules with game situations emphasized. (No prereq. Limited to 25)

Winter Qtr, ★ Sec 1, T, 8-10, URecCtr

**PE 1041 CYCLING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Basic skills; physiological and mechanical principles; maintenance, safety, training. Supply own bicycle. (No prereq. Limited to 25)

Spring Spec Term, ★ Sec 1, Sa, 9 a.m.-12, Apr. 15-May 20, CookeH 215. *No late fee through Apr. 7*

**PE 1044 SELF-DEFENSE.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamental skills; development of the basic skills and techniques, values derived from active participation in physical activity. (No prereq. Limited to 45)

Fall Qtr, ★ Sec 1, W, 6-8, Gym (StP), StP Campus  
Winter Qtr, ★ Sec 2, W, 6-8, Gym (StP), StP Campus  
Spring Qtr, ★ Sec 3, W, 6-8, Gym (StP), StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**PE 1050 GOLF.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamentals of grip, stance, and swing in addition to etiquette and rules; moderate intensity. (No prereq. Limited to 20)

Spring Qtr, ★ Sec 1 M, 5:45-7:15, Club House, Golf Course

Spring Qtr, ★ Sec 2, T, 5:45-7:15, Club House, Golf Course

Spring Qtr, ★ Sec 3, W, 5:45-7:15, Club House, Golf Course

Spring Qtr, ★ Sec 4, Th, 5:45-7:15, St. Paul Gym, Golf Course

**PE 1056 NORDIC (CROSS COUNTRY) SKIING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Basic techniques; participation in an exercise and conditioning program preparatory to skiing. Students supply own skis. (No prereq. Limited to 30)

Winter Spec Term, ★ Sec 1 Sa, 9 a.m.-12, Jan. 7-Feb. 11, Gym Classroom, StP Campus

Winter Spec Term, ★ Sec 2, Sa, 1-4, Jan. 7-Feb. 11, Gym Classroom, StP Campus

**PE 1074 VOLLEYBALL.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Fundamental skills and rules of volleyball; basic team play and strategy. (No prereq. Limited to 26)

Fall Qtr, ★ Sec 1, M, 6-8, CookeH 325

Winter Qtr, ★ Sec 2, M, 6-8, CookeH 325

Spring Qtr, ★ Sec 3, M, 6-8, CookeH 325

**PE 1110 DANCE TOPICS: T'AI CHI CH'UAN.** 1 credit, tuition\* (includes \$30 special fee): Resident \$103.50; Non-resident \$243.15.

A slow-motion exercise which works out the complete muscular and nervous system as well as benefiting the internal organs. The gentle movements calm the mind and breath as well as unifying the body into one unit. This class will include some Daoist warm-up exercises, Ch'i-Kung breathing exercises, and an introduction to the formal T'ai Chi movements. (No prereq. Meets concurrently with Dnce 1110 sec 7. Limited to a combined total of 20)

Spring Qtr, ★ Sec 1, TTh, 7-8:30, NorrisH 67, Hayward

**PE 1205 SCUBA AND SKIN DIVING.** 1 credit, tuition\*: Resident \$73.50; Non-resident \$213.15.

Classroom and pool instruction for entry-level scuba training. Internationally recognized certification available through the instructor, but not part of the course. Limited to 26)

Winter Qtr, ★ Sec 1, T, 6-8, Wet Classroom, UAqCtr; T, 8-10, Divewell, UAqCtr

Spring Qtr, ★ Sec 2, T, 6-8, Wet Classroom, UAqCtr; T, 8-10, Divewell, UAqCtr

## Physical Medicine and Rehabilitation (PMed)

(860 Mayo: 626-4050)

### Medical School

Textbooks for most PMed courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Corinne T. Ellingham, Associate Professor of Physical Medicine and Rehabilitation  
Rick DiFabio, Associate Professor  
Corinne Ellingham, Associate Professor  
Maymie J. Eschwey, Lecturer, School of Public Health

Laura Pizer, Clinical Instructor, Physical Medicine and Rehabilitation

Glenn Scudder, Associate Professor

LaDora Thompson, Assistant Professor

(See also Cell Biology and Neuroanatomy; and General College courses)

**PMed 5135 PATHOKINESIOLOGY.** 3 credits. Tentatively scheduled for Fall 1995.

**PMed 5150 KINESIOLOGICAL ELECTROMYOGRAPHY AND NERVE CONDUCTION.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A lecture and a laboratory format course designed to develop understanding and skill in the use of electromyography and nerve conduction for evaluating movement. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Arr

**PMed 5294 INDEPENDENT STUDY IN PHYSICAL THERAPY.** Credit arr, tuition\* each credit: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent reading, and formal and informal discussions on a specific topic, for example, physical therapy for pediatric patients. **Must be taken S-N.** (Prereq # or registered physical therapy student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Arr

Winter Qtr, ○Sec 2, Arr

Spring Qtr, ○Sec 3, Arr

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**PMed 5296 PEDIATRIC EVALUATION AND TREATMENT PLANNING.** 3 credits, §HSU 5297, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Pediatric evaluation and treatment planning. **Must be taken S-N.** (Prereq rehab, health or community professional qualified students, or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5297. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, Arr

**PMed 5297 REHABILITATION: AN INTERNATIONAL PERSPECTIVE.** 3 credits, §HSU 5297, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Explores physical medicine and rehabilitation as well as prevention issues abroad. The seminar format focuses on cultural factors which influence health and health services. **Must be taken S-N.** (Prereq rehab, health or community professional qualified students, or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5297. Limited to a combined total of 20)

Spring Qtr, ★Sec 1, W, 4:45-7:30, ChRC 2-690, Ellingham, Eschwey, Pizer

**PMed 5810 ASSESSMENT OF THE ELDERLY.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Lectures, course materials, and on-site experiences are designed to develop understanding and skill in developing and using cardiopulmonary endurance, strength, activities of daily living, and perceptual assessment techniques. Arranged experiences at high-rise apartments for the elderly and handicapped. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, Arr

**PMed 5814 PHYSIOLOGICAL ASSESSMENT IN PHYSICAL THERAPY.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of physiological mechanisms underlying therapeutic intervention. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Arr, Thompson

**PMed 5841 INSTRUMENTATION AND ANALYSIS TECHNIQUES.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Lectures and course materials are designed to develop an understanding of instrumentation, scientific principles, and analytical methods used for rehabilitation research and therapies. (Prereq Phys 1031, 1032 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, Arr

**PMed 8130 CURRENT LITERATURE SEMINAR IN PHYSICAL THERAPY.** 1 credit, tuition\*: Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Current literature in physical therapy and related medical fields. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Arr, DiFabio, Scudder

Winter Qtr, ○Sec 2, Arr, DiFabio, Scudder

Spring Qtr, ○Sec 3, Arr, DiFabio, Scudder

**PMed 8170 SPECIAL TOPICS IN PHYSICAL THERAPY.** 1 credit, tuition\*: Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Advanced seminar. Topics vary from quarter to quarter. Prepared papers required. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Fall Qtr, ○Sec 1, Arr, DiFabio

Winter Qtr, ○Sec 2, Arr, DiFabio

Spring Qtr, ○Sec 3, Arr, DiFabio

**PMed 8192 RESEARCH DESIGN IN PHYSICAL THERAPY.** 3 credits, tuition\*: Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Critical appraisal of current medical literature; fundamentals of research design and techniques of medical writing. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Winter Qtr, ○Sec 1, Arr, DiFabio

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### Physics (Phys)

(148 Physics: 624-7375)

#### Institute of Technology

Textbooks for most Phys courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Interdepartmental Study courses, page 249; and *Natural and Physical Sciences* in The Compleat Scholar noncredit section)

**Changes in Physics Offerings—NOTE:** Registration in a section of Phys 1041-1042 or a section of Phys 1251-1252-1253 automatically places a student in a lecture, recitation, and a laboratory for the course. Labs which were formerly separate course offerings are now included with the lecture portion of the courses.

**Computer Labs**—Students enrolling in Phys 1041-42, 1251, 1252, and 1253 may be required to pay an additional fee for access to the computer lab.

**Phys 1041-1042 INTRODUCTORY PHYSICS.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

Lectures, recitation, and lab sessions. Primarily for students interested in topics useful in technical areas. The fundamental principles of physics in the context of the everyday world. The use of kinematics, dynamics, and conservation principles with quantitative and qualitative problem solving techniques to understand phenomena of mechanics, electromagnetism and the structure of matter. (Prereq high school algebra and geometry for 1041; 1041 for 1042; trigonometry recommended. Lectures for sec 1041 meet concurrently; lectures for sec 1042 meet concurrently. Limited to 18)

Winter Qtr, 1041, ★Sec 1, Lect, TTh, 5:45-7:35, Phys 133; Rec, Th, 7:45-8:35, Phys 143; Lab, T, 7:45-9:35, Phys

Winter Qtr, 1041, ★Sec 2, Lect, TTh, 5:45-7:35, Phys 133; Rec, Th, 7:45-8:35, Phys 157; Lab, W, 5:45-7:35, Phys

Winter Qtr, 1041, ★Sec 3, Lect, TTh, 5:45-7:35, Phys 133; Rec, F, 7:45-8:35, Phys 143; Lab, F, 5:45-7:35, Phys

Winter Qtr, 1041, ★Sec 4, Lect, TTh, 5:45-7:35, Phys 133; Rec, Sa, 10:10-11 a.m., Phys 157; Lab, Sa, 11:10 a.m.-1, Phys

Spring Qtr, 1042, ★Sec 1, Lect, TTh, 5:45-7:35, Phys 133; Rec, Th, 7:45-8:35, Phys 143; Lab, T, 7:45-9:35, Phys

Spring Qtr, 1042, ★Sec 2, Lect, TTh, 5:45-7:35, Phys 133; Rec, Th, 7:45-8:35, Phys 157; Lab, W, 5:45-7:35, Phys

Spring Qtr, 1042, ★Sec 3, Lect, TTh, 5:45-7:35, Phys 133; Rec, F, 7:45-8:35, Phys 143; Lab, F, 5:45-7:35, Phys

Spring Qtr, 1042, ★Sec 4, Lect, TTh, 5:45-7:35, Phys 133; Rec, Sa, 10:10-11 a.m., Phys 157; Lab, Sa, 11:10 a.m.-1, Phys

(See also CSch 0560, Quarks to Quasars: An Overview of 20th-Century Physics)

**Phys 1251, 1252, 1253 GENERAL PHYSICS I-II-III.** 4 credits each quarter, §1271-1281-1291, §1311-1321-1331-1341, §1411H-1421H-1431H-1441H or §1451H-1452H-1453H-1454H, tuition\* each quarter: Resident \$294; Non-resident \$852.60. Calculus-level general physics course stressing the use of fundamental principles to solve quantitative problems. Description of motion, forces, conservation principles, fields, probability, and the structure of matter. 1251: Mechanics. 1252: Mechanics and waves. 1253: Electricity and magnetism. (Prereq Math 1251 or ¶Math 1251 for 1251, Math 1252 or ¶Math 1252 for 1252, Math 1261 or ¶Math 1261 for 1253. Lectures meet concurrently. Limited to 18)

Fall Qtr, 1251, ★Sec 1, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:45-8:35, Phys 236a; Lab, T, 7-8:50, Phys

Fall Qtr, 1251, ★Sec 2, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:45-8:35, Phys 143; Lab, T, 7-8:50, Phys

Fall Qtr, 1251, ★Sec 3, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:45-8:35, Phys 157; Lab, T, 7-8:50, Phys

Fall Qtr, 1251, ★Sec 4, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:45-8:35, Phys 157; Lab, Sa, 8-9:50 a.m., Phys

Fall Qtr, 1251, ★Sec 5, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 143; Lab, M, 7:45-9:35, Phys

Fall Qtr, 1251, ★Sec 6, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 143; Lab, Th, 6:45-8:35, Phys

Winter Qtr, 1252, ★Sec 1, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 157; Lab, T, 7-8:50, Phys

Winter Qtr, 1252, ★Sec 2, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 236a; Lab, T, 7-8:50, Phys

Winter Qtr, 1252, ★Sec 3, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 157; Lab, M, 7:35-9:25, Phys

Winter Qtr, 1252, ★Sec 4, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 143; Lab, M, 7:35-9:25, Phys

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

Winter Qtr, 1252, ★Sec 5, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 143; Lab, M, 7:35-9:25, Phys

Spring Qtr, 1253, ★Sec 1, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 143; Lab, M, 7:35-9:25, Phys

Spring Qtr, 1253, ★Sec 2, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 143; Lab, M, 7:35-9:25, Phys

Spring Qtr, 1253, ★Sec 3, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 157; Lab, Th, 6:45-8:35, Phys

Spring Qtr, 1253, ★Sec 4, Lect, MW, 5:45-7:35, Phys 170; Rec, W, 7:35-8:25, Phys 236a; Lab, T, 6-7:50, Phys

Spring Qtr, 1253, ★Sec 5, Lect, MW, 5:45-7:35, Phys 170; Rec, Th, 5:45-6:35, Phys 157; Lab, Th, 6:45-8:35, Phys

**Phys 3501 MODERN PHYSICS.** 4 credits (no cr for physics majors), §3512-3513, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Thermal and statistical physics concepts; elementary quantum mechanics with examples from atomic and molecular structure, and solid-state physics. (Prereq 1106 or 1253 or 1453, Chem 1052, Math 3261)

Fall Qtr, Sec 1, TTh, 5-6:50, Phys 170

**Phys 5940 PHYSICS FOR HIGH SCHOOL TEACHERS: EXPERIMENTAL FOUNDATIONS AND HISTORICAL PERSPECTIVES:**

**Acoustics.** Directed Project. 2-4 credits (may be repeated for credit), tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

A continuation of the summer Phys 5940. Teachers will work on assignments given in the summer course to incorporate the historical investigative method into their classroom curriculum. *No credit for physics grad students or for grad minors in physics.* Meets spring quarter, time arranged. Contact The Bakken, A Library and Museum of Electricity in Life, for registration information and forms. The Bakken is located at 3537 Zenith Ave. S., Minneapolis, MN 55416. Telephone (612) 927-6508. (Prereq Summer Session Phys 5940 and #. Qualified students may register for graduate credit at the University of Minnesota)

## Plant Biology (PBio)

(220 Biological Science: 625-1234)

### College of Biological Sciences

Textbooks for most PBio courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Biol 1103, General Botany; Plant Pathology; The Compleat and

Practical Scholar noncredit courses; and Compleat Scholar Weekends)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Plant Biology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) sections available in the following courses:** PBio 1012

**PBio 1012 (formerly Bot 1012) PLANTS USEFUL TO HUMANS.** 4 credits, §Bot 1012, tuition\*: Resident \$294; Non-resident \$852.60.

Roles that plants play and have played in human biological and cultural development. Lectures and demonstrations. (No prereq)

Fall Qtr, Sec 1, T, 6:30-9:30, FordH 115

Spring Qtr, Sec 2, W, 1-4, MacP. Offered through Continuing Education for Women

## Plant Pathology (PIPa)

(495 Borlaug Hall: 625-8200)

### College of Agriculture

Textbooks for most PIPa courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Agriculture; Plant Biology; Horticulture; and The Compleat and Practical Scholar noncredit courses)

Cynthia L. Ash, Extension Educator and Associate Professor

David H. MacDonald, Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Plant Pathology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**PIPa 1002 PLANT DISEASES AND YOUR GARDEN.** 2 credits, tuition\*: Resident \$147; Non-resident \$426.30.

Characteristics of the various causes of plant diseases that can affect the growth of flowers, small fruits, and vegetables in Upper Midwest gardens. Important diseases that may appear in your garden, why they can occur, and how to avoid them. (No prereq. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, ★●Sec 1, T, 6:20-9:20, BorH 365, 295, StP Campus, MacDonald

**PIPa 1003 DISEASES OF TREES.** 2 credits, tuition\*: Resident \$147; Non-resident \$426.30.

Important diseases of trees in the United States will be studied with emphasis on diseases in the Upper Midwest. Lectures include basic concepts in plant pathology and commercial/homeowner disease management. Labs will emphasize disease diagnosis. (No prereq. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr, ★●Sec 1, M, 6:20-9:20, BorH 365, 291, 295, 296, StP Campus, Ash

**PIPa 1004 DISEASES OF TURFGRASS.** 2 credits. Tentatively scheduled for Winter 1996.

### Polish

See Area Studies Programs; and the Institute of Languages and Literatures)

### Political Science (Pol)

(1414 Social Sciences: 624-4144)

#### College of Liberal Arts

Textbooks for most Pol courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also International Relations; Interdepartmental Study; History; Interdepartmental Study; The Compleat Scholar noncredit courses; and Public Affairs)

Charles Backstrom, Professor  
Terence W. Ball, Professor  
Karen Bird, Graduate Teaching Assistant  
Mary G. Dietz, Associate Professor  
John M. Dolan, Professor of Philosophy  
Raymond Duvall, Professor  
James Farr, Professor  
William Flanigan, Professor

Edwin Fogelman, Professor  
John Freeman, Professor  
August H. Nimtz, Jr., Associate Professor  
Martin Sampson, Associate Professor  
W. Phillips Shively, Professor  
Steven Smith, Professor  
John L. Sullivan, Professor  
Anne Walcott, Instructor

All graduate students can use only 8001 through 8998 level seminars to satisfy major requirements; they should take lower level political science courses only to correct deficiencies in background when directed to do so by advisers.

**A major in Political Science can be completed in the evening.**

Those courses required in the major are offered every 2 years. Interested students should discuss plans with an adviser (625-2500).

#### BA Major Sequence

##### Required Preparatory Courses

1001, 3051

One of the following four courses: 1025, 1026, 1054 and 1061

#### Major Requirements

At least 39 credits in 3000- or 5000-level political science courses (including 3051). Of these 39 credits, at least two courses must come from the Political Theory, Comparative Government and Politics, or International Relations subfields; and at least two courses must come from the Politics and Behavior, American Governmental Systems and Processes, or Public Law subfields. No more than four courses may be taken in one subfield. All course work must be taken on the A/F grading system, with grades of C or better.

**You need not be majoring in Political Science to register for these classes.**

*A minor is also available in Political Science. Interested students should call the Departmental Undergraduate Advising Office, 624-8517 or 624-4144, for information.*

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Political Science. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Continuing Education for Women (CEW) sections available in the following courses: Pol 1001**

**Interdisciplinary Offering:**  
Pol 1001/Econ 1102

The following two courses will be offered concurrently with course material team taught, interwoven, and integrated where appropriate. Students must register for both courses, using separate registration forms for each course. This is a total of 9 credits.

**Pol 1001 AMERICAN GOVERNMENT AND POLITICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Principles, organization, processes, functions of government, and the interplay of political forces in the United States. Attention given throughout to current issues. (Prereq ¶Econ 1102, sec 4. Meets concurrently with Econ 1102, sec 4. Limited to a combined total of 28)

Winter Qtr, ★Sec 2 TTh, 6:20-9:20, HHCtr 60, Freeman, Green

**Econ 1102 PRINCIPLES OF ECONOMICS: MACRO-ECONOMICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Principles underlying economic activity and the way these principles work out through our economic institutions. Macro-economics: national income, money and banking, economic growth. (Prereq 1101 or equivalent, ability to handle simple graphics and elementary algebra at the level of GC 0623 and GC 0631, ¶Pol 1001, sec 2. Meets concurrently with Pol 1001, sec 2. Limited to a combined total of 28)

Winter Qtr, ★Sec 4, TTh, 6:20-9:20, HHCtr 60, Freeman, Green

(*About the instructors:* John R. Freeman is Professor of Political Science, and George D. Green is Associate Professor of History)

**Also see Interdepartmental Study courses, page 249.**

**General Education**

**Pol 1001 AMERICAN GOVERNMENT AND POLITICS.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Principles, organization, processes, functions of government, and the interplay of political forces in the United States. Attention given throughout to current issues. (No prereq)

Fall Qtr, Sec 1, M, 6-9:15 AndH 270, Smith  
Winter Qtr, Sec 3, Th, 6:30-9:45, AndH 270  
Spring Qtr, Sec 4, M, 9:30 a.m.-12, MacP.

*Offered through Continuing Education for Women*

Spring Qtr, Sec 5, M, 6:30-9:45, AndH 330

**Pol 1025 WORLD POLITICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Contemporary international relations; forms of state interaction; problems of conflict and cooperation. (No prereq)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 115, Duvall  
Spring Qtr, Sec 2, T, 6:20-8:50, AndH 210

**Pol 1026 AMERICAN FOREIGN POLICY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Institutions and processes that determine American foreign policy; major developments in U.S. foreign policy since World War II; contemporary issues of U.S. policy. (No prereq)

Winter Qtr, Sec 1, M, 6:20-8:50, AndH 370, Sampson

**Pol 1041 CONTEMPORARY POLITICAL IDEOLOGIES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Major modern ideologies such as liberalism, democracy, conservatism, socialism, communism, fascism, nationalism, imperialism, racism. Adequacy of alternative ideologies for analysis and solution of political and social problems. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, BlegH 120, Ball

**Pol 1054 INTRODUCTION TO COMPARATIVE POLITICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Politics of democratic, communist, and third world nations; examines the causes and consequences of different forms of political life. (No prereq)

Winter Qtr, Sec 1, W, 6:20-8:50, BlegH 235

**Pol 1061 INTRODUCTION TO POLITICAL THOUGHT.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Central issues in politics—justice, freedom, authority, order, conflict, and revolution—are examined through readings of major texts in Western political thought. (No prereq)

Spring Qtr, Sec 1, Th, 6:20-8:50, BlegH 335, Dietz

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Pol 3051 (formerly 1051) INTRODUCTION TO POLITICAL ANALYSIS.** 5 credits, \$1051, tuition\*: Resident \$385; Non-resident \$1116.50.

Formation of political communities, political participation, policy making, compliance, legitimacy, political development, types of political systems. Empirical and normative problems. Comparisons among major countries. (No prereq)

Fall Qtr, Sec 1, T, 6:30-9:45, AndH 230,  
Shively

### Political Theory

**Pol 3659 AMERICAN POLITICAL THOUGHT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

From colonial times to present: Puritanism; Revolution; Constitution; utopianism; sectionalism and pluralism; anarchist, socialist, populist, and syndicalist thought; social Darwinism; conservatism; political thought in law and literature. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, AndH 310,  
Fogelman

**Pol 3661 DEMOCRATIC THEORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Postulates and implications; moral foundations; democratic theory and the economic order; liberty and authority; equality; representation; participation; majority rule; critics of democracy; social science and democratic theory. (Prereq 3051 or 9 cr in social sciences or #)

Winter Qtr, Sec 1, W, 6:20-8:50, BlegH 130,  
Farr

(See also CSch 0219, Democracy in Action—the Legislative Process in Minnesota)

**Pol 5610 SELECTED TOPICS IN POLITICAL THEORY: ENVIRONMENTAL ETHICS, POLITICS, AND PUBLIC POLICY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20;

Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The central focus is duties within and beyond "borders," and the question: who or what belongs to the mortal community of creatures deserving protection and respect? The borders within and beyond which humans act are to be understood both literally (as legal/political boundaries) and metaphorically (as borders between generations of human beings or between human and non-human animal species). Asking who belongs to the community of those deserving protection and respect, class participants pay attention to their roles, relations, and actions as

citizens and as members of the planet's most powerful and potentially dangerous species. To that end, the class will examine moral obligations, ask what "freedom" means, and examine what responsibilities are entailed by that freedom and what legitimate limits might be placed on the freedom to speak and act. Beyond such civic concerns, class members will look closely at unexamined assumptions about nature, the natural environment, other species, and future generations. Course readings include such classic and contemporary sources as John Stuart Mill, Alexis de Tocqueville, Wendell Berry, Aldo Leopold, Ruth Macklin, and Peter Singer. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with LS 5610, sec 1. Limited to a combined total of 30)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160,  
Ball

(See also CSch 0245, A Practical and Legal Guide to Preserving Green Space in Your Community)

### Comparative Government and Politics

**Pol 3477 (formerly 3773) POLITICAL DEVELOPMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Political processes and problems associated with economic development processes; the political economy of underdevelopment and development; problems of state building and the development of political institutions. (Prereq 1054 or 3051 or #. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 6:20-8:50, AndH 330,  
Nimtz

**Pol 5465 CANADIAN GOVERNMENT AND POLITICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Structure and operation of Canadian government institutions; Canadian political parties and electoral behavior; French-Canadian nation; federal-provincial distribution of powers and conflicts; current public policy issues including U.S.-Canadian relations. (Prereq 3051 or non-political science grad or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 6:20-8:50, BlegH 140,  
Bird

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## International Relations

**Pol 3835 THE INTERNATIONAL SYSTEM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Structure of international system; balance of power, bipolar and other international systems; theories of stability, change, conflict, and cooperation. (No prereq)

Winter Qtr, Sec 1, T, 6:20-8:50, AndH 310

**Pol 3836 FOREIGN POLICY DECISION MAKING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theories and examples of foreign policy decision-making processes, including policy formulation and implementation. Examples drawn from various foreign policy issues. (No prereq)

Spring Qtr, Sec 1, M, 6:20-8:50, AndH 350

## Politics and Behavior

**Pol 3739 POLITICS OF ETHNIC COMMUNITIES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Cross-cultural study of politics of ethnic communities; emphasis on politics of black communities in the United States. Internal community politics and their local and national political systems. (Prereq 6 cr in social sciences)

Spring Qtr, Sec 1, W, 6:20-8:50, AndH 230,

NimtZ

## American Governmental Systems and Processes

**Pol 3307 THE AMERICAN BUREAUCRACY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Structure of American bureaucracy; personnel, politics, and policy making; policy implementation; relationships with Congress and presidency; criticisms and proposals for reform. (Prereq 1001 or equivalent or #)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 205,

Walcott

**Pol 3308 THE UNITED STATES CONGRESS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Internal organization, committee system, party leadership, norms, recruitment; legislative policy making; relationship with the president and bureaucracy; interest group, political party, and constituency influences on the congressional process. (Prereq 1001 or equivalent or #)

Spring Qtr, Sec 1, M, 6:20-8:50, BlegH 350,

Smith

**Pol 3310 TOPICS IN AMERICAN POLITICS: MASS MEDIA AND POLITICS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Analysis of role of mass media in politics; emphasis on television and electoral campaigns, news coverage versus newsmaking. Free press in democracy. (Prereq 1001 or #)

Spring Qtr, Sec 1, T, 6:20-8:50, BlegH 155,

Flanigan

**Pol 3323 CIVIL LIBERTIES IN AMERICA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Political importance of civil liberties in American society. Tolerance as a social phenomenon; issues such as free speech, religion, media control, and effects of campaigning. (Prereq 1001 or equivalent or #)

Spring Qtr, Sec 1, W, 6:20-8:50, HHCtr 20,

Sullivan

**Pol 5738 AMERICAN POLITICAL CAMPAIGNS AND ELECTIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

National, state, and local campaigns and elections; research in local political parties and campaigns. (Prereq 1001 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 145,

Backstrom

## Portuguese (Port)

(34 Folwell Hall: 625-5858)

## College of Liberal Arts

Spanish and Portuguese

Textbooks for most Port courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Port. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

Port 1001-1002-1003 not offered 1994-95.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Port 3602 INTRODUCTION TO BRAZIL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Brazilian contemporary culture and society. Topics related to history, to culture (music, art, cinema, literature, architecture, theatre, popular culture, television), and to social problems (ethnicity, rain forest). (No prereq. Limited to 30)

Winter Qtr, ★Sec 1, M, 6:10-8:40, FordH 115

**Port 3603 BRAZILIAN LITERATURE IN TRANSLATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Figures or topics of Brazilian literature, examined as a reflection of Brazilian society. Modern Brazilian fiction. Taught in English. (No prereq. Limited to 30)

Spring Qtr, ★Sec 1, W, 6:10-8:40, FolH 246

### Practical Scholar

(See page 427)

### Professional and Career Development

Business, industry, and management programs offered by the **Management Advancement Program** are designed to provide work-related training for people in corporate business, small business, and nonprofit or government settings. These non-credit programs offer both theory and practice in such areas as leadership, management, organizational change, communication, computers, and finance. Programs are scheduled in daytime seminar and evening class formats and are held at convenient locations both on and off campus. Instructors are primarily University of Minnesota faculty and administrative staff or professionals from prominent local organizations. For further information and complete course listings and descriptions, call (612) 626-8713.

### Psychology (Psy)

(N218 Elliott Hall: 625-4042)

#### College of Liberal Arts

Textbooks for most Psy courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Child Psychology; Educational Psychology; General College; Interdepartmental Study; The

Compleat and Practical Scholar noncredit courses; and Women's Studies)

Thomas F. Brothen, Professor in the General College

William Grove, Associate Professor

William G. Iacono, Professor

Daniel Kersten, Associate Professor

Jerome Kroll, Adjunct Professor

Gail B. Peterson, Associate Professor

Auke Tellegen, Professor

**A major in Psychology can be completed in the evening.**

Those courses required in the major are offered yearly. Interested students should discuss plans with an adviser (625-2500).

If you are contemplating a major in psychology, consult the Undergraduate Advising Office, 105 Elliott Hall (625-8520).

**General Education**—Courses recommended for nonmajors include 1001, 3011, 3031, 3051, 3061, 3101, 3135, 3201, 3604, 3617, and 5141.

#### B.A. Major Sequence

**Required Preparatory Courses**—1001, 1004-1005 (to be taken as soon as possible after 1001)

**Major Requirements**—At least 34 credits chosen as follows: 3801 or Stat 3011 (to be taken as soon as possible after 1001)

Two courses from 3011, 3031, 3051, 3061 or 5061, 5011, 5012-5013, 5014, 5015, 5019, 5031, 5034, 5051, 5054, 5062, 5137, 5609

Two courses from 3014, 3101, 3135 or 5135, 3201, 3604, 3617, 5136, 5138, 5141, 5202, 5205, 5206, 5501, 5701, 5702, 5703, 5704, 5705; CPsy 3303 or 5303, 3309 or 5301

Four elected 3xxx-5xxx-level psychology courses (a total of two from 3960, 3970, 3990 may be used)

Major project: 3902

All major courses must be taken on A-F grading except 3902 which may be taken A-F or S-N. At least four upper division courses in psychology must be taken on the Twin Cities campus.

Psychology majors, especially those considering graduate work, are urged to elect mathematics and natural, social, and physical science courses. Prospective graduate students also should take further work in statistics and computer programming. A limited number of child psychology courses may be completed through the Institute of Child Develop-

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



ment (double psychology-child psychology majors are not permitted).

**Minor Sequence—General Psychology:** two courses from 3011, 3031, 3051, 3061 or 5061, 5011, 5012-5013, 5014, 5015, 5019, 5031, 5034, 5051, 5054, 5062, 5137, 5609; two courses from 3014, 3101, 3135 or 5135, 3201, 3604, 3617, 5136, 5138, 5141, 5202, 5205, 5206, 5501, 5701, 5702, 5703, 5704, 5705

All minor courses must be taken on A-F grading. At least two upper division courses in psychology must be taken on the Twin Cities campus.

The minor program must be approved by a psychology undergraduate adviser.

**Minor Sequence—Natural Science:** two courses from 3011, 5011, 5012-5013, 5014, 5015, 5019; two courses from 3031, 3051, 3061 or 5061, 5031, 5034, 5051, 5054, 5062, 5137, 5609

All minor courses must be taken on A-F grading. At least two upper division courses in psychology must be taken on the Twin Cities campus.

The minor program must be approved by a psychology undergraduate adviser.

**Minor Sequence—Social Science:**

**Required Preparatory Courses—**1001, 3801 or Stat 3011 or equivalent

**Minor Requirements—**two courses from 3014, 3101, 3201, 3604, 3617, 5202, 5205, 5206; one course from 3135 or 5135, 5136, 5138, 5141, 5501, 5701, 5702, 5703, 5704, 5705; one elective 3xxx- or 5xxx-level psychology course from those listed as course options in the Social Science Minor Sequence.

All minor courses must be taken on A-F grading. At least two upper division courses in psychology must be taken on the Twin Cities campus.

The minor program must be approved by a psychology undergraduate adviser.

**You need not be a major or minor in Psychology to register for these classes.**

**Joint Day/Extension Classes—**You may register through Extension for certain day school classes scheduled before 4 p.m. in Psychology. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) sections available in the following courses:** Psy 3011, 3604

**Psy 1001 INTRODUCTION TO PSYCHOLOGY.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Introduction to the study of human behavior. Prerequisite for all advanced courses in psychology. (No prereq. Limited to 80)

Fall Qtr, ★Sec 1, MW, 6:20-8:15, SmithH 231

Fall Qtr, ★Sec 2, MW, 6:20-8:15, Phys 166

Fall Qtr, ★Sec 3, MW, 7-8:55, Richfield HS 244 (Limit 30)

Fall Qtr, ★Sec 4, TTh, 6:20-8:15, Phys 133

Winter Qtr, ★Sec 5, MW, 6:20-8:15, ApH 128 (computer-assisted section), Brothen

Winter Qtr, ★Sec 6, MW, 6:20-8:15, Phys 210

Winter Qtr, ★Sec 7, TTh, 6:20-8:15, Phys 131

Winter Qtr, ★Sec 8, TTh, 7-8:55, Roseville Area HS 145 (Limit 35)

Spring Qtr, ★Sec 9, MW, 6:20-8:15, Phys 210

Spring Qtr, ★Sec 10, MW, 6:20-8:15, Phys 133

Spring Qtr, ★Sec 11, TTh, 6:20-8:15, Phys 210

Spring Qtr, ★Sec 12, TTh, 6:20-8:15, Phys 131

**Psy 1003 APPLICATION OF PSYCHOLOGY TO LIVING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Psychology in personal relationships and in the achievement of mental health, centering, for the most part, around our fundamental needs; and exploration of principles highly applicable in the life of every person. (No prereq. May be taken before or after Psy 1001)

Fall Qtr, Sec 1, T, 6:20-8:50, Arch 30

Winter Qtr, Sec 2, M, 6:20-8:50, EltH N119

Spring Qtr, Sec 3, M, 6:20-8:50, Arch 45

**Psy 1004-1005 INTRODUCTORY LABORATORY PSYCHOLOGY.** 4 credits each quarter, tuition\* each quarter: Resident \$294; Non-resident \$852.60.

Experiments with contemporary subject matter such as human and animal learning, problem solving, visual perception, measurement of general and special abilities and personality traits. (Prereq 1001 or ¶1001 for 1004; 1004 for 1005. Limited to 24)

Fall Qtr, 1004, ★Sec 1, M, 6:20-8:50, EltH 50-60

Fall Qtr, 1004, ★Sec 2, T, 6:20-8:50, EltH 150-160

Winter Qtr, 1004, ★Sec 3, T, 6:20-8:50, EltH 50-60

Winter Qtr, 1005, ★Sec 1, Th, 6:20-8:50, EltH 50-60

Spring Qtr, 1005, ★Sec 2, M, 6:20-8:50, EltH 50-60, Kersten

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Psy 1011 CAREER DECISION MAKING.** 2 credits, tuition\* (includes \$15 special fee): Resident \$162; Non-resident \$441.30.

Helps CLA students identify their interests, values, skills, and personality with regard to career options. Individual and group projects on possible vocations. Meetings with instructor augment class sessions. (Prereq freshman or sophomore or others by #. Limited to 20)

Fall Qtr, ★Sec 1, T, 6:20-7:35, SmithH 231

(See also *Career Development* in The Practical Scholar noncredit section)

**Psy 3011 INTRODUCTION TO THE PSYCHOLOGY OF LEARNING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Basic methods. Fundamental concepts and principles governing the learning process. (Prereq 1005 or #)

Fall Qtr, Sec 1, M, 6:20-8:50, NichH 216, Peterson

Winter Qtr, Sec 2, M, 9:30 a.m.-12, MacP.

*Offered through Continuing Education for Women*

Spring Qtr, Sec 3, M, 6:20-8:50, Arch 25, Peterson

**Psy 3014 INTRODUCTION TO APPLIED PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

History and survey of professional applications of psychology in work, school, and community settings. (Prereq 1001)

Spring Qtr, Sec 1, T, 6:20-8:50, NichH 109

**Psy 3031 SENSATION AND PERCEPTION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Psychological, biological, and physical aspects of sensory experience in humans and animals. Emphasis on vision and hearing. (Prereq 1004)

Winter Qtr, Sec 1, T, 6:20-8:50, Arch 45

Spring Qtr, Sec 2, T, 6:20-8:50, SmithH 331

**Psy 3051 INTRODUCTION TO COGNITIVE PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Research and theoretical concepts in study of cognitive factors in perception, memory, reading, and problem solving. (Prereq 1005 or ¶1005)

Fall Qtr, Sec 1, T, 6:20-8:50, Phys 143

**Psy 3101 INTRODUCTION TO PERSONALITY.** 4 credits, \$5101, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Concepts and issues in personality theory, personality research, and personality assessment. (Prereq 1001. Limited to 60)

Fall Qtr, ★Sec 1, T, 6:20-8:50, NichH 213, Tellegen

Spring Qtr, ★Sec 3, T, 6:20-8:50, SmithH 231

**Psy 3135 INTRODUCTION TO INDIVIDUAL DIFFERENCES.** 4 credits, \$5135, tuition\*: Resident \$308; Non-resident \$893.20.

Differential methods in study of human behavior. Impact and importance of individual differences in modern society; instruments of measurement and behavior prediction in differential psychology; major determinants of individuality. (Prereq 3801 or equivalent)

Winter Qtr, Sec 1, T, 6:20-8:50, EltH N119

**Psy 3201 INTRODUCTION TO SOCIAL PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of theories and research in social psychology. Includes the effects upon the individual's attitudes and behavior of other persons, mass communications, and group membership. (Prereq 1001)

Fall Qtr, Sec 1, M, 6:20-8:50, Phys 236A

Spring Qtr, ★Sec 2, M, 6:20-8:50, Roseville Area HS 244 (Limit 35)

**Psy 3604 INTRODUCTION TO ABNORMAL PSYCHOLOGY.** 4 credits, \$5604, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

The field of abnormal psychology. Etiologies of behavior disorders; discussion of available treatments. (Prereq 1001. Limited to 75)

Fall Qtr, ★Sec 1, M, 9:30 a.m.-12, MacP.

*Offered through Continuing Education for Women*

Fall Qtr, ★Sec 2, T, 6:30-9, Roseville Area HS 146 (Limit 35)

Fall Qtr, ★Sec 3, Th, 6:20-8:50, EltH N119

Winter Qtr, ★Sec 4, M, 6:20-8:50, SmithH 331, Jacono

Winter Qtr, ★Sec 5, Th, 6:20-8:50, NichH 213

Spring Qtr, ★Sec 6, M, 6:20-8:50, EltH N119

Spring Qtr, ★Sec 7, T, 7-9:30, Richfield HS 143 (Limit 35)

Spring Qtr, ★Sec 8, W, 6:20-8:50, SmithH 231

**Psy 3607 SURVEY OF CLINICAL INTERVENTION METHODS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction to a range of therapeutic procedures for dealing with abnormal behavior in children and adults. The focus will be on the theory and philosophy underlying the particular schools of therapy rather than emphasizing specific methods of behavior change. (Prereq 3604 or 5604)

Spring Qtr, Sec 1, Th, 6:20-8:50, NichH 207

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Psy 3617 INTRODUCTION TO CLINICAL PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of historical developments and contemporary issues in clinical psychology. Focuses upon relevant research and clinical trends in psychological assessment methods and various prevention and intervention strategies. (Prereq 3604 or 5604H, 3801 or equivalent)

Fall Qtr, Sec 1, W, 6:20-8:50, EltH N119, Grove

**Psy 3801 INTRODUCTION TO STATISTICAL METHODS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Quantification in research problems in psychology. Descriptive and inferential statistics, hypothesis testing, nonparametric statistics. Examples from various areas of psychology. (Prereq 1001, GC 0625 or equiv. Limited to 50)

Fall Qtr, ★Sec 1, M, 6:20-8:50, Phys 210

Fall Qtr, ★Sec 2, Th, 6:20-8:50, Arch 10

Winter Qtr, ★Sec 3, T, 6:20-8:50, SmithH 331

Winter Qtr, ★Sec 4, W, 6:20-8:50, EltH N119

Winter Qtr, ★Sec 5, Th, 6:20-8:50, Arch 55

Spring Qtr, ★Sec 6, M, 6:20-8:50, NichH 109

Spring Qtr, ★Sec 7, T, 6:20-8:50, Arch 60

Spring Qtr, ★Sec 8, W, 6:20-8:50, NichH 216

**Psy 3902 MAJOR PROJECT IN PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Seminar for completion of the undergraduate major project paper. Psy 3902 is a major requirement for psychology majors; it is offered only occasionally through Extension Classes to meet student needs. (Prereq 1005, 3801, and jr or sr psychology major. Limited to 25)

Winter Qtr, ★Sec 1, T, 7:05-8:50, NichH 209

Spring Qtr, ★Sec 2, T, 7:05-8:50, NichH 209

**Psy 3960 UNDERGRADUATE SEMINAR: PSYCHIATRY AND SOCIAL CONTROL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Topics include definitions of mental illness, social labeling, anti-psychiatry and the writings of Thomas Szasz, deinstitutionalization, involuntary hospitalization, homelessness, civil commitment, right to refuse treatment, cocaine mothers, insanity defense, release from hospital. (Prereq 1001. Limited to 40)

Winter Qtr, ★Sec 1, T, 6-8:30, MoosT 2-520, Kroll

Spring Qtr, ★Sec 2, T, 6-8:30, MoosT 2-580, Kroll

**Psy 3960 UNDERGRADUATE SEMINAR: OVERVIEW OF PSYCHOLOGICAL TESTING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of issues in the development and administration of psychological tests. Purposes and types of tests, test administration and scoring, characteristics of good tests. Examples from the traditional domains of psychological assessment including ability, personality, guidance, and personnel selection. (Prereq 1001, 3801. Limited to 50)

Winter Qtr, ★Sec 3, M, 6:20-8:50, SmithH 231

Spring Qtr, ★Sec 4, M, 6:20-8:50, SmithH 231

**Psy 5105 THE ANALYTICAL PSYCHOLOGY OF C.G. JUNG.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Major Jungian psychological theories: extroversion-introversion, function types, complexes, ego, persona, shadow, animus, anima, self, personal and collective unconscious, symbolism, psychic energy, individuation, dream interpretation, psychotherapy. Relevant empirical research and clinical material. (Prereq 3101 or 5101 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, T, 6:20-8:50, NichH 122

(See also CSch 0253, Fundamentals of Jungian Psychology)

**Psy 5141 PSYCHOLOGY OF WOMEN.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Psychological and physical sex differences; developmental and environmental influences on dependency, aggression, achievement motivation, and achievement. Sex roles and sexuality during various life phases. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 5:30-8, SmithH 331

Spring Qtr, Sec 2, M, 5:30-8, NichH 213

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Psy 5202 ATTITUDES AND SOCIAL BEHAVIOR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Attitude theory, measurement, and attitude change research in social psychology. The structure, function, and formation of attitudes; the relationship between attitudes and various social behaviors; basic principles of attitude change. (Prereq 3201 or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, W, 6:20-8:50, NichH 207

**Psy 5205 (formerly 3206) APPLIED SOCIAL PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Overview of field. Applications of social psychology research and theory to such areas as the criminal justice system, media, behavioral medicine, desegregation, advertising, victimology, juvenile delinquency, institutions, and energy conservation programs. (Prereq 3201 or grad or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, M, 6:20-8:50, EltH N119

**Psy 5701 PERSONNEL AND INDUSTRIAL PSYCHOLOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Application of principles of individual differences and psychological measurement to problems of recruiting, selecting, evaluating, and training members of ongoing organizations. Topics include job analysis, job behavior description, performance measurement, selection and placement strategies, minority group employment, and utility of organizational strategies in the selection and occupational placement of persons. (Prereq 3801 or equivalent, 8 cr in psychology, or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, Th, 6:20-8:50, EltH N119

(See also Industrial Relations)

**Psy 5703 PSYCHOLOGY OF ORGANIZATIONAL TRAINING AND DEVELOPMENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theories, methods, and research pertaining to improving performance of individuals at work through learning and instruction; training-needs analysis, models of instructional design, aptitude-treatment interactions, training evaluation, knowledge structures, specific training programs. (Prereq 3801 or equivalent, 8 cr psychology or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, W, 6:20-8:50, EltH N119

For information on noncredit workshops or conferences in psychology, please contact the Department of Professional Development and Conference Services, Registrar, Nolte Center for Continuing Education; telephone 625-6616.

## Public Affairs (PA)

(235 Humphrey Center: 625-3497)

### Humphrey Institute of Public Affairs

Textbooks for most PA courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also Economics; Interdepartmental Study; Political Science; International Relations; Sociology; and General College)

Zbigniew Bochniarz, Senior Fellow  
John Brandl, Professor  
Richard S. Bolan, Professor  
John Bryson, Professor  
Candace Campbell, Research Fellow  
Bill Diaz, Senior Fellow  
Barbara Lukermann, Senior Fellow  
Lee Munnich, Senior Fellow  
Joe Nathan, Senior Fellow  
Robert Raftar, LTS  
David Sellergren, Senior Fellow

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**PA 5191 POLICIES AND PRACTICES OF PHILANTHROPY.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

An opportunity for those with relationships to philanthropic foundations, and those seeking a better understanding of philanthropy as a professional career, to examine assumptions about philanthropy, explore a sampling of philanthropic policies and practices, and consider some of the public policy implications of a powerful philanthropic sector in a democratic society. (Prereq grad student or adult special or Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Th, 6:-8:30, HHCtr 25, Diaz

**PA 5200 INTRODUCTION TO PLANNING.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Concepts and issues in planning as a profession. Historical development of planning as a public activity. The organization and role of planning in public agencies and private organizations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, W, 6:15-8:45, HHCtr 25, Lukermann

**PA 5211 GROUP TECHNIQUES IN PUBLIC AFFAIRS AND PLANNING.** 4 credits, tuition\*: Resident \$806; Non-resident \$1531.40; Resident Graduate credit \$806; Non-resident Graduate credit \$1531.40; Resident Graduate School credit \$806; Non-resident Graduate School credit \$1531.40.

By the end of this survey course participants should have a good grasp of group techniques as they are commonly used in public affairs and planning, will be able to use several of them, and will know where and how to find out more about them. Participants should also know how to assemble and manage a group decision support system. This course is a complement to courses that teach more analytic, technical, or quantitative skills. Both sets of skills are important and public endeavors rarely are successful if capable work isn't done using both sets.

(Prereq grad or adult special or Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, T, 6-9:30, HHCtr 25, Bryson

**PA 5221 LAW AND URBAN AFFAIRS.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Designed primarily for the nonlawyer who is interested in understanding how the law affects the operation of major functions of urban governments, particularly those functions having to do with planning, land use, and housing. The objective of the course is to acquaint nonlawyers with the major legal concepts and issues affecting urban planning and development; to provide an understanding of how to make creative use of law, legal ideas and methods in the resolution of urban policy problems, and to develop an appreciation of the importance of the fundamental legal powers on urban governments and the constitutional, statutory, and judicial limitations on exercise of those powers by governments, agencies, and officials. (Prereq grad or adult special or Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, Th, 6:15-8:45, HHCtr 25, Sellergren

**PA 5230 STRATEGIC PLANNING AND MANAGEMENT.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Strategy formulation, adoption, and implementation in government and nonprofit agencies. Dealing with agency strengths and weaknesses and external opportunities and threats. Stakeholder management. Case examples. (Prereq upper division status or written #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, T, 7-9:30, HHCtr 25, Bryson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**PA 5231 STRATEGY AND TACTICS IN PROJECT PLANNING.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

How goals and contextual factors affect planning. Appropriate strategic and tactical choices to make during the planning process; case examples of planning for public programs, projects, products, or services. (Prereq grad student, adult special or Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, M, 6:15-8:45, HHHctr 25, Bolan

**PA 5291 TOPICS IN PLANNING: TRANSPORTATION POLICY AND PLANNING.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Irving Hand has written that transportation should be "a catalyst for elevating the quality of the urban environment," yet in so many areas, transportation is degrading the quality of urban life. Traffic congestion, air pollution, noise, blight, death, and destruction are just some of the adverse effects of our current transportation system. This course will examine the causes of these problems and some of the policy solutions that planners and others are attempting to implement. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, Th, 7-9:30, HHHctr 30, Rafter

**PA 5491 TOPICS IN SOCIAL POLICY: EDUCATION POLICY.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Minnesota has become a national leader in attempts to improve public education. This course is a topics course in the Humphrey Institute's Social Policy Concentration and will give students a broad introduction to the issues involved and strategies employed by those trying to have an impact at the state legislature on education policy. The course will include various viewpoints on Minnesota's public school choice legislation and proposals for greater parent input into the educational system. Students will talk with education reform activists and help produce a document discussing tactics employed by

those trying to influence the Legislature. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 4:40-6:25, BlegH 260, Nathan

**PA 5591 TOPICS IN ECONOMIC AND COMMUNITY DEVELOPMENT: QUALITY STRATEGIES IN GOVERNMENT.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Familiarizes students with quality strategies, the history of the quality movement, quality principles and tools, and applications of total quality management (TQM) in business, education, and government. To examine the applicability of quality strategies in government; to meet and discuss government quality strategies with experts and practitioners; and to conduct a quality assessment of a government organization using Malcolm Baldrige National Quality Award criteria. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Winter Qtr, ★●Sec 1, Th, 6:15-8:45, HHHctr 30, Munnich

**PA 5594 TOOLS AND TECHNIQUES OF COMMUNITY AND ECONOMIC DEVELOPMENT.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Examines the contexts and motivations behind economic development activities, alternative strategies available to communities to organize and initiate successful economic development projects, the range of tools and techniques to conduct economic development analysis and planning (including market analysis, feasibility studies, and investment analysis), and the different means available to implement economic development strategic plans. Integrates a review of the theories underlying economic development practice, the methods used to analyze and organize economic development, and case studies in practice. Introduces students to local practitioners and experts in the field and provides an opportunity for students to develop skills used in today's economic development practice. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension Students)

Spring Qtr, ★●Sec 1, Th, 6:15-8:45, HHHctr 30, Campbell

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**PA 5791 TOPICS IN TECHNOLOGY, ENERGY, AND ENVIRONMENTAL POLICY: SCIENCE, TECHNOLOGY, AND INTERNATIONAL AFFAIRS.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

Examines the ways in which science and technology in the closing decade of the 20th century are directly affecting the global economic, political, and social environment; and the consequent alterations in both the agenda for international negotiation and the practical approaches available to nations in pursuing their interests. Within this larger context, the specific choices for American foreign policy will be stressed. The subject will be approached on three levels: it will examine at the conceptual level how the dynamics of technological development and specific advances in science and technology affect relations among nations in such matters as autonomy, national security, distribution of power, cultural identity, and international cooperation; it will illustrate the conceptual issues with examples from the current international science; and it will consider the feasibility of various approaches to determining national policy and negotiating international agreements in areas affected by these S&T considerations. (Prereq grad or adult spec or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr, ★●Sec 1, M, 6:15-8:45, HHCtr 25, Keller

**PA 5892 TOPICS IN FOREIGN POLICY: STRATEGIES FOR SUSTAINABLE DEVELOPMENT.** 3 credits, tuition\*: Resident \$604.50; Non-resident \$1148.55; Resident Graduate credit \$604.50; Non-resident Graduate credit \$1148.55; Resident Graduate School credit \$604.50; Non-resident Graduate School credit \$1148.55.

How to sustain development of the global economy? How to make it environmentally sound and socially acceptable? What are strategies for developed and developing countries? Is global strategy possible? Is there any change in policy making processes and in the real world after Earth Summit '92? This course is designed to answer these questions by examining theoretical and practical aspects of economic development of the global economy. It focuses on economic, environmental, and institutional aspects of sustainable development. The main concern is to give the student knowledge of the concept of sustainable development, its strategies, methods of implementation, and the most valuable

applications in different economic systems of industrialized and developing countries. Course requirements include thoughtful class participation and a term paper. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr, ★●Sec 1, M, 6:15-8:45, HHCtr 25, Bochniarz

## Public Health (PubH)

(A302 Mayo: 624-6669)

### School of Public Health

Textbooks for most PubH courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Mila Aroskar, Associate Professor, Health Management and Policy

Linda H. Bearinger, Assistant Professor, School of Nursing

Lester E. Block, Associate Professor, Public Health Administration

Edward Ehlinger, Adjunct Assistant Professor, Community Health Education

Maymie Eschwey, Lecturer, Maternal and Child Health

David Feinwachs, Adjunct Assistant Professor, Public Health Administration

David Garloff, Director, Health Sciences Learning Resources Center

Judith Garrard, Professor, Health Services Research

Robert L. Kane, Professor, Health Services Research

Rosalie A. Kane, Professor, Health Services Research

Ruth Ellen Luehr, Instructor, Maternal and Child Health

Nicole Lurie, Associate Professor, Health Services Research; Medical School

Michael Matthews, Assistant Professor, Cell Biology and Neuroanatomy

Elizabeth McIntosh, Lecturer, Maternal and Child Health

Gary W. Olmstead, Adjunct Assistant Professor, Environmental Health

Sharon Ostwald, Associate Professor, School of Nursing

Michael D. Resnick, Associate Professor, Healthcare Administration

Frank S. Rhame, Associate Professor

R. A. Robinson, Lecturer, College of Veterinary Medicine

James Rothenberger, Instructor, Community Health Education

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Stanton Shanedling, Adjunct Assistant Professor, Maternal and Child Health  
John M. Shutske, Adjunct Assistant Professor, Agricultural Engineering  
Rexford D. Singer, Associate Professor, Environmental Health  
Barbara A. Spradley, Associate Professor, Public Health Administration  
Mary Story, Associate Professor, Public Health Nutrition  
Robert ten Bensel, Professor, Maternal and Child Health  
Fay Thompson, Director, Environmental Health and Safety  
Elizabeth Wattenberg, Assistant Professor, Environmental Health  
J. Pamela Weiner, Instructor, Maternal and Child Health  
John T. Wendt, Adjunct Assistant Professor, Environmental Health  
Paul Willard, Assistant Adjunct Professor, Environmental Health  
John Yoakum, Lecturer, Maternal and Child Health

(See also Alcohol and Drug Counseling listing with Family Social Science; Health Science Units; General College; and Research Explorations)

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in several Public Health categories. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

### Public Health Categories

#### **Community Health Education (begins page 315)**

3001 Personal and Community Health  
3003 Fundamentals of Alcohol and Drug Abuse  
5003 Fundamentals of Alcohol and Drug Abuse  
5010 Public Health Approaches to AIDS  
5040 Dying and Death in Contemporary Society  
5064 The Teaching-Learning Process in the Health Care Setting

#### **Environmental Health (begins page 316)**

5150 Principles of Environmental Health Law  
5150 Occupational Health Law  
5150 Pollution Control Law  
5150 Consumer Products Law

5151 Environmental Health  
5192 Occupational Safety  
5198 Safety Engineering Fundamentals  
5215 Applied Occupational Toxicology  
5253 Introduction: Hazardous Waste Management  
5261 General Environmental Toxicology

#### **Epidemiology (begins page 317)**

3301/5301 Perspectives: Interrelationships of People and Animals in Society Today

#### **Health Services Research and Policy (begins page 318)**

5806 Principles of Public Health Research  
5863 Quality Assurance  
5868 Principles of Health Services Research  
8803 Long-Term Care: Principles and Policies

#### **Maternal and Child Health (begins page 319)**

5610 Principles of Maternal and Child Health  
5616 Rights of Children and Youth: Abuse and Neglect  
5622 Women's Health: Issues and Controversies  
5637 Seminar: Cross-Cultural Health Issues in Minnesota  
5639 Prevention: Theory, Practice, and Application in Public Health Services  
5655 Sexual Orientation Issues for Adolescents

#### **Public Health Administration (begins page 320)**

5711 Public Health Law  
5727 Health Leadership and Effecting Change  
5731 Public Health Program Planning and Grant Writing  
5732 Competition, Regulation, Rationing, and the Delivery of Health Services  
5734 Ethical Dimensions of Public Health  
5737 Multidisciplinary Perspectives on Aging

#### **Public Health Nutrition (begins page 321)**

5935 Adolescent and Child Nutrition

#### **Public Health Workshops (begins page 317)**

5634 Licit and Illicit Drugs and Pregnancy  
5641 Violence Across the Life Cycle  
5650 Teenage Pregnancy and Parenting: Models for Intervention  
5654 Adolescent Sexual Identity: Teen Risk and Professional Responsibility

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



*Community health education*

**PubH 3001 PERSONAL AND COMMUNITY HEALTH.** 3 credits, §3004, tuition\*: Resident \$321; Non-resident \$642.

Fundamental principles of health conservation and disease prevention. (No prereq.)

Winter Qtr, Sec 1, M, 7-9:30, MoosT 2-530, Ehlinger

**PubH 3003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE.** 2 credits, §3004, HSU 3003, 5032, tuition\*: Resident \$214; Non-resident \$428.

Lecture, discussion, and special readings on the scientific, socio-cultural, and attitudinal aspects of alcohol and other drug abuse problems, with special emphasis on incidence, prevalence, high risk populations, prevention and intervention. (No prereq. Meets concurrently with PubH 5003, HSU 3003, HSU 5032)

Spring Qtr, Sec 1, Th, 6:35-8:35, MoosT 2-530, Rothenberger

**PubH 5003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE.** 2 credits, §PubH 3003, HSU 3003, 5032, tuition\*: Resident \$214; Non-resident \$428; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

See description for PubH 3003. (Prereq sr, post baccalaureate adult special or graduate student. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3003, HSU 3003, 5032; different exam requirements)

Spring Qtr, Sec 1, Th, 6:35-8:35, MoosT 2-530, Rothenberger

**PubH 5010 PUBLIC HEALTH APPROACHES TO AIDS.** 3 credits, §HSU 5010, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A survey of HIV infection from a public health perspective with emphasis on intervention. Topics include epidemiological and clinical features of HIV infection, the impact and response of affected communities and populations, and behavior change principles as they apply to communities, schools, and social policy. Community resources supplement lectures with case presentations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5010. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 4:40-7:20, MoosT 2-530, Rothenberger, Rhame

Spring Qtr, ●Sec 2, W, 4:40-7:20, MoosT 2-620, Rothenberger, Rhame

(See also Anth 5920, Anthropology of AIDS)

**PubH 5012 FUNDAMENTALS OF HEALTH BEHAVIOR CHANGE.** 3 credits, §5804. Tentatively scheduled for 1995-96.

**PubH 5014 BEHAVIOR MEDICINE I: THEORY, RESEARCH, AND PRACTICE.** 3 credits, §5853. Tentatively scheduled for 1995-96.

**PubH 5040 DYING AND DEATH IN CONTEMPORARY SOCIETY.** 3 credits, §HSU 5040, Mort 5040, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. (IS)

Background information on concepts, attitudes, ethics, and lifestyle management related to dying, death, grief, and bereavement. Emphasis on preparing community health and helping professionals and educators for educational activities in this area.

**Must be taken A-F.** (Prereq health science major, public health grad, education sr, mortuary science major or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5040 and MortS 5040. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 4:40-7:20, MoosT 2-690, Rothenberger, Matthews

(See also CSch 0305, Writing Through Grief and Loss: Walk the Circle of the Mountain)

**PubH 5064 THE TEACHING-LEARNING PROCESS IN THE HEALTH CARE SETTING.** 3 credits, §HSU 5011, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Learning activities include lectures, discussions, written assignments, and projects. Activities designed to meet the professional needs of the student. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, M, 3:35-6:20, MoosT 2-571, 2-585, Garloff

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

### *Environmental health*

**PubH 5150 TOPICS IN ENVIRONMENTAL HEALTH: PRINCIPLES OF ENVIRONMENTAL HEALTH LAW.** 1 credit, tuition\*: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Among topics included are legal aspects of environmental decision making, legal processes, jurisdiction, and tort law. (No prereq. Students interested in graduate credit should inquire at the time of registration. Limited to 30)

Winter Spec Term, ★Sec 1, T, 6-8, Jan. 3-31,  
MoosT 2-690, Wendt

**PubH 5150 TOPICS IN ENVIRONMENTAL HEALTH: OCCUPATIONAL HEALTH LAW.** 1 credit, tuition\*: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Among topics included are OSHA, Right-to-Know, Workers Compensation, and discrimination. (Prereq PubH 5150 sec 1. Students interested in graduate credit should inquire at the time of registration. Limited to 30)

Winter Spec Term, ★Sec 2, T, 6-8, Feb. 7-Mar.  
7, MoosT 2-690, Wendt. *No late fee through Jan. 31*

**PubH 5150 TOPICS IN ENVIRONMENTAL HEALTH: POLLUTION CONTROL LAW.** 1 credit, tuition\*: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Among topics included are Federal Clean Air Act, Clean Water Act, RCRA, TOSCA, and FIFRA. (Prereq PubH 5150 sec 1. Students interested in graduate credit should inquire at the time of registration. Limited to 30)

Spring Spec Term, ★Sec 3, T, 6-8, Mar.  
28-Apr. 25, MoosT 2-690, Wendt

**PubH 5150 TOPICS IN ENVIRONMENTAL HEALTH: CONSUMER PRODUCTS LAW.** 1 credit, tuition\*: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit

\$183.75; Non-resident Graduate School credit \$404.25.

Among topics included are Food and Drug laws, Consumer Products Safety Commission, and housing legislation. (Prereq PubH 5150 sec 1. Students interested in graduate credit should inquire at the time of registration. Limited to 30)

Spring Spec Term, ★Sec 4, T, 6-8, May 2-30,  
MoosT 2-690, Wendt. *No late fee through Apr. 25*

**PubH 5151 ENVIRONMENTAL HEALTH.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Methods for promoting human health and comfort by controlling the environment. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 7-9:30, MoosT 2-520, Singer

**PubH 5192 OCCUPATIONAL SAFETY.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Provides information on the development of occupational safety programs essential to the health and safety of the worker and integral to public health in general. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 5:30-8:30, MoosT 2-520,  
Olmstead

**PubH 5198 SAFETY ENGINEERING FUNDAMENTALS.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Provides information on the development of occupational safety programs essential to the health and safety of the worker and integral to public health in general. *Course will be offered only if there is an enrollment of 25 or more.* (Prereq grad student in public health or engineering and #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Th, 4-6:30, MoosT 2-520,  
Shutske

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**PubH 5215 APPLIED OCCUPATIONAL TOXICOLOGY.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Understanding and mitigating the toxic or harmful effects of chemicals on humans in the work place. Provides insight into the mechanisms for determining chemical toxicity and communication of this information so others become aware of the hazards involved. Emphasizes the ethical, legal, and regulatory responsibilities involved in manufacture and distribution of chemicals and products. (Prereq 5261 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 1, M, 6-9, MoosT 2-530

**PubH 5253 INTRODUCTION: HAZARDOUS WASTE MANAGEMENT.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Review of roles of public and private sectors as generators, disposers, and regulators of hazardous wastes; includes definitions, sources, transportation, handling, treatment, recovery, disposal, and public health implications. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, Sec 1, MW, 4-5:15, MoosT 2-520, Thompson

**PubH 5261 GENERAL ENVIRONMENTAL TOXICOLOGY.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of basic biochemical, and physiological principles; assessment of potential health hazards; approaches to solution of toxicological problems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, Sec 1, TTh, 5:30-7, MoosT 2-530, Wattenberg

### *Epidemiology*

**PubH 3301 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY.** 2 or 3 credits, §3301, 5303, 5304, §CVM 3100, tuition\* each credit: Resident \$107; Non-resident \$214.

Interrelationships of people and animals from several viewpoints. The social, economic, and health consequences of these relationships including issues such as pets and people sharing an urban environment, animal rights, and the influence of differences in cultures on animal-human relationships. (No prereq. Meets concurrently with 5301 and CVM 3100. A joint Day/Extension class)

Spring Qtr, Sec 1, T, 4-5:40, AnScVM 125, StP Campus, Robinson

**PubH 5301 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY.** 2 or 3 credits, §3301, 5303, 5304, §CVM 3100, tuition\* each credit: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

See description for PubH 3301. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3301 and CVM 3100. A joint Day/Extension class)

Spring Qtr, Sec 1, T, 4-5:40, AnScVM 125, StP Campus, Robinson

### *Public Health One-Day, One-Credit Workshops*

Registrations must be received by the University at least 10 days prior to the date of the workshop. Continuing Education Units (CEUs) are not available.

**PubH 5634 LICIT AND ILLICIT DRUGS AND PREGNANCY.** 1 credit, tuition\* (includes \$15 special fee): Resident \$122; Non-resident \$229; Resident Graduate credit \$122; Non-resident Graduate credit \$229; Resident Graduate School credit \$198.75; Non-resident Graduate School credit \$419.25.

Current understandings of licit and illicit drugs and public health interventions. Drug screening during pregnancy and various views of the legal system toward intervention. Alcohol, cocaine, amphetamines, marijuana, nicotine, and caffeine will be discussed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Fall Spec Term, ★Sec 1, Sa, 8 a.m.-4:30, Nov. 5, MoosT 2-520, ten Bensel. Late registrations accepted with \$5 late fee from 7:30 to 8 a.m. *No late fee through Oct. 28*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**PubH 5641 VIOLENCE ACROSS THE LIFE CYCLE.** 1 credit, tuition\* (includes \$15 special fee); Resident \$122; Non-resident \$229; Resident Graduate credit \$122; Non-resident Graduate credit \$229; Resident Graduate School credit \$198.75; Non-resident Graduate School credit \$419.25.

Presentation of the latest theories and practice relative to intra-family violence across the life span. Following the ecological model, the course will cover fetal, child, adolescent, spouse, and elder abuse. Emphasis placed on prevention programs. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Spring Spec Term, ★Sec 2, Sa, 8 a.m.-4:30, Apr. 8, 1995, MoosT 2-520, ten Bensel. Late registrations accepted with \$5 late fee from 7:30 to 8 a.m. *No late fee through Mar. 31*

**PubH 5650 TEENAGE PREGNANCY AND PARENTING: MODELS FOR INTERVENTION.** 1 credit, tuition\* (includes \$15 special fee); Resident \$122; Non-resident \$229; Resident Graduate credit \$122; Non-resident Graduate credit \$229; Resident Graduate School credit \$198.75; Non-resident Graduate School credit \$419.25.

A course developed for health/social service providers and educators working with youth around issues of pregnancy, abortion, parenting, and adoption. It is a blend of theory and application, grounded in a model of adolescent development. It is designed to enhance understanding and skills for effectively addressing issues, counseling adolescents, and developing community-based programs for teenage pregnancy and parenting. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Fall Spec Term, ★Sec 1, Sa, 8 a.m.-4:30, Oct. 29, MoosT 5-125 Resnick, Bearinger. Late registrations accepted with \$5 late fee from 7:30 to 8 a.m. *No late fee through Oct. 21*

**PubH5654 ADOLESCENT SEXUAL IDENTITY: TEEN RISK AND PROFESSIONAL RESPONSIBILITY.** 1 credit, tuition\* (includes \$15 special fee); Resident \$122; Non-resident \$229; Resident Graduate credit \$122; Non-resident Graduate credit \$229; Resident Graduate School credit \$198.75; Non-resident Graduate School credit \$419.25.

Focuses on the issues gay, lesbian, and bisexual adolescents and their families face in coming to terms with sexual orientation. Includes helpful ways to work with this hidden population and their families. **Must be taken A-F.** (Prereq B.A. or employment in education, health, or social service. Qualified students may register for graduate credit at the University of Minnesota. Limited to 90)

Fall Spec Term, ★Sec 1, Sa, 8 a.m.-4:30, Nov. 12, EBCEC 42, StP Campus, Yoakum. Late registrations accepted with \$5 late fee from 7:30 to 8 a.m. *No late fee through Nov. 4*

### *Health services research and policy*

**PubH 5806 PRINCIPLES OF PUBLIC HEALTH RESEARCH.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Critical evaluation of public health research literature, planning of independent research projects, formulation of the research question, research design, sampling techniques, use of research concepts, and data analysis. Questionnaires, interviews and data analysis techniques. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, MW, 3:35-5:30, MoosT 2-650, Garrard

**PubH 5863 QUALITY ASSURANCE.** 2 credits, tuition\*: Resident \$214; Non-resident \$428; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Examines the history of approaches to assessing and assuring quality of care. Special attention is devoted to recent activities around small area variation: outcomes, appropriateness, and effectiveness. Both the theory and specifics of alternative approaches and their interpretations are addressed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, W, 3:35-5:30, Mayo D-330, Kane, Lurie

**PubH 5868 PRINCIPLES OF HEALTH SERVICES RESEARCH.** 2 credits, tuition\*: Resident \$214; Non-resident \$428; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Examines the disciplinary contributions to health services and traces how health services research can influence policy using a variety of best case examples to examine the breadth of health services research. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, W, 3:35-5:30, Mayo D326, Kane

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**PubH 8803 LONG-TERM CARE: PRINCIPLES AND POLICIES.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Long-term care policy for functionally impaired persons, particularly the elderly. Team-taught from health care and social services perspective; grounded in research literature on evidence of program effects. Innovative programs addressing current disconnections. (Prereq grad-level course in health care policy or #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Winter Qtr, ★Sec 1, M, 3:35-6, Mayo D330, R A Kane

### *Maternal and child health*

(See also Child Psychology; Child and Adolescent Psychiatry; and Youth Studies)

**PubH 5610 PRINCIPLES OF MATERNAL AND CHILD HEALTH.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For those who work or plan to work in programs which deliver services to families. Introduction to maternal and child health with emphasis on terminology, principles, and concepts of primary care, health maintenance, preventive care, organization, and evaluation. (Prereq public health or grad student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 100 Extension students)

Fall Qtr, ★Sec 1, Th, 4:40-7:10, MoosT 2-620, ten Bensel

**PubH 5616 RIGHTS OF CHILDREN AND YOUTH: ABUSE AND NEGLECT.** 4 credits. \$HSU 5019, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS 5642)

A learning experience on needs and rights of children and parents and with the neglect and abuse of children. Historical and legal aspects, identification and reporting procedures, family assessment and treatment modalities, follow-up processes, research, prevention and the implications for societal action. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 100 Extension students)

Winter Qtr, ★Sec 1, MW, 4-5:45, MoosT 2-620, ten Bensel

**PubH 5622 WOMEN'S HEALTH: ISSUES AND CONTROVERSIES.** 4 credits, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Issues and controversies affecting women's health care from a historical perspective and public health vantage point. Contrasts methods of health care delivery, professional and consumer education, and addresses current literature. Includes specific health needs of underserved women in the population. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, Th, 5:45-9:05, Mayo A367, Weiner

(See also Women's Studies)

**PubH 5637 SEMINAR: CROSS-CULTURAL HEALTH ISSUES IN MINNESOTA.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

For those who wish to explore health issues and "health culture" of four ethnic communities in Minnesota: Hmong, Hispanic, black, and American Indian. Seminar format focuses on cultural factors that influence health and health services. (Prereq Health or Community Professional. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr, ★Sec 1, T, 4:45-7:30, Mayo A270, Eschwey, McIntosh

**PubH 5639 PREVENTION: THEORY, PRACTICE AND APPLICATION IN PUBLIC HEALTH SERVICES.** 4 credits, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Designed for students (undergraduate, graduate, or continuing education) and professionals in health and related disciplines who wish to explore the current issues and controversies centered around the idea of prevention and how it relates to the health services. Emphasis will be on history, prevention as an idea, terminology, lifestyle intervention, programs and legislative issues, education, roles and the implications for societal action. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr, ★Sec 1, T, 4:15-7, Mayo A367, Shanedling

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**PubH 5655 SEXUAL ORIENTATION ISSUES FOR ADOLESCENTS.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An intensive course exploring adolescent sexuality and sexual orientation from the perspective of individual identity, impact of the community, and response of youth-serving professionals toward gay/lesbian/bisexual youth and their families. (Prereq B.A. or employment in education, health, or social service. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, Th, 4-7, Mayo A-270,  
Luehr, Yoakum

### *Public health administration*

**PubH 5711 PUBLIC HEALTH LAW.** 4 credits, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Introductory course. Basic concepts of the law, legislative process, legal cases for the existence and administration of public health programs. Legal aspects of current public health issues and controversies and the regulatory role of the government in the health services system. (Prereq Public Health student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5)

Spring Qtr, ★○Sec 1, M, 4:40-7:25, Mayo  
D326, Feinwachs

**PubH 5727 HEALTH LEADERSHIP AND EFFECTING CHANGE.** 3 credits, §HSU 5007, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of a broad theoretical base in planned change to solve managerial and organizational problems in students' roles as leaders in the health professions. (Prereq PubH grad or written #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5007. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, W, 4:40-7:25, Mayo  
D326, Spradley

**PubH 5731 PUBLIC HEALTH PROGRAM PLANNING AND GRANT WRITING.** 4 credits, §Nurs 5966, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident

Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Provides knowledge and skills necessary for planning health promotion and disease prevention programs and writing grants to fund these programs. Uses the PRECEDE-PROCEED model as a framework for program planning. **May be taken S-N.** (Prereq grad student in PHA, nursing or #; grad course in epidemiology recommended. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Nurs 5966. A joint Day/Extension class limited to a combined total of 20 Extension students)

Spring Spec Term, ★○Sec 1, Sa, 8 a.m.-4:30  
(plus 2 hr arr), Apr. 8, 15, 29, May 6,  
HSUnitF 4-150, Ostwald

**PubH 5732 COMPETITION, REGULATION, RATIONING, AND THE DELIVERY OF HEALTH SERVICES.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Emergence of competition as a major factor in the delivery of health services and examination of current trends, proposals, regulatory alternatives, alternative delivery system, reactions and behavior of providers, advertising and marketing, role of antitrust agencies and the courts related to competition with a focus on public health implications. (Prereq public health student, grad student, health-related professional, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 25 Extension students)

Spring Qtr, ★○Sec 1, W, 3:35-6:35, MoosT  
2-530, Block

**PubH 5734 (formerly 5516) ETHICAL DIMENSIONS OF PUBLIC HEALTH.** 1 credit, §5516, tuition\*: Resident \$107; Non-resident \$214; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Examination of ethical issues and dilemmas that confront public health professionals and agencies with discussion of how ethical/value aspects interface with political, legal, economic, and cultural considerations. **Must be taken S-N.** (Prereq grad student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Spec Term, ★○Sec 1, T, 4:40-6:35,  
Mar. 28, Apr. 4, 18, 25, May 1, Mayo D326,  
Aroskar

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**PubH 5737 (formerly 5520) MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §CPsy 5385, §HSU 5009, §Phar 5009, §PubH 5520, §PA 5414, §SW 5024, §Soc 5960, tuition\*: Resident \$428; Non-resident \$856; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Sociological, biological, psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems (health, nutrition, long-term care, education; public policy and legislation; environment and housing; retirement). (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AdEd 5440, CPsy 5305, SW 5024, HSU 5009, PA 5414, Soc 5960, Phar 5009, Nurs 5780)

Fall Qtr, ●Sec 1, MW, 4:40-6:25, Moost  
2-690, R A Kane, AUCA Faculty (A joint Day/Extension class)

Spring Qtr, Sec 2, MW, 4:40-6:25, Moost  
2-690, Ostwald, AUCA Faculty

(See also GC 1136, Biological Aspects of Aging)

### *Public health nutrition*

**PubH 5935 CHILD AND ADOLESCENT NUTRITION.** 3 credits, tuition\*: Resident \$321; Non-resident \$642; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Explores current nutrition issues and research in the school-age child and adolescent. Emphasis on psychological, social, and cultural factors which influence food behavior, nutrient intake, and nutritional needs of school-age youth. Includes eating disorders and nutrition for athletes. (Prereq 3000-level nutrition course or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, T, 3:35-6:35, Mayo A367,  
Story

### **Public Policy**

(See courses in Public Affairs, History, The Compleat Scholar noncredit courses, and Political Science)

### **Real Estate**

Real Estate courses, formerly offered by the University, were transferred to the Minnesota Center for Real Estate and Housing Education, College of Business, St. Cloud State University, and courses held in the University Technology Center, 1313 Fifth Street S.E., Minneapolis, MN 55414.

For current information, call (612) 379-3891.

(See related courses in Architecture; Business Law; Finance; Geography; Housing; Public Affairs)

### **Recreation, Park, and Leisure Studies (Rec)**

(203 Cooke Hall: 625-5300)

#### **College of Education**

(School of Kinesiology and Leisure Studies)

Textbooks for most Rec courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

Bruce D. Anderson, Associate Professor  
Mary Jo Kane, Associate Professor  
Leo McAvoy, Jr., Professor  
Stuart Schleien, Associate Professor  
John Schultz, Associate Professor  
Carla Tabourne, Assistant Professor

**Sports Management**—The School of Kinesiology and Leisure Studies offers a certificate in Sports Management through Continuing Education and Extension. For information, call (612) 625-1007.

**Rec 5100 FOUNDATIONS OF RECREATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Investigation of the historical, sociological, and educational bases of the recreative use of leisure time in contemporary society. **Must be taken A-F.** (Prereq MEd, adult special, or grad student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, M, 6:40-8:40, CookeH 206,  
Schultz

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Rec 5111 SPORT FACILITIES.** 3 credits, §Kin 5111, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning of areas and facilities for athletics, physical education, and sport with special emphasis on current trends and problems in the field. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Kin 5111. A joint Day/Extension class limited to a combined total of 5 Extension students)

Winter Qtr, ★●Sec 1, T, 4:15-6:30, CookeH 206, Anderson

**Rec 5210 INTRODUCTION TO THERAPEUTIC RECREATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Relationship of recreation to special populations, milieu and interdisciplinary approaches in the delivery of services. **Must be taken A-F.** (Prereq 1520 or ¶5100, recreation major or Δ. Grad and MEd students only. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, M, 4:15-6:30, CookeH 206, Tabourne

**Rec 5220 THERAPEUTIC RECREATION SERVICES.** 5 credits, tuition\*: Resident \$432.50; Non-resident \$1254.25; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Recreation services for the ill, disabled, and other special populations. **Must be taken A-F.** (Prereq 5210 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, TTh, 4:15-6:30, CookeH 206, Tabourne

**Rec 5270 COMMUNITY LEISURE SERVICES AND PERSONS WITH DISABILITIES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Exploration and application of concepts and techniques of normalization and least restrictive environment strategies to leisure service delivery in

community settings for a range of individuals with disabilities. **Must be taken A-F.** (Prereq 1520, Rec and Park major or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, T, 4:15-7:30, CookeH 206, Schleien

**Rec 5288 GRANT WRITING IN HUMAN SERVICES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Strategies in identifying, developing, and procuring financial assistance including proposal preparation for private foundations and governmental agencies. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, M, 5:30-9, CookeH 206, Schleien

**Rec 5299 CLIENT ASSESSMENT AND PROGRAM EVALUATION IN THERAPEUTIC RECREATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

In-depth study and application of approaches to therapeutic recreation; client assessment, program evaluation. **Must be taken A-F.** (Prereq 5220 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, T, 4:15-7:30, CookeH 206, Schleien

**Rec 5310 PROGRAMMING OUTDOOR EDUCATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Methods, materials, and settings appropriate for developing and conducting outdoor education and environmental interpretation programs; emphasis on development of practical skills. **Must be taken A-F.** (Prereq 5300 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, Th, 4:15-7:30 (plus weekend field trip arr), CookeH 206, McAvoy

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**Rec 5350 WILDERNESS OUTDOOR RECREATION PROGRAMMING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Exploration of leisure and educational resources of wilderness and management of wilderness-based outdoor recreation and outdoor education programs. **Must be taken A-F.** (Prereq 3150 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, Th, 4:30-7:30 (plus 1 weekend field trip arr), CookeH 206, McAvoy

**Rec 5455 RECREATIONAL SPORTS.** 3 credits, §PE 5255, §Rec 5455, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Recreational sports programming, an in-depth analysis of recreational sports, its foundations, programs, and operational considerations. **Must be taken A-F.** (No prereq. Meets concurrently with Kin 5255. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, M, 4:15-6:30, CookeH 206, Anderson

**Rec 5900 CONTEMPORARY ISSUES IN LEISURE SERVICES: SPORTS FACILITY MANAGEMENT.** (12 cr max) 3 credits this offering, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Exploration, examination, and development of strategies in sport facility management. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ●Sec 1, M, 4:15-6:30, CookeH 206, Anderson

**Rec 5980 RESEARCH METHODOLOGY.** 3 credits, §Kin 5980, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Methods and design for research in health, kinesiology, and recreation. **May not be taken S-N by**

**Education majors. PEL.** (Prereq education or grad student. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Kin 5980. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, Th, 4:15-6:45, CookeH 214, 215, Kane

**Rec 5981 PROBLEMS.** Credit arr. Tuition\* per credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Focus on conduct of recreation programs. **Must be taken A-F.** (Prereq Med or MA student or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr, ★Sec 1, Arr, CookeH 203, McAvoy

## Religious Studies (RelS)

(330 Folwell Hall: 625-5353)

### College of Liberal Arts

Textbooks for most RelS courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Ancient Near Eastern Studies; Hebrew; Anth 3131, Religion and Culture; Psy 3911, Psychology of Religion; The Compleat Scholar non-credit courses; and Philosophy)

V. Elving Anderson, Adjunct Professor  
Caesar E. Farah, Professor of History  
Patricia A. Darling, Lecturer  
Stephen Feinstein, Visiting Professor of Classical and Near Eastern Studies  
Susan K. Henderson, Lecturer  
Indira Junghare, Professor of South Asian and Middle Eastern Studies

William Malandra, Associate Professor of Classical and Near Eastern Studies  
Oliver Nicholson, Assistant Professor  
David Shupe, Lecturer  
Robert B. Tapp, Professor of Humanities and Religious Studies  
Tzvee Zahavy, Professor of Classical and Near Eastern Studies

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Religious Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ReIS 1001 INTRODUCTION TO RELIGIOUS STUDIES.** 4 credits, §5001, tuition\*: Resident \$294; Non-resident \$852.60.

Individual and social religious behavior; methodologies for studying it; emergence of modern religious studies. Theistic Western religions (Judaism, Christianity, Islam) and nontheistic Buddhism. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, NichH 216, Malandra

**ReIS 1031 INTRODUCTION TO THE RELIGIONS OF SOUTH ASIA.** 4 credits, §ReIS 3031, 5031, §SALC 1504, 3031, 5031, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Introduction to Hinduism, Buddhism, and Jainism. (No prereq. Meets concurrently with SALC 1504) Winter Qtr, Sec 1, M, 6:20-8:50, FolH 104, Malandra

**ReIS 1034 INTRODUCTION TO JUDAISM.** 4 credits, §3034, §JwSt 1034, 3034, tuition\*: Resident \$294; Non-resident \$852.60.

Concepts, movements, and institutions in the development of classical Judaism, as manifested in the literature and festivals of the Jewish people from Second Commonwealth times to present. (No prereq. Meets concurrently with 3034, JwSt 1034, 3034) Winter Qtr, Sec 1, M, 6:20-8:50, FolH 218, Zahavy

(See also CSch 0214, Judaism From Crisis to Crisis)

**ReIS 1035 CHRISTIAN RELIGIOUS TRADITIONS.** 4 credits, §3035, §5035, tuition\*: Resident \$294; Non-resident \$852.60.

Historical structures, themes, and persons examined in Christianity's transition from minor Jewish sect to martyrdom to dominant religion to modern pluralism. (No prereq. Meets concurrently with 3035)

Winter Qtr, Sec 1, W, 6:20-8:50, FordH 175, Shupe

(See also CSch 0122, Religious Architecture of the Twin Cities)

**ReIS 1036 THE RELIGION OF ISLAM.** 4 credit, §MELC 1536, tuition\*: Resident \$294; Non-resident \$852.60.

The rise of Islam in historical context; the role of Muhammad, Koran traditions; fundamentals and observances of the faith; sectarian movements; the spread of Islam into Asia, Africa, and America; reformist movements and current trends. (No prereq. Meets concurrently with MELC 1536)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 105, Farah

**ReIS 3034 INTRODUCTION TO JUDAISM.** 4 credits, §1034, §JwSt 1034, 3034, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

See course description for ReIS 1034. (No prereq. Meets concurrently with 1034, JwSt 1034, 3034) Winter Qtr, Sec 1, M, 6:20-8:50, FolH 218, Zahavy

**ReIS 3035 CHRISTIAN RELIGIOUS TRADITIONS.** 4 credits, §1035, §5035, tuition\*: Resident \$308; Non-resident \$893.20.

See course description for ReIS 1035. (No prereq. Meets concurrently with 1035) Winter Qtr, Sec 1, W, 6:20-8:50, FordH 130, Shupe

**ReIS 3072 THE NEW TESTAMENT.** 4 credits, §5072, §Clas 3072, 5072, tuition\*: Resident \$308; Non-resident \$893.20.

First century Israel under Roman rule. Jesus of Nazareth. Earliest Christian communities. Jewish Christianity. Mission to Gentiles. Paul the apostle. Beginnings of the New Testament. (No prereq. Meets concurrently with 5072, Clas 3072, 5072) Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 306

**ReIS 3089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY.** 4 credits, §5089, §Clas 3089, §Clas 5089, tuition\*: Resident \$308; Non-resident \$893.20.

Archaeological data relevant to the Jewish scriptures and the New Testament; major sites in the Holy Land and in other areas of the Mediterranean and the Near East. The evidence of pottery, inscriptions, manuscripts, and coins. Excavation methods. Archaeology as a tool for study of ancient religions. (No prereq. Meets concurrently with 5089, Clas 3089, 5089)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 104

**ReIS 3203 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC.** 4 credits, §ANE 1003, 3003, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of books of Psalms, Proverbs, Job, Song of Songs, Lamentations, Ecclesiastes (Qoheleth). Characteristics of biblical poetry. Conceptions of Israelite wisdom movement. Traits of early Jewish apocalyptic writings. (No prereq. Meets concurrently with ANE 1003, 3003)

Spring Qtr, Sec 1, T, 6:20-8:50, NichH 216, Zahavy

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**RelS 3412 HINDUISM.** 4 credits, §RelS 5412, §SALC 3412, 5412, tuition\*: Resident \$308; Non-resident \$893.20.

Development of Hinduism, focusing on sectarian trends, modern religious practices, myths and rituals, pilgrimage patterns and religious festivals, and the interrelationship of Indian social structure and Hinduism. (Prereq MELC 1504 or SALC 3411 or RelS 1031 or #. Meets concurrently with 5412, SALC 3412, 5412. Limited to 25)

Fall Qtr, ★Sec 1, W, 6:20-8:50, FolH 208, Junghare

**RelS 3413 BUDDHISM.** 4 credits, §RelS 5413, §SALC 3413, 5413, tuition\*: Resident \$308; Non-resident \$893.20.

Historical account of the Buddhist religion in terms of its rise, development, various schools and common philosophical concept. Focuses on Indian Buddhism, compares it with Hinduism, and discusses its demise and revival on the Indian subcontinent. (No prereq. Meets concurrently with 5413, SALC 3413, 5413. Limited to 25)

Spring Qtr, ★Sec 1, W, 6:20-8:50, FolH 50, Junghare

**RelS 3414 COMPARATIVE RELIGIONS OF SOUTH ASIA.** 4 credits, §5414, §SALC 3414, 5414, tuition\*: Resident \$308; Non-resident \$893.20.

Compares and contrasts basic philosophical concepts, literatures, ideologies, and ritualistic practices of Hinduism, Buddhism, and Jainism with those of Islam and Sikhism. (No prereq. RelS 3412 and RelS 3414 recommended. Meets concurrently with 5414, SALC 3414, 5414. Limited to 20)

Winter Qtr, ★Sec 1, W, 6:20-8:50, FolH 208, Junghare

**RelS 3541 THE HOLOCAUST.** 4 credits, §JwSt 3521, tuition\*: Resident \$308; Non-resident \$893.20.

Nazi destruction of Jewish life in Europe, 1933-45. Historical, social background of European Jewish communities. Anti-Semitism and Nazism. Ghettos under Nazi rule; social and cultural organization, government. Nazi terror and destruction; Jewish resistance; historical consequences; moral and philosophical implications. (No prereq. Meets concurrently with JwSt 3521)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 148, Feinstein

(See also CSch 0213, Perpetrators, Rescuers, and Victims in the Holocaust)

**RelS 3960 AMERICAN INDIAN RELIGIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Explores the various tribal traditions that comprise Native American religions of North America. After surveying historical backgrounds and major cultural traditions, the course examines religious responses of Native Americans to emerging European pressures. Contemporary native American traditions will be considered through literature, philosophy, art, ceremony, song, healing, arts, film, and discussions with guest speakers. (No prereq)

Fall Qtr, Sec 1, W, 6:20-8:50, FordH 170, Darling

(See also CSch 0217, American Indian Studies: Beginning the Journey)

**RelS 3960 RELIGION IN AN AGE OF SCIENCE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Science and technology appear to challenge the place of religion in popular thought and scholarly discourse. Yet science and religion may have more in common than is often supposed. Compares and contrasts science and religion in their use of models, metaphors, and paradigms as well as in their methods and limits. Some attention given to differences among major religions. Specific topics include the origin of the universe, the origin of life, and views of human nature. (No prereq)

Winter Qtr, Sec 2, T, 6:20-8:50, FordH 160, Anderson

(See also CSch 0239, Order and Chaos)

**RelS 3960 FEMINIST PERSPECTIVES ON CHRISTIANITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Examines the writings of contemporary women, including those of Rosemary Radford Ruether, Elisabeth Schüssler Fiorenza, Sally McFaugé, Letty Russell, Mary Daly, Carol Christ, and Judith Plaskow. Particular attention is given to their reworking of both traditional theological and popular understandings of the nature of the divine, sin, and salvation. Written assignments provide students opportunity to explore an author or issue in more depth or to do exploratory fieldwork of their own. (No prereq)

Spring Qtr, Sec 3, M, 6:20-8:50, FordH 60, Henderson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**ReIS 3960 MARGINS AND MAINSTREAMS: NEW RELIGIOUS MOVEMENTS IN THE U.S.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The U.S. has been fertile ground for religious experimentation from its inception. This course surveys the innovative groups of the 18th and 19th centuries together with contemporary movements and includes an introduction to sociological theory of religion concerning churches, denominations, sects, cults, and emerging religions. Historical examples include Shakers, Mormons, occult and metaphysical movements, Seventh Day Adventists, Christian Science, and Father Divine Movement. Contemporary examples include Nation of Islam, Unification Church, Hindu and Buddhist sects, Evangelical, Pentecostal and Fundamentalist groups, neo-Pagans, WICCA, and New Age groups. (No prereq)

Spring Qtr, Sec 4, Th, 6:20-8:50, FordH 60,  
Darling

**ReIS 5072 THE NEW TESTAMENT.** 4 credits, §3072, §Clas 3072, 5072, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for ReIS 3072. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3072, Clas 3072, 5072)

Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 306

**ReIS 5073 ROMAN RELIGION AND EARLY CHRISTIANITY.** 4 credits, §Clas 5073, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Greek and Roman civic religion; myths, oracles and philosophy; imperial cult; foreign cults; Neoplatonism; varieties of Christianity in 2nd and 3rd centuries; martyrdom and persecution; the Christian Empire and the pagan reaction; Augustine of Hippo. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Clas 5073)

Fall Qtr, Sec 1, Th, 6:20-8:50, FolH 218,  
Nicholson

**ReIS 5089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY.** 4 credits, §3089, §Clas 3089, §Clas 5089, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for ReIS 3089. Requires additional work for graduate credit. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3089, Clas 3089, 5089)

Spring Qtr, Sec 1, W, 6:20-8:50, FolH 104

**ReIS 5412 HINDUISM.** 4 credits, §ReIS 3412, §SoAS 3412, 5412, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for ReIS 3412. (Prereq MELC 1504 or SALC 3411 or ReIS 1031 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 341, SALC 3412, 5412. Limited to 10)

Fall Qtr, ★Sec 1, W, 6:20-8:50, FolH 208,  
Junghare

**ReIS 5413 BUDDHISM.** 4 credits, §ReIS 3413, §SALC 3413, 5413, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for ReIS 3413. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3413, SALC 3413, 5413. Limited to 10)

Spring Qtr, ★Sec 1, W, 6:20-8:50, FolH 50,  
Junghare

**ReIS 5414 COMPARATIVE RELIGIONS OF SOUTH ASIA.** 4 credits, §3414, §SALC 3414, 5414, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for ReIS 3414. (No prereq. SALC 3412 and 3413 recommended. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3414, SALC 3414, 5414. Limited to 10)

Winter Qtr, ★Sec 1, W, 6:20-8:50, FolH 208,  
Junghare

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**RelS 5890 SEMINAR IN RELIGIOUS STUDIES.** 5 undergraduate credits each quarter, tuition\*: Resident \$385; Non-resident \$1116.50. 3 graduate credits each quarter, tuition\*: Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Conceptual and methodological issues in contemporary religious studies. (Prereq sr religious studies major or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 4:30-7:15, FordH 50, Tapp

## Research Explorations

(See page 446)

### Rhetoric (Rhet)

(201 Haecker Hall: 624-3445)

#### College of Agriculture

(Scientific and Technical Communication Program)

Textbooks for Rhet courses on the Minneapolis campus and at neighborhood centers are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000); at University of Minnesota Bookstore—St. Paul (624-9200) for classes on that campus.

(See also Learning and Academic Skills; General College; English; Composition and Communication; The Complete and Practical Scholar noncredit courses; and other study helps, page 464)

Sandra J. Becker, Professor

J. Michael Bennett, Associate Professor

James E. Connolly, Professor

Richard W. Ferguson, Associate Professor

Earl E. McDowell, Professor

L. David Schuelke, Professor

John M. Sperbeck, Associate Professor, College of Agriculture

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Rhetoric. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Rhet 1151 WRITING IN YOUR MAJOR.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Students investigate and write about subjects related to their majors. Emphasis on gathering, evaluating, synthesizing, and summarizing information; adapting it for various audiences. Assignments include literature review, abstract, fact sheet, instructions, and feature article. Computer-assisted instruction. (Prereq 1104, completion of freshman communication requirement, sophomore. Limited to 20)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, ClaOff 17, StP Campus

Spring Qtr, ★Sec 2, Th, 6:20-8:50, ClaOff 17, StP Campus

**Rhet 1222 PUBLIC SPEAKING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Practical course in fundamentals of effective speechmaking. Emphasis on researching and organizing a speech and communicating with an audience. (Prereq freshman communication requirement. Limited to 20)

Fall Qtr, ★Sec 1, W, 6:20-9:40, HckrH 210, StP Campus, Connolly

Winter Qtr, ★Sec 2, W, 6:20-9:40, CentLib 6, StP Campus

Spring Qtr, ★Sec 3, W, 6:20-9:40, CentLib 6, StP Campus

(See also Speech-Communication; and CSch 0198, *Unleashing Your Charisma: Performing Presence*)

**Rhet 1441 COLLEGE READING AND LEARNING SKILLS.** 4 credits, tuition\* (includes \$3 course fee): Resident \$294; Non-resident \$852.60. (IS)

Lecture, and individual and small group practice in developing speed, comprehension, retention, and flexibility in reading college assignments; clarity and precision in writing; accurate and effective listening; control of communication-related anxiety, including test taking; vocabulary. A suggested follow-up for LASK 1001, *Becoming a Master Student*. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, W, 6:20-9:40, FordH 120, Bennett

**Rhet 3254 ADVANCED PUBLIC SPEAKING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Training for specific speech situations most likely to be encountered professionally. Emphasis on analysis, design, preparation, and delivery of presentations to provide greater flexibility within a variety of speech environments. (Prereq 1222. Limited to 18)

Fall Qtr, ★Sec 1, W, 6:20-9:40, HckrH 222, StP Campus, Schuelke

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Rhet 3266 COMMUNICATION, DISCUSSION IN SMALL GROUP DECISION MAKING.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Role of communication techniques in the small group decision making process. Emphasis on problem-solving discussion requiring some kind of formal outcome. (Prereq 1222 or #. Limited to 20)

Fall Qtr, ★Sec 1, M, 6:20-9:40, HckrH 210, StP Campus, Connolly

Spring Qtr, ★Sec 2, W, 6:30-9:50, HckrH 302, StP Campus, Schuelke

**Rhet 3562 WRITING IN YOUR PROFESSION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40. (IS)

Projects in writing professional reports. Analyses of audience and situation; writing effectively to meet the needs of particular readers. Assignments include writing instructions, feasibility reports, proposals, memorandums, letters of application, and résumés. Sections 3 and 6 have computer-assisted instruction. (Prereq freshman communication requirement, 1151, junior status. Limited to 22)

Fall Qtr, ★Sec 1, T, 6:20-8:50, HckrH 312, StP Campus, Becker

Fall Qtr, ★Sec 2, W, 6:20-8:50, HckrH 302, StP Campus, Ferguson

Winter Qtr, ★Sec 3, M, 6:20-8:50, ClaOff 17, StP Campus (Limited to 20)

Winter Qtr, ★Sec 4, T, 6:20-8:50, HckrH 312, StP Campus, Becker

Spring Qtr, ★Sec 5, T, 6:20-8:50, HckrH 312, StP Campus, Becker

Spring Qtr, ★Sec 6, W, 6:20-8:50, ClaOff 17, StP Campus (Limited to 20)

**Rhet 3565 WRITING FOR PUBLICATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40.

Writing and preparing manuscripts for publication; adaptation to specialized and general reader; professional, trade, and general publications; information sources and topic selection; marketing techniques. This course has computer-assisted instruction. (Prereq 3562, #. Limited to 20)

Winter Qtr, ★Sec 1, T, 5:30-8, ClaOff 17, StP Campus, Sperbeck

(See also *Writing in The Compleat Scholar* non-credit section)

**Rhet 5258 INTERVIEWING: DYNAMICS OF FACE-TO-FACE COMMUNICATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit

\$735; Non-resident Graduate School credit \$1617. Improves intrapersonal and interpersonal skills in interviewing situations. Students learn to understand and use appraisal, reprimand, complaint, persuasion, problem-solving, and counseling interview techniques and participate in a research interview project. Equal emphasis on the interviewer and interviewee roles. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr, ★Sec 1, T, 6:20-9:40, HckrH 222, StP Campus, McDowell

Winter Qtr, ★Sec 2, W, 6:20-9:40, HckrH 222, StP Campus, McDowell

Spring Qtr, ★Sec 3, W, 6:20-9:40, HckrH 222, StP Campus, McDowell

(See also Spch 5422, *Interviewing and Communication*)

**Rhet 5500 RESEARCH IN COMMUNICATION STRATEGIES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Fundamental terminology of descriptive and experimental research, communication research, questionnaire techniques, interviewing techniques, survey and experimental designs, the steps in organizing and conducting field and empirical research, and basic statistical and computer techniques. Emphasis on application of various research methods to particular communication strategies or settings. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★Sec 1, Th, 5-8:20, HckrH 222, StP Campus, McDowell

**Rhet 5572 PROCEDURES AND POLICIES MANUAL.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Problem analysis, process management, gathering information, writing procedures, verification, constructing the finished manual. (Prereq scientific and technical communication major or minor, freshman communication, 3562 or grad status or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 7 Extension students)

Spring Qtr, ★Sec 1, W, 4:05-6:25, HckrH 312, StP Campus, Ferguson

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Russian and East European Studies

See Area Studies Programs; and the Institute of Languages and Literatures

## Scandinavian Languages and Literature

(200 Folwell Hall: 625-9887)

### College of Liberal Arts

Textbooks for most Scan courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

William Mishler, Associate Professor  
Tuulikki Sinks, Teaching Specialist  
Göran Stockenström, Professor

Read about language laboratories on page 52.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Scandinavian Languages. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

### Danish (Dan)

**Dan 1101-1102-1103 BEGINNING DANISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS 1101)

Intended for students who have little or no previous knowledge of Danish. Stress fundamentals of grammar, correct pronunciation, reading, practice in conversation and simple composition. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, 1101, ★●Sec 1, MTTh, 5:30-7:30, FolH 214

Winter Qtr, 1102, ★●Sec 1, MTTh, 5:30-7:30, FolH 334

Spring Qtr, 1103, ★●Sec 1, MTTh, 5:30-7:30, FolH 334

**Dan 1104-1105-1106 INTERMEDIATE DANISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Continued development of reading, writing, and speaking skills. (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, 1104, ★●Sec 1, MTh, 4:45-7, FolH 234  
Winter Qtr, 1105, ★●Sec 1, MTh, 4:45-7, FolH 214

Spring Qtr, 1106, ★●Sec 1, MTh, 4:45-7, FolH 240

### Finnish (Fin)

**Fin 1101-1102-1103 BEGINNING FINNISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS 1101)

Intended for students who have little or no previous knowledge of Finnish. Stress fundamentals of grammar, correct pronunciation, reading, practice in conversation, and simple composition. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. A joint Day/Extension class)

Fall Qtr, 1101, ●Sec 1, T, 4:15-8:15, FolH 326, Sinks

Winter Qtr, 1102, ●Sec 1, T, 4:15-8:15, FolH 114, Sinks

Spring Qtr, 1103, ●Sec 1, T, 4:15-8:15, FolH 114, Sinks

**Fin 1104-1105-1106 INTERMEDIATE FINNISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75.

Continued development of reading, writing, and speaking skills; problems and usage of Finnish grammar. (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr, 1104, ★●Sec 1, Th, 4:15-8:15, FolH 326, Sinks

Winter Qtr, 1105, ★●Sec 1, Th, 4:15-8:15, FolH 344, Sinks

Spring Qtr, 1106, ★●Sec 1, Th, 4:15-8:15, FolH 344, Sinks

### Norwegian (Nor)

**Nor 1101-1102-1103 BEGINNING NORWEGIAN.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

This sequence, intended for students who have little or no previous knowledge of Norwegian, stresses fundamentals of grammar, correct pronunciation, reading, practice in conversation, and simple composition. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. Limited to 50)

Fall Qtr, 1101, ★Sec 1, T, 6:10-10:05, FolH 116

Winter Qtr, 1102, ★Sec 1, T, 6:10-10:05, FolH 116

Spring Qtr, 1103, ★Sec 1, T, 6:10-10:05, FolH 134

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Nor 1104-1105-1106 INTERMEDIATE NORWEGIAN.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

Continued development of reading, writing, and speaking skills (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106. Limited to 20)

Fall Qtr, 1104, ★Sec 1, W, 6:10-10:05, FolH 50

Winter Qtr, 1105, ★Sec 1, W, 6:10-10:05, FolH 50

Spring Qtr, 1106, ★Sec 1, W, 6:10-10:05, KoltH S135

### Scandinavian (Scan)

**Scan 3505 SCANDINAVIAN FICTION FROM 1890 TO PRESENT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Scandinavian fiction from 1890 to present. (No prereq)

Spring Qtr, Sec 1, M, 6:20-8:50, FolH 50, Mishler

**Scan 3602 THE SCANDINAVIAN FAIRY TALE AS LITERATURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20. (IS)

Examined in context of German romanticism. Emphasis on H.C. Andersen and 20th-century authors who write in his tradition. (No prereq)

Winter Qtr, Sec 1, M, 6:20-8:50, FolH 148, Mishler

**Scan 3605 THE SCANDINAVIAN AND FINNISH SHORT STORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Stories by important 19th and 20th century-authors. (No prereq)

Fall Qtr, Sec 1, M, 6:20-8:50, JonesH 2, Mishler

### Swedish (Swed)

**Swed 1101-1102-1103 BEGINNING SWEDISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

This sequence, intended for students who have little or no previous knowledge of Swedish, stresses fundamentals of grammar, correct pronunciation, reading, practice in conversation, and simple composition. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr, 1101, Sec 1, T, 6:10-10:05, FolH 50, Stockenström

Winter Qtr, 1102, Sec 1, T, 6:10-10:05, FolH 50, Stockenström

Spring Qtr, 1103, Sec 1, T, 6:10-10:05, FolH 50, Stockenström

**Swed 1104-1105-1106 INTERMEDIATE SWEDISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

Continued development of reading, writing, and speaking skills. (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106)

Fall Qtr, 1104, Sec 1, Th, 6:10-10:05, FolH 50, Stockenström

Winter Qtr, 1105, Sec 1, Th, 6:10-10:05, FolH 50, Stockenström

Spring Qtr, 1106, Sec 1, Th, 6:10-10:05, FolH 50, Stockenström

## Secondary Education (SeEd)

See Curriculum and Instruction (CI)

## Sign Language, American

See Educational Psychology

## Social and Behavioral Sciences

(See General College)

## Social and Administrative Pharmacy (SAPh)

(7-115 Health Sciences Unit F: 624-2112)

### College of Pharmacy

Textbooks for most SAPh courses are available at University of Minnesota Bookstore—Health Sciences (625-8600).

Thomas M. McKennell, Assistant Professor and Director of Pharmacy Continuing Education

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**SAPh 5007 BIOLOGY OF AGING.** 2 credits, §Phar 5007, §SAHP 5007, §HSU 5031, tuition\*: Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Biological theories of aging are reviewed; biological changes associated with aging in organ and sensory systems are studied. Other topics examined are the nutritional needs of the elderly, and their use of medications. Physical changes due to normal aging are contrasted with those having a pathological base. *Students who wish to take this course for undergraduate credit should register for either Phar 5007 or HSU 5031.* For information about this course, call Professor McKennell at 624-2442. (No prereq. Meets concurrently with HSU 5031 and Phar 5007. Students must register in SAPh 5007 for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, Th, 4:40-6:25, MoosT 5125, McKennell

## Social and Philosophical Foundations of Education

See Educational Policy and Administration

## Social Work (SW)

(400 Ford Hall: 624-5888)

### College of Human Ecology

Textbooks for most SW courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Sociology; General College; Public Health; Education; Health Science Units; and Social, Administrative, and Hospital Pharmacy)

Ann Ahlquist, Lecturer  
Michael Baizerman, Professor  
Jerome Beker, Professor  
Karen Belling, Lecturer  
Joan Bilinkoff, Lecturer  
Neil Bracht, Professor  
Irl Carter, Associate Professor  
Paula Childers, Lecturer  
Mark Frenzel, Lecturer  
Anne Gearity, Lecturer  
Jane Gilgun, Associate Professor  
D. Michael Graham, Assistant Clinical Professor

C. David Hollister, Professor  
Nancy Johnston, Coordinator and Instructor  
Linda Jones, Associate Professor  
Helen Kivnick, Associate Professor  
Anne Long, Lecturer  
Dorion Macek, Lecturer  
Donna Marget, Lecturer  
Anita Morris, Lecturer  
Megan Morrissey, Coordinator and Instructor  
Jean K. Quam, Director and Professor  
James Reinardy, Lecturer  
Ronald H. Rooney, Associate Professor  
Susan Schultz, Lecturer  
Maura Sullivan, Coordinator and Instructor  
Victoria VanSlyke, Lecturer  
Oliver Williams, Assistant Professor

*The School of Social Work does not offer a bachelor's degree in social work. For information on the Master of Social Work or the Ph.D. in social work, contact the school at 624-1096.*

**NOTE:** See the **Weekend Master of Social Work (M.S.W.) Option** described beginning page 500, and the **Child Abuse Prevention Studies Certificate** described beginning page 504.

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Social Work. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**SW 1001 INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Fields of Community-based social services, representative of societal responses to needs. Characteristics of such services reviewed historically, dynamically, and comparatively. (No prereq)  
Fall Qtr, Sec 1, Th, 6-9:30, FordH 130  
Winter Qtr, Sec 2, T, 6-9:30, FordH 285  
Spring Qtr, Sec 3, Th, 6-9:30, FordH 175

**SW 3201 INTERVENTIONS WITH INDIVIDUALS AND GROUPS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Application of social work skills and values to work with individuals and small groups using an ecological framework. (No prereq. Limited to 50)  
Winter Qtr, ★Sec 1, W, 6-9:30, FordH 160  
Spring Qtr, ★Sec 2, M, 6-9:30, FordH 170

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**SW 3202 INTERVENTIONS IN COMMUNITY AND SOCIAL POLICY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Application of social work skills and values to community organization, social action, and social problems, using an ecological framework. (No prereq. Limited to 50)

Winter Qtr, ★Sec 1, M, 6-9:30, FordH 160

Spring Qtr, ★Sec 2, T, 6-9:30, FordH 150

**SW 5010 SEMINAR: SPECIAL TOPICS—CLINICAL WORK WITH CHILDREN.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The child's inner psychological experience and needs are examined through exploration of child development theory. Social work practice and clinical interventions with children are considered through discussion of case material and application of theory. (Prereq 8402, 66 cr MSW student, or social work professional. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Qtr, ★Sec 1, M, 4:15-7, FordH 175,  
Garity, Schultz

**SW 5010 SEMINAR: SPECIAL TOPICS—SOCIAL WORK PRACTICE ISSUES IN HEALTH AND MENTAL HEALTH SETTINGS: An Advanced Seminar on Managed Mental Health Care and Professional Implications.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Advanced seminar in the health/mental health area, providing a more individualized learning opportunity in a focused professional practice or policy interest. Focuses on emerging professional issues; for example, managed mental health care. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★Sec 2, T, 3:30-6:30, FordH 170,  
Bracht

**SW 5010 SEMINAR: SPECIAL TOPICS—WOMEN IN INTERNATIONAL DEVELOPMENT AND SOCIAL ACTION.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An international comparative framework for the analysis of basic human needs, social policies, and welfare services in developing countries. Study of traditional institutions, programs, and processes that marginalize women. Women's social action in the economic, social, and political arenas, grass roots, and many types of women's organizations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with WoSt 5400. Limited to a combined total of 30)

Spring Qtr, ★Sec 3, W, 5:30-8, FordH 175,  
Morris

**SW 5010 SEMINAR: SPECIAL TOPICS—SOCIO-CULTURAL PERSPECTIVES ON SOCIAL WORK WITH FAMILIES.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of methods for helping families to deal with stress and family problems in a variety of service settings. Seminar format, with student-led discussions and guest speakers. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr, ★Sec 4, Th, 4:15-7, FordH 170

**SW 5024 MULTIDISCIPLINARY PERSPECTIVES OF AGING.** 4 credits, §AdEd 5440, §Educ 5440, §CPsy 5305, §HSU 5009, §Phar 5009, §SAHP 5009, §PA 5414, §PubH 5737, §Soc 5960, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A multidisciplinary introduction to aging and the aging process. Topics include: sociological, biological, and psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems such as health, nutrition, long-term care, and education; public policy and legislation; environment and housing, retirement. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AdEd 5440, CPsy 5305, HSU 5009, PA 5414, PubH 5737, Phar 5009, Soc 5960. A joint Day/Extension class)

Fall Qtr, ★Sec 1, MW, 4:40-6:25, MoosT  
2-690, Quam, AUCA Faculty (Limited to a  
combined total of 37 Extension students)

Spring Qtr, Sec 2, MW, 4:40-6:25, MoosT  
2-690, Quam, AUCA Faculty

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**SW 5028 SEMINAR: SPECIAL TOPICS—SOCIAL WORK IN THE SCHOOLS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Prepares students to apply social work methods and skills in a school setting. Emphasis will be placed on developing clinical skills, consultation, advocacy, and use of community resources as a school social worker. (No prereq. Qualified students may register for graduate credit at the University of Minnesota) Winter Qtr, Sec 3, Th, 4:15-7, FordH 60, Marget

**SW 5100 YOUTH IN THE WORLD.** 3 credits, \$YoSt 5100, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A basic theoretical and conceptual framework for understanding adolescence; adolescents and youth in the context of everyday life—in school, at play, in the community, at home. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Fall Qtr, ★●Sec 1, M, 3-6, McNH 386A, StP Campus, Baizerman

**SW 5111 CONTEMPORARY POLICY AND PROGRAMS IN SOCIAL WELFARE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A framework for analysis of concepts and principles in social policy for social welfare programs and services. (Prereq grad standing or 12 cr in social science. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 7-10, FordH 130, Carter

**SW 5211 ADVANCED THEORIES OF HUMAN GROWTH AND CHANGE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Socio-psycho-biological factors associated with individual and group development as applied to social work practice. (Prereq grad standing or 12 cr in social sciences. Qualified students may register for graduate credit at the University of Minnesota) Winter Qtr, Sec 1, T, 7-10, FordH 175

**SW 5212 CLINICAL PRACTICE WITHIN A HOSPITAL AND HEALTH CARE SETTING.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Prepares students for practice in a hospital or health care setting. Provides students with a focused, practice-oriented learning environment that will build upon previous experiential and academic learning. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, ★●Sec 1, Th, 3-6, FordH 175, Frenzel

**SW 5234 SEMINAR: DIRECT WORK WITH ADOLESCENTS.** 3 credits, \$YoSt 5312, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Gives students an understanding of direct work with troubled and at-risk adolescents in a wide range of settings in which social workers are typically involved. Emphasis is on young people in groups in the "life space," in everyday life, rather than in one-to-one, office-based interactions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, T, 3:30-6:30, FordH 55, Beker

**SW 5414 SOCIAL GROUP WORK.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles of social group work practice applicable to a variety of task and treatment groups. Small group as a social process to achieve task and treatment goals, communication in groups, decision-making, self-help, and therapeutic groups. Stages of group development and termination. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr, ★Sec 1, W, 5-8, FordH 170, Macek

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**SW 5601 ETHNO-CULTURAL CONCEPTS IN SOCIAL WORK PRACTICE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Relation of ethno-cultural concepts to the development of social welfare policies and services, and social work practice. Critical examination of commonalities of principles and cross-ethnic issues that integrate ethno-cultural dimensions and identification of significant orientations toward welfare issues and practices among the four major ethnic minority groups of color (American Indian, Asian American, black, Hispanic). The contribution of each to effective interpersonal and intragroup relationships with the social service delivery system will be discussed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr, ★Sec 2, T, 7-10, FordH 160

**SW 5970 INDEPENDENT STUDY IN SOCIAL WORK.** Credits arr, tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent study in areas of special interest to students and faculty. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr

Winter Qtr, Sec 2, Arr

Spring Qtr, Sec 3, Arr

### Courses Meeting at the Hennepin County Government Center

The following courses meet in the Employee Development Classroom (Level A of the Hennepin County Government Center). Enter the building on the north side of 6th Street, under the skyway; take the escalator downstairs to Level A. Parking is available after 4 p.m. weekdays in the Hennepin County underground garage for \$2 maximum.

**SW 5010 SEMINAR: SPECIAL TOPICS—LEGAL ASPECTS OF SOCIAL WORK.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Legal regulation of social work; licensing standards; professional liability, responsibility, ethical

issues, and sanctions; common law claims against social workers; liability of supervisors. Social worker involvement in legal processes; preparing for record review, testimony, and cross-examination. Substantive law affecting social work practice in selected areas, such as child protection, mental health, family practice, and school social work. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★Sec 4, M, 4:45-7:45, Henn Co Govt Ctr

**SW 5010 SEMINAR: SPECIAL TOPICS—GENDER ISSUES IN SOCIAL WORK PRACTICE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of how gender issues affect social and psychological functioning of men and women; concepts of feminist therapy and its impact on social work practice. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★Sec 5, Th, 4:45-7:45, Henn Co Govt Ctr, Belling, Bilinkoff

**SW 5010 SEMINAR: SPECIAL TOPICS—COMPARATIVE SOCIAL WORK METHODS IN PUBLIC SOCIAL SERVICE AGENCIES.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of several models of social work practice methods, with emphasis on socio-cultural, ethnic, minority, and gender differences in public social service agencies. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 6, M, 4:45-7:45, Henn Co Govt Ctr

**SW 5211 ADVANCED THEORIES OF HUMAN GROWTH AND CHANGE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for SW 5211 sec 1 above. (Prereq grad standing or 12 cr in social sciences. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr, Sec 2, T, 4:45-7:45, Henn Co Govt Ctr, Graham

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**SW 5212 SOCIAL WORK WITH OLDER ADULTS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An introduction to and overview of social work knowledge, skills, and values as applied to working with older adults. Includes examination of theories and attitudes towards aging, the nature and limitations of gerontological social work, forces shaping the delivery system and context of practice, major biopsychosocial dimensions in practice, and different models of intervention. Emphasis placed on cultural competence in working with ethnic groups and special populations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20)

Winter Qtr, Sec 7, W, 4:45-7:45, Henn Co Govt Ctr, Reinardy

**SW 5425 BRIEF TREATMENT AND THE TASK-CENTERED MODEL.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theory and practice of brief treatment approaches to social work practice. Various time-limited models are explored and contrasted, with particular focus on task-centered practice, a model that is both time limited and empirically based. Emphasis on understanding the theoretical base and application of the model in a variety of social work situations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 6, W, 4:45-7:45, Henn Co Govt Ctr, Childers

### Weekend Master of Social Work (M.S.W.) Option

The School of Social Work, in conjunction with Continuing Education and Extension, is offering graduate students the opportunity to earn their M.S.W. degree through full-time weekend study. Students must register for three courses each quarter, but may elect to complete their required field work either concurrently or through 12-week, full-time summer block placements. The Weekend M.S.W. Option is highly structured and adheres to the current day school curriculum design and admissions standards, while allowing students the

opportunity to maintain full-time employment. Program and admissions inquiries should be directed to Megan Morrissey, Director of Admissions, (612) 624-1096.

**SW 5111 CONTEMPORARY POLICY AND PROGRAMS IN SOCIAL WELFARE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A framework for analysis of concepts and principles in social policy for social welfare programs and services. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq grad standing or 12 cr in social science. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 2, Sa, 10 a.m.-1, FordH 160, Jones

**SW 5211 ADVANCED THEORIES OF HUMAN GROWTH AND CHANGE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Socio-psycho-biological factors associated with individual and group development as applied to social work practice. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq grad standing or 12 cr in social science. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, ★Sec 3, Su, 11 a.m.-2, FordH 150, Kivnick

**SW 5349 SOCIAL WELFARE IN AMERICA.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Advanced survey of social services, public policies, and profession of social work—colonial to present. Issues include dependency, deviancy, crime, social security, public health, social reform, functions of public and voluntary institutions (charities, settlements). *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, ★Sec 1, Sa, 10 a.m.-1, FordH 155, Morrissey

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**SW 5601 ETHNO-CULTURAL CONCEPTS IN SOCIAL WORK PRACTICE.** 4 undergraduate credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Relation of ethno-cultural concepts to the development of social welfare policies and services, and social work practice. Critical examination of commonalities of principle and cross-ethnic issues that integrate ethnocultural dimensions and identification of significant orientations toward welfare issues and practices among the four major ethnic minority groups of color (American Indian, Asian American, black, Hispanic). The contribution of each to effective interpersonal and intra-group relationships with the social service delivery system will be discussed. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq grad standing or 12 cr in social science. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr, ★Sec 1, Sa, 10 a.m.-1, FordH 130, Williams

**SW 8010 FIELD INSTRUCTION I.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

**Must be taken S-N.** *Priority registration given to students admitted to the Weekend M.S.W. Option. Meets alternate Saturdays.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School)

Fall Spec Term, Sec 1, Sa, 8-9:45 a.m., dates arr, FordH 285, Sullivan

Winter Spec Term, Sec 2, Sa, 8-9:45 a.m., dates arr, FordH 285, Sullivan

Spring Spec Term, Sec 3, Sa, 8-9:45 a.m., dates arr, FordH 285, Sullivan

**SW 8020 FIELD INSTRUCTION II.** 4 credits, tuition\*: Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Field practice in social work process under direct supervision. **Must be taken S-N.** *Priority registration given to students admitted to the Weekend M.S.W. Option. Meets alternate Saturdays.* (Prereq 8010. Open only to students admitted to the University of Minnesota Graduate School)

Fall Spec Term, Sec 1, Sa, 8-9:45 a.m., dates arr, FordH 150, Sullivan

Winter Spec Term, Sec 2, Sa, 8-9:45 a.m., dates arr, FordH 150, Sullivan

Spring Spec Term, Sec 3, Sa, 8-9:45 a.m., dates arr, FordH 150, Sullivan

**SW 8121 SOCIAL POLICY AND DELIVERY SYSTEMS FOR FAMILY AND CHILDREN'S SERVICES.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application theoretical social policy framework to goals, tasks, organization, and delivery arrangements of programs serving social welfare of families and children. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 5111. Open only to students admitted to the University of Minnesota Graduate School. Limited to 30)

Fall Qtr, ★Sec 1, Sa, 10 a.m.-1, FordH 130, Jones

**SW 8311 ISSUES AND INTERVENTIONS IN CHILD SEXUAL ABUSE.** 3 credits, \$5311, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Major issues and interventions involved in child sexual abuse. Development of knowledge and skills in working with sexually abused children and their families. Perceptions of victims, perpetrators, mothers, and other family members; interviewing; justice system; child protection. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Winter Qtr, ★Sec 1, Su, 2:30-5:30, FordH 130, Ahlquist

**SW 8350 PLANNED SOCIAL CHANGE.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of systems in social work practice for social change, including human needs, policy planning, programming, management, and community participation. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 30)

Spring Qtr, ★Sec 1, Sa, 10 a.m.-1, FordH 130, Long

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**SW 8400 SOCIAL WORK METHODS I.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Development of a conceptual understanding of, and skill in the social work process utilizing the ecological model and the problem-solving model as approaches for analysis. Emphasis is on ethics, assessment, interviewing skills, and goal-setting. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Fall Qtr, ★Sec 1, Sa, 1:30-4:30, FordH 130, VanSlyke

Fall Qtr, ★Sec 2, Sa, 1:30-4:30, FordH 150, Williams

**SW 8401 SOCIAL WORK METHODS II.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Further development of a conceptual understanding of, and skill in use of various roles and specific interventions in working with individuals, families, and groups. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8400. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Winter Qtr, ★Sec 1, Sa, 1:30-4:30, FordH 130, VanSlyke

Winter Qtr, ★Sec 2, Sa, 1:30-4:30, FordH 150

**SW 8402 SOCIAL WORK METHODS III.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Differential use of social work knowledge and interventions based on utilizing such models as psychoanalytic, cognitive, behavioral, existential, social support, and crisis intervention. Additional emphasis on teamwork, evaluation, and termination. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8400, 8401. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Spring Qtr, ★Sec 1, Sa, 1:30-4:30, FordH 130, Morrissey

Spring Qtr, ★Sec 2, Sa, 1:30-4:30, FordH 150, Reinardy

**SW 8406 SUPERVISION AND CONSULTATION IN SOCIAL WORK PRACTICE.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles and practices of first-line supervision in direct practice systems—administration, education, and support. Principles and methods of consultation and staff development. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8401, #. Open only to students admitted to the University of Minnesota Graduate School. Limited to 25)

Spring Qtr, ★Sec 1, Sa, 1:30-4:30, FordH 160, VanSlyke

**SW 8407 STRATEGIES OF FAMILY INTERVENTION.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Seminar in methods of and strategies for helping families cope with family problems. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8401 or #, second year MSW student. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Winter Spec Term, ★Sec 1, Sa, 10 a.m.-4:30, Jan. 7-28, Feb. 4, FordH 160

**SW 8414 SOCIAL WORK METHODS WITH GROUPS.** 3 credits, \$5414, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

*Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8400. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Winter Qtr, ★Sec 1, Su, 11 a.m.-2, FordH 160

**SW 8421 SOCIAL WORK PRACTICE: PSYCHOPATHOLOGY AND INTERVENTION.** 3 credits, \$5421, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Roles and intervention strategies of social workers in variety of service settings. Problems frequently presented, treatment alternatives, interdisciplinary practice, and ethical issues. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Fall Qtr, ★Sec 1, Sa, 1:30-4:30, FordH 160

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**SW 8424 SOCIAL WORK WITH INVOLUNTARY CLIENTS.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of involuntary transactions in variety of settings. Theory, ethics, strategies for intervention. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8401, second year MSW student. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Winter Spec Term, ★Sec 1, Sa, 10 a.m.-4:30,  
Feb. 11-Mar. 11, FordH 170, Rooney. *No late fee through Feb. 3.*

**SW 8450 SPECIAL TOPICS: PRACTICE WITH INDIVIDUALS, FAMILIES, AND GROUPS—DIRECT WORK WITH INDIVIDUALS.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75

The activity of the practitioner in the assessment, planning, and implementation of intervention, termination, and evaluation of the intervention process. The student's use of self as a social work practitioner working with individuals. Emphasis is on the process of intervention. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8401 or #. Open only to students admitted to the University of Minnesota Graduate School. Limited to 20)

Fall Qtr, ★Sec 1, Su, 11 a.m.-2, FordH 130,  
Graham

**SW 8901 SOCIAL WORK METHODS.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Logic, methods, and techniques of scientific inquiry in social work. Nature and functions of theory, models, assumptions, problem formulation, causal analysis, conceptualization, operationalism, and hypothesis formulation. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 30)

Winter Qtr, ★Sec 1, Su, 11 a.m.-2, FordH 150,  
Graham

**SW 8902 DIRECT PRACTICE EVALUATION.** 3 credits, tuition\*: Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Intensive, advanced course focusing on evaluation of social work direct practice. Students design evaluations which incorporate current evaluation methods and principles derived from research, theory, practice wisdom, and their own experience. Evaluation methods include single-system designs, event analysis, client-focused evaluations, and practitioner-focused evaluations. *Priority registration given to students admitted to the Weekend M.S.W. Option.* (Prereq 8901 or equivalent. Open only to students admitted to the University of Minnesota Graduate School. Limited to 30)

Spring Qtr, ★Sec 1, Su, 11 a.m.-2, FordH 150

### Child Abuse Prevention Studies (CAPS) Certificate

The School of Social Work in conjunction with Continuing Education and Extension are offering a post-baccalaureate certificate program on child abuse prevention. Program and admission inquiries should be directed to the CAPS Certificate Coordinator, Continuing Education and Extension Counseling, 314 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455-0197; telephone (612) 625-2500. Please see page 504 in this Bulletin for a description of this program.

**SW 5030 CHILD ABUSE PREVENTION I: DIRECTED FIELD EXPERIENCE AND INTEGRATIVE SEMINAR.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

**Must be taken S-N.** *Priority registration given to 20 students admitted to the CAPS Program.* (Prereq SW 5301, 5302, 5303. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, T, 4-7, McNH 197, StP Campus,  
Johnston

Winter Qtr, Sec 2, T, 4-7, ClaOff B36, StP  
Campus, Johnston

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**SW 5301 CHILD ABUSE PREVENTION I: RESEARCH AND THEORY.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

First of three-course sequence on prevention of child abuse and neglect, provides conceptual (research and theory) framework for developing primary and secondary preventive interventions. *Priority registration given to 20 students admitted to the CAPS Program.* (Prereq admitted to CAPS program and written  $\Delta$  or post-baccalaureate student with written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Fall Qtr, ★Sec 1, T, 4-7, McNH 146, StP Campus, Gilgun

**SW 5302 CHILD ABUSE PREVENTION II: PROGRAM DEVELOPMENT, IMPLEMENTATION, AND EVALUATION.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Second of three-course sequence on prevention of child abuse and neglect, providing skills for program design; implementation, and evaluation for children at risk. *Priority registration given to 20 students admitted to the CAPS Program.* (Prereq 5301, admitted to CAPS program and written  $\Delta$  or post-baccalaureate student with written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. Limited to 28)

Winter Qtr, ★Sec 1, T, 4-7, McNH 146, StP Campus

**SW 5303 CHILD ABUSE PREVENTION III: STRATEGIES FOR POLICY AND SYSTEMS CHANGE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Third of three-course sequence on prevention of child abuse and neglect, providing understanding of social policy and systems change for children at risk. *Priority registration given to 20 students admitted to the CAPS Program.* (Prereq 5302, admitted to CAPS program and written  $\Delta$  or post-baccalaureate student with written  $\Delta$ . Qualified students may register for graduate credit at the University of Minnesota. Limited to 28)

Spring Qtr, ★Sec 1, T, 4-7, McNH 146, StP Campus

## Sociology (Soc)

(909 Social Sciences: 624-4300)

### College of Liberal Arts

Textbooks for most Soc courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also General College courses in social and behavioral sciences; Family Social Science; Political Science; Social Work; and The Complete and Practical Scholar noncredit courses)

William Brustein, Associate Professor  
Karen S. Louis, Professor in Educational Policy and Administration, Associate in Sociology  
Richard Sykes, Professor of Speech-Communication, Associate in Sociology

**Most courses for a major in sociology are available through Extension Classes. For information about completing a major in sociology, call the sociology department academic adviser (624-4300). Students can complete the major after a limited amount of day school attendance.**

### B.A. Major Sequence, General Option

#### Major Requirements

1001, 3201 or 3201H, 3401 or 3401H  
3801, 3802, 3803 (should be taken soph yr if possible)

A theory course from 5701, 5703, 5705, 5711  
16 additional 3000- or 5000-level sociology cr  
4 credits of major project after all required major course work and upper division composition course are completed (major project must be completed through day school)

### Major Requirements for Sociology of Law, Criminology, and Deviance Option For the B.A. Degree:

1001, 3201 or 3201H or 3401 or 3401H  
3801, 3802, 3803 (should be taken soph yr if possible)

5701 or 5703 or 5705 or 5711  
3101, 3102

Three courses chosen from 5101, 5102, 5104, 5105, 5107, 5108, 5109, 5111, 5114, 5125, 5135, 5141, 5142, 5147, 5148, 5149, 5161, 5162 (no criminology electives are offered through Extension Classes in 1994-95)

4 credits of major project after all required major course work and upper division composition course are completed (major project must be completed through day school)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

# Course Descriptions

## B.S. Major Sequence

### Major Requirements

1001, 3201, 3401, 3801, 3802, 3803

One of the following: 5701, 5703, 5705, 5711

16 credits of 3000- or 5000-level sociology electives

4 credits of required research design in sociology (must be completed through the day school)

27 credits from list of required supportive field courses, including a two-quarter sequence

(minimum 8 credits) in one area (list available from the Sociology Department advisor: 624-4300)

### General Information

Students should check with the undergraduate advisor as early as possible in their college careers for information about declaring the major. Majors must submit a program proposal, prepared after meeting with the sociology undergraduate advising office. Call (612) 624-4300 to arrange to attend an information meeting about the major.

Registration in all major requirements including supportive courses must be A-F unless the course is only offered S-N. Students must maintain a C average in sociology courses, and receive at least a C in all supportive courses for the B.S. sequence.

A maximum of 5 credits of D are acceptable in sociology courses.

Students are advised to register as soon as possible (preferably as sophomores) for 3801, 3802, and 3803.

The Department of Sociology offers an honors degree in day school through the Honors Division of CLA. For more information, students should inquire in the Honors Program Office, 115 Johnston Hall, 624-5522. Honors sections of 1001(H), 3201(H), 3401(H), 3801(H), 3802(H), and 3803(H) are offered only through day school.

### You need not be majoring in sociology to register for sociology classes.

Students interested in a minor in sociology through day school should contact the sociology adviser at (612) 624-4300. The general minor sequence in sociology is available in the evening.

**Joint Day/Extension Classes**—Extension students must register for Extension offerings of sociology courses; however, in a given quarter, if a course is offered through day school only, and not in Extension Classes, an exception may be granted. With the exception of Soc 1001, when a course is offered through both Extension and day school during the

same quarter, Extension students can register for the Extension course only. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

### Continuing Education for Women (CEW) section available in the following course: Soc 3937

**Soc 1001 INTRODUCTION TO SOCIOLOGY.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Introduction to the scientific study of social behavior. Overview of the major theories, methods, concepts, and research findings. Examination of the characteristics of the basic social units (social relations, groups, organizations, institutions, society), their patterns of interrelation, and processes of change. (No prereq)

Fall Qtr, Sec 1, T, 6:20-8:50, AndH 370, Brustein

Winter Qtr, Sec 2, M, 6:20-8:50, AndH 270

Spring Qtr, Sec 3, T, 6:20-8:50, AndH 350,

Brustein

**Soc 1003 SOCIAL PROBLEMS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Sociological analysis of major contemporary problems; theory behind the causes, discussion of methods for studying them, and analysis of potential solutions. Problems may include poverty, racial discrimination, inequality, sex roles, crime, drugs, population problems, and pollution. (No prereq)

Winter Qtr, Sec 1, Th, 6:20-8:50, AndH 210

**Soc 1004 AMERICAN RACE RELATIONS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Sociological overview of relations between American racial minorities (Afro-American, Chicano, Native American, Asian) and the dominant majority. Consideration of migration and settlement patterns; community and family life; gender roles; education and labor force participation, inequalities in wealth, status, health, and welfare; discrimination and institutional racism; public policy responses. (No prereq)

Spring Qtr, Sec 1, W, 6:20-8:50, AndH 270

**Soc 3101 (formerly CJS 3101) INTRODUCTION TO AMERICAN CRIMINAL JUSTICE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Components and dynamics of the criminal justice system as well as its philosophical underpinnings. (No prereq)

Fall Qtr, Sec 1, M, 6:20-8:50, AndH 210

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Soc 3102 INTRODUCTION TO CRIMINAL BEHAVIOR AND SOCIAL CONTROL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction to the basic issues in criminology and the sociology of law and social control organizations. (Prereq 3101 or equivalent)

Winter Qtr, Sec 1, M, 6:20-8:50, BlegH 145

**Soc 3201 PRINCIPLES OF SOCIAL PSYCHOLOGY.** 5 credits, \$3506, tuition\*: Resident \$385; Non-resident \$1116.50.

Ideas and findings related to social psychology; experience in developing empirically based knowledge in social science. (Prereq 1001 or equivalent. Limited to 20)

Fall Qtr, ★Sec 1, M, Lect, 6-8:30, AndH 310; T, Lab, 6:15-8, BlegH 105

Fall Qtr, ★Sec 2, M, Lect, 6-8:30, AndH 310; W, Lab, 6:15-8, BlegH 105

**Soc 3214 SOCIOLOGY OF EVERYDAY LIFE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Behaviors (activities, personal associations), orientations (values, attitudes, beliefs), and personal interpretations of "typical" individuals; their relationship to social characteristics; the effects of transitions—anticipated (e.g., educational/occupational choice, marriage) and unexpected (e.g., unemployment, illness). (Prereq soph, jr, or sr)

Winter Qtr, Sec 1, W, Lect, 6:20-8:50, BlegH 250

**Soc 3401 PRINCIPLES OF SOCIAL ORGANIZATION.** 5 credits, \$3505, tuition\*: Resident \$385; Non-resident \$1116.50.

How and why social organization is possible. Major concepts and theories of social structure, primary forms of social organization (groups, communities, networks, formal organizations), basic social processes (integration, differentiation, regulation, change), and how social organization evolves from individual decision making. Course content varies. (Prereq 1001, 3801 or equivalent. Limited to 20)

Spring Qtr, ★Sec 1, M, Lect, 6-8:30, RarigC 616; T, Lab, 6:15-8, HHHctr 30

Spring Qtr, ★Sec 2, M, Lect, 6-8:30, RarigC 616; W, Lab, 6:15-8, HHHctr 30

**Soc 3501 THE FAMILY SYSTEM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Study of the family in contemporary American society with special attention to historical and cross-cultural comparisons; interrelationships with other social institutions, socialization, patterns of mate selection, life cycle processes and norms of human sexuality. (Prereq 1001 or #)

Fall Qtr, Sec 1, Th, 6:20-8:50, BlegH 155

**Soc 3551 WORLD POPULATION PROBLEMS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Population growth and natural resources, population dynamics, fertility and mortality in less developed nations, population forecasts, population policies to reduce fertility. (No prereq)

Winter Qtr, Sec 1, Th, 6:20-8:50, BlegH 135

**Soc 3801 SOCIOLOGICAL METHODS I: DESCRIPTIVE STATISTICS.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Descriptive statistics in analysis of sociological data, measures of central tendency, deviation, correlation and regression graphs, simple treatment of three and four variables. (Prereq intermediate algebra or GC 0631. Limited to 25)

Fall Qtr, ★Sec 1, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 5:15-6:15, BlegH 90

Fall Qtr, ★Sec 2, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 90

Fall Qtr, ★Sec 3, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 440

**Soc 3802 SOCIOLOGICAL METHODS II: STATISTICAL INFERENCE.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Statistical inferences, probability, hypothesis tests, use of statistical reasoning in analysis of sociological data. (Prereq 3801 or equivalent. Limited to 25)

Winter Qtr, ★Sec 1, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 5:15-6:15, BlegH 440

Winter Qtr, ★Sec 2, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 440

Winter Qtr, ★Sec 3, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 90

**Soc 3803 SOCIOLOGICAL METHODS III: RESEARCH METHODS.** 5 credits, tuition\*: Resident \$385; Non-resident \$1116.50.

Principles of research design, data collection, and analysis focusing on field observation and survey design and analysis. Practice in data collection and analysis. (Prereq 3801, 3802 or equivalent or #. Limited to 25)

Spring Qtr, ★Sec 1, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 5:15-6:15, BlegH 440

Spring Qtr, ★Sec 2, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 440

Spring Qtr, ★Sec 3, TTh, Lect, 6:30-7:45, BlegH 130; TTh, Lab, 8-9, BlegH 90

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Soc 3937 SOCIAL GERONTOLOGY: ELDERS IN AMERICAN SOCIETY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Situations and problems facing aging people in modern societies. Aspects of human aging from a sociological perspective. (Prereq 1001 or #)

Spring Qtr, Sec 1, Th, 9:30 a.m.-12, MacP.

*Offered through Continuing Education for Women*

**Soc 3951 COMPARATIVE ETHNIC GROUP RELATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theories of ethnic stratification. Relations of minorities and elites viewed in historical and cross-cultural comparative perspective, examining the United States and other countries (e.g., South Africa, Mexico). (Prereq 1001 or #)

Fall Qtr, Sec 1, M, 4-6:30, NichH 213, Sykes

**Soc 3954 SOCIOLOGICAL PERSPECTIVES ON RACE, CLASS, AND GENDER.** 4 credits, §Afro 3954, tuition\*: Resident \$308; Non-resident \$893.20.

Societal-level analysis of race, class, and gender inequality. How the three forms of inequality operate independently and in conjunction with one another in American institutions and society. (No prereq)

Spring Qtr, Sec 1, Th, 6:20-8:50, AndH 270

**Soc 5705 BACKGROUNDS OF MODERN SOCIAL THOUGHT.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Originators of modern sociological theory examined through original texts: Marx, Weber, Durkheim, Freud, and Gilman. Division of labor, social cohesion and social control, gender and social reproduction, class relations and the social organization of production, norms and values, and history. (Prereq 8 cr in social sciences or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, T, 6:20-8:50, BlegH 215, Brustein

(See also CSch 0282, What's Wrong With Freud?)

**Soc 5953 SOCIOLOGY OF EDUCATION.** 4 credits, §EdPA 5190, §SPFE 5190, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Advanced studies in social aspects of education including schooling as a socialization process, the

social structure of education, the role of school in social change. Theory and empirical research. (Prereq Soc 1001. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EdPA 5190. A joint Day/Extension class limited to 5 Extension students) Spring Qtr, ★●Sec 1, T, 3:35-6:55, PeikH 165, Louis

**Soc 5960 MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, Educ 5440, CPsy 5305, HSU 5009, PA 5414, PubH 5737, SW 5024, Phar 5009, SAHP 5009, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A multidisciplinary introduction to aging and the aging process. Topics include biological, social, psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems such as social services, health, nutrition, long-term care, and education; public policy and legislation; environments and housing; advocates; retirement. The AUCA-sponsored course is being offered by a number of departments. Students may register for the course through the department of their choice as noted. For information, contact Prof. Donald McTavish in Sociology, 624-4300. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AdEd 5440, CPsy 5305, Phar 5009, HSU 5009, PA 5414, PubH 5737, SW 5024. A joint Day/Extension class)

Fall Qtr, ★●Sec 1, MW, 4:40-6:25, MoosT 2-690 (Limited to a combined total of 37 Extension students)

Spring Qtr, ●Sec 2, MW, 4:40-6:25, MoosT 2-690

## Soil Science (Soil)

(439 Borlaug Hall: 625-1244)

### College of Agriculture

Textbooks for most Soil courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Horticulture; The Practical Scholar; and Research Explorations)

James L. Anderson, Professor  
Jay Bell, Assistant Professor  
Paul R. Bloom, Professor  
Terence Cooper, Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Soil 1020 THE SOIL RESOURCE.** 5 credits, \$5022, tuition\*: Resident \$367.50; Non-resident \$1065.75.

Introduction into the physical, chemical and microbiological properties of soil. Use of the soil classification system to understand the use of soil survey information for land use planning. Concepts of soil fertility for understanding environmental planning and conservation decisions. (No prereq. Meets concurrently with 5022. Limited to 25)

Fall Qtr, ★Sec 1, TTh, 6:20-9:20, ClaOff B30, StP Campus, Cooper

(See also ID 5525-5526, Garbage, Government, and the Globe)

**Soil 5022 INTRODUCTORY SOIL SCIENCE FOR TEACHERS.** 4 credits, \$1020, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for Soil 1020. (Prereq 1 course in college chemistry, a degree in education or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 1020. Limited to 5)

Fall Qtr, ★Sec 1, TTh, 6:20-9:20, ClaOff B30, StP Campus, Cooper

**Soil 5310 SOIL CHEMISTRY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Chemical processes in soil; composition of soil minerals and organic matter, solubility equilibria, adsorption/desorption, ion exchange, formation of soluble complex's, oxidation/reduction, acidity, alkalinity. Discusses solution of problems related to environmental degradation, plant nutrition and soil genesis. For further information, telephone Prof. Paul Bloom at (612) 625-4711. (Prereq Chem 3100 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, MWF, 4:05-4:55, BorH 375, StP Campus, Bloom

**Soil 5555 WETLAND SOILS.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Morphology, chemistry, hydrology, and formation of mineral and organic soils in wet environments.

Soil indicators of wet conditions and techniques for identifying hydric soils for wetland delineations. Field trips and delineation exercise; emphasis on peatlands; wetland benefits, preservation, regulation, and mitigation. Course materials is not of an introductory nature and assumes prior knowledge of soil science and the ability to integrate information from several disciplines in order to understand wetland processes. **Must be taken A-F.** (Prereq 1020 or 3125 or #. Lectures meet concurrently. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ○★Sec 1, Lect, TTh, 4:30-5:45, BorH 365, StP Campus, Anderson, Bell; Rec, M, 4:05-4:55, Soils S415, StP Campus

Fall Qtr, ○★Sec 2, Lect, TTh, 4:30-5:45, BorH 365, StP Campus, Anderson, Bell; Rec, T, 3-3:50, BorH 375, StP Campus

## South Asian and Middle Eastern Languages and Cultures

See Area Studies Programs; and the Institute of Languages and Literatures

## SPAN

(See Student Project for Amity Among Nations)

## Spanish (Span)

(34 Folwell Hall: 625-5858)

Spanish and Portuguese

### College of Liberal Arts

Textbooks for most Span courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Portuguese; History; and PSch 0980, Spanish for Travelers)

René Jara, Professor  
Carol Klee, Associate Professor  
Francisco Ocampo, Assistant Professor  
Joanna O'Connell, Associate Professor  
Luis Ramos-Garcia, Assistant Professor  
Antonio Ramos-Gascón, Professor  
Roberto Reis, Professor  
Nicholas Spadaccini, Professor  
Constance Sullivan, Associate Professor  
Hernán Vidal, Professor  
Anthony N. Zahareas, Professor

**Read about language laboratories fees on page 52.**

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Language Help Sessions**—Extension Classes provides language help sessions for students enrolled in beginning (1101-1102-1103) and intermediate (1104-1105-1106) Extension courses in Spanish. In these sessions, tutors are available to assist students with language problems as well as with language practice. (No appointment is necessary.) Times and locations for each help session are announced by the language instructor at the beginning of each quarter.

**Continuing Education for Women (CEW) sections available in the following courses:** Span 1101, 1102, 1103

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Spanish and Portuguese. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

*Students who have had no Spanish should enroll in Span 1101. Those CLA students who have already studied Spanish are required to take a proficiency exam before enrolling. Contact the Proficiency Testing Office for details on testing dates (624-0862).*

**Span 1101-1102-1103 BEGINNING SPANISH**, carrying 5 degree credits per unit, comprises the standard course in first-year Spanish. The principal aim of the course is to teach students to understand and speak Standard Spanish so that they can communicate in Spain, Spanish America, and among U.S. Spanish-speaking minority groups. As students progress through the 1101-1103 sequence, more emphasis will be placed each quarter on reading and writing, in that order. This sequence is recommended for those planning to travel in Spanish-speaking nations, to continue the study of Spanish, or to satisfy college language requirements.

**Span 1101-1102-1103 BEGINNING SPANISH.** 5 credits each quarter, tuition\* each quarter: Resident \$367.50; Non-resident \$1065.75. (IS)

Basic listening, speaking, reading, and writing skills. Stress on the development of communicative competence. Some cultural readings. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103. Limited to 25)

Fall Qtr, 1101, ★Sec 1, MW, 6:10-8:15, AkerH 317

Fall Qtr, 1101, ★Sec 2, MW, 6:10-8:15, AkerH 313

Fall Qtr, 1101, ★Sec 3, MW, 6:10-8:15, SmithH 111, JonesH 4 (Limit 50)

Fall Qtr, 1101, ★Sec 4, MW, 6:10-8:15, KoltH S135

Fall Qtr, 1101, ★Sec 5, MW, 6:10-8:15, KoltH S138

Fall Qtr, 1101, ★Sec 6, TTh, 9:10-11:15 a.m., MacP. Offered through Continuing Education for Women

Fall Qtr, 1101, ★Sec 7, TTh, 6:10-8:15, AmundH 116

Fall Qtr, 1101, ★Sec 8, TTh, 6:10-8:15, SmithH 121

Fall Qtr, 1101, ★Sec 9, TTh, 6:10-8:15, AmundH 120

Fall Qtr, 1101, ★Sec 10, TTh, 6:10-8:15, FolH 104, JonesH 4 (Limit 50)

Fall Qtr, 1101, ★Sec 11, TTh, 6:10-8:15, JonesH 11

Fall Qtr, 1101, ★Sec 12, MW, 6:10-8:15, AmundH 104

Fall Qtr, 1101, ★Sec 13, TTh, 6:10-8:15, AmundH 124

Winter Qtr, 1101, ★Sec 14, MW, 6:10-8:15, AmundH 116, 156 (Limit 50)

Winter Qtr, 1101, ★Sec 15, MW, 6:10-8:15, AmundH 116, 158 (Limit 50)

Winter Qtr, 1101, ★Sec 16, TTh, 6:10-8:15, AmundH 124, 162 (Limit 50)

Winter Qtr, 1102, ★Sec 1, MW, 6:10-8:15, AkerH 309

Winter Qtr, 1102, ★Sec 2, MW, 6:10-8:15, AkerH 211, AkerH 313 (Limit 50)

Winter Qtr, 1102, ★Sec 3, MW, 6:10-8:15, AkerH 317, 319 (Limit 50)

Winter Qtr, 1102, ★Sec 4, MW, 6:10-8:15, SmithH 121, 111 (Limit 50)

Winter Qtr, 1102, ★Sec 5, TTh, 9:10-11:15 a.m., MacP. Offered through Continuing Education for Women

Winter Qtr, 1102, ★Sec 6, TTh, 6:10-8:15, AmundH 156, 162 (Limit 50)

Winter Qtr, 1102, ★Sec 7, TTh, 6:10-8:15, JonesH 4

Winter Qtr, 1102, ★Sec 8, TTh, 6:10-8:15, JonesH 2

Winter Qtr, 1102, ★Sec 9, TTh, 6:10-8:15, AkerH 317, 211 (Limit 50)

Winter Qtr, 1101, ★Sec 17, MW, 6:10-8:15, KoltH S138, S139 (Limit 50)

Spring Qtr, 1101, ★Sec 18, MW, 6:10-8:15, AmundH 158, 156 (Limit 50)

Spring Qtr, 1101, ★Sec 19, TTh, 6:10-8:15, AmundH 158, 156 (Limit 50)

Spring Qtr, 1102, ★Sec 10, MW, 6:10-8:15, AmundH 120, 124 (Limit 50)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

- Spring Qtr, 1102, ★Sec 11, MW, 6:10-8:15, AmundH 162
- Spring Qtr, 1102, ★Sec 12, TTh, 6:10-8:15, AkerH 215, 313 (Limit 50)
- Spring Qtr, 1102, ★Sec 13, TTh, 6:10-8:15, SmithH 111, 121 (Limit 50)
- Spring Qtr, 1103, ★Sec 1, MW, 6:10-8:15, AkerH 313
- Spring Qtr, 1103, ★Sec 2, MW, 6:10-8:15, SmithH 111, 121 (Limit 50)
- Spring Qtr, 1103, ★Sec 3, MW, 6:10-8:15, KoltH S132, KoltH S133 (Limit 50)
- Spring Qtr, 1103, ★Sec 4, MW, 6:10-8:15, AkerH 225, 309 (Limit 50)
- Spring Qtr, 1103, ★Sec 5, TTh, 9:10-11:15 a.m., MacP. *Offered through Continuing Education for Women*
- Spring Qtr, 1103, ★Sec 6, TTh, 6:10-8:15, AmundH 120, 124 (Limit 50)
- Spring Qtr, 1103, ★Sec 7, TTh, 6:10-8:15, PeikH 155, 215 (Limit 50)
- Spring Qtr, 1103, ★Sec 8, TTh, 6:10-8:15, Phys 236A
- Spring Qtr, 1103, ★Sec 9, TTh, 6:10-8:15, CivMinE 212, 213 (Limit 50)

**Span 1104 INTERMEDIATE SPANISH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Speaking and comprehension; development of reading and writing skills based on materials from Spain and Spanish America. Grammar review; compositions and oral presentations. (Prereq 1103 or 1205 or #. Limited to 25)

Fall Qtr, ★Sec 1, MW, 6:10-8:15, FolH 134

Fall Qtr, ★Sec 2, TTh, 6:10-8:15, AkerH 313

Fall Qtr, ★Sec 3, MW, 6:10-8:15, KoltH S140

Spring Qtr, ★Sec 4, MW, 6:10-8:15, AkerH 319

**Span 1105 INTERMEDIATE SPANISH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

For description, see 1104. (Prereq 1104 or #. Limited to 25)

Fall Qtr, ★Sec 1, TTh, 6:10-8:15, AkerH 317

Fall Qtr, ★Sec 2, TTh, 6:10-8:15, NichH 209A

Winter Qtr, ★Sec 3, TTh, 6:10-8:15, AmundH 104

Winter Qtr, ★Sec 4, MW, 6:10-8:15, PeikH 215 (Limit 50)

**Span 1106 INTERMEDIATE SPANISH.** 5 credits, tuition\*: Resident \$367.50; Non-resident \$1065.75. (IS)

Speaking and comprehension; development of reading and writing skills based on materials from Spain

and Spanish America. Grammar review; compositions and short presentations. (Prereq 1105 or #. Limited to 25)

Winter Qtr, ★Sec 1, MW, 6:10-8:15, MurH 308 (Limit 50)

Spring Qtr, ★Sec 2, MW, 6:10-8:15, AmundH 104 (Limit 50)

Spring Qtr, ★Sec 3, TTh, 6:10-8:15, FolH 208

**Span 1503 CULTURE, CIVILIZATION OF MODERN LATIN AMERICA: SOCIETIES IN CHANGE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Cultural implications arising from struggles for political and economic independence during the 19th and 20th centuries. Cultural characteristics of principal regions of contemporary Latin America. Causes of developmental differences. Taught in English. (No prereq. May not be used for Spanish or Portuguese major credit)

Winter Qtr, Sec 1, M, 6:10-9:30, JonesH 4

**Span 3002 READING FOR SPEED AND COMPREHENSION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Sharpen reading skills, expand vocabulary, improve comprehension. Variety of practical and literary materials will be read; class time will focus on discussion of readings, brief student presentations; short papers to be written at home on topics related to readings. (Prereq 1106 or equivalent. Limited to 30)

Fall Qtr, ★Sec 1, Th, 6:10-8:40, FolH 138

Winter Qtr, ★Sec 2, Th, 6:10-8:40, FolH 138

**Span 3004 WRITTEN COMMUNICATION: FORMAL AND INFORMAL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Exploration of different composition types in Spanish. Individual and class exercises based on model writings. Grammar review as needed. Emphasis on clarity of expression and structure of composition. (Prereq 1106 or equiv. Limited to 20)

Spring Qtr, ★Sec 1, T, 6:10-8:40, FolH 138

**Span 3005 ORAL COMMUNICATION: SPEAKING AND LISTENING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Dialogues, group discussions, simulated situational conversations, interviews, skits, debates based on themes from sound and video tapes, records, speakers from Spain and Spanish America. Emphasis on fluency in speaking and understanding of oral expression. (Prereq 1106 or equivalent. Limited to 15)

Fall Qtr, ★Sec 1, T, 6:10-8:40, FordH 170

Fall Qtr, ★Sec 2, T, 6:10-8:40, FolH 340

Winter Qtr, ★Sec 3, T, 6:10-8:40, FolH 340

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Span 3022 BUSINESS SPANISH.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Emphasizes building a vocabulary of Spanish business terms, developing skills in report writing, and learning the proper format for business and other formal communications. Developing conversational fluency on trade-related topics is stressed. (Prereq 1105 or equivalent. Limited to 25)

Spring Qtr, ★Sec 1, W, 6:10-8:40, FolH 240

**Span 3104 THE ART OF READING LITERARY TEXTS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Critical reading of Spanish and Spanish-American texts; works representing principal genres—novel, drama, poetry, essay; diverse approaches to literature. Terminology of criticism, literary problems and techniques. (Prereq 3002 or #. Limited to 15)

Winter Qtr, ★Sec 2, Th, 6:10-8:40, FolH 419

Spring Qtr, ★Sec 1, Th, 6:10-8:40, FolH 419

**Span 3605 POLITICS IN SPANISH AND LATIN AMERICAN LITERATURE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

The civil wars in Spain; national liberation movements and political upheavals in Latin America. Taught in English. (No prereq. May not be used for Spanish or Portuguese major credit. Limited to 50)

Spring Qtr, ★Sec 1, M, 6:10-8:40, FolH 134

(See also History)

**Span 3614 DON QUIJOTE: STUDY OF LOST ILLUSIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An analysis of Cervantes's Don Quijote and an examination of its reception from the early 1600s to modern times. A component of the course is Don Quijote's reception in Spanish America. Taught in English. (No prereq. May not be used for Spanish or Portuguese major credit. Limited to 50)

Fall Qtr, ★Sec 1, T, 6:10-8:40, NichH 207

**Span 3950 FIGURES IN SPANISH-AMERICAN LITERATURE.** 4 credits this offering (maximum 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

One major writer or group of writers whose work has had an impact on thought, literature, or social problems. (Prereq 3104 or #)

Winter Qtr, Sec 1, T, 6:10-8:40, FolH 419

### Reading Spanish

Span 0221 is specifically designed for individuals who desire only a reading knowledge of the language. The Spanish language requirements for a graduate degree also may be satisfied by successfully passing an examination given at the end of the course. Graduate students should check with their

advisers for specific language requirements in their field of study.

**Span 0221 READING SPANISH.** No credit, tuition\*: \$294. (IS)

This course is designed solely to impart a basic reading knowledge of the Spanish language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals with only one aspect of the language—reading—great skill can be acquired in a short time. At the end of the one quarter the student may take the equivalent of the Spanish Graduate Reading Examination. The department will certify to the Graduate School a reading knowledge of Spanish upon successful completion of this examination. **Must be taken S-N.** (No prereq. Limited to 26)

Winter Qtr, ★Sec 1, W, 6:20-8:40, FolH 419

Spring Qtr, ★Sec 2, T, 6:20-8:40, FolH 419

Spanish 0221 is offered as a Summer Extension Class

### Spanish-Portuguese (SpPt)

(34 Folwell Hall: 625-5858)

Spanish and Portuguese  
College of Liberal Arts

Textbooks for most SpPt courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

**Joint Day/Extension Classes**—You may register through Extension for most day school classes scheduled before 4 p.m. in Spanish-Portuguese. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

### Speech-Communication (Spch)

(460 Folwell Hall: 624-5800)

College of Liberal Arts

Textbooks for most Spch courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also English; General College; The Compleat and Practical Scholar noncredit courses; Linguistics; Journalism; and Rhetoric)

Rosita Albert, Associate Professor  
Donald R. Browne, Professor  
Dean Hewes, Professor  
Patricia Kovel-Jarboe, Lecturer  
Becky Kroll, Assistant Professor

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



Lisa O'Dell, Lecturer  
 Scott Poole, Professor  
 David Rarick, Associate Professor  
 George L. Shapiro, Professor

**Most courses needed for a major in Speech-Communication can be completed in the evening.**

Most courses required in the undergraduate major are offered over a two-year period of time. Interested students should discuss plans with a CEE adviser (625-2500). Students deciding to work for the major should confer with a departmental adviser early in their work (call 624-5800 for an appointment). (See the Degrees and Certificates section of this Bulletin for information on a master's degree in speech-communication.)

**B.A. Major sequence**

*Required Preparatory Courses:* 1101, 1102. These courses are offered yearly.

*Major Requirements (Effective Sept. 16, 1990)*

Minimum of 36 3xxx-5xxx cr in speech-communication to include: 3211, 3401 and 3601 (may not include 3970, 3980, "X" registrations). Also, two courses at 3xxx level in composition, as well as a research requirement: Spch 3501 or an out-of-department course in research methods (a list of such courses is available in the department's Undergraduate Advising Office, 432 Folwell Hall). The composition and research requirements are *in addition* to the minimum of 36 3xxx-5xxx cr in speech-communication.

To qualify for admission to the Speech-Communication major, students must complete five courses: Spch 1101, 1102, 3211, 3401, and 3601, and earn an average grade of 2.33 across the three 3xxx courses. Students wishing to emphasize speech-communication in IDIM, BIS, UWW, and other individually designed programs must achieve a 2.50 grade-point average in any two of these four courses: Spch 1102, 3211, 3401, and 3601.

The program must be planned in conference with and approved by a departmental major adviser. Students are encouraged to see department advisers quarterly.

Although many courses are offered in evening classes, the selection a student will have will be limited.

*A minor is also available in Speech-Communication. Interested students should contact CEE Counseling, 625-2500.*

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Speech-Communication. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Continuing Education for Women (CEW) section available in the following course:** Spch 1101

**You must attend the entire first Spch class session or your space in that class will be forfeited.**

**Spch 1101 FUNDAMENTALS OF SPEECH-COMMUNICATION: ORAL COMMUNICATION.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Basic understanding of oral communication processes. Study and application of essential elements in oral communication. Consideration of criticism and response to oral discourse. Opportunities for individual speaking. (No prereq. Limited to 18)

Fall Qtr, ★Sec 1, M, 6-9, FolH 419

Fall Qtr, ★Sec 2, Th, 6-9, FolH 419

Winter Qtr, ★Sec 3, T, 6-9, FolH 318

Winter Qtr, ★Sec 4, W, 9 a.m.-12, MacP. *Offered through Continuing Education for Women*

Spring Qtr, ★Sec 5, M, 6-9, FolH 326

Spring Qtr, ★Sec 6, Th, 6-9, FolH 318

**Spch 1102 FUNDAMENTALS OF SPEECH-COMMUNICATION: COMMUNICATION PROCESS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Introduction to the identification and analysis of variables in intrapersonal, interpersonal, and group communication. (No prereq)

Winter Qtr, Sec 1, W, 6-9, NichH 213

Spring Qtr, Sec 2, W, 6-9, FolH 306

**Spch 1313 ANALYSIS OF ORAL ARGUMENT.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Strategies for analyzing and evaluating arguments received aurally. Problems in listening and responding to argument. (No prereq. Limited to 18)

Fall Qtr, ★Sec 1, Th, 6-9, FolH 312

Winter Qtr, ★Sec 2, T, 6-9, FolH 312

Spring Qtr, ★Sec 3, M, 6-9, FolH 312

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Spch 3111 LEADERSHIP COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Interdisciplinary study of theory and practice of leadership. Theoretical approaches to management. Interpersonal communication skills in leadership practice; persuasion and cross-value communication in effective leadership. Experience in task-oriented small group communication. (No prereq. Limited to 35)

Fall Qtr, ★Sec 1, M, 6-9, FolH 326

Winter Qtr, ★Sec 2, M, 6-9, FolH 318

Spring Qtr, ★Sec 3, TTh, 4-6, FolH 50,

Shapiro (A joint Day/Extension class limited to 4 Extension students)

**Spch 3211 DETERMINANTS OF BROADCAST PROGRAMMING.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Historical development and contemporary aspects of broadcast programming. How governmental, industrial, and public organizations influence program decisions. "Problem" areas of programming. (No prereq. Limited to 100)

Spring Qtr, ★Sec 1, W, 6-9, FolH 340, Browne

**Spch 3401 THEORIES OF PERSON TO PERSON COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theories of interpersonal communication and their usefulness for particular purposes. (Prereq 1102 or #, Psy 1001. Limited to 50)

Fall Qtr, ★Sec 1, T, 6-9, FolH 208, Hewes

**Spch 3402 COMMUNICATION IN RELATIONSHIPS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A discussion of the effects of communication on the definition and development of friendships and romantic relationships. (Prereq 1102. Limited to 50)

Spring Qtr, ★Sec 1, W, 6-9, FolH 208, Hewes

(See also PSch 0845, Man Talk, Woman Talk: Bridging the Gender Communication Gap)

**Spch 3411 SMALL GROUP COMMUNICATION PROCESSES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Cooperative thinking in task-oriented groups. Planning, preparing for, participating in, and leading private and public meetings. *May require group meetings outside regularly scheduled class hours listed below.* (Prereq 1101 or #. Limited to 18)

Fall Qtr, ★Sec 1, T, 6-9, FolH 419

Winter Qtr, ★Sec 2, Th, 6-9, FolH 318

Spring Qtr, ★Sec 3, T, 6-9, FolH 326

**Spch 3431 THE ROLE OF PERSUASION IN THE MODERN WORLD.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Persuasion in interpersonal, organizational, intracultural, and intercultural relationships. Contemporary and historical comparisons and contrasts. Design and implementation of projects. (No prereq. Sophomore standing recommended. Limited to 30)

Fall Qtr, ★Sec 1, Th, 6-9, FolH 318

Spring Qtr, ★Sec 2, Th, 6-9, FolH 326

**Spch 3441 COMMUNICATING IN ORGANIZATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theory and practice of communicating in organizations. How communication creates, maintains, and changes organizational culture. Role of individual communicator in organizational culture. (Prereq 1102 or 1101 or equivalent. Limited to 22)

Winter Qtr, ★Sec 1, Th, 6-9, FolH 312

Spring Qtr, ★Sec 2, T, 6-9, FolH 426

**Spch 3451 INTERCULTURAL COMMUNICATION: THEORY AND PRACTICE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theories of and factors influencing intercultural communication. Development of effective intercultural communication skills. (Prereq planning an intercultural experience. Limited to 20)

Winter Qtr, ★Sec 1, M, 6-9, FolH 50

**Spch 3501 INTRODUCTION TO COMMUNICATION RESEARCH METHODS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction to quantitative research methods in speech-communication, to include design of communication experiments, surveys, interaction coding, content analysis, observational research, and relevant statistical methods. (Prereq 3401. Limited to 100)

Fall Qtr, ★Sec 1, W, 5:45-9:15, NichH 213,

O'Dell

Winter Qtr, ★Sec 2, M, 5:45-9:15, FolH 306,

O'Dell

Spring Qtr, ★Sec 3, W, 5:45-9:15, NichH 213,

O'Dell

**Spch 3601 APPROACHES TO PUBLIC DISCOURSE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Survey of theoretical systems intended to explain or direct the creation of public discourse. Traditional rhetorics to contemporary perspectives. Using theory to explain the practice of public discourse. (Prereq 1101. Limited to 100)

Winter Qtr, ★Sec 1, W, 6-9, FolH 306

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Spch 5402 PROBLEMS IN INTERPERSONAL COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Factors contributing to misunderstanding, not understanding, disagreement, and cessation of contact in dyads. (Prereq 3401 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 4 Extension students)

Spring Qtr, ★●Sec 1, MW, 4-6, FolH 318, Shapiro

**Spch 5405 NONVERBAL COMMUNICATION: THEORY AND RESEARCH.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Nonverbal interpersonal communication. Nonverbal categories: gesture, facial expression, posture, clothing, environment. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr, ★●Sec 1, W, 6-9, FolH 312, Sykes

**Spch 5422 INTERVIEWING AND COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theory and practice of communication in the information interview. Role of interpersonal perception, empathy, and cognitive structure in dyadic communication. Experience in interviewing and communication analysis. Applications to research in interpersonal and mass communication. (Prereq 1101, 6 cr in social science or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 24)

Fall Qtr, ★Sec 1, M, 6-9, FolH 312, Kovel-Jarboe

Spring Qtr, ★Sec 2, M, 6-9, FolH 214, Rarick

(See also Rhet 5258, Interviewing: Dynamics of Face-to-Face Communication)

**Spch 5441 COMMUNICATION IN HUMAN ORGANIZATIONS.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of functions of communication in organizational settings. Organizational structure and dynamics and their effect upon communication process. Collateral readings and individual projects. (Prereq 3401 or 8 cr in social sciences, 3441 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★Sec 1, T, 6-9, FolH 318, Kroll

Spring Qtr, ★Sec 2, T, 6-9, FolH 318, Kroll

**Spch 5443 THEORIES OF ORGANIZATIONAL COMMUNICATION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Survey of theories of organizational communication and relevant empirical research. Implications of these theories for modern organizations, their members, and society. (Prereq 5441. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Winter Qtr, ★Sec 1, T, 6-9, FolH 326

## Statistics (Stat)

(270a Vincent Hall: 625-8046)

### College of Liberal Arts

Textbooks for Stat courses available at University of Minnesota Bookstore—St. Paul (624-9200) for classes on that campus; at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000) for classes on the Minneapolis campus.

(See also GC 1454, Statistics; and PSch 0665, Taking the Sting Out of Stats: Preparing for Graduate Statistics)

Douglas Hawkins, Professor of Statistics  
Bernard Lindgren, Professor of Statistics  
Frank Martin, Associate Professor of Statistics

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Statistics. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Stat 1001 INTRODUCTION TO IDEAS OF STATISTICS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

Controlled vs observational studies; presentation and description of data; correlation and causality; sampling; accuracy of estimates; tests. (Prereq HS algebra. Limited to 40)

Fall Qtr, ★Sec 1, M, 6:20-8:50, VinH 203

Fall Qtr, ★Sec 2, T, 6:20-8:50, HckrH 100, StP Campus

Winter Qtr, ★Sec 3, M, 6:20-8:50, VinH 203

Winter Qtr, ★Sec 4, T, 6:20-8:50, ClaOff B35, StP Campus

Spring Qtr, ★Sec 5, M, 6:20-8:50, ClaOff B25, StP Campus (Limit 60)

**Stat 3011-3012 STATISTICAL ANALYSIS.** 4 credits each quarter, tuition\* each quarter: Resident \$308; Non-resident \$893.20.

Descriptive statistics; elementary probability; estimation; one- and two-sample tests; correlation; regression; ANOVA; randomized blocks; multiple comparisons; factorial experiments; multiple regression; goodness of fit; nonparametric methods; contingency tables; selected topics. (Prereq college algebra. Limited to 20)

Fall Qtr, 3011, ★Sec 1, W, 6:20-8:50, VinH 203 (Limit 40)

Fall Qtr, 3011, ★Sec 2, Th, 6:20-8:50, VinH 203 (Limit 40)

Winter Qtr, 3011, ★Sec 3, T, 6:20-8:50, VinH 203 (Limit 50)

Winter Qtr, 3012, ★Sec 1, W, 6:20-8:50, VinH 203

Winter Qtr, 3012, ★Sec 2, Th, 6:20-8:50, VinH 203

Spring Qtr, 3011, ★Sec 4, Th, 6:20-8:50, VinH 203 (Limit 40)

Spring Qtr, 3012, ★Sec 3, T, 6:20-8:50, VinH 203

Spring Qtr, 3012, ★Sec 4, W, 6:20-8:50, VinH 203

**Stat 3091 INTRODUCTION TO PROBABILITY AND STATISTICS.** 4 credits, \$5121, \$5131, tuition\*: Resident \$308; Non-resident \$893.20.

Elementary probability and probability distributions, sampling and elements of statistical inference. (Prereq differential and integral calculus. Limited to 60)

Fall Qtr, ★Sec 1, Th, 6:20-8:50, AkerH 225

Winter Qtr, ★Sec 2, Th, 6:20-8:50, AkerH 225

Spring Qtr, ★Sec 3, Th, 6:20-8:50, AkerH 225

**Stat 5021 STATISTICAL ANALYSIS I.** 5 credits, §3012, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Intensive version of 3011-3012, designed primarily for graduate students needing statistics as a research technique. (Prereq college algebra or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Fall Qtr, ★Sec 1, MW, 6-8:15, ClaOff B45, StP Campus

**Stat 5091 STATISTICAL METHODS FOR QUALITY IMPROVEMENT.** 4 credits, §5163, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Application of statistical concepts of random variability and sampling, statistical process control, Shewhart and accumulative charting, analysis of plant data, applications of trend surface analysis, analysis of variance and design of experiments, quality improvements by reduction of random variability. (Prereq 3012 or 5021 or 3091 or 5122 or 5132, and Math 1252. Qualified student may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr, ★Sec 1, MW, 6-8:15, ClaOff B30, StP Campus

**Stat 5302 APPLIED REGRESSION ANALYSIS.** 5 credits, §5161, tuition\*: Resident \$385; Non-resident \$1116.50; Resident Graduate credit \$535; Non-resident Graduate credit \$1070; Resident Graduate School credit \$918.75; Non-resident Graduate School credit \$2021.25.

Simple, multiple, and polynomial regression. Estimation, testing, and prediction. Stepwise and other numerical methods; examination of residuals; weighted least squares; nonlinear models; response surface. Experimental research and economic applications. (Prereq 3012 or 5021 or 5133 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr, ★Sec 1, MW, 6-8:15, ClaOff B42, StP Campus

## Studio Arts

(See Art)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Student Project for Amity Among Nations (SPAN)

SPAN offers an opportunity for undergraduate and graduate students to pursue their own research in another country and receive academic credit at the University of Minnesota. In the summer of 1995, SPAN students, under the guidance of experienced academic advisers, will travel to either China, Ghana, Greece, or Switzerland. The three-phase SPAN program includes: (1) a year of intensive pre-departure study of a foreign culture (including language when appropriate); (2) a summer abroad (eight weeks minimum) to gather information on an individual project; and (3) the completion of a research paper in the return year. Students are awarded 12 credits for the entire program. Participants are selected a year prior to their summer abroad and enter a nine-month cultural orientation program in the fall. For further information, contact SPAN, 107 Nicholson Hall, University of Minnesota, Minneapolis, MN 55455; (612) 626-1083. Language courses offered by SPAN are listed under "Foreign Studies SPAN (FSSP)" in this bulletin.

## Study Abroad

For information about other study abroad opportunities, visit the Global Campus office at 106 Nicholson Hall, or telephone (612) 625-3379.

## Study Skills

(See Learning and Academic Skills)

## Swedish

(See Scandinavian Languages)

## Textiles and Clothing

See Design, Housing, and Apparel, page 138.

## Theatre Arts (Th)

(208 Middlebrook Hall: 625-6699)

### College of Liberal Arts

Textbooks for most Th courses are available at University of Minnesota Bookstore—West Bank (625-3000).

(See also English; and The Compleat Scholar non-credit courses)

Shelila Bland, Lecturer

Barbara Field, Lecturer

Marisha Chamberlain, Lecturer

Kent Neely, Lecturer

James Norwood, Associate Professor

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Theatre Arts. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**Th 1101 INTRODUCTION TO THE THEATRE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60. (IS)

History and theory of plays and playwrights. (No prereq. Limited to 60)

Fall Qtr, ★Sec 1, MW, 6-8, BlegH 150, Norwood

Winter Qtr, ★Sec 2, MW, 6-8, BlegH 150,

Norwood

(See also CSch 0126, Improvisational Theatre Without the Jokes and CSch 0130, Illusion and Deception: Creating Magical Space for Theatre)

**Th 1102 DRAMA AND THE MEDIA.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Study of dramatic form in contrasting media: theatre, film, and television. Lectures and film showings. Choice of outside viewing experiences. (No prereq. Limited to 150)

Spring Qtr, ★Sec 1, M, 6:20-8:50, RarigC 190, Neely

**Th 1301 ACTING FOR NON-THEATRE MAJORS.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60 2.

Explores the relationships between acting on the stage and acting in "real life." Emphasis on movement, voice, scene work, daily observations, and improvisations. An introduction to acting through an understanding of our minds, bodies, and naturalism. A class for would-be actors and actresses who might like to take the first step to acting in plays or improving their acting roles in everyday life. (Prereq 1101 or ¶1101. Limited to 30)

Spring Qtr, ★Sec 1, Sa, 9 a.m.-12, RarigC 90

(See also CSch 0198, Unleashing Your Charisma: Performing Presence)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**Th 1321 BEGINNING ACTING.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Beginning techniques and exercises leading to performance, monologues, and scenes. (Prereq 1101, 1504. Limited to 16)

Spring Qtr, ★Sec 1, Sa, 9 a.m.-12, RarigC 210, Norwood

**Th 1805 AMERICAN ETHNIC LITERATURE IN PERFORMANCE.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Reading and analyzing of selected poems, stories, and dramas by Afro-American, American Indian, Asian American, and Chicano writers, and the sharing of insights into a multiracial and multiethnic society through solo and group performances. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, W, 6:20-8:50, RarigC 616

Winter Qtr, ★Sec 2, W, 6:20-8:50, RarigC 616

Spring Qtr, ★Sec 3, W, 6:20-8:50, RarigC 616

**Th 3115 INTRODUCTION TO PLAYWRITING.** 4 credits, §EngW 3110, tuition\*: Resident \$308; Non-resident \$893.20.

Introduction to forms of playwriting. (Prereq #. Sec 1 meets concurrently with EngW 3110. Limited to a combined total of 16)

Fall Qtr, ★Sec 1, T, 6:20-8:50, RarigC 610, Field

**Th 3803 PLATFORM PERFORMANCE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Reading and analyzing selected poems, plays, and stories and interpreting literary insights through solo and group performance. (Prereq Management major. Limited to 20)

Winter Qtr, ★Sec 1, T, 6:20-8:50, RarigC 610

**Th 3950 WOMEN AND THE ARTS: WOMEN AND THEATER.** 4 credits, §WoSt 3304, tuition\*: Resident \$308; Non-resident \$893.20.

Contemporary women playwrights, radical feminist theater, the "woman's voice" in theater, and different styles in women's theater. Students will both read plays and gain performance experience. (Prereq introductory work in music, art, drama, dance, film, or other arts. Meets concurrently with WoSt 3304. Limited to a combined total of 40)

Winter Qtr, ★Sec 1, Th, 6:20-8:50, FordH 150, Bland

**Th 5115 ADVANCED PLAYWRITING I.** 4 credits, §EngW 5204, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. (IS)

Advanced playwriting workshop for students with established competence. (Prereq written #. Quali-

fied students may register for graduate credit at the University of Minnesota. Meets concurrently with EngW 5204. A joint Day/Extension class limited to a combined total of 6 Extension students)

Winter Qtr, ★Sec 1, W, 4:15-6:45, BlegH 205

**Th 5950 READING AS PLAYWRIGHTS: CONTEMPORARY DRAMA.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Directed readings in contemporary drama and special assignments for students interested in exploring their potential for playwriting for the theatre of today. (Prereq written Δ. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EngW 5310 sec 2. Limited to 7)

Fall Qtr, ★Sec 1, W, 4:15-6:45, LindH 340, Chamberlain

## Training and Development

(See *Human Resource Development* in Vocational and Technical Education)

## University College (UC)

(See the Degrees and Certificates section of this Bulletin)

## Urban Affairs

(See Civil Engineering; The Compleat and Practical Scholar noncredit courses; Design; General College; Geography; Industrial Relations; Public Affairs; Public Health; Interdepartmental Study; and Sociology)

## Urban Studies (UrbS)

(348 Social Sciences: 626-1626)

### College of Liberal Arts

Textbooks for most UrbS courses are available at University of Minnesota Bookstore—West Bank (625-3000).

Joe Austin, Teaching Assistant in Urban Studies

\* Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**Joint Day/Extension Classes**—You may register through Extension for all Urban Studies day school classes, some of which are scheduled after 4 p.m. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**UrbS 3301 AMERICAN CITIES: SETTINGS FOR CULTURAL PLURALISM.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

An exploration of the potential that U.S. cities hold for nurturing cultural pluralism. Explores the problems, conflicts, and successes of pluralistic efforts in our cities. The focus will be on different groups of people within American urban settings and how they relate to one another and to the dominant culture. **Must be taken A-F. Fulfills CLA cultural pluralism requirement.** (No prereq. Limited to 80) Spring Qtr, ★Sec 1, W, 6-9, AndH 310, Austin

(See also CSch 0290, Downtown Versus Edge Cities)

### Veterinary Medicine, College of (CVM); Clinical and Population Sciences (CAPS)

(455 Veterinary Teaching Hospitals: 624-9227)

Textbooks for most CVM courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

Robert A. Robinson, Professor

**CVM 3100 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY.** 2 or 3 credits, tuition\*: Resident \$253 or \$379.50; Non-resident \$506 or \$759. (IS)

Interrelationships of people and animals from several viewpoints. The social, economic, and health consequences of these relationships including issues such as pets and people sharing an urban environment, animal rights, and the influence of differences in cultures on animal-human relationships. (No prereq. Meets concurrently with PubH 3301, 5301. A joint Day/Extension class)

Spring Qtr, ○Sec 1, T, 4-5:40, AnScVM 125, StP Campus, Robinson

(See also PSch 0949, Heads to Tails: A Practical Guide to Pet Care)

**CAPS 5280 WORLD FOOD PROBLEMS.** 3 credits, §AgEc 5790, §Agro 5200, §FScN 5643, tuition\*: Resident \$379.50; Non-resident \$759; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit

\$551.25; Non-resident Graduate School credit \$1212.75.

A multidisciplinary approach to social, economic, and technical problems of feeding the world's growing population. Principles sought from social and economic sciences and plant, animal, and food sciences for their application to world food problems. (Prereq DVM or grad student with #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AgEc 5790, 5280, Agro 5200 and FScN 5643. A joint Day/Extension class)

Fall Qtr, ○Sec 1, W, 6-9, ClaOff B35, StP Campus, Breene, Busta, Robinson

### Vocabulary Building

(See General College communication skills; and The Practical Scholar noncredit courses)

### Vocational and Technical Education

(350 Vocational/Technical Building: 624-1221)

#### College of Education

(Vocational and Technical Education)

Textbooks for most AdEd, AgEd, BIE, FE, HRD, and VoEd courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in several Vocational Education areas. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**For registration information about day school College of Education courses, see page 154 or call 625-6501.**

Some off-campus courses are also available through the department's Office of Special Services. For information, telephone (612) 624-1700.

Contact Vocational and Technical Education to request additional information about course offerings for vocational licensure and degrees in the following programs:

- Adult Education
- Agricultural Education
- Business and Industry Education
- Family Education
- Human Resource Development
- Vocational Education

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

Michael Baizerman, Professor of Social Work  
Peg Bauerfeind, Teaching Assistant  
David Bjorkquist, Professor  
Ted Bowman, Lecturer  
James M. Brown, Associate Professor  
George Copa, Professor  
Harlan G. Copeland, Associate Professor  
Jeanette Daines, Senior Fellow  
Charles R. Hopkins, Professor  
James C. Kielsmeier, Assistant Professor  
Richard Krueger, Adjunct Professor and Extension Educator, Minnesota Extension Service  
Judith Lambrecht, Professor  
Gary Leske, Associate Professor and Director of Graduate Studies  
Theodore Lewis, Assistant Professor  
James Maddock, Associate Professor, Family Social Science  
Jerry McClelland, Associate Professor  
Gary N. McLean, Professor  
Neal Nickerson, Professor of Educational Policy and Administration  
Gina Nilsen, Teaching Assistant  
Rosemarie J. Park, Associate Professor  
Roland Peterson, Professor  
Jane Piihal, Associate Professor  
David Pucel, Professor  
Nancy J. Rohde, Assistant Professor  
Marilyn Rossmann, Associate Professor  
Elizabeth Sandell, Lecturer  
Byron Schneider, Associate Professor of Social Work  
R. Shumer, Lecturer and Project Director  
Mary Ann Smith, Associate Professor  
James Stone, III, Associate Professor  
Richard Swanson, Professor  
Karen Tomervik, Graduate Assistant  
Ruth Thomas, Associate Professor  
Gail Skinner West, Associate Director, Minnesota Extension Service  
Howard Y. Williams, Professor

### Adult Education (AdEd)

(325 Vocational and Technical Education: 624-1221)

**AdEd 5103 (formerly Educ 5103) ADULT EDUCATION WORKSHOP.** 1-12 cr (maximum 12 cr), 3 credits each offering, §Educ 5102, tuition each offering\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Study of topic appropriate to the activities and interests of the participant. **Must be taken A-F.**  
*Focus Sec 1:* Information Resources for Educators.

*Focus Sec 2:* Working with Volunteers in Community Settings. *Focus Sec 3:* Educational Gerontology. *Focus Sec 4:* Advising Non-Traditional Students. *Focus Sec 5:* Family Literacy. (Prereq practicing adult educator or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★● Sec 1, M, 3:30-6, VoTech R250, StP Campus, Rohde (A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★ Sec 2, M, 4-6:30, VoTech R280, StP Campus, Copeland

Spring Qtr, ★● Sec 3, W, 4-6:30, VoTech 220, StP Campus, Copeland (A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★● Sec 4, W, 4-6:30, VoTech R275, StP Campus, Rohde (A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★● Sec 5, Th, 4-6:30, VoTech R280, StP Campus, Park (A joint Day/Extension class limited to 12 Extension students)

**AdEd 5104 (formerly Educ 5104) SURVEY OF ADULT EDUCATION.** 3 credits, §Educ 5104, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

General concepts in the field; literature, objectives, history, philosophy, research, institutions, issues and problems. **Must be taken A-F.** (Prereq senior standing. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★● Sec 1, T, 4-6:30, VoTech R375, StP Campus, Copeland

**AdEd 5201 (formerly Educ 5201) INTRODUCTION TO THE UNDEREDUCATED ADULT.** 3 credits, §Educ 5201, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Issues in literacy education, characteristics, problems, individual differences of the adult undereducated learner; traditional and innovative approaches for working with adults in literacy programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★● Sec 1, T, 4-6:30, VoTech 220, StP Campus, Park

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



### **AdEd 5202 (formerly Educ 5202) ADULT LITERACY: DIAGNOSIS AND PRESCRIPTION.**

3 credits, §Educ 5202, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of diagnostic information, instruments, and techniques to learning difficulties of adults in reading and mathematics programs. **Must be taken A-F.** (Prereq 5201 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, W, 4-6:30, VoTech R220, StP Campus, Park

### **AdEd 5203 (formerly Educ 5203) ADULT LITERACY: METHODS AND MATERIALS.**

3 credits, §Educ 5203, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Teaching literacy skills to adults: basic theories, approaches, overview of methods and materials for implementation. **Must be taken A-F.** (Prereq 5202 or Elem 5331 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Spring Qtr, ★●Sec 1, M, 4-6:30, VoTech R380, StP Campus, Park

### **AdEd 5204 (formerly Educ 5204) READING IN WORK SETTINGS.**

3 credits, §VoEd 5204, Educ 5204, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of concepts involved in integrating reading instruction into vocational training programs and work settings: diagnosis and methods of assessing needs of vocational students and workers on a job; techniques for building needs into training programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, M, 4-6:30, VoTech R385, StP Campus, Park

### **AdEd 5301 (formerly Educ 5301) DESIGNING THE ADULT EDUCATION PROGRAM.**

3 credits, §Educ 5301, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321;

Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Designing and implementing educational programs for adults; concepts, theories, determining needs, educational objectives, learning experiences, and evaluating outcomes. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, Th, 4-6:30, VoTech R385,

StP Campus, Copeland

Spring Qtr, ★●Sec 2, T, 4-6:30, VoTech 220,

StP Campus, Copeland

### **AdEd 5401 (formerly Educ 5401) ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN.**

3 credits, §Educ 5401, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Physiological, social, and cultural bases of adult behavior; motivation, socialization, personality change as applied to education of adults. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, T, 4-6:30, VoTech R380, StP Campus, Williams

Winter Qtr, ★●Sec 2, T, 4-6:30, VoTech R285, StP Campus, Williams

Spring Qtr, ★●Sec 3, T, 4-6:30, VoTech R385, StP Campus, Williams

### **AdEd 5411 (formerly Educ 5411) STRATEGIES FOR TEACHING ADULTS.**

3 credits, §Educ 5411, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Identification, classification, and analysis of techniques used in teaching adults. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, M, 4-6:30, VoTech R380, StP Campus, Williams

Winter Qtr, ★●Sec 2, Th, 4-6:30, VoTech R285, StP Campus, Williams

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**AdEd 5421 DISTANCE EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Survey of distance education covering the concept, theories, history, delivery systems, and present practice. Emphasis is on practice in the U.S., but topics and issues are explored from an international perspective. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Winter Qtr, ★●Sec 1, W, 4-6:30, VoTech R385, StP Campus, Rohde

**AdEd 5440 (formerly Educ 5440) MULTI-DISCIPLINARY PERSPECTIVES ON AGING.**

4 credits, §Educ 5440, §CPsy 5305, §HSU 5009, §PA 5414, §Phar 5009, §PubH 5737, §SAHP 5009, §Soc 5960, §SW 5024, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for Soc 5960. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with CPsy 5305, Soc 5960, HSU 5009, Phar 5009, PA 5414, PubH 5737, SW 5024. A joint Day/Extension class)

Fall Qtr, ★●Sec 1, MW, 4:40-6:25, MoosT 2-690, Copeland (Limited to a combined total of 37 Extension students)

Spring Qtr, ●Sec 2, MW, 4:40-6:25, MoosT 2-690, Copeland

**AdEd 5501 (formerly Educ 5501) CONTINUING EDUCATION AND THE PROFESSIONS.**

3 credits, §Educ 5501, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Review of literature; analysis of philosophies, issues, and trends; emphasis on integrating personal growth, professional needs, and statutory requirements in continuing education programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 12 Extension students)

Fall Qtr, ★●Sec 1, W, 4-6:30, VoTech R385, StP Campus, Copeland, Rohde

## Business and Industry Education (BIE)

(425 Vocational/Technical Building; 624-3004)

**BIE 5002 (formerly BME 5252) TEACHING PROMOTION DISPLAY.** 3 credits, §BDE 5252, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Identifying materials and methods for teaching visual merchandising, sales promotion, advertising, public relations, and promotion planning. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, Th, 3:30-6, VoTech R285, StP Campus

**BIE 5010 (formerly BME 5310) INTRODUCTION TO MICROCOMPUTER APPLICATIONS IN BUSINESS AND INDUSTRY EDUCATION.** 3 credits, §BDE 5310, BME 3310, tuition\*:

Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Instructional uses of microcomputers, representative business and marketing education applications, including word processing, databases, spreadsheets, and graphics. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, W, 3:30-6, VoTech 230, StP Campus

**BIE 5015 (formerly BME 5160) ADVANCED WORD PROCESSING PRACTICUM.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Completion of projects using advanced editing and printing capabilities. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, M, 3:30-6, VoTech 230, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**BIE 5020 (formerly BME 5330) SPREADSHEET ANALYSIS USING MICROCOMPUTERS IN BUSINESS AND INDUSTRY EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to use of spreadsheet software, instructional applications in business areas. **Must be taken A-F.** (Prereq BIE 5010 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, W, 3:30-6, VoTech 230, StP Campus

**BIE 5025 (formerly BME 5335) TEACHING MICROCOMPUTER GRAPHICS IN BUSINESS AND INDUSTRY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Representative microcomputer-based business graphics software packages; use for making instructional presentations; use of simulated projects to teach applications in business and industry classrooms. **Must be taken A-F.** (Prereq 5010 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, T, 3:30-6, VoTech 230, StP Campus

**BIE 5030 DATA BASE MICROCOMPUTER APPLICATIONS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to use of data base software; instructional applications in business areas. **Must be taken A-F.** (Prereq BME 3310 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, M, 3:30-6, VoTech 230, StP Campus

**BIE 5040 (formerly BME 5365) INTEGRATED MICROCOMPUTER APPLICATIONS IN BUSINESS AND INDUSTRY EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Advanced business and industry computer applications integrating business word processing, spreadsheets, business graphics, and data base software. **Must be taken A-F.** (Prereq 5010, 5015, 5020, 5025, 5030 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, Th, 4-6:30, VoTech 230, StP Campus, Lambrecht

**BIE 5253 (formerly BME 5253) SUPERVISORY TRAINING.** 3 credits, § HRD 5253, §BDE 5253, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Problems, practices, programs, issues, and methodologies related to preparing trainers of supervisors in business, office, and marketing occupations. **Must be taken A-F.** (Prereq VoEd 5340. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, T, 4-6:30, VoTech R220, StP Campus

**BIE 5261 (formerly BME 5261) SALES TRAINING.** 3 credits, §HRD 5261, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to strategies and techniques useful in developing effective sales people. **Must be taken A-F.** (Prereq 3060. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, W, 4-6:30, VoTech R285, StP Campus

**BIE 5262 (formerly BME 5262) CUSTOMER SERVICE TRAINING.** 3 credits, §HRD 5262, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of customer service strategies used by successful organizations and training practices used to develop customer-oriented personnel. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, W, 4-6:30, VoTech R285, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**BIE 5300 (formerly Ind 5300) ORGANIZATIONAL NEEDS ASSESSMENT.** 3 credits, §HRD 5300, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Identification of organizational performance problems, problem causes, and recommendations of training solutions and other interventions to improve performance in business, industry, and schools. **Must be taken A-F.** (Prereq 5330, HRD 5750, or CISy 5201. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, Th, 4-6:30, VoTech R280, StP Campus

**BIE 5301 (formerly Ind 5301) STUDENT TRAINEE EVALUATION SYSTEMS.** 3 credits, §HRD 5301, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Test development, performance and learning evaluation, affective evaluation, learning progress reporting systems. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, M, 4-6:30, VoTech 220, StP Campus, Pucel

**BIE 5303 (formerly Ind 5303) INSTRUCTIONAL AIDS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning, construction, use. **Must be taken A-F.** (Prereq education or grad student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, W, 4-6:30, VoTech R250, StP Campus

**BIE 5325 (formerly Ind 5325) FOUNDATIONS OF INDUSTRIAL EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

History, objectives, development, and current practices of the field. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 4-6:30, VoTech R280, StP Campus, Lewis

**BIE 5365 (formerly Ind 5516) CURRICULUM DEVELOPMENT IN TECHNICAL EDUCATION.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

The nature of technical knowledge. Differing conceptions of technology. The structure of thinking in science and technology. Alternative ways of conceptualizing, developing, delivering, and managing technology curricula. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, Th, 4-7:20, VoTech R270, StP Campus, Lewis

**BIE 5366 MANAGEMENT TRAINING AND DEVELOPMENT PRACTICES.** 4 credits, §HRD 5366, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Problems, practices, programs, and methodologies relating to the training and development of managers, including needed competencies, needs assessment, delivery modes, and evaluation; includes on-site visits and critiques. **May be taken S-N.** (Prereq VoEd 5750 or HRD 5750 and a principles of management or supervision course or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, M, 6:45-10:05, VoTech R385, StP Campus

**BIE 5400 (formerly BME 5300) INTRODUCTION TO BUSINESS AND MARKETING EDUCATION CURRICULUM.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Introduction to the conceptual models of marketing and business education useful in the design and delivery of programs in secondary and postsecondary schools, in adult education settings, and in business and industry. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, M, 3:30-6:30, VoTech R385, StP Campus, Lambrecht

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**BIE 5451 (formerly BME 5151) RESEARCH AND METHODS IN TEACHING TYPEWRITING/KEYBOARDING.** 3 credits, §BME 3300, §BDE 5151, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of research findings to classroom methodology and materials development. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students) Spring Qtr, ★○Sec 1, T, 3:30-6, VoTech 230, 240, StP Campus, McLean

**BIE 5452 (formerly BME 5152) RESEARCH AND METHODS IN TEACHING THE BASIC BUSINESS SUBJECTS.** 3 credits, §BME 3302, §BDE 5152, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of research findings to classroom methodology in general business, economics, introduction to business, business law, and consumer education. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, W, 3:30-6, VoTech 240, StP Campus, Hopkins

**BIE 5457 (formerly BME 5157) MATERIALS AND METHODS IN OFFICE EDUCATION.** 3 credits, §BDE 5157, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Recent research and developments in teaching office procedures, the preparatory and related classes for cooperative office education, and the advising of vocational office education student organizations. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 4-6:30, VoTech 230, 240, StP Campus

**BIE 5462 (formerly BME 5162) RESEARCH AND METHODS IN TEACHING ACCOUNTING AND DATA PROCESSING.** 4 credits, §BDE 5150, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate

School credit \$735; Non-resident Graduate School credit \$1617.

Application of current research findings to teaching methodology and curriculum and materials development; computerized accounting applications. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, M, 3:30-6:30, VoTech 230, 240, StP Campus

**BIE 5605 (formerly Ind 5305) CRITICAL ISSUES.** 3 credits, §BME 5340, §BDE 5155, §BDE 5250, §Ind 5305, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Identification, analysis, and discussion of current problems in the field. **Must be taken A-F.** (Prereq Educ major or grad student. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, T, 4-6:30, VoTech R135, StP Campus, Hopkins

**BIE 5630 (formerly Ind 5330) COURSE DEVELOPMENT.** 3 credits, §BME 5353, §BDE 5353, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Content identification, stating objectives, sequencing, lesson planning and selection of methods and media for instruction. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ○Sec 1, T, 4-6:30, VoTech R280, StP Campus, Pucel

**BIE 5630 COURSE DEVELOPMENT.** 3 credits, §Ind 5330, BME 5353, §BDE 5353, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Content identification, stating objectives, sequencing, lesson planning, and selection of methods and media for instruction. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 2, W, 4-6:30, VoTech 220, StP Campus, Bauerfeind

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**BIE 5660 (formerly Ind 5360) INSTRUCTIONAL METHODS.** 3 credits, §BME 5305, §HRD 5660, §Ind 5360, §BDE 3305, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Implementation of instructional strategies and methods. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, M, 4-6:30, VoTech R280, StP Campus, Lewis

**BIE 5752 TECHNICAL SKILLS TRAINING.** 4 credits, §HRD 5752, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Analysis of technical skills training practices in business and industry. Systems and process analysis and troubleshooting of work behavior will be emphasized along with the methods of design and development of training materials. **Must be taken A-F.** (Prereq HRD 5750 or VoEd 5750 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HRD 5752. Limited to a combined total of 25)

Spring Qtr, ★Sec 1, T, 6:45-10:05, VoTech 135, StP Campus, Lewis

### Family Education (FE)

(325 Vocational/Technical Building: 624-3010)

**FE 5001 SPECIAL TOPICS: CRITICAL PEDAGOGY.** 3 credits, §HHed 5001, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of the meaning of critical pedagogy; critique of educational practice in formal and non-formal settings. **Must be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, Th, 4-6:30, VoTech R375, StP Campus, McClelland

**FE 5002 THINKING, LEARNING, AND TEACHING IN WORK, FAMILY, AND COMMUNITY.** 3 credits, §HEEd 5002, §VoEd 5002, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit

\$551.25; Non-resident Graduate School credit \$1212.75.

Nature of thinking, learning, and teaching in everyday life contexts of work, family, and community. Theory and practice relevant to stimulating and supporting thinking and learning within and for contexts. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with VoEd 5002. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 4-6:30, VoTech R380, StP Campus, Thomas

**FE 5300 FAMILY EDUCATION CURRICULUM.** 3 credits, §HHed 5300, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of research and theory; development of programs for all ages and evaluation of materials. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, W, 4-6:30, VoTech R380, StP Campus, Thomas

**FE 5310 METHODS IN TEACHING FAMILY EDUCATION.** 3 credits, §HHed 5310, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theory and relevant research; application to educational objectives, strategies, student needs, and program evaluation. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ●Sec 1, W, 4-6:30, VoTech R275, StP Campus, McClelland

**FE 5315 EVALUATION IN FAMILY EDUCATION.** 3 credits, §HHed 5315, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Collecting and interpreting evidence related to individual and program performance. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr, ★●Sec 1, M, 4-6:30, VoTech R220, StP Campus, Sandell

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**FE 5320 ADULT EDUCATION IN FAMILY EDUCATION.** 3 credits, \$HEEd 5320, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Planning a community program; teaching procedures; special problems. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, **○**Sec 1, M, 4-6:30, VoTech R280, StP Campus, Plihal

**FE 5404 INTRODUCTION TO EARLY CHILDHOOD FAMILY EDUCATION PROGRAMS.** 1 credit, \$HEEd 5404, tuition\*: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

History, philosophy, and implementation of programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term, **○**Sec 1, Sa, 8 a.m.-5, Jan. 21, VoTech R380, StP Campus, Cooke. *No late fee through Jan. 13.*

**FE 5405 CHILD DEVELOPMENT AND PARENT EDUCATION.** 4 credits, \$HEEd 5405, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Objectives, content, curriculum organization, teaching methods, materials, and evaluation approaches for teaching youth and adults about social, cultural, psychological, economic, and technical aspects of child development, parenting, and parent-child interaction. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, **○**Sec 1, T, 4-7:20, VoTech R380, StP Campus, McClelland

**FE 5406 SPECIAL TOPICS: ADVANCED GROUP METHOD FOR PARENT AND FAMILY EDUCATION.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Using a laboratory-experiential approach and refinement of group methods useful in parent and family education settings. Emphasizes difficult situations and consultations for experienced group leaders. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A

joint Day/Extension class)

Fall Qtr, **○**Sec 1, W, 6:45-8:15, VoTech R280, StP Campus, Bowman

**FE 5406 SPECIAL TOPICS: EDUCATING FOR HEALTHY SEXUALITY.** 4 credits, \$FSoS 5240, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

A comprehensive approach to preparing teachers to develop, deliver, and evaluate sexuality education programs with special attention to creating strategies to assist children, youth, and adults to acquire information, form attitudes and values, develop relationship and interpersonal skills, and exercise responsibility in all dimensions of their sexual lives. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr, **★**Sec 2, M, 4:05-7:35, McNH 376, StP Campus, Maddock, Rossmann

**FE 5406 SPECIAL TOPICS: WORKING WITH CHILDREN.** 2 credits, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Interactions with preschool children to support their development in ways that help them to become responsible, independent, friendly, cooperative, purposeful, and self-controlled. Participants experience a new way of learning in an innovative environment that involves videotaped situations of adults and children. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, **○**Sec 3, M, 6:45-7:35 (plus hrs arr), VoTech R380, StP Campus, Thomas

**FE 5407 FAMILY LIFE EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Objectives, content, curriculum development, methods, materials, and evaluation approaches for teaching diverse groups of youth and adults family life concepts including current research in communication, relationships, sexuality, self-esteem, and decision making. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, **★**Sec 1, T, 4-6:30, VoTech R380, StP Campus, Rossmann

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**FE 5408 EDUCATION FOR WORK-FAMILY RELATIONSHIPS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of interactions between work and family with focus on educational applications for youth and adults. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 4-6:30, VoTech 220, StP Campus, Rossmann

**FE 5409 GROUP METHODS FOR PARENT AND FAMILY EDUCATION.** 2 credits, §HEEd 5409, tuition\*: Resident \$173; Non-resident \$501.70; Resident Graduate credit \$214; Non-resident Graduate credit \$428; Resident Graduate School credit \$367.50; Non-resident Graduate School credit \$808.50.

Methods and theories applied to development of skills for leading parent and family education groups. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr, ○Sec 1, Th, 4-5:30, VoTech R250, StP Campus, Rossmann

**FE 5416 SPECIAL TOPICS: ADVANCED GROUP METHOD FOR PARENT AND FAMILY EDUCATION.** 3 credits, §HEEd 5416, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Evolving perspectives of parent education; emphasis on psychodynamic, conceptual change approaches; reflective and dialogic approaches for working with parents in understanding beliefs and examining their origins and consequences; examination of issues related to diversity and to self awareness and ethics of professionals. **Must be taken A-F.** (Prereq 5405. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr, ○Sec 1, W, 4-6:30, VoTech 280, StP Campus, Thomas

### Human Resource Development (HRD)

A focus is available in human resource development (HRD). The human resource development focus prepares professionals to serve in a variety of

education, training, and organization development settings in industry and business. These settings include several types of training (skills and technical, management, sales, international, quality, and motivational) and six specific human resource job roles (instructor, media producer, designer, organization developer, manager, and researcher). For a brochure about the program, contact the Student Information Office, Vocational Education, R350 VoTech Building, University of Minnesota, 1954 Buford Ave., St. Paul, MN 55108; telephone (612) 624-1221; for questions about the program, contact Dr. Gary McLean, Program Coordinator, 420 Vocational and Technical Education Building, University of Minnesota, 1954 Buford Ave., St. Paul, MN 55108 (telephone 624-4901 or 624-3004).

**HRD 5366 MANAGEMENT TRAINING AND DEVELOPMENT PRACTICES.** 1-4 credits. 4 credits this offering, §BIE 5366, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Problems, practices, programs, and methodologies relating to the training and development of managers, including needed competencies, needs assessment, delivery modes, and evaluation; includes on-site visits and critiques. **May be taken S-N.** (Prereq 5750 or VoEd 5750 and a principles of management or supervision course or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, M, 6:45-10:05, VoTech R385, StP Campus

**HRD 5750 (formerly VoEd 5750) TRAINING IN INDUSTRY AND BUSINESS.** 3 or 4 credits; 4 credits this offering. Tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Appraisal of training function in industry and business; advancement of competencies in analysis, design, development, delivery, and evaluation of training. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr, ★Sec 1, M, 6:45-10:05, VoTech R280, StP Campus

Winter Qtr, ★Sec 2, W, 6:45-10:05, VoTech R285, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**HRD 5751 (formerly VoEd 5751) MOTIVATIONAL TRAINING PRACTICES.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Assessing need, planning, delivering, and appraising the results of employee training and development that involve motivational research, theory, and principles. **May be taken S-N.** (Prereq 5750 or VoEd 5750 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)  
 Winter Qtr, ★○Sec 1, Th, 6:45-10:05, VoTech R385, StP Campus

**HRD 5752 TECHNICAL SKILLS TRAINING.** 4 credits, §BIE 5752, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Analysis of technical skills training practices in business and industry. Systems and process analysis and troubleshooting of work behavior will be emphasized along with the methods of design and development of training materials. **Must be taken A-F.** (Prereq 5750 or VoEd 5750 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with BIE 5752. A joint Day/Extension class limited to 5 Extension students)  
 Spring Qtr, ★○Sec 1, T, 6:45-10:05, VoTech 135, StP Campus, Lewis

**HRD 5760 (formerly VoEd 5760) ORGANIZATION DEVELOPMENT IN INDUSTRY AND BUSINESS.** 3 or 4 credits; 4 credits this offering. Tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617. Introduction to major concepts, skills, and techniques. Topics covered include: definition; need; history; diagnosing organizations; intervention theories, techniques, and strategies (individual, team, intergroup, and total organization); change strategies; consulting; and issues. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)  
 Fall Qtr, ★Sec 1, T, 6:45-10:05, VoTech R285, StP Campus  
 Winter Qtr, ★Sec 2, Th, 6:45-10:05, VoTech R285, StP Campus

**HRD 5761 (formerly VoEd 5761) USING TEAM BUILDING IN BUSINESS AND INDUSTRY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. Introduction to the theory and techniques of building effective work teams. Skills development in facilitating team-building activities. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)  
 Fall Spec Term, ★○Sec 1, Sa, Oct. 1, 8, 15, 22, 29, Nov. 5, 8 a.m.-1, VoTech R285, StP Campus  
 Winter Qtr, ★○Sec 2, M, 6:45-9:15, VoTech R285, StP Campus  
 Spring Qtr, ★○Sec 3, Th, 6:45-9:15, VoTech R285, StP Campus, Rossmann

**HRD 5762 (formerly VoEd 5762) MANAGEMENT OF CONFLICT.** 3 credits, §VoEd 5762, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. Types and sources of conflict; diagnosis of conflict styles; skills and strategies for managing interpersonal, intergroup, and intragroup conflict. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)  
 Fall Qtr, ★○Sec 1, T, 6:45-9:15, VoTech R385, StP Campus, Smith

**HRD 5770 HUMAN RESOURCE DEVELOPMENT: EVALUATION IN HUMAN RESOURCE DEVELOPMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75. Performance, learning, and satisfaction evaluation practices in human resource development including the underlying economic, systemic, and psychological theories that influence work place evaluation. **May be taken S-N.** (Prereq a course in curriculum design and 5750 or VoEd 5750 or 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)  
 Winter Spec Term, ★○Sec 1, Sa, 8 a.m.-1, Jan. 21, 28, Feb. 4, 11, 18, 25, VoTech R285, StP Campus, Swanson. *No late fee through Jan. 13*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.  
 \* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**HRD 5780 (formerly VoEd 5780) INTERNSHIP: HUMAN RESOURCE DEVELOPMENT.** Credits arr (maximum 15 cr), tuition\* each credit: Resident \$86.50; Non-resident \$250.85; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Students apply and contract for training and development positions in industry and business; individual contracts describe specific training and development responsibilities to be fulfilled during internship. **May be taken S-N.** (Prereq 5750 or VoEd 5750. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Arr, Swanson  
Winter Qtr, ★○Sec 2, Arr, McLean  
Spring Qtr, ★○Sec 3, Arr, Swanson

**HRD 5781 INTERNATIONAL FIELD STUDY IN HUMAN RESOURCE DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

An international field study of the training, organization development, career development, and quality improvement theories and practices found in a selected nation. Students will travel as a group for on-site experiences. Destination: Canada. The trip will take place during spring break. *Students will be responsible for travel costs and expenses in addition to tuition. Contact the instructor before Dec. 31, 1994, if you plan to enroll.* **May be taken S-N.** (Prereq HRD 5750 or VoEd 5750; HRD 5760 or VoEd 5760; HRD 5793 or VoEd 8810; or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Spec Term, ★Sec 1, Sa, 9 a.m.-4, Feb. 4, 11, Apr. 15 (3 meetings plus trip), VoTech 425R, StP Campus, Swanson. *No late fee through Jan. 27*

**HRD 5790 (formerly VoEd 5790) STRATEGIC PLANNING: HUMAN RESOURCE DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Human capital as a component of industry and business strategic planning; analysis and articulation of practices. **Must be taken A-F.** (Prereq VoEd 5750 or VoEd 5760. Qualified students may register for graduate credit at the University of Minne-

sota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, Th, 6:45-10:05, VoTech R280, StP Campus

**HRD 5792 MANAGING HUMAN RESOURCE DEVELOPMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Managing and leading human resource development activities in industry, business, and government to meet organizational objectives. Emphases are on mission, staffing, resources, systems, process management, and reporting. **May be taken S-N.** (Prereq 5750 or VoEd 5750 or 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★○Sec 1, W, 4-6:30, VoTech 135, StP Campus

**HRD 5793 INTERNATIONAL HUMAN RESOURCE DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Problems, practices, programs, theories, and methodologies in human resource development as practiced internationally and in cross-cultural settings. **May be taken S-N.** (Prereq 5750 or VoEd 5750, 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, Th, 6:45-10:05, VoTech R285, StP Campus

**HRD 5794 (formerly VoEd 5794) CONSULTING IN HUMAN RESOURCE DEVELOPMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Analysis of five elements of the consulting profession in business and industry: marketing, subject matter expertise, organization development, business principles and communication skills; synthesis of the interdependent relationship of the five elements in the consultation process. **May be taken S-N.** (Prereq 5750 or VoEd 5750, 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Spec Term, ★○Sec 1, Sa, 8 a.m.-1, Apr. 8, 15, 22, 29, May 6, VoTech R285, StP Campus

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**HRD 5795 HRD APPROACH TO QUALITY IMPROVEMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Quality management and productivity improvement concepts from a training and organization development perspective. Specific processes and strategies to implement Juran's, Deming's, and Crosby's concepts will be developed. This is not a statistical process control course. **May be taken S-N.** (Prereq 5750 or VoEd 5750, 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, T, 6:45-10:05, VoTech R380, StP Campus, McLean

Winter Qtr, ★●Sec 2, T, 6:45-10:05, VoTech R285, StP Campus

**HRD 5798 CURRENT ISSUES IN HUMAN RESOURCE DEVELOPMENT.** 4 credits, tuition\*: Resident \$346; Non-resident \$1003.40; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Issues currently confronting practitioners in training and organization development, with examination of conflicting viewpoints and resolution options. **May be taken S-N.** (Prereq 5750 or VoEd 5750, 5760 or VoEd 5760, or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, M, 6:45-10:05, VoTech R385, StP Campus

## Vocational Education (VoEd)

(R350 Vocational/Technical Building: 624-1221)

**VoEd 5002 THINKING, LEARNING, AND TEACHING IN WORK, FAMILY, AND COMMUNITY.** 3 credits, \$FE 5002, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Nature of thinking, learning, and teaching in everyday life contexts of work, family, and community. Theory and practice relevant to stimulating and

supporting thinking and learning within and for contexts. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with FE 5002. A joint Day/Extension class)

Winter Qtr, ●Sec 1, Th, 4-6:30, VoTech R380, StP Campus, Thomas

**VoEd 5100 SPECIAL TOPICS IN INSTRUCTION: EFFECTIVE MANAGEMENT OF DIVERSITY IN EDUCATIONAL AND WORK SETTINGS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Provides educators in public school settings, as well as in business and industry, information and strategies for effectively accommodating diversity in work settings. Course activities will focus on understanding the nature of diverse populations and their unique learning needs, as well as the need for improving collaborative efforts among personnel in schools and business and industry. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 1, W, 6:45-9:15, VoTech R385, StP Campus, Brown, Tomervik

**VoEd 5100 SPECIAL TOPICS IN INSTRUCTION: SERVICE-LEARNING.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Experientially based course for educators interested in integrating service-learning into the school curriculum, co-curricular activities, or youth agencies. Course covers rationale, philosophy, and purposes of service-learning in schools and youth-serving agencies; design, development, and implementation of curriculums and programs in which young people serve their communities; and exploration of learner outcomes and evaluation/assessment of projects. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★●Sec 2, Th, 4-6:30, VoTech 220, StP Campus, Kielsmeier

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**VoEd 5200 EVALUATION OF LOCAL VOCATIONAL EDUCATION PROGRAMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Procedures and experience in the use of instruments for conducting program evaluations for teachers, administrators, and state department personnel. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 3:30-6, VoTech R375, StP Campus, Krueger

**VoEd 5286 MARKETING OF EDUCATION AND TRAINING PROGRAMS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Application of comprehensive marketing model to design and delivery of education and training programs for institutions, programs, and specific course offerings. Market research, market segmentation, product positioning, alternative marketing mix strategies, and marketing planning. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, T, 4-6:30, VoTech R250, StP Campus, Stone

**VoEd 5300 PHILOSOPHY AND PRACTICE OF VOCATIONAL EDUCATION.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Interpretation of the purposes of vocational education in varying socioeconomic contexts; analysis of vocational fields in regard to recipients, practices, legislation, and funding. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, M, 4-6:30, VoTech R285, StP Campus, Peterson

**VoEd 5340 PRINCIPLES OF SUPERVISORY MANAGEMENT.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Introduction to principles of personnel supervision for persons in vocational education, business, industry, or service organizations. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr, ★○Sec 1, W, 4-6:30, VoTech R280, Daines

**VoEd 5400 EDUCATION FOR WORK.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of contextual bases underlying education for work; implications for practice. **Must be taken A-F.** (Prereq 5300 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★○Sec 1, T, 4-6:30, VoTech R285, StP Campus, Bjorkquist

Spring Qtr, ★○Sec 2, T, 4-6:30, VoTech R250, StP Campus, Stone

**VoEd 5410 EXPERIENTIAL LEARNING: THEORY AND PRACTICE.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Principles and practice of experiential learning; analysis of students' own learning process; exploration of how experience is used in educational settings. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Spec Term, ★Sec 1, Oct. 3, 10, 6:45-9:15, VoTech R380, StP Campus; Oct. 21, 6:45-9:15, Arr; Oct 22, 8:30 a.m.-3, Arr; Nov. 4, 6:45-9:15, Arr; Nov. 5, 8:30 a.m.-3, Arr; Nov. 14, 21, 6:45-9:15, Arr; Dec. 2, 6:45-9:15, Arr; Dec. 3, 8:30 a.m.-3, Arr, Shumer

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**VoEd 5420 YOUTH IN THE WORLD.** 3 credits, §YoSt 5100, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The everyday life and lived experience of young people are used as levels of reality for understanding youth and to show the range of ideas, social institutions, and organizations that reflect the ordinary ways societies and cultures understand youth and seek to influence them. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr, Sec 1, M, 6:30-10, VoTech R380, StP Campus, Baizerman

**VoEd 5430 LEADERSHIP IN YOUTH-SERVING ORGANIZATIONS.** 3 credits, §EdPA 5430, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Healthy youth development is the framework for understanding the history, philosophy, and tradition of formal and informal systems responsible for youth development in the community; the policy debates surrounding community-based youth development. *Off-campus sites to be announced. Course uses a variety of distance-learning strategies.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Spec Term, Sec 1, Mar. 31, 6-9, VoTech R385, StP Campus; Apr. 1, 8:30 a.m.-3, VoTech R385, StP Campus; June 2, 6-9, Arr; June 3, 8:30 a.m.-3, Arr; plus addn hrs arr; Nickerson, Schneider

**VoEd 5440 YOUTH DEVELOPMENT ISSUES IN WORK, FAMILY, AND COMMUNITY.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An examination of current issues related to the role of the work place, the family, and the community in the healthy development of youth. *Off-campus sites to be announced.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Spec Term, Sec 1, Oct. 7, 6-9, VoTech R380, StP Campus; Oct. 8, 8:30 a.m.-3, VoTech R380, St. Paul Campus; Oct. 17, Arr; Oct. 28, 6-9, Arr; Oct. 29, 8:30 a.m.-3, Arr; Nov. 7, Arr; Nov. 18, 6-9, Arr; Nov. 19, 8:30 a.m.-3, Arr; Stone

**VoEd 5490 SEMINAR IN YOUTH DEVELOPMENT: WORK, FAMILY, AND COMMUNITY.** 3 credits, §EdPA 5490, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Designed to help youth workers and teachers employ the concept of healthy youth development as a framework for the discussion of public and organizational policy issues surrounding community-based youth development education. Emphasis on portfolio development. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr, Stone  
Winter Qtr, Sec 2, Arr, Stone  
Spring Qtr, Sec 3, Arr, Stone

**VoEd 5500 INTRODUCTION TO VOCATIONAL EDUCATION ADMINISTRATION.** 3 credits, §VoEd 5600, §AsEd 5026, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Basic concepts of structure, financing, program planning and evaluation, law and liability, personnel policies, and the management of vocational education programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ●Sec 1, M, 4-6:30, VoTech 220, StP Campus, Skinner West

**VoEd 5600 PLANNING VOCATIONAL EDUCATION.** 3 credits, §VoEd 5500, §AgEd 5026, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Context, definition, methods, and information needs in planning at national, state, and local education. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr, ★●Sec 1, M, 4-6:30, VoTech 220, StP Campus, Skinner West

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**VoEd 5800 WORKING WITH SPECIAL NEEDS STUDENTS.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Designed to help vocational instructors identify instruction for disadvantaged and handicapped students within regular classroom/laboratory settings. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr, ★●Sec 1, W, 4-6:30, VoTech R375, StP Campus, Brown

**VoEd 5900 USING VOCATIONAL EDUCATION RESEARCH.** 3 credits, tuition\*: Resident \$259.50; Non-resident \$752.55; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

An introduction to the role of vocational education research in professional practice, significant problems of practice for research, alternative modes of research, and synthesis and application of the results of research. **Must be taken A-F.** (Prereq VoEd grad student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★●Sec 1, Th, 6:45-9:15, VoTech R280, StP Campus, Leske

Winter Qtr, ★●Sec 2, T, 4-6:30, VoTech R385, StP Campus, Stone

## Women's Studies (WoSt)

(489 Ford Hall: 624-6006)

### College of Liberal Arts

Textbooks for most WoSt courses are available at University of Minnesota Bookstore—East Bank in Williamson Hall (625-6000).

(See also Psychology; English; and The Compleat Scholar noncredit courses)

Lisa Albrecht, Associate Professor, General College

Shelia Rose Bland, Lecturer

Pascale Bos, Teaching Assistant

Patricia Darling, Lecturer

Patricia Faunce, Professor

Sondra W. Howe, Lecturer

Amy Kaminsky, Associate Professor

Deborah Kidder, Teaching Assistant

Tomoko Kuribayashi, Teaching Assistant

Barbara Loeb, Lecturer

Dorothy Loeffler, Professor of Educational Psychology

Doris Grieser Marquit, Lecturer

Anita Morris, Teaching Assistant

Melissa Nambangi, Teaching Assistant

Susan Noakes, Associate Dean, CLA

Pamela Olano, Teaching Assistant

Catherine Orr, Teaching Assistant

Anne Phibbs, Teaching Assistant

Nancy Potter, Lecturer

Martha Reis, Teaching Assistant

Cynthia Richter, Teaching Assistant

Sheila Schunk-Jensen, Lecturer

Jacquelyn Zita, Associate Professor

(For related courses of interest, also see the following departments in this Bulletin: Architecture; English; Family Social Science; General College; History; Humanities; The Compleat and Practical Scholar noncredit courses; Psychology; Rhetoric; Social Work; Sociology)

**A minor is available in Women's Studies. Interested students should call CEE Counseling, 625-2500, for details.**

**Continuing Education for Women (CEW) sections available in the following courses:** WoSt 1001, 3204, 3205, 3303, 5205

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in Women's Studies. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

**WoSt 1001 INTRO TO WOMEN'S STUDIES.** 4 credits, tuition\*: Resident \$294; Non-resident \$852.60.

Overview of issues related to the current and rapidly changing role and status of women. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, W, 9:30 a.m.-12, MacP,

Potter. Offered through Continuing Education for Women

**WoSt 3100 TOPICS IN FEMINIST THOUGHT, THEORY, AND METHODS: QUEER LOOKS.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

An examination of lesbian, gay, bisexual, and transgender film and visual theory. (No prereq. Meets concurrently with WoSt 5100. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, M, 6:20-8:50, FordH 130, Zita

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**WoSt 3102 FEMINIST THOUGHT AND THEORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Representative feminist theories and their relation to social and political action. (No prereq. A joint Day/Extension class limited to 40 Extension students)

Fall Qtr, ★●Sec 1, MW, 4-6, FordH 170, Kaminsky

**WoSt 3103 FEMINIST APPROACHES TO HISTORY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

A comparative look at issues and problems in the study of women's history. Theoretical approaches, documents, and sources (written, oral, statistical) for understanding the female experience. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, M, 6:20-8:50, FordH 150, Reis, Richter'

**WoSt 3200 TOPICS IN WOMEN'S BIOLOGY, PSYCHOLOGY, AND SEXUALITY: MOTHERS AND DAUGHTERS.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Exploration of the mother-daughter relationship within societal, cultural, and historical frameworks. Social-psychological, cultural, historical, and literary sources will be used to understand the changing dimensions of this bond over time, and its richness within the complexities of gender, race, ethnicity, class, sexual orientation, and age. (No prereq. Limited to 40)

Winter Qtr, ★Sec 1, T, 5:30-8, FordH 120, Faunce

**WoSt 3202 BIOLOGY OF WOMEN.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Physiology, anatomy, and endocrine chemistry relevant to women's life cycles and reproductive functioning. (Prereq Biol 1009 or Phsl 1001 or #. A joint Day/Extension class limited to 40 Extension students)

Winter Qtr, ★●Sec 1, M, 6:20-8:50, FordH 155, Zita

(See also CSW 0900, Menopause—Woman's Journey)

**WoSt 3204 SEXUALITY AND SELF-IMAGE.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Explores basic ideas about sexuality and intimacy such as gender and sexual identity; origin of ideas about "female sexuality"; roles of racial, ethnic, and other stereotypes in the regulation of sexuality;

categories of human sexuality and their functions. Also considers eroticism, homophobia, sexual violence, pornography, romance, and desire. (Prereq 1001, 1002, 1003 or #. Limited to 40)

Fall Qtr, ★Sec 1, W, 9:15-11:45 a.m., MacP, Loeb. Offered through Continuing Education for Women

**WoSt 3205 WOMAN: A SENSE OF IDENTITY.** 4 credits, \$5205, tuition\*: Resident \$308; Non-resident \$893.20.

Exploration of social and psychological factors which inhibit or enhance a woman's continuously developing sense of identity. Learning who you are, what you want, and how to take appropriate action. Exercises in power, body image, goal setting, and assertion skills in difficult situations. Journal writing, small-group work, and a project are part of the class requirements. Students are expected to attend all class sessions. Students will not be admitted after the first class meeting. All sections offered through Continuing Education for Women. (No prereq. No auditors. Meets concurrently with 5205. Limited to a combined total of 40)

Fall Qtr, ★Sec 1, T, 6:10-9:10, Armory 202, Loeffler

Fall Qtr, ★Sec 2, Th, 1:15-4:15, Armory 202, Loeffler

Winter Qtr, ★Sec 3, T, 6:10-9:10, Armory 202, Loeffler

Winter Qtr, ★Sec 4, Th, 1:15-4:15, Armory 202, Loeffler

Spring Qtr, ★Sec 5, T, 6:10-9:10, Armory 202, Loeffler

Spring Qtr, ★Sec 6, Th, 1:15-4:15, Armory 202, Loeffler

**WoSt 3300 TOPICS IN WOMEN IN LITERATURE AND THE ARTS: ANIMATED WOMEN—IMAGES OF FEMALE CHARACTERS IN COMICS, CARTOONS, AND FEATURE-LENGTH ANIMATION.** 4 credits (12 cr max), tuition\*: Resident \$308; Non-resident \$893.20.

Examination of animated women as a reflection of the culture creating them. Issues of gender, class, and race as portrayed or ignored will be considered. Addresses questions such as these: Are comics humor or ideology? Who draws cartoons, strips, animation? Do those drawn by women and men differ? What has been the influence of the "women's movement?" (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, T, 6:20-8:50, FordH 285, Olan

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**WoSt 3300 TOPICS IN WOMEN IN LITERATURE AND THE ARTS: FEMINISM, POLITICS, AND POPULAR CULTURE.** 4 credits (12 cr max), tuition\*: Resident \$308; Non-resident \$893.20.

History of feminism in the U.S. as a political movement and ways it has been represented in popular culture. Examination of attempts by institutions targeted by feminist critiques to limit feminism's impact on the larger culture, and exploration of dialectical relationship between politics and the popular as it affects feminist goals. (No prereq. Limited to 40)

Spring Qtr, ★Sec 2, W, 6:20-8:50, FordH 130, Orr

(See also CSch 0280, Founding Mothers: Early American Feminists)

**WoSt 3300 TOPICS IN WOMEN IN LITERATURE AND THE ARTS: WOMEN MUSICIANS.** 4 credits (12 cr max), tuition\*: Resident \$308; Non-resident \$893.20.

Contributions of women in music as composers, performers, teachers, and patrons. Besides examples of music by Western female composers from the middle ages through the twentieth century, the course will consider the folk, jazz, rock, and soul traditions; music in Minnesota; and feminist aesthetics. (No prereq. Meets concurrently with 5300. Limited to a combined total of 40)

Spring Qtr, ★Sec 3, Th, 6:20-8:50, FergH 203, Howe

**WoSt 3303 WOMEN IN LITERATURE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Women as authors, characters, and readers with focus on "classic" texts. Attention to culturally diverse literary traditions. Introduction to feminist literary criticism. (Prereq introductory work in literature. Limited to 40)

Spring Qtr, ★Sec 1, Th, 9:30 a.m.-12, MacP, Marquit. Offered through Continuing Education for Women

(See also *Literature and Writing in The Compleat Scholar* noncredit section)

**WoSt 3304 WOMEN AND THE ARTS: WOMEN AND THEATER.** 4 credits, §Th 3950, tuition\*: Resident \$308; Non-resident \$893.20.

Contemporary women playwrights, radical feminist theater, the "woman's voice" in theater, and different styles in women's theater. Students will both read plays and gain performance experience. (Prereq introductory work in music, art, drama, dance, film, or other arts. Meets concurrently with

Th 3950. Limited to a combined total of 40)  
Winter Qtr, ★Sec 1, Th, 6:20-8:50, FordH 150, Bland

(See also CSch 0128, Pushing Limits: U.S. Women's Performance Art From the 1970s)

**WoSt 3307 MODERN FEMINIST NOVEL.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Analysis of fiction written by women that addresses questions of women's identity and the diversity of women's experience. (Prereq introductory work in literature. Limited to 40)

Winter Qtr, ★Sec 1, W, 6:20-8:50, FordH 285, Kuribayashi

**WoSt 3309 CONTEMPORARY WOMEN'S SHORT FICTION.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Short fiction by contemporary women (written in English or in English translation). Authors such as Atwood, Cisneros, Erdich, Gordimer, Lessing, Walker. Changing forms of the short story, primarily this century; popular "genre" fiction; role of independent presses in broadening literary canon. (Prereq introductory work in literature. Limited to 40)

Fall Qtr, ★Sec 1, M, 6:20-8:50, FordH 170, Nambangi

**WoSt 3400 TOPICS IN COMPARATIVE STUDY OF WOMEN: INTRODUCTION TO LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Exploration of lesbian, gay, bisexual, and transgender cultures, with a focus on "queer" history, politics, identities, and lifestyles from multicultural and interdisciplinary perspectives. Goal will be immersion in the knowledge, myths, histories, narratives, images, and issues of those labeled "queer" by the rest of the world. Open to everyone interested. (No prereq. Limited to 40)

Fall Qtr, ★Sec 1, W, 4-6:30, FordH 175, Phibbs

**WoSt 3400 TOPICS IN COMPARATIVE STUDY OF WOMEN: JEWISH WOMEN AND FEMINISM.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

The ways contemporary Jewish women's lives have been shaped by Jewish traditions, historical events, and social movements including the women's movement. Topics include immigration; the Holocaust; spirituality; sexuality; anti-Semitism, racism, and feminism. (No prereq. Limited to 40)

Fall Qtr, ★Sec 2, Th, 6:20-8:50, FordH 170, Bos

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.



**WoSt 3400 TOPICS IN COMPARATIVE STUDY OF WOMEN: AMERICAN INDIAN WOMEN.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Lives of American Indian women, historical and contemporary, their identity formation, their values, their traditions, and their contributions to tribal life and American culture. Topics include acculturation, coming of age, birth rites, women's medicine, women's arts, health care and education, literature, activism, traditional and contemporary roles. (No prereq. Limited to 40)

Spring Qtr, ★Sec 3, M, 6:20-8:50, FordH 40,  
Darling, Schunk-Jensen

**WoSt 3404 LESBIAN CULTURES.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20.

Theoretical and historical readings combined with literature, music, and art; emphasis placed on cultural contexts within which lesbian cultures exist. (Prereq 8 cr Women's Studies or #. Limited to 40)

Winter Qtr, ★Sec 1, W, 4-6:30, FordH 170, Zita

**WoSt 3500 TOPICS IN WOMEN, PUBLIC POLICY, AND THE LAW: WOMEN, POWER, AND MONEY IN EARLY CAPITALIST EUROPE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Consideration of the major impact the change from a feudal to capitalist economic system had on family structure and thus on women's lives. In addition to readings from social and economic history, the course will draw on the literature, art, and culture of the period in order to understand women's responses to these changes. (No prereq. Meets concurrently with 5500 and MeSt 3610, 5610. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160,  
Noakes

**WoSt 3600 TOPICS IN WOMEN AND WORK: GENDER IN THE WORKPLACE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20.

Gender and employment issues considered in a multidisciplinary framework. Specifically, how and why gender is important in the work place. What gender issues women and men should be aware of when they go to work. How gender is constructed, altered, and refined by work place structure. How issues of gender interact with issues of race and class. (No prereq. Limited to 40)

Spring Qtr, ★Sec 1, T, 6:20-8:50, FordH 120,  
Kidder

**WoSt 5100 TOPICS IN FEMINIST THOUGHT, THEORY, AND METHODS: QUEER LOOKS.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See course description for 3100. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3100. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, M, 6:20-8:50, FordH 130,  
Zita

**WoSt 5103 FEMINIST PEDAGOGY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Theory and practice of feminist teaching and learning as a system of inquiry. Emphasizes challenges raised by the diversity of women's experiences and perspectives. (Prereq 8 cr Women's Studies or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr, ★Sec 1, T, 4:30-7:30, ApH 127,  
Albrecht

**WoSt 5203 WOMEN, FEMINISM, AND POWER.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Exploration and development of feminist conceptualizations of power, including personal power, empowerment, spirituality, networking, civil disobedience, holism, and utopias. (Prereq 12 cr Women's Studies or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr, ★Sec 1, T, 5:30-8, FordH 160, Faunce

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**WoSt 5205 WOMAN: A SENSE OF IDENTITY.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for 3205. Students are expected to attend all class sessions. Students will not be admitted after the first class meeting. *All sections offered through Continuing Education for Women.* (No prereq. No auditors. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3205. Limited to a combined total of 40)

Fall Qtr, ★Sec 1, T, 6:10-9:10, Armory 202,  
Loeffler

Fall Qtr, ★Sec 2, Th, 1:15-4:15, Armory 202,  
Loeffler

Winter Qtr, ★Sec 3, T, 6:10-9:10, Armory 202,  
Loeffler

Winter Qtr, ★Sec 4, Th, 1:15-4:15, Armory 202,  
Loeffler

Spring Qtr, ★Sec 5, T, 6:10-9:10, Armory 202,  
Loeffler

Spring Qtr, ★Sec 6, Th, 1:15-4:15, Armory 202,  
Loeffler

**WoSt 5300 TOPICS IN WOMEN IN LITERATURE AND THE ARTS: WOMEN MUSICIANS.** 4 credits (12 cr max), tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for 3300 sec 3. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3300 sec 3. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, FergH 203,  
Howe

**WoSt 5400 TOPICS: WOMEN IN INTERNATIONAL DEVELOPMENT AND SOCIAL ACTION.** 3 credits (max 12 cr), tuition\*: Resident \$231; Non-resident \$669.

An international comparative framework for the analysis of basic human needs, social policies, and welfare services in developing countries. Study of traditional institutions, programs, and processes that marginalize women. Women's social action in the economic, social, and political arenas, grass roots, and many types of women's organizations. (No prereq. May not be taken for graduate credit at the University of Minnesota. Meets concurrently with SW 5010 sec 3. Limited to a combined total of 30)

Spring Qtr, ★Sec 1, W, 5:30-8, FordH 175,  
Morris

**WoSt 5500 TOPICS IN WOMEN, PUBLIC POLICY, AND THE LAW: WOMEN, POWER, AND MONEY IN EARLY CAPITALIST EUROPE.** 4 credits (max 12 cr), tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

See description for 3500. (No prereq. Meets concurrently with 3500 and MeSt 3610, 5610. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 40)

Spring Qtr, ★Sec 1, Th, 6:20-8:50, FordH 160,  
Noakes

## Youth Studies (YoSt)

(386 McNeal Hall: 624-3700)

### College of Human Ecology

(School of Social Work)

Textbooks for most YoSt courses are available at University of Minnesota Bookstore—St. Paul (624-9200).

(See also Anth 5920, Topics in Anthropology: Anthropology of AIDS; Education; Family Social Science; PubH 5010, Public Health Approach to AIDS; and Social Work)

Michael Baizerman, Professor  
Jerome Beker, Professor  
Mary K. Burnison, Instructor  
Jack Kirkland, Visiting Lecturer  
Ira M. Lourie, Visiting Professor  
Jan Mandell, Lecturer  
Diane Olson, Lecturer  
Penny Parry, Visiting Professor  
Jerry Stein, Lecturer

**Joint Day/Extension Classes**—You may register through Extension for certain day school classes scheduled before 4 p.m. in YoSt. For a copy of the current daytime Class Schedule and procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**YoSt 3100 INTRODUCTION TO YOUTH WORK.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90.

Exploration of settings in which youth work is done—schools, informal education, juvenile justice, mental and physical health organizations, religious organizations. Key issues, policy and programmatic responses; philosophy, values, roles, tasks of youth worker, and career patterns. (No prereq. Limited to 20)

Fall Qtr, ★Sec 1, Th, 3-5:30, McNH 386A, StP Campus

**YoSt 5100 YOUTH IN THE WORLD.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

A basic theoretical and conceptual framework for understanding adolescence; adolescents and youth in the context of everyday life—in school, at play, in the community, at home. (Prereq YoSt 5330 or CPsy 3303. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Fall Qtr, ★Sec 1, M, 3-6, McNH 386A, StP Campus, Baizerman

**YoSt 5120 INDEPENDENT STUDY IN YOUTH STUDIES.** Cr arr. (maximum 12 cr), tuition\* each credit: Resident \$77; Non-resident \$223.30; Resident Graduate credit \$107; Non-resident Graduate credit \$214; Resident Graduate School credit \$183.75; Non-resident Graduate School credit \$404.25.

Independent reading and/or research under faculty supervision. No late fees for Independent Study. (Prereq#. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr, Sec 1, Arr, Baizerman, Beker, Burnison, staff

Winter Qtr, Sec 2, Arr, Baizerman, Beker, Burnison, staff

Spring Qtr, Sec 3, Arr, Baizerman, Beker, Burnison, staff

**YoSt 5130 SPECIAL TOPICS: PEER HELPING —THE THEORY AND PRACTICE OF YOUTH HELPING YOUTH.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Experientially based class provides practical preparation for those interested in starting or improving a Peer Helping Program in schools or community-based organizations which involve school-aged youth helping their classmates in a variety of roles such as tutors, mentors, counselors, conflict mediators, and educators. It focuses on basic theory and concepts, program organizational issues, experiential student training, and the adult leadership skills required to lead such a program. (Prereq 6 cr in social sciences, experience in youth work or teaching. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Spec Term, ★Sec 1, FSaM, 8:30 a.m.-4:30, Oct. 14, 15, 17, 1994, McNH 386A, StP Campus. *No late fee through Oct. 7*

**YoSt 5130 SPECIAL TOPICS: EXPERIENTIAL EDUCATION FOR CITIZEN DEVELOPMENT: National Youth Service.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of rationale and program designs for involving young adults in hands-on community service programming comparable in philosophy to the Civilian Conservation Corps and the Peace Corps. A focus on within-school, community service learning models. One-day practicum experience on Saturday. (Prereq 6 cr in social sciences, experience in youth work. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Winter Spec Term, ★Sec 2, FSa, 8:30 a.m.-4:30, Feb. 3, 4, Mar. 4, 1995, McNH 386A, StP Campus. *No late fee through Jan. 27*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Course Descriptions

**YoSt 5130 SPECIAL TOPICS: EXPERIENTIAL LEARNING: Theatre Activities in Youth Work and Education.** 3 credits, tuition\*(includes \$15 course fee): Resident \$246; Non-resident \$684.90; Resident Graduate credit \$336; Non-resident Graduate credit \$657; Resident Graduate School credit \$566.25; Non-resident Graduate School credit \$1227.75.

Empowering methods of personal/creative development using experiential learning and theatre activities to enhance creativity and imagination of youth workers and educators. A seminar that examines new approaches to working with youth in school and youth agency settings, combined with application of experiential learning and improvisational theatre theory and praxis. Three full days. One-day practicum experience with high school students. (Prereq 6 cr in social sciences, experience in youth work or teaching. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Spec Term, ★Sec 3, FSa, 8:30 a.m.-4:30, May 5, 6, June 3, 1995, McNH 386A, StP Campus, Mandell. *No late fee through Apr. 28*

**YoSt 5130 SPECIAL TOPICS: PERSONAL DEVELOPMENT AND EXPERIENTIAL EDUCATION: High Intensity Outdoor Adventure.** 3 credits, tuition\* (includes \$25 course fee): Resident \$256; Non-resident \$694.90; Resident Graduate credit \$346; Non-resident Graduate credit \$667; Resident Graduate School credit \$576.25; Non-resident Graduate School credit \$1237.75.

Empowering methods of personal development using challenging, high-risk outdoor methods are examined. Emphasis on historical and theoretical roots and program designs, including Outward Bound; leadership training. One-day outdoor practicum experience on Saturday. (Prereq 6 cr in social sciences, experience in youth work. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Spring Spec Term, ★Sec 4, FSaM, 8 a.m.-4:30, Apr. 21, 22, 24, 1995, McNH 386A, StP Campus. *No late fee through Apr. 14*

**YoSt 5200 YOUTH POLICY: ENHANCING HEALTHY DEVELOPMENT IN EVERYDAY LIFE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Youth policy typically is grounded to problems and risks and is specific to human services domains such as education, health, juvenile justice, and employment. This course will create youth policy

directed at enhancing healthy development through community building, program development, and other strategies. (Prereq 6 cr social sciences, experience working with youth and #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Winter Qtr, ★Sec 1, W, 3-6, McNH 386A, StP Campus, Baizerman

**YoSt 5201 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Two-hour seminar and 16 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Prereq Soc 1001, Psy 1001, YoSt 5330 and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Fall Qtr, ★Sec 1, T, 3:30-5:30, McNH 386A, StP Campus, Burnison

**YoSt 5202 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Two-hour seminar and 16 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Prereq YoSt 5201 and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Winter Qtr, ★Sec 1, T, 3:30-5:30, McNH 386A, StP Campus, Burnison

**YoSt 5203 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits, tuition\*: Resident \$308; Non-resident \$893.20; Resident Graduate credit \$428; Non-resident Graduate credit \$856; Resident Graduate School credit \$735; Non-resident Graduate School credit \$1617.

Two-hour seminar and 16 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Prereq Soc 1001, Psy 1001, YoSt 5330 and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Spring Qtr, ★Sec 1, Th, 3:30-5:30, McNH 386A, StP Campus, Burnison

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

**YoSt 5230 WORK WITH YOUTH—INDIVIDUAL.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Examination of basic assumptions underlying work with youth. Emphasis on how adolescents, in particular, learn to get along with themselves. Attention to special issues and concerns of adolescents and of persons who work with them. This first course in a three-quarter sequence will emphasize work on a one-to-one basis. Class meets three full days. (Prereq Soc 1001, Psy 1001, CPsy 3303. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Spec Term, ★Sec 1, FSaM, 8:30 a.m.-4:30, Oct. 7, 8, 10, 1994, McNH 386A, StP Campus. *No late fee through Sept.30*

Winter Spec Term, ★Sec 2, FSaM, 8:30 a.m.-4:30, Mar. 3, 4, 6, 1995, McNH 386A, StP Campus. *No late fee through Mar. 31*

**YoSt 5231 WORK WITH YOUTH—FAMILIES.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Theories and techniques of therapy with adolescents and their families. Emphasis on practical methods of structural change; developing effective communication, decision-making, and problem-solving systems; winning the family's cooperation; and the role of the therapist in family therapy. Class meets three full days. (Prereq 5230, FSoS 5200. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Spec Term, ★Sec 1, FSaM, 8:30 a.m.-4:30, Nov. 11, 12, 14, 1994, McNH 386A, StP Campus, Lourie. *No late fee through Nov. 4*

Spring Spec Term, ★Sec 2, FSaM, 8:30 a.m.-4:30, May 12, 13, 15, 1995, McNH 386A, StP Campus, Lourie. *No late fee through May 5*

**YoSt 5232 WORK WITH YOUTH—GROUPS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

The purpose of this course is to help practitioners with adolescents to: 1) increase their knowledge and understanding of adolescent group needs and associations; 2) increase knowledge of group pro-

cess; and 3) enhance skill in working with groups of adolescents in the community, in group living situations, and in group therapy. Class meets three full days. (Prereq 5230. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Winter Spec Term, ★Sec 1, FSaM, 8:30 a.m.-4:30, Jan. 20, 21, 23, 1995, McNH 386A, StP Campus, Kirkland. *No late fee through Jan. 13*

Spring Spec Term, ★Sec 2, FSaM, 8:30 a.m.-4:30, Apr. 28, 29, May 1, 1995, McNH 386A, StP Campus, Parry. *No late fee through Apr. 21*

**YoSt 5300 COMMUNITY BUILDING TO ENHANCE THE HEALTHY DEVELOPMENT OF YOUTH IN EVERYDAY LIFE.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Community is a major context of adolescents and youth life, and community-building is a major strategy for healthy development. Recent foundation and government reports support this approach. The course will explore these readings with an eye to the issues and practical problems of community building. (Prereq 6 cr social sciences, experience working with youth and #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

Spring Qtr, ★Sec 1, W, 3-6, McNH 386A, StP Campus, Baizerman

**YoSt 5312 SEMINAR: DIRECT WORK WITH ADOLESCENTS.** 3 credits, §SW 5312, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Designed to give students an understanding of direct work with troubled and at-risk adolescents in a wide range of settings in which social workers are typically involved. The emphasis will be on young people in groups in the "life space," in everyday life, rather than in one-to-one, office-based interactions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr, ★Sec 1, T, 3:30-6:30, FordH 55, Beker

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

---

## Course Descriptions

---

**YoSt 5330 CHILD AND ADOLESCENT PSYCHOLOGY FOR PRACTITIONERS.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321; Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Course includes application of theory and research about children and adolescents, including how findings can be used and how theories facilitate understanding of behavior. (Prereq courses in educational psychology, child or adolescent psychology. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)  
Fall Qtr, ★Sec 1, W, 4:30-7, McNH 386A, StP Campus, Olson

**YoSt 5331 YOUTH AGENCIES, ORGANIZATIONS AND YOUTH SERVICE SYSTEM.** 3 credits, tuition\*: Resident \$231; Non-resident \$669.90; Resident Graduate credit \$321;

Non-resident Graduate credit \$642; Resident Graduate School credit \$551.25; Non-resident Graduate School credit \$1212.75.

Overview of major forms of youth agencies and organizations, sources of agency legitimacy, ideologies and values, goals. Relations between and among agencies and organizations. Roles of adults and youth; professionals and nonprofessionals; paid staff and volunteers; youth participation; legal and ethical issues. Examples of existing and ideal agencies, excluding schools. (Prereq two courses in sociology/anthropology and work experience in a youth agency or organization. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Winter Qtr, ★Sec 1, T, 6:30-9, McNH 386A, StP Campus, Stein

---

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

\* Tuition definitions of Resident and Non-resident explained on page 24.

## Continuing Education for Women (CEW)

Telephone 624-5267 for more information.

### Noncredit Courses

The University of Minnesota has a long history of involvement in women's education. Continuing Education for Women continues this tradition by offering quality, innovative, and timely programs using University resources. As part of the Compleat Scholar (CSch) and Practical Scholar (PSch) curriculum, CEW regularly offers noncredit courses to meet women's needs and interests in an ever-changing society.

### Credit Courses

Credit classes meet once a week, usually during the day, at off-campus locations. Course content and materials, work expected of students, and responsibilities of instructors are determined by the academic discipline granting the credit. Courses are expected to have the integrity and legitimacy of campus-based day classes for equivalent credit.

The following list of credit classes offered through CEW during the academic year are grouped by quarter. For complete course descriptions and prerequisites, refer to the individual department listings. For example, for Psy 3201, refer to Psychology and the CEW section number. Credit classes begin on page 55.

For registration procedures, dates, and locations, see the When and How to Register section of this Bulletin. Credit classes begin the first week of the term, and follow regular late fee dates.

#### Fall Quarter 1994:

AmSt 3113	sec 1	American Cultural Diversity
ArtH 3142	sec 1	Art of Egypt
Clas 3142	sec 1	Art of Egypt
Comp 1011	sec 4	Writing Practice I
Engl 1016	sec 1	Introduction to American Literature
Hum 1003	sec 1	Humanities in the Modern West III
Hum 3003	sec 1	Humanities in the Modern West III
Jour 1001	sec 1	Introduction to Mass Communication
Phil 1001	sec 3	Introduction to Logic
Psy 3604	sec 1	Introduction to Abnormal Psychology
Span 1101	sec 6	Beginning Spanish
WoSt 3204	sec 1	Sexuality and Self-Image
WoSt 3205,	sec 1, 2	Woman: A Sense of Identity
WoSt 5205	sec 1, 2	Woman: A Sense of Identity

#### Winter Quarter 1995:

Anth 1102	sec 2	Introduction to Social and Cultural Anthropology
Clas 1042	sec 2	Greek and Roman Mythology
Engl 3851	sec 2	The English Language
Math 1111	sec 9	College Algebra and Analytic Geometry
Psy 3011	sec 2	Introduction to Psychology of Learning
Span 1102	sec 5	Beginning Spanish
Spch 1101	sec 4	Fundamentals of Speech-Communication: Oral Communication
WoSt 1001	sec 1	Introduction to Women's Studies
WoSt 3205	sec 3, 4	Woman: A Sense of Identity
WoSt 5205	sec 3, 4	Woman: A Sense of Identity

#### Spring Quarter 1995:

ArtH 3035	sec 1	Mythology in Western Art
Clas 3035	sec 1	Mythology in Western Art
Engl 1591	sec 3	Literature of American Minorities
GC 1513	sec 4	Small Business Operations
Hist 3823	sec 2	United States in the 20th Century: 1960-Present
Math 1211	sec 7	Calculus I
PBio 1012	sec 2	Plants Useful to Humans
Pol 1001	sec 4	American Government and Politics
Soc 3937	sec 1	Social Gerontology: Elders in American Society
Span 1103	sec 5	Beginning Spanish
WoSt 3205	sec 5, 6	Woman: A Sense of Identity
WoSt 3303	sec 1	Women and Literature
WoSt 5205	sec 5, 6	Woman: A Sense of Identity





# Noncredit Programs

## The Compleat Scholar

Telephone 624-8880 for information.

The Compleat Scholar (CSch) celebrates the world of ideas in a noncredit liberal arts curriculum designed for adults who want to enjoy a lifetime of learning. Explore a wide range of topics in the arts, sciences, literature, writing, history, philosophy, and humanities without the added concern of grades, exams, and credits. Benefit from the expertise of University faculty, graduate students, and community professionals, as well as from interaction with fellow learners of assorted ages and backgrounds.

Whether you're pursuing a new interest or seeking an opportunity to return to ideas previously studied, you'll find courses offered at convenient times and locations, both on campus and at various sites in the Twin Cities. The program provides learning in comfortable settings and stimulating formats including lecture, discussion, studio and lab work, field trips, and retreats. See the following pages for more information about Compleat Scholar courses.

## The Practical Scholar

Telephone 624-8880 for information.

The Practical Scholar (PSch) offers practical and applied knowledge to address concerns and interests in your personal or professional life. Develop skills in communication and foreign languages, finance and investments, career development and change, wellness and nutrition, personal relationships, gardening and landscaping, home design, preparing and succeeding in graduate and undergraduate studies, and other areas.

As in the Compleat Scholar, these classes use the expertise of University faculty and staff as well as community resources. Courses are also offered at convenient times and locations, and in several formats—you need only a desire to learn. See the following pages for more information about the Practical Scholar.

## Cooperative Offerings

Many Compleat and Practical Scholar courses are offered in cooperation with other University and non-University educational resources. Special tuition discounts may be offered to members of those resources; see the descriptions of the courses listed below for specific information.

*Courses offered in cooperation with the Bell Museum of Natural History:* CSch 0245, 0518, 0519, 0520, 0523, 0526, 0527, 0528, 0534, 0535, 0591, 0592, PSch 0967, 0969, 0970

*Courses offered in cooperation with the Minnesota Zoo:* CSch 0522, 0525, 0529

*Courses offered in cooperation with Walker Art Center:* CSch 0102, 0128, 0147

*Courses offered in cooperation with the Minneapolis Institute of Arts:* CSch 0100, 0103, 0104, 0105, 0110

*Courses offered in cooperation with the Minnesota Landscape Arboretum:* CSch 0313, PSch 0955, 0960, 0961, 0968

*Courses offered in cooperation with the Minnesota Historical Society:* CSch 0211 and 0212

*Club offered in cooperation with the Woman's Club of Minneapolis:* CSch 0141, 0201, 0205, 0210, 0403

*Courses offered in cooperation with the Weisman Art Museum:* CSch 0107, 0111, 0130

*Courses offered in cooperation with Intermedia Arts:* CSch 0187, 0188, 0189

*Courses offered in cooperation with the Jewish Community Center of Greater St. Paul:* CSch 0211, 0212, 0214, 0405

*Courses offered in cooperation with the Minnesota Horticultural Society:* PSch 0952, 0953, 0954

*Course offered in cooperation with the Minnesota Museum of American Art:* CSch 0213

## Registration in Compleat and Practical Scholar Courses

Unless otherwise noted, registration procedures, dates, and locations are the same as for credit registration for fall, winter, and spring quarters. See the When and How to Register section of the Bulletin for details. Late registrations for noncredit classes must be accompanied by a late fee. See page 17. Late registration dates are listed with course descriptions for each noncredit class.

## Noncredit Courses

### Books for Compleat and Practical Scholar Courses

When books are suggested or required for a class, they will usually be available for purchase at the University of Minnesota Bookstore—East Bank in Williamson Hall. See bookstore hours on page 18.

### Tuition for Compleat and Practical Scholar Courses

See course descriptions for tuition charges for each course.

### University Employees

University employees who wish to take noncredit classes must pay one-half the regular tuition plus fees (if any). Eligible employees are those working at least 75 percent time in an ongoing or temporary appointment; working 100 percent time during the period for which the course is held if on a 9-month or 11-month appointment; and those on maternity or other leaves without pay. Employees on student appointments, family members of University employees, and laid-off employees are not eligible for this reduced-tuition plan. When registering, employees must submit a letter from their supervisor or the head of their department verifying employment. For limited enrollment classes, registrations will be accepted starting the second week of mail registration. For nonlimited classes, students may register during the regular registration periods.

### Seniors and Organization Members

Persons 62 and older receive a 10-percent discount on all noncredit courses. Persons who have current memberships with the Minneapolis Institute of Arts, Bell Museum of Natural History, Minnesota Zoo, Weisman Art Museum, Minnesota Museum of American Art, Jewish Community Center of Greater St. Paul, Minnesota Horticultural Society, Woman's Club of Minneapolis, Minnesota Historical Society, Minnesota Landscape Arboretum, and Walker Art Center receive 10-percent discounts in courses offered cooperatively with these organizations (see lists of courses above and course descriptions for tuition). Only one 10-percent discount may be applied to each registration. Participants pay full course and special fees, if any.

### Frequent Learner Discount

Students who register and pay regular tuition for a fall 1994 CSch or PSch course are eligible for a 10-percent discount off the regular tuition of one winter or spring 1995 CSch and PSch course. To receive the discount, students must include a copy of their fall fee statement with their winter or spring registration form. Tuition can be determined by noting the "age 62" cost of the course, which is always 10 percent less than regular tuition. This offer does not apply to courses taken at reduced-tuition rates in the fall or to Compleat Scholar Weekend courses, and participants pay full course or special fees, if any. This discount may not be combined with other reduced-tuition options.

No third-party billing is permitted for noncredit classes. Please enclose a check or money order or credit card authorization in payment (see registration form for details).

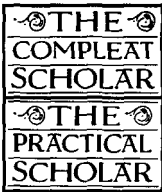
**PLEASE NOTE**—There are no tuition discounts for Compleat Scholar Weekends.

### Refund Schedule for Compleat and Practical Scholar Courses

Students who wish to cancel registration in a course must do so officially, either in person or by writing to Extension Classes, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455. By doing so, they will, if eligible, receive a refund according to the following schedule:

1 session class	100% before class meets 0% after class has met
2 session class	100% before class meets 0% after first class
3-4 session class	100% before class meets 50% before second class 0% after
5 or more sessions	100% before class meets 75% before second class 50% before third class 0% after

Refund requests for one- or two-day classes or seminars must be received in writing or in person three working days in advance of the class. Registrants who fail to attend or to cancel properly are liable for the entire fee. Late fees are not refundable in any case.



## Options

Because you lead a busy life and have many demands on your time, Compleat Scholar/Practical Scholar courses come in a wide variety of formats to fit your schedule. Select from morning, afternoon, and evening classes—some on campus, some in convenient neighborhood locations. Classes are also scheduled in the early evening so that you can come to campus directly from work. Some courses meet on Saturday, some feature retreat-type settings, and some are quite brief and focused, featuring just a meeting or two and perhaps a field trip. Choose one or several courses at a time and a location convenient for you.

### Morning Classes

- 0100 The Arts of Japan
- 0155 Demystifying Photography: A Look on the Inside
- 0200 Rome in Africa

### Afternoon Classes

- 0106 Art and Culture in Paris at the Turn of the Century
- 0172 Painting in Watercolor

### Evening Classes

- 0122 Religious Architecture of the Twin Cities
- 0165 Photography as a Personal Language
- 0216 Voices from the American Mosaic: Exploring Ethnic History

### Saturday Classes

- 0126 Improvisational Theatre Without the Jokes
- 0863 How to Get Into College
- 0934 The Human Body Shop: A Weight Lifting and Conditioning Workshop

### Courses With Field Trips

- 0119 The Power of Light: Glass Art in Architecture
- 0123 The Skyscraper: Art, Science, and Image
- 0157 Outdoor and Landscape Photography
- 0528 Late Spring Ornithology: The Natural History of Minnesota's Birds

### Weekend Courses

- 0188 Desktop Video



## Weekend Courses

Spend uninterrupted time reading a book, discussing a challenging idea, or studying with an expert. Compleat Scholar Weekends (CSW) combine the pleasures of learning with a weekend retreat away from it all. Each weekend is led by a University of Minnesota faculty member or community professional, is limited in size to allow small group conversations, and is held at a comfortable retreat center or lodge with recreational facilities to enjoy during your free time.

### Winter

- 0703 Winter Wildlife (Feb. 17-19)
- 0800 Life Stories: A Workshop, Retreat, and Narrative Adventure (Mar. 17-19)
- 0801 Mid-Life Career Audit: Deciding What to Do With the Rest of Your Life (Feb. 3-5)

### Spring

- 0700 Spring Wildflower Weekend (Apr. 29-30)
- 0701 Anatomy of a Trout Stream (May 20-21)
- 0702 Wildflowers of the North Shore (June 16-18)
- 0900 Menopause—Woman's Journey (Apr. 7-9)



## Minnesota Scholar

Examine Minnesota's various cultures and ethnic groups, its natural and social environment, and its history. Learn what makes Minnesota interesting through slide lectures and discussions, as well as field trips and excursions to historic sites. Understand more about where you live.

### Fall

- 0193 Historic Minneapolis Riverfront: Walking Tour
- 0210 Oliver Kelley and the Changing Minnesota Farm
- 0222 Archaeology of Minnesota
- 0519 Ducks, Geese, and Swans of Minnesota
- 0534 Fall Wildflowers and Grasses of Minnesota

### Winter

- 0142 The World of *Turandot*
- 0218 Storytelling Traditions of Woodland Indians
- 0519 Can It Be a Fish Fry Without the Walleye? The Acid Rain Problem

### Spring

- 0209 Shipping and Shipwrecks on Lake Superior
- 0420 Gathering Ground: Regional Native American Writing
- 0551 Minnesota Geology: 3.6 Billion Years and Counting
- 0523 Early Spring Ornithology: Ecology, Behavior, and Identification of Minnesota's Birds
- 0702 Wildflowers of the North Shore (CSW)



## Gardening, Finances, Wellness, etc.

Interested in gardening? Need help getting your finances in order? Concerned about your health and physical fitness? Enhance existing talents and develop new skills for problem solving as you learn from the research and teaching expertise of University faculty and local professionals. Exercise your mind and body in these classes offered at convenient times and locations.

### Fall

0908	Socially Responsible Investing: Doing Well by Doing Good
0931	Meditation: Seeing the Mind
0958	Designing Gardens and Yards With the Environment in Mind

### Winter

0906	Investments and Personal Financial Planning—Stage One
0930	Fitness for a Lifetime
0949	Heads to Tails: A Practical Guide to Pet Care

### Spring

0910	Developing an International Investment Portfolio
0939	Dancing With the Psyche: Experiencing Movement Therapy
0954	Use of Edible Plants in Landscaping



## Natural and Physical Sciences

Gain greater understanding of yourself as a biological organism and examine your place in the web of life. Derive satisfaction and joy from observing the underlying order and beauty of the natural world and wonder at the scientific discoveries and unanswered questions about the universe. Courses in this category include popular natural history classes (many at the Bell Museum and the Minnesota Zoo); courses examining the social and political implications of scientific progress; and courses in physics, biology, and astronomy.

### Fall

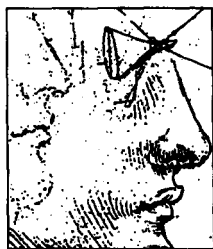
0520	Social Behavior of Apes and Monkeys
0522	Tigers of the World: Biology, Behavior, and Conservation
0540	Brain and Mind
0560	Quarks to Quasars: An Overview of 20th-Century Physics
0580	Without a Lab of Her Own: History of Women in Science and Technology

### Winter

0518	Owls: Their Natural History and Biology
0525	The Wolf: Back From the Brink of Extinction
0552	Drifting Continents/Expanding Oceans: An Introduction to the Dynamic Earth
0563	Understanding X Rays, Atom Smashers, and the Nuclear Frontier

### Spring

0517	Butterfly Basics
0529	Marine Mammals: Biology and Behavior
0535	A Celebration of the Season: Spring Wildflowers of Minnesota
0541	Human Evolution: An Immense Journey
0562	A World of Complexity and Unpredictability



## History, Philosophy, Humanities, Etc.

Learn more about yourself and others through classes in psychology or anthropology; examine questions about the meaning of life and morality in philosophy classes; explore the significance of social and governmental policies and decisions in political science and history classes; discuss the significance of gender across several disciplines through women's studies. Survey a host of issues centering on studies of self and society.

### Fall

0217	American Indian Studies: Beginning the Journey
0253	Fundamentals of Jungian Psychology
0270	Cold War Politics, Spies, and the Press
0280	Founding Mothers: Early American Feminists

### Winter

0205	Four Continents, Four Great Cities (Rio, Jakarta, Johannesburg, St. Petersburg)
0213	Perpetrators, Rescuers, and Victims in the Holocaust
0220	The Rise of Civilizations: An Archaeological Survey
0245	A Practical and Legal Guide to Preserving Green Space in Your Community

### Spring

0239	Order and Chaos
0282	What's Wrong With Freud?
0290	Downtown Versus Edge Cities



## Arts and Letters

Experience the pleasure of playing with Shakespeare or playing with paints. Write a poem, keep a journal, or develop a photograph. Learn to listen with new enjoyment and understanding to a composition by Bach or B.B. King, Elgar or Ellington, Liszt or Lennon. Examine style and meaning in the work of artists as different as Pissarro and Picasso or Cassatt and Kahlo. Compare voice, technique, and message of writers like Melville and Malamud, Allende and Anjelou, Morrison and Marquez. Immerse yourself in the joy of creativity.

### Fall

0110	The Art of Fresco: Technique, Process, and History
0125	The Architecture of Frank Lloyd Wright
0128	Pushing Limits: U.S. Women's Performance Art From the 1970s
0138	Music of the Whole Earth
0170	The Other End of the Paintbrush: Painting in Oils and Acrylics

### Winter

0139	Mozart: The Music and the Man
0199	Creating Art With Mathematics
0147	Asian America: A Film Journey
0450	Baseball, Fiction, and Film

### Spring

0135	The Blues: An Overview of the Roots of American Music
0163	Photographing People: Making the Connection
0302	Finding the Novel Within
0425	Two Modern Masters' Images of the Urban Jew

## The Compleat Scholar course offerings

### The Arts

**CSch 0100 THE ARTS OF JAPAN.** No credit, \$80 (age 62 and MIA members, \$72).

Survey the history of Japanese art in a class held in conjunction with the Minneapolis Institute of Arts' special exhibition "Jewel Rivers: Japanese Art from the Burke Collection." Following each slide lecture, tour outstanding examples of hand scrolls, hanging scrolls, screens, lacquerware, ceramics, and sculptures in the MIA galleries. Special attention is given to understanding the development of Japanese aesthetic sensibilities and the effect of periodic influence from the Chinese mainland. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 25)

Fall Spec Term, ★Sec 1, T, 10 a.m.-12, Nov. 1-29 (5 meetings), Mpls Institute of Arts, Whittier Room, 2400 S. 3 Ave. *No late fee through Oct. 25.*

*(Matthew Welch is assistant curator of Asian art at the Minneapolis Institute of Arts. His academic accomplishments include a Fulbright-Hays Fellowship for Research Abroad as well as several publications and presentations on various topics in Japanese art)*

**CSch 0102 POSTWAR AMERICAN ART AND POPULAR CULTURE.** No credit, \$68 (age 62 and WAC members, \$61.20).

Survey American painting and sculpture from 1945 to 1970, with particular emphasis on abstract expressionism, figurative styles, pop art, and minimalism within the broader context of postwar American culture. Analyze film and television of the period to increase understanding of the cultural environment in which these major art movements existed. Drawing from the Walker collection, featured artists include George Segal, Andy Warhol, Frank Stella, Clifford Still, Jasper Johns, Robert Rauschenberg, Helen Frankenthaler, Claes Oldenburg, and others. (Offered in cooperation with Walker Art Center. Both WAC and Compleat Scholar will accept registrations. Limited to a combined total of 50)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 12-May 3 (4 meetings), Walker Art Center, Lecture Room, Vineland Pl., Mpls. *No late fee through Apr. 5.*

*(Barbara Coleman is completing a doctorate in art history and popular culture. Her dissertation focuses on adolescent women in film and popular culture in the 1950s)*

**CSch 0103 PICASSO: STYLE AND MEANING.** No credit, \$68 (age 62 and MIA members, \$61.20).

This four-lecture course highlights major stylistic developments in Picasso's career. The first presentation explores symbolist themes in his early blue and rose period. The second examines Picasso's prewar pioneering experiments in analytic and synthetic cubism. The third addresses postwar classicizing trends in his work. The final lecture focuses on Picasso the surrealist, and reviews his exploration and treatment of violence, eroticism, and the creative process. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 40)

Spring Spec Term, ★Sec 1, Th, 6-8, Apr. 6-27 (4 meetings), Mpls Institute of Arts, Whittier Room, 2400 S. 3 Ave. *No late fee through Mar. 30.*

*(Patricia Briggs is a Ph.D. candidate in art history at the University of Minnesota. Her dissertation focuses on the work of Henri Matisse. In addition to teaching courses in art history at Ohio State University and the University of Minnesota, she has served as a research assistant for the new Frederick R. Weisman Art Museum)*

**CSch 0104 THE ARTISTIC VISION OF NORTH AMERICAN INDIANS: ANCIENT ART TO CONTEMPORARY WORK.** No credit, \$32 (age 62 and MIA members, \$28.80).

Identify connections between modern native art and its ancient roots. Question the political and social contexts in which native art has participated through its choice of materials, subject matter, and forms. How has native art been influenced by its European contacts as well as by its own movements? Through slide lectures and discussion, trace the various movements in native art and their relationship to European derived modernism. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 40)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

Winter Spec Term, ★Sec 1, Th, 6-8, Feb. 2 and 9 (2 meetings), Mpls Institute of Arts, Whittier Room, 2400 S. 3 Ave. *No late fee through Jan. 26.*

*(Ernest Whiteman is an artist and educator who has exhibited work in the U.S., Canada, Mexico, and South America. He serves as community program coordinator at Walker Art Center)*

**CSch 0105 AMERICAN ART: THE COLONIES TO THE 20TH CENTURY.** No credit, \$49 (age 62 and MIA members, \$44.10).

American art, considered separately from art of the North American Indians, is largely a branch of Western European art. However, it exhibited its own variations and unique interpretations that were influenced by a variety of ethnic, racial, and cultural groups. In painting, sculpture, and architecture, the settlers and their descendants described their experiences in the New World in ways that were derivative of Europe, but also reflective of their own culture in the new land. Learn about this culture through the eyes of the visual artists who interpreted and recorded it. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 40)

Winter Spec Term, ★Sec 1, Th, 6-8, Feb. 16-Mar. 2 (3 meetings), Mpls Institute of Arts, Whittier Room, 2400 S. 3 Ave. *No late fee through Feb. 9.*

*(Rena Coen, professor emerita of art history at St. Cloud State University, holds degrees from Barnard and Yale, as well as a doctorate in art history from the University of Minnesota. Her special interest is 19th- and 20th-century American painting, about which she has written several books, including Painting and Sculpture in Minnesota: 1820-1914)*

**CSch 0106 ART AND CULTURE IN PARIS AT THE TURN OF THE CENTURY.** No credit, \$68 (age 62, \$61.20).

A look at painting, graphic arts, and decorative arts in Paris at a time when the cafe society of Montmartre was a symbol of culture and politics at the end of the 19th and beginning of the 20th centuries. The philosophical framework for this course comes from the best-known product of the late 19th century—art nouveau. Other topics include the poster art of Toulouse-Lautrec, the anarchistic prints of Pissarro and Steinlen, the rise of the symbolist movement and the development of the “femme fatale,” as well as the transformation of decorative arts with art nouveau and the significance of the Paris world’s fairs of 1889 and 1900. (Limited to 30)

Fall Spec Term, ★Sec 1, Th, 2-4, Sept. 29-Oct. 20 (4 meetings), MacP. *No late fee through Sept. 22.*

*(Elizabeth K. Menon is a Ph.D. candidate in art history at the University of Minnesota. Her special area of interest is the graphic arts of 19th-century France, a topic about which she has published several articles)*

**CSch 0107 SOMEWHERE UNDER THE RAINBOW: MULTICULTURAL ART IN AMERICA.** No credit, \$83 (age 62 and Weisman members, \$74.70).

The varied expressions of contemporary African American, Asian American, Latino/Latina, and Native American artists offer breathtaking but often overlooked glimpses into our multicultural society. Using examples of recent art—ranging from beadwork and quilts to painting and sculpture—this class will look under the American rainbow. How are American artists of color using their art to define and invent themselves in an America that has offered them few role models and many negative stereotypes? How are they addressing their communities? How are they promoting cross-cultural understanding? How are American artists of color grappling with marginalization or exclusion from the dominant art world because of race, gender, and/or art form? How are they challenging dominant definitions of “high” art? When a work is offered, how might a viewer from another American culture find meaning in it through her or his own experience? Visits from local artists of color and brief works by American writers of color who are working with similar ideas will complement slide lectures and discussions. (Offered in cooperation with the Frederick R. Weisman Art Museum. Limited to 24)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 19-May 17 (5 meetings), Weisman Art, Billy & Jody Weisman Family Seminar Room. *No late fee through Apr. 12.*

*(Andrea Gilats, who is white, has served as director of the University of Minnesota’s Split Rock Arts Program for the past 11 years. Split Rock, a summer series of residential arts workshops, is nationally noted for its culturally diverse faculty and curriculum. A doctoral student at The Union Institute, Gilats’s dissertation is on the art of living women beadworkers of selected Great Plains Indian reservations)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

**CSch 0110 THE ART OF FRESCO: TECHNIQUE, PROCESS, AND HISTORY.** No credit, \$49 (age 62 and MIA members, \$44.10).

"... every touch of the brush in fresco is a commitment," wrote Rita Gilbert in *Living with Art*. "The only way an artist can correct mistakes or change the forms is to let the plaster dry, chip it away, and start all over again." Fresco painter Mark Balma, who has had several commissions in the United States and Europe, opens the first class with discussion and conversation about fresco technique and process. Remaining sessions with Robert Gambone present a historical overview of the fresco painting tradition as practiced in Renaissance and baroque Italy. Beginning with an examination of major fresco works by Giotto, and including the great creations of Michelangelo and Raphael, the class concludes with a look at fresco painting in baroque Rome. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 40)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 22-Oct. 6 (3 meetings), Mpls Institute of Arts, Whittier Room, 2400 S. 3 Ave. *No late fee through Sept. 15.*

*(Robert Gambone is chair of the Department of Art and Art History at the College of St. Catherine. He completed his doctorate in art history at the University of Minnesota and has published books, catalogs, and reviews in the field. A native of the Twin Cities, Mark Balma studied with painter Richard Lack and apprenticed to Pietro Annigoni, then considered a world master. His work for the University of St. Thomas will be one of the largest fresco paintings in the United States. He is also involved in a 15-year commission in Assisi, Italy, where he will paint the ceiling of the Basilica of Santa Maria degli Angeli)*

**CSch 0111 AMERICAN MODERNISM AND REGIONALISM: THE STIEGLITZ CIRCLE AND THEIR CONTEMPORARIES.** No credit, \$51 (age 62 and Weisman members, \$45.90).

During the first half of the 20th century, American art experienced radical and revolutionary changes, both in conception and practice. To some Americans, like the painters, sculptors, and photographers associated with Alfred Stieglitz, avant-garde artists of Europe represented a new direction for American art—a chance to experiment with abstraction. Yet to others, like the regionalist painters, art was a form

of expression firmly rooted in both representation and in American culture. Explore the intentions and achievements of these American artists working between 1910 and 1945. (Offered in cooperation with the Frederick R. Weisman Art Museum)

Winter Spec Term, Sec 1, T, 6-8, Mar. 7-21 (3 meetings), WeismanArt, William G. Shepherd Room. *No late fee through Feb. 28.*

*(Kathleen Motes Bennewitz completed art history degrees at Princeton University and the University of Delaware, and is educational materials writer at the Minneapolis Institute of Arts. She formerly served as curatorial assistant at the Amon Carter Museum in Fort Worth, Texas)*

**CSch 0112 GERMAN IMPRESSIONISM: A FUNNY THING HAPPENED ON THE WAY BACK FROM PARIS.** No credit, \$68 (age 62, \$61.20).

On the back of any impressionist painting is a sticker saying "Made in France"—true or false? German impressionism certainly bears a weak family resemblance to French impressionism as we know it. Is German impressionism a misnomer, or was French impressionism known differently in the 1890s? Consider French impressionism and its German variant: did the Germans just get it wrong, or did they have a different agenda? Survey the politics of shopping for impressionism. Why did new and different marketing strategies of the artists' societies of German impressionism attract the German elite? Concentrate on the artists Liebermann, Corinth, Uhde, and Slevogt. Was German impressionism a collective style, or was it unified by a new attitude and a new way of life? Consider the change in art theory. Germans began the 1890s believing that art could be smelled; what turned them to sight alone at the end of the decade? Finally, how did these changes prepare the way for 20th-century German expressionism? (Limited to 30)

Winter Spec Term, ★Sec 1, Th, 6-8, Jan. 19-Feb. 9 (4 meetings), JonesH 207B. *No late fee through Jan. 12.*

*(Anne Troy is completing a master's degree in art history from the University of Minnesota. She has done extensive research on late 19th-century central European art)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



**CSch 0113 GERMAN EXPRESSIONISM.** No credit, \$80 (age 62, \$72).

Expressionist art often calls to mind images of ravaged landscapes, distorted figures, and dark despairing visions of modern life. While much of this fits the concept of German expressionism during the early part of the 20th century, there was also a great deal of art that was hopeful and life-affirming, paving the way for a brighter and more optimistic future in a war-torn country. Explore the variety of attitudes characterizing artistic production in Germany from 1900 to the 1920s, from the youthful, experimental works of Ernst Ludwig Kirchner and Erich Heckel to the more sober, modern visions of the "new objectivity," including work by Otto Dix, George Grosz, and Hannah Höch. Look at paintings and prints by these and other artists, including Kandinsky, Klee, Nolde, and Beckmann, as well as at the emerging arts of cinema and photography, and understand how they fit into the rich and varied cultural landscape of Wilhelmine and Weimar Germany. Last class meeting is a tour at the Minneapolis Institute of Arts. (Limited to 30)

Winter Spec Term, ★Sec 1, Th, 6-8, Feb. 16-Mar. 16 (5 meetings), JonesH 207B. *No late fee through Feb. 9.*

*(Kristin Makholm is an art history doctoral candidate at the University of Minnesota. She recently published a bulletin on Prints in Germany 1905-1923 at The Saint Louis Art Museum)*

**CSch 0116 A RIBBON AROUND A BOMB: FRIDA KAHLO AND FRIENDS.** No credit, \$68 (age 62, \$61.20).

"A ribbon around a bomb" is how Andre Breton, leader of the surrealists, described self-taught Mexican painter Frida Kahlo. Kahlo's subject was her own life, a life informed by a permanent and painful disability and by a troubled marriage to Diego Rivera, Mexico's most famous artist. Her intense and haunting self-portraits have always been admired in Mexico and now are receiving much wider acclaim. Review Kahlo's work, the art of her renowned husband, as well as other works by contemporary surrealist poets and artists, some of whom left Europe and settled in Mexico. (Limited to 30)

Spring Spec Term, ★Sec 1, T, 6-8, Apr. 25-May 16 (4 meetings), MurH 308. *No late fee through Apr. 18.*

*(Jane Hancock holds a Ph.D. from Harvard in art history. She has taught several Extension art history classes at the University of Minnesota, and currently combines teaching with her work as a program director in the Department of Independent Study at the University)*

**CSch 0119 THE POWER OF LIGHT: GLASS ART IN ARCHITECTURE.** No credit, \$49 (age 62, \$44.10).

Explore the use and aesthetics of contemporary glasswork and its historical precedents in applied arts and architecture. Learn about the unique ability of glasswork to transcend image through the animating power of light, and discover ways to integrate it into residential, corporate, religious, and public spaces. Understand how various types of glass—translucent, dichroic, beveled, and prismatic—change the way light comes through a plane. Witness how glasswork interacts with and engages the viewer through the manipulation of light and color, and experience the ability of glasswork to mark time and seasons and even regional differences. Final session (**Saturday, 10 a.m.-12, Nov. 12**) is a tour of Pegasus Studio, 5155 Bloomington Avenue, Mpls. (Limited to 20)

Fall Spec Term, ★Sec 1, Th, 6-8, Oct. 27, Nov. 3 (2 meetings plus studio tour), Arch 35. *No late fee through Oct. 20.*

*(Michaela Mahady is an architect with Mulfinger, Susanka, and Mahady Architects, a firm specializing in residential architecture. John Pietras has been an artist working with stained glass for 20 years. Through Pegasus Studio, Inc., Mahady and Pietras produce a variety of commissioned pieces for architectural settings of all scales)*

**CSch 0120 FURNITURE AS ARCHITECTURE, APPARATUS, AND ART.** No credit, \$103 (age 62, \$92.70).

Explore forces affecting the conception, construction, and appreciation of furniture beyond mere utility. Selected works from various cultures and historical periods provide an understanding of furniture motivated by culture, myth, ritual, and the human body. Slide lectures are followed by group discussion, and the final session takes place at a local furniture studio or gallery. (Limited to 25)

Winter Spec Term, ★Sec 1, Th, 6-8:30, Jan. 5-Feb. 2 (5 meetings), Arch 50. *No late fee through Dec. 29.*

*(Ralph Nelson is principal of LOOM, a collaborative professional practice exploring architecture, landscape architecture, and furniture. He is the recipient of numerous design awards and has exhibited his work at a variety of venues including the "Venice Biennale")*

## Noncredit Courses

### **CSch 0121 HELPING TO DESIGN YOUR HOME: USING COMPUTERS FOR VISUALIZING.** No credit, \$68 (age 62, \$61.20).

Experience part of the architectural process used in home design by learning how architects use computers to visualize and communicate their designs in two and three dimensions. Try these computer techniques on your own design ideas with easy-to-use software for the layperson. Discuss issues involved in residential design and in working with architects and contractors to make ideas and plans a reality. This class, held in the College of Architecture and Landscape Architecture computer lab, provides demonstrations and hands-on tutorials. Participants should be familiar with Macintosh computers and will be asked to purchase selected software in a cost range of \$30-\$50. (Limited to 12)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 5-26 (4 meetings), Arch 145. *No late fee through Mar. 29.*

*(Lars Peterssen is an architect and a lecturer in the College of Architecture and Landscape Architecture at the University of Minnesota. He teaches computer use in design and serves as a consultant to architecture and design firms)*

### **CSch 0122 RELIGIOUS ARCHITECTURE OF THE TWIN CITIES.** No credit, \$96 (age 62, \$86.40).

Religious buildings are among any society's finest architectural legacies. This is certainly true of the Twin Cities, where religious architecture of a particularly high quality and remarkable variety has been the norm for more than 125 years. This course investigates some of the more architecturally significant structures in St. Paul and Minneapolis, ranging from the simple to the grand, from the old to the new. Four slide lectures are augmented by a half-day bus tour (**Saturday, Mar. 4**) to see several buildings discussed in class. (Limited to 20)

Winter Spec Term, ★Sec 1, T, 6-8, Feb. 7-28 (4 meetings plus bus tour), Arch 60. *No late fee through Jan. 31.*

*(Craig Rafferty taught design classes in architecture at the University of Minnesota for 14 years. He is currently an architect with Rafferty, Rafferty, and Tollefson Architects, Inc., a St. Paul-based firm noted for its religious architecture design)*

### **CSch 0123 THE SKYSCRAPER: ART, SCIENCE, AND IMAGE.** No credit, \$52 (age 62, \$46.80).

The skyscraper is one of the greatest icons of the American economic success story. Examine the influence of the Chicago School on the development and transformation of the skyscraper from the technical limitations of masonry to steel and glass structures of almost unlimited height. Learn about major architects, important architectural movements, and the corporate desire to build significant identity images in urban centers. Final session will be a half-day walking tour (**Saturday, Oct. 18**) of Twin Cities' skyscrapers. Suggested text: *The Tall Building Artistically Reconsidered* by Ada Louise Huxtable. (Limited to 20)

Fall Spec Term, ★Sec 1, W, 6-8, Oct. 5 and 12 (2 meetings plus walking tour), Arch 60. *No late fee through Sept. 28.*

*(Edward Kodet has served as adjunct associate professor of architecture and design critic at the University of Minnesota. Winner of several design awards and author of articles for architectural journals, he is also president of Kodet Architectural Group, a firm known for design and work in historic restoration)*

### **CSch 0124 THE AMERICAN HOUSE: CHANGE AND COMMUNITY.** No credit, \$93 (age 62, \$83.70).

The concept of the ideal house has evolved over time in response to many issues, both societal and technological. Explore the history of the American house and the changing relationship between values and housing. Discover how these ideal houses form connections within communities and how assumptions underlying housing standards of the past have affected the fabric of the city. Analyze how we shape our houses today, and how they in turn shape us and the communities in which we live. Includes lectures, group discussion, tours of regional homes from various eras, and a hands-on session to design one's own ideal home.

Winter Spec Term, Sec 1, W, 6:30-8:30, Jan. 11-Feb. 15 (6 meetings), AmundH 240. *No late fee through Jan. 4.*

*(Michaela Mahady and Tim Fuller are architects with Mulfinger, Susanka, and Mahady Architects, a firm which specializes in residential architecture. Mahady is also a designer of architectural glasswork for Pegasus Studio. Fuller has an extensive background in housing, home construction, and remodeling)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0125 THE ARCHITECTURE OF FRANK LLOYD WRIGHT.** No credit, \$99 (age 62, \$89.10).

Discover the genius of Frank Lloyd Wright through consideration of his seven decades of architectural production. Six slide lectures explore Wright's architectural influences—the revolutionary Prairie School dwellings, his impact on European modernism, the concept of an "organic" architecture, his "second" career featuring modest houses for the middle class, and the legacy of his work. Lectures focus on particular themes in Wright's work, illustrated through his renowned landmarks. (Limited to 30)

Fall Spec Term, ★Sec 1, T, 6-8, Sept. 27-Nov. 1 (6 meetings), Arch 25. *No late fee through Sept. 20.*

*(Timothy Quigley is a practicing architect designing residential architecture with Tom Ellison Architects and an adjunct professor in architecture at the University of Minnesota)*

**CSch 0126 IMPROVISATIONAL THEATRE WITHOUT THE JOKES.** No credit, \$112 (age 62, \$100.80).

Are you a funny person? The question is completely irrelevant to this course. Improv can be more than just a machine that cranks out wisecracks. When approached with the right spirit and the right techniques, it can be real theatre. Learn how to tell stories with beginnings, middles, and ends. Discover the psychological truth of a situation. Acquire a wide range of skills applicable to complex creative tasks, and have fun doing it. (Limited to 15)

Fall Spec Term, ★Sec 1, Sa, 10 a.m.-12, Oct. 1-Nov. 12 (7 meetings), NCCE 229. *No late fee through Sept. 23.*

*(Steve Schroer came to the Twin Cities from the University of Chicago, where he was director of the University Theater from 1983-1992 and an instructor in the undergraduate program and in the Center for Continuing Studies)*

**CSch 0127 EXPLORE YOUR IMAGINATION: THEATRE MASKS.** No credit, \$96 (age 62, \$86.40).

Test the limits of your imagination and learn how actors create character. In a supportive environment, give life to all those characters bottled up inside. Watch the smallest gesture become significant using two different kinds of masks as acting tools, and learn what it is an actor experiences to make choices about a role. Based on the teachings

of legendary theatre teachers Michel Saint Denis and Pierre Lefevre, these concepts have been a cornerstone of actor's training at Julliard and Canada's National Theatre School. Now you can traverse similar reaches of imagination explored by Robin Williams, Kevin Kline, and Patti LuPone when they were learning their craft. (Limited to 20) Winter Spec Term, ★Sec 1, M, 7:30-9, Jan. 23-Mar. 13 (8 meetings), RarigC 10. *No late fee through Jan. 17.*

*(Jim Miller is a professional actor on stage, television, film, and radio. He completed a two-year apprenticeship with master teacher Pierre Lefevre at Julliard and is a graduate of the National Theatre School of Canada)*

**CSch 0128 PUSHING LIMITS: U.S. WOMEN'S PERFORMANCE ART FROM THE 1970S.** No credit, \$96 (age 62 and WAC members, \$86.40).

The 1970s witnessed an explosion of performance art by women in the United States. Many early women performance artists were connected to the feminist movement, while others disassociated themselves from feminist issues. Who were the major players? What did they do and why did they do it? Briefly examine European movements that paved the way for the art of American performance, such as Dada and Fluxus, and review the work of Carolee Schneemann, whose early work was a precursor to later feminist performances. Discover forgotten performances by Mary Beth Edelson, Ana Mendieta, Suzanne Lacy and Leslie Labowitz, Hannah Wilke, Linda Montano, and others. Focus on the importance of ritual and spirituality, collaboration and social protest, identity and social roles, and sexuality and gender roles in these performances. (Offered in cooperation with Walker Art Center. Both WAC and Compleat Scholar will accept registrations. Limited to a combined total of 40)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Nov. 3 (6 meetings), Walker Art Center, Lecture Room, Vineland Pl., Mpls *No late fee through Sept. 22.*

*(Magenta Pierrot is a Ph.D. candidate in art history at the University of Minnesota. Her graduate work has focused on feminist studies and modern art)*

## Noncredit Courses

### **CSch 0129 PLAYING WITH SHAKESPEARE.**

No credit, \$96 (age 62, \$86.40).

Enter Shakespeare's world through both literature and theatre, and analyze his meanings through reading, discussion, and performance in class. Work with scenes from several plays; review Shakespeare's use of language (prose, verse, meaning, and pronunciation) and learn techniques used by actors to interpret and express the meanings and emotions in his texts. No acting experience necessary. (Limited to 20)

Fall Spec Term, ★Sec 1, W, 6-8, Oct. 12-Nov. 16 (6 meetings), FordH 120. *No late fee through Oct. 5.*

*(Christine Mack Gordon is assistant to the director of the program in creative writing at the University of Minnesota, where she received her M.A. in English and occasionally teaches classes. Beth Cherne is completing a Ph.D. in theatre at the University of Minnesota. She has directed numerous productions in Twin Cities theatres, and her special research interest is political theatre in the United States)*

**CSch 0130 ILLUSION AND DECEPTION: CREATING MAGICAL SPACE FOR THEATRE.** No credit, \$74 (age 62 and Weisman members, \$66.60).

Theatre adopted illusory space in the Renaissance to deceive and thrill the audience and thereby heighten the theatre experience. This reached new heights in the late 19th century when American audiences flocked to theatres to see tremendous spectacle—such as the dramatic staging of the famous chariot race in Lew Wallace's *Ben Hur*. These tricks of illusion belonged to the master of deception, the scenic artist, who created mythical worlds commanding amazement and applause from theatregoers. Today, illusion is created on the three-dimensional stage by the painter and the newest stage magician, the sculptor. Trace this development through lectures, demonstrations, and an interpretation of the featured exhibit at the Weisman Art Museum about the world-renowned designer Tanya Moiseiwitsch. (Offered in cooperation with the Frederick R. Weisman Art Museum. Limited to 24)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 4-25 (4 meetings), WeismanArt, Billy & Jody Weisman Family Seminar Room. *No late fee through Sept. 27.*

*(C. Lance Brockman has worked as an educator, scene designer, and scenic artist for 20 years. He developed "The Twin City Scenic Collection: Popular Entertainment 1895-1929" for the University Art Museum in 1987, and is currently preparing "Drama of Initiation" for the Weisman Art Museum in fall 1996)*

**CSch 0131 FUNDAMENTALS OF MUSIC.** No credit, \$94 (age 62, \$84.60).

All too often we hear music without really listening to it. Examining music from a composer's perspective can push music out of the background of our daily experience and make us more sophisticated listeners. Find out how to listen to music perceptively and critically, and begin to develop a relevant musical vocabulary. Become acquainted with the fundamentals of Western musical composition, learning to recognize and interpret organizing principles from small details through whole genres. Discuss and analyze music in terms of its constructive elements (melody, harmony, rhythm, timbre, medium) as well as its syntactical, structural, and formal concepts (tonality, texture, form). Study pieces that are representative of a variety of forms, historical styles, media, and social functions through lectures, demonstrations, class discussion, and recorded music. The class focuses on the classical music traditions from the baroque to the present, but also includes musical excursions into popular and non-Western music. No previous musical experience is required. (Limited to 30)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Nov. 3 (6 meetings), FergH 225. *No late fee through Sept. 22.*

*(Michael V. Smith has taught music at Ottawa University. He is a doctoral candidate in music education at the University of Minnesota)*

**CSch 0132 MUSIC IN DAILY LIFE.** No credit, \$63 (age 62, \$56.70).

Why do you want to dance when you hear a certain kind of music, and why does another piece have the power to move you to tears? Explore the psychology of music and music perception by listening to various kinds of music and examining elements of music. Survey the social, psychological, and personal functions of music in everyday life. Discuss other questions, including: What is the effect of aging on music listening and musical taste? Is IQ related to musical ability?

Winter Spec Term, Sec 1, T, 6:15-8:15, Jan. 10-31 (4 meetings), ApH 302. *No late fee through Jan. 3.*

*(C. Victor Fung, assistant professor of music in the General College at the University of Minnesota, earned a Ph.D. from Indiana University. His research interests include psychology of music and world music)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0133 EARLY JAZZ AND BIG BANDS: MUSIC OF THE SWING ERA.** No credit, \$94 (age 62, \$84.60).

Travel back in time to when the big band jazz style known as swing was America's popular music. Through digitally remastered recordings and rediscovered movie shorts, revisit the music of the 1930s and 1940s. Learn how Glenn Miller's orchestra made the transition from a popular peacetime big band to the U.S. Army Air Corp's swinging wartime morale booster. Hear the voices of some of the greats: Frank Sinatra, Lena Horne, and Peggy Lee. Discover the differences between these bands by studying their instrumentation, forms, and individual rhythms. Trace the evolution of the swing era through music, video, and class discussion.

Fall Spec Term, Sec 1, M, 6:15-8:15, Sept. 26-Oct. 31 (6 meetings), FergH 105. *No late fee through Sept. 19.*

*(Michael Scott has a master's degree in jazz studies from Indiana University and is pursuing a Ph.D. in music education at the University of Minnesota. He has been a music educator and free-lance musician for more than 10 years, performing with the bands of the Temptations, the Four Tops, Perry Como, and Melissa Manchester)*

**CSch 0134 JAZZ IN AMERICA.** No credit, \$94 (age 62, \$84.60).

Jazz as a style of music in the 1990s is difficult to describe. Although one listener's definition of jazz may be very different from another's, many points of view are valid and justified. Is the bebop style of Dizzy Gillespie the sound of classic jazz, or is it the swing era's Tommy Dorsey? Learn to distinguish between the different styles of jazz by listening to and analyzing music, and understanding its historical perspective. (Limited to 40)

Winter Spec Term, ★Sec 1, W, 6:15-8:15, Jan. 4-Feb. 8 (6 meetings), FergH 205. *No late fee through Dec. 28.*

*(See Michael Scott's biography in CSch 0133)*

**CSch 0135 THE BLUES: AN OVERVIEW OF THE ROOTS OF AMERICAN MUSIC.** No credit, \$97 (age 62, \$87.30).

Starting with work songs, field hollers, and early rural blues pieces, explore in layperson's terms the musical style, social implications, and growth of the blues that resulted in early urban blues, rhythm and blues, early rock and roll, and jazz idioms. Explore the music of artists such as Leadbelly, Sleepy John Estes, Floyd Jones, Muddy Waters, Buddy Guy, Johnny Otis, Bessie Smith, Count Basie, and others.

Spring Spec Term, Sec 1, W, 6:15-8:15, Apr. 5-May 10 (6 meetings), FergH 149. *No late fee through Mar. 29.*

*(Chris Granias, Ph.D., is theory and composition coordinator at the MacPhail Center for the Arts. He has conducted workshops on jazz rock, blues, jazz, and rags, and is also a free-lance composer and a member of the Minnesota Composers Forum)*

**CSch 0136 THE LEGACY OF DUKE ELLINGTON.** No credit, \$34 (age 62, \$30.60).

Edward Kennedy "Duke" Ellington was a great American jazz composer, pianist, and band leader. This class chronicles the development of the musical styles and artistry of the Duke Ellington Band. Listen to the music of many of the sidemen who made major contributions, study various compositions dating from 1923 to 1974, and view rare footage of the Duke Ellington Band. (Limited to 30)

Spring Spec Term, ★Sec 1, T, 6:30-8:30, Apr. 18 and 25 (2 meetings), FergH 203. *No late fee through Apr. 11.*

*(Ron McCurdy is an associate professor in both the School of Music and the Department of Afro-American and African Studies, and director of jazz studies at the University of Minnesota)*

**CSch 0137 MELODIES FROM THE DESERT: MUSICAL CULTURES OF THE MIDDLE EAST.** No credit, \$86 (age 62, \$77.40).

The Middle East is a region of deserts and mountains, mystery and intrigue, ethnically diverse people, and political and religious extremes, but what does it offer the world in music? Discover musical cultures reflecting the sweeping panorama of the land and its history. Guided by a performer and scholar of Middle Eastern musics, learn what to listen for in Arabic, Turkish, and Iranian classical music and folk music, including those of the Bedouins, Berbers, and Yemenite Jews. Through recordings, video, live performance, participatory exercises, and stimulating discussion, explore these vibrant musical cultures and stunning traditions. (Limited to 30)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 4-Nov. 1 (5 meetings), Cathedral Church of St. Mark, 519 Oak Grove, Mpls. *No late fee through Sept. 27.*

*(Miriam Gerberg, ethnomusicologist, composer, and concert producer, has focused her research on Middle Eastern musics. She performs classical Arabic, Turkish, and Moroccan Jewish music, as well as Japanese koto and eastern European accordion)*

## Noncredit Courses

### **CSch 0138 MUSIC OF THE WHOLE EARTH.** No credit, \$97 (age 62, \$87.30).

Drawing from a variety of countries, discover music from cultures around the world. Learn how to listen and appreciate musics that may at first glance seem unapproachable. Explore how dance, religious ritual, children's games, and other musical forms provide a vehicle for understanding why and how different cultures use their unique musics to create unique sounds. Learn about instruments such as the Japanese koto, the Greek bouzouki, and the African mbira (thumb piano). Break down barriers of cultural differences and appreciate diversity through music and musical function.

Fall Spec Term, Sec 1, W, 6:15-8:15, Sept. 28-  
Nov. 2 (6 meetings), FergH 115. *No late fee through Sept. 21.*

*(Chris Granias, Ph.D., theory and composition coordinator at MacPhail Center for the Arts, has taught composition courses using music from around the world. He is a member of the Minnesota Composers Forum)*

### **CSch 0139 MOZART—THE MUSIC AND THE MAN.** No credit, \$81 (age 62, \$72.90).

Learn more about Mozart as you read between the lines of letters as well as follow the fantastic notes of his musical compositions. Discover the wide range of his musical skills by listening to selections from his operas, symphonies, and sacred works, paying particular attention to *The Magic Flute*. Gain a more complete understanding of his stature as a composer by learning about the society in which he lived. Read selections from Mozart's family letters and discover how his personality, childhood experiences, and Viennese court life contributed to his music.

Winter Spec Term, Sec 1, T, 6:15-8:15, Jan. 10-  
Feb. 7 (5 meetings), FergH 205. *No late fee through Jan. 3.*

*(DonnaMae Gustafson holds a Ph.D. in music from the University of Minnesota. She has taught courses about the music of many historical periods and given previews for St. Paul Chamber Orchestra audiences. Her research includes 16th-century Italian music and theatre)*

### **CSch 0140 THREE CENTURIES OF CHAMBER MUSIC.** No credit, \$81 (age 62, \$72.90).

Take a peek into the lives of the royalty as you listen to music composed for them during the 17th, 18th, and 19th centuries. Involve yourself in the intimacy, emotions, and clarity of form of this music. Follow the changes as their music moved from the

private royal chamber to the public concert hall by listening to the music of Haydn and Mozart and their contemporaries. Gain insight into the lives, careers, and musical styles of major composers to enhance your listening enjoyment.

Fall Spec Term, Sec 1, T, 6:15-8:15, Sept. 27-  
Oct. 25 (5 meetings), FergH 203. *No late fee through Sept. 20.*

*(See DonnaMae Gustafson's biography in CSch 0139)*

### **CSch 0141 A ROMANTIC DUET: THE LIVES AND MUSIC OF CLARA AND ROBERT SCHUMANN.** No credit, \$65 (age 62 and Woman's Club of Mpls members, \$58.50).

The love affair, marriage, and joint musical careers of Clara Wieck and Robert Schumann form a fascinating story of devotion, professional success, and personal tragedy. Both virtuoso pianists and composers, the Schumanns exerted strong influence on the development of 19th-century romantic music. Listen to and discuss examples of their piano pieces, songs, and orchestral works, with emphasis on form, style, and meaning. Read from the couple's diaries, letters, and correspondence with Johannes Brahms to gain insight into their professional and private lives. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 40)

Spring Spec Term, ★Sec 1, W, 10 a.m.-12, Apr.  
5-26 (4 meetings), Woman's Club of Mpls, 410  
Oak Grove. *No late fee through Mar. 29*

*(See DonnaMae Gustafson's biography in CSch 0139)*

### **CSch 0142 THE WORLD OF TURANDOT.** No credit, \$65 (age 62, \$58.50).

Giacomo Puccini's final masterpiece, *Turandot*, will open the 1995 Minnesota Opera season. Get to know this piece before you see it at the Ordway Music Theatre. Learn the story and the music; discover the Carlo Gozzi play that Puccini used as a source; compare Puccini's version with that of his contemporary, Busoni. Learn about the social climate in which this work was created, and discuss the ramifications of its performance in the late 20th century. Class does not include tickets for the production.

Winter Spec Term, Sec 1, Th, 6:30-8:30, Jan. 5-  
Feb. 2 (4 meetings—no class Jan. 26), BlegH  
105. *No late fee through Dec. 29.*

*(Stephen Houtz is a composer, pianist, and music educator in the Twin Cities)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0143 DISCOVERING OPERA.** No credit, \$49 (age 62, \$44.10).

Opera is one of the fastest growing art forms in America today. Explore some of the features of this exciting art in this three-session course. Learn about the role costumes play in establishing character, time, and place. Review the history of various operatic forms and acknowledge the people who make opera happen. Designed for beginners and well-seasoned opera lovers alike.

Fall Spec Term, Sec 1, M, 6:15-8:15, Oct. 3-17 (3 meetings), FergH 205. *No late fee through Sept. 26.*

*(See Stephen Houtz's biography in CSch 0142)*

**CSch 0144 AMERICAN POPULAR MUSIC PERFORMING STYLES: FROM THE MINSTRELS TO EARLY ROCK.** No credit, \$81 (age 62, \$72.90).

Study the ways pop music styles in this century have been affected by, and have responded to, the congealing of European conceptions and the principles of African-American music, plus such technological advancements as the phonograph, the microphone, tape recording, and electric instruments. Study the language of popular music as it has been expanded and ultimately reinvented by such performers as Louis Armstrong, Bessie Smith, Bing Crosby, Frank Sinatra, Elvis Presley, the Beatles, and other artists. Discover the context, styles, influences, and trends of various styles of music so popular throughout the first half of the century.

Spring Spec Term, Sec 1, T, 6:15-8:15, Mar. 28-Apr. 25 (5 meetings), FergH 149. *No late fee through Mar. 21.*

*(Arne Fogel is an actor, singer, musician, composer, writer, producer, and entertainment historian. He has produced and sung music jingles for Twin Cities area companies and produced hundreds of radio programs on American popular music. He received a degree in theatre education from the University of Minnesota)*

**CSch 0145 MUSIC IN CONTEXT.** No credit, \$97 (age 62, \$87.30).

Music isn't created in a vacuum, yet often when we listen to Western art music we don't make a connection between the music and what was going on in the world when it was written. For example, what effect did the Age of Enlightenment have on Handel and Bach? How can we hear this in their music? Survey Western art music and make the connections between Mozart and the French Revolution, Eliot Carter and World War II, and others.

Spring Spec Term, Sec 1, M, 6:15-8:15, Mar. 27-May 1 (6 meetings), FergH 205. *No late fee through Mar. 20.*

*(Stephen Houtz is a composer, pianist, and music educator in the Twin Cities)*

**CSch 0146 TOPICS IN MUSICAL THEATRE.** No credit, \$78 (age 62, \$70.20).

Deepen your understanding and appreciation of musicals by exploring musical theatre from a number of perspectives. Briefly survey the history of musicals by focusing on such landmarks as *Showboat*, *Porgy and Bess*, *West Side Story*, and *Cats*. Discuss topics such as: Are musicals merely mindless fluff or can they have more substance? Is the musical theatre performer a technician or artist? What is the difference between musical comedy, musical drama, and rock musicals? Compare and contrast two musicals such as *Mame* and *Evita*. Course will also include a guest lecture or two from local musical theatre artists.

Fall Spec Term, Sec 1, W, 6:15-8:15, Sept. 28-Oct. 26 (5 meetings), FordH 130. *No late fee through Sept. 21.*

*(Michael Ellison, Ph.D., is an instructor in the Department of Theatre Arts and Dance at the University of Minnesota. He has directed and choreographed many shows, including world premiers at the Great American History Theatre, and has taught and performed across Canada, Denmark, and the United States)*

## Noncredit Courses

**CSch 0147 ASIAN AMERICA: A FILM JOURNEY.** No credit, \$82 (age 62 and WAC members, \$73.80).

Travel to the heart of Asian America—its history, its collective memory, and its often moving personal stories. From the silent films of Sessue Hayakawa and Anna May Wong in the 1920s to the emergence of media activist documentaries in the 1970s and the recent appearance of mainstream Asian-American films in your neighborhood theaters. Asian-American cinema artists have contributed significantly to a growing awareness of Asian-American life. Rising from a generation of bachelor immigrants in search of gold mountain and the American dream, first- and second-generation Asian-American filmmakers have created images of their parents' and grandparents' stories about their journeys across the Pacific when no cameras were there to record these events. In the past decade, filmmakers like Mira Nair and Wayne Wang have managed to break into the international mainstream, producing critically acclaimed films like *Mississippi Masala* and *The Joy Luck Club*. Partial and complete screenings of silent classics, lesser-known films, Oscar-nominated works, and a few surprise sneak previews of upcoming films add spice to class discussions. (Offered in cooperation with Walker Art Center. Both WAC and Compleat Scholar will accept registrations. Limited to a combined total of 50)

Winter Spec Term, ★Sec 1, Th, 6-8, Mar. 2-30 (5 meetings), Walker Art Center, Lecture Room, Vineland Pl., Mpls. *No late fee through Feb. 23.*

*(Marlina Gonzalez-Tamrong is assistant curator of film and video at Walker Art Center. She is also a board member of the Asian American Renaissance and the Center for Arts Criticism in Minneapolis)*

**CSch 0148 ANATOMY OF FILM: THE WESTERN—NEW TRAILS ACROSS AN OLD FRONTIER.** No credit, \$103 (age 62, \$92.70).

Since its inception the western has been an invincible American myth. Born in the machine age, it has survived into the information age because of its ability to renew itself as history and work to keep the concept of frontier fresh. Survey representative American movie westerns, old and new, to see what they meant to American culture and what they mean today. Included are a classic from John Ford, edgier

psychologically accented dramas from Anthony Mann and Arthur Penn, and very contemporary reworkings such as Clint Eastwood's *Unforgiven* and Maggie Greenwald's *The Ballad of Little Jo*. Some surprise detours occur as well, even into outer space. (Limited to 50)

Spring Spec Term, ★Sec 1, T, 6-8:30, Apr. 4-May 2 (5 meetings), Cathedral Church of St. Mark, Auditorium, 519 Oak Grove, Mpls. *No late fee through Mar. 28.*

*(Phil Anderson teaches courses in film and television history and visual and mass communication at the Minneapolis College of Art and Design and Metropolitan State University. A film critic for City Pages for many years, he has written numerous free-lance articles for local and national publications)*

**CSch 0149 THE GOLDEN ERA OF MOVIE COMEDY TEAMS.** No credit, \$81 (age 62, \$72.90).

The concept of the comedy team has been a staple since the beginnings of American theatre. The Avon Comedy 4, Gallagher and Shean, and others were vaudeville headliners at or near the turn of the century, and with the advent of film, their work was recorded for posterity and immortalized. The best of these teams have a timeless appeal that millions of people continue to enjoy. Discover the reasons for their success: their professionalism, the rhythm of their precision interaction, the various levels of their cinematic technique, and the legendary characters they created. Examine the work of Abbott and Costello, Laurel and Hardy, the Marx Brothers, Martin and Lewis, and others.

Fall Spec Term, Sec 1, T, 6:15-8:15, Sept. 27-Oct. 25 (5 meetings), Phys 150. *No late fee through Sept. 20.*

*(Arne Fogel is an actor, singer, broadcaster, and entertainment historian. He has written, produced, and appeared in hundreds of radio and television commercials, and has also produced numerous radio programs on the subject of American popular entertainment. He received a degree in theatre education from the University of Minnesota)*



**CSch 0150 UNDERSTANDING YOUR CAMERA.** No credit, \$91 (age 62, \$81.90).

An opportunity for people with little or no experience with cameras who want to learn more about photography. Includes a demonstration of equipment, films, processing, critiques of students' work, and discussions on how to make a good photograph. Covers both the technical and aesthetic sides of photography. Bring camera to first class. (Limited to 24)

Fall Spec Term, ★Sec 1, T, 6:30-9, Sept. 27-Oct. 25 (5 meetings), MacP 5, Millikan. *No late fee through Sept. 20.*

Spring Spec Term, ★Sec 2, T, 6:30-9, Mar. 28-Apr. 25 (5 meetings), NCCE Library, Husom. *No late fee through Mar. 21.*

*(Jeff Millikan is a lecturer in the General College and the Department of Studio Arts at the University of Minnesota. His award-winning photography has been exhibited internationally and is in the collections of numerous museums, including Walker Art Center. David Husom, assistant professor in the Department of Studio Arts, is a professional photographer with numerous exhibits and publication credits. Also a specialist in digital photography, he is a frequent speaker on the issues of photography, art, and technology)*

**CSch 0151 DARKROOM AND PHOTOGRAPHY TECHNIQUES.** No credit, \$118 plus \$17 special fee. Total \$135 (age 62, \$106.20 plus \$17 special fee. Total \$123.20).

Learn basic camera and darkroom techniques. Print your own black and white photographs using the MacPhail Center darkroom, which is available for student use outside of class time. Informal discussion and critiques guide your development. Bring your camera to the first class. (Limited to 24)

Fall Spec Term, ★Sec 1, M, 6-9:30, Sept. 26-Oct. 24 (5 meetings), MacP 5, Husom. *No late fee through Sept. 19.*

Winter Spec Term, ★Sec 2, T, 6-9:30, Jan. 3-Jan. 31 (5 meetings), MacP 5, Husom. *No late fee through Dec. 27.*

Spring Spec Term, ★Sec 3, T, 6-9:30, Mar. 28-Apr. 25 (5 meetings), MacP 5, Millikan. *No late fee through Mar. 21.*

*(See instructors' biographies in CSch 0150)*

**CSch 0152 MORE DARKROOM AND PHOTOGRAPHY TECHNIQUES.** No credit, \$118 plus \$17 special fee. Total \$135 (age 62, \$106.20 plus \$17 special fee. Total \$123.20).

Exposure to advanced photography techniques including pushing film, dodging and burning, con-

trast controls, toners, matting, and framing. You'll have access to the darkroom at MacPhail Center both in and outside of class. Bring black and white film to develop and negatives and paper to print to the first class. A good refresher for those who want to get back into photography. (Limited to 24)

Fall Spec Term, ★Sec 1, M, 6-9:30, Oct. 31-Nov. 28 (5 meetings), MacP 5, Husom. *No late fee through Oct. 24.*

Winter Spec Term, ★Sec 2, T, 6-9:30, Feb. 7-Mar. 7 (5 meetings), MacP 5, Husom. *No late fee through Jan. 31.*

Spring Spec Term, ★Sec 3, T, 6-9:30, May 2-30 (5 meetings), MacP 5, Millikan. *No late fee through Apr. 25.*

*(See instructors' biographies in CSch 0150)*

**CSch 0153 GOING FROM HERE: NEW AND ALTERNATIVE DARKROOM TECHNIQUES.** No credit, \$200 plus \$30 special fee. Total \$230 (age 62, \$180 plus \$30 special fee. Total \$210).

Refine your black and white darkroom skills and learn new experimental techniques. Learn about color slide developing and Cyanotype printing, and visit a Photo CD services provider in this intermediate-level course. Develop your techniques through personal projects, critiques, and conferences with the instructor. Lab access available the entire quarter. (Limited to 20)

Winter Spec Term, ★Sec 1, M, 6-9:30, Jan. 9-Mar. 6 (8 meetings—no class Jan. 16), MacP 5. *No late fee through Jan. 3.*

*(See David Husom's biography in CSch 0150)*

**CSch 0154 THE FINE PRINT AND PERSONAL PHOTOGRAPHIC VISION.** No credit, \$213 plus \$30 special fee. Total \$243 (age 62, \$191.70 plus \$30 special fee. Total \$221.70).

Continue your journey as a photographer and clarify your artistic vision through critiques and individual conferences with the instructor in this intermediate-level course. Learn black and white darkroom techniques like hand coloring, fiber based printing, and Kodalith film processing. Visit a local museum to discuss the collection with the curator. Lab access available the entire quarter. (Limited to 20)

Spring Spec Term, ★Sec 1, M, 6-9:30, Mar. 27-May 15 (8 meetings), MacP 5. *No late fee through Mar. 20.*

*(See Jeff Millikan's biography in CSch 0150)*

## Noncredit Courses

**CSch 0155 DEMYSTIFYING PHOTOGRAPHY: A LOOK ON THE INSIDE.** No credit, \$98 (age 62, \$88.20).

Take an inside look at the photographic art world and gain insight into the artistic process. Discuss photography with museum curators, gallery directors, and individual artists. Visit museums, galleries, and artists' studios, and tour a commercial processing facility equipped with advanced digital technology. First class is at MacPhail Center; other class sites to be determined at first class meeting. (Limited to 15)

Fall Spec Term, ★Sec 1, W, 10 a.m.-12, Oct. 26-Nov. 30 (6 meetings), MacP 5. *No late fee through Oct. 19.*

(See Jeff Millikan's biography in CSch 0150)

**CSch 0156 PHOTOGRAPHING THE URBAN LANDSCAPE.** No credit, \$82 (age 62, \$73.80).

The Twin Cities area is rich with photographic subjects not found on the picture postcard rack. First examine the work of photographers who have profiled the urban landscape. Then create your own photographs on three half-day Saturday field trips, one of which is at night (Oct. 1, 8, 15; participants provide own transportation and may choose to carpool). Finish with two follow-up sessions for viewing and critiquing work. All classes are held at instructor's studio. (Limited to 15)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Sept. 28, Oct. 19, 26 (3 meetings plus 3 field trips), Second Floor Studio, 2800 Lyndale Ave. S., Mpls. *No late fee through Sept. 21.*

(Chris Faust is an award-winning professional photographer, graphic designer, and recipient of a 1992 McKnight Photography Fellowship. His work has appeared in gallery exhibits and in local and national publications)

**CSch 0157 OUTDOOR AND LANDSCAPE PHOTOGRAPHY.** No credit, \$99 (age 62, \$89.10).

Do you like to explore the outdoors? Are you disappointed with the pictures you have of your discoveries? Learn how to capture on film many of the wonderful discoveries that the outdoor world has to offer. Review the basics of camera operation, timing photographs, lighting, motion, and film selection. A one-day Saturday field trip (Oct. 15; participants provide own transportation and may choose to carpool) to Jay Cooke State Park (one of the state's most scenic parks) will allow you to experiment with these techniques. Required equipment: a 35mm camera with manual controls for the focus, shutter, and aperture. Suitable for both the beginning and intermediate photographer. (Limited to 20)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Sept. 28-Oct. 26 (5 meetings plus field trip), AmundH 120. *No late fee through Sept. 21.*

(John Gregor, a landscape photographer, has experience teaching photography at North Hennepin Community College and the Art Center of Minnesota)

**CSch 0158 OUTDOOR PHOTOGRAPHY.** No credit, \$103 (age 62, \$92.70).

Capturing nature on film can be a fascinating challenge. Survey the basic techniques for photographing landscapes, close-ups, and wildlife in color. Additional topics include equipment selection, controlling natural light, and organizing and presenting your work. There will be one half-day field trip (May 6; participants provide own transportation and may choose to carpool). Suggested text: *Nature Photography* by John Shaw. (Limited to 20)

Spring Spec Term, ★Sec 1, T, 7-9, Mar. 28, Apr. 11, 25, May 9, 23 (5 meetings plus field trip), CentLib 6, StP Campus. *No late fee through Mar. 21.*

(Don Breneman is a photographer for the Minnesota Extension Service and teaches in the Department of Rhetoric at the University of Minnesota. His work is published in University publications, regional magazines, calendars, brochures, and postcards. He has also conducted outdoor photography workshops in Big Sky Montana and Voyageurs National Park)

**CSch 0159 PHOTOGRAPHY: STUDIO LIGHTING.** No credit, \$82 (age 62, \$73.80).

What's the difference between a cookie and a scrim? Find out in a class that explores the various ways lighting is used to change the appearance of an object. Several techniques will be discussed and demonstrated, including the use of tungsten and strobe equipment. No equipment is necessary, but participants must have a working knowledge of photographic fundamentals. (Limited to 12)

Winter Spec Term, ★Sec 1, Th, 6-8, Jan. 12-Feb. 16 (6 meetings), Dayton's Advertising Photography, 701 Industrial Blvd., Mpls (park in lot adjacent to Dayton's warehouse). *No late fee through Jan. 5.*

(Gary Ness earned a M.F.A. in photography from the University of Minnesota and is currently a commercial photographer at Dayton's Advertising Photography. He has extensive teaching experience, and his work has been exhibited regionally and nationally, including at Film in the Cities Gallery, Peter M. David Gallery, and the Jon Oulman Gallery)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0160 PORTRAIT PHOTOGRAPHY.** No credit, \$107 (age 62, \$96.30).

Learn the skills and techniques to create a variety of styles of portrait photography. Explore the use of backgrounds, posing, lighting, and subject interaction as elements of studio portraiture. These basic techniques provide a basis for extending into environmental portraits and self-portraits, and are the elements for exploring the portrait as information, metaphor, and revelation. You'll need a basic working knowledge of 35mm or medium-format cameras and your own camera and film. All classes are held at the instructor's studio in downtown St. Paul. (Limited to 14)

Winter Spec Term, ★Sec 1, W, 6:30-9:30, Jan.

11-Feb. 8 (5 meetings), 500 N. Robert St., #306, StP. *No late fee through Jan. 4.*

*(Rebecca Pavlenko, B.F.A. in photography, specializes in portraiture. She has studied with several renowned fine-art photographers; taught at Stillwater State Prison, the Minnesota Museum of American Art, and Vision Quest; and had her work exhibited internationally)*

**CSch 0161 EXPLORING THE PINHOLE CAMERA: PHOTOGRAPHY WITHOUT A LENS.** No credit, \$82 (age 62, \$73.80).

Explore the world of making photographs through the use of a pinhole and not a lens. Surprise yourself with perspectives and image qualities that can't be obtained with a more traditional camera. Examine work that has been done by local, national, and international artists. Review techniques on camera construction and build your own pinhole camera or modify an existing one with help from the instructor. Includes one half-day Saturday field trip (**Apr. 29; participants provide own transportation and may choose to carpool**). All classes are held at the instructor's studio. (Limited to 15)

Spring Spec Term, ★Sec 1, W, 6:30-8:30, Apr. 5-May 3 (5 meetings plus field trip), Second Floor Studio, 2800 Lyndale Ave. S., Mpls. *No late fee through Mar. 29.*

*(Chris Faust is an award-winning professional photographer, graphic designer, and recipient of a 1992 McKnight Photography Fellowship. His work has appeared in gallery exhibits and in local and national publications)*

**CSch 0162 LOOKING AT FASHION PHOTOGRAPHY.** No credit, \$107 (age 62, \$96.30).

Enter the fascinating world of fashion photography. Learn how to develop a respectful working relationship with models. Discuss the ethics of fashion photography including the objectification of women (and men). Review technical topics such as lighting, film choice, and use of equipment. Make images both in the studio and on location, developing your unique photographic style. All classes are held at the instructor's studio. (Limited to 15)

Winter Spec Term, ★Sec 1, Th, 6-8:30, Jan. 12-Feb. 16 (6 meetings), Beasley Photography, 126 N. 3 St., Suite 208, Mpls. *No late fee through Jan. 5.*

*(Doug Beasley, B.F.A. the University of Michigan, opened his photography studio in 1984, where he specializes in commercial and editorial fashion. His work has been exhibited nationally and published internationally. His extensive teaching experience includes numerous workshops and six-years with Film in the Cities)*

**CSch 0163 PHOTOGRAPHING PEOPLE: MAKING THE CONNECTION.** No credit, \$65 (age 62, \$58.50).

A good photograph is an artifact of a relationship. It is a collaboration between the subject and the photographer. How then does one establish that link, that connection to another human being? This course examines the process of making that connection. It is designed for those who like to photograph people and seek to become more comfortable doing so. Required equipment: 35mm adjustable camera and small flash unit (tripod recommended). Participants will be asked to shoot at least one roll of film and have at least one print (either black and white or color) made for each class session. (Limited to 15)

Fall Spec Term, ★Sec 1, M, 6-8, Sept. 26-Oct. 17 (4 meetings), AmundH 120. *No late fee through Sept. 19.*

Spring Spec Term, ★Sec 2, W, 6-8, Apr. 5-26 (4 meetings), FordH 60. *No late fee through Mar. 29.*

*(Steve Schneider is a free-lance commercial photographer who specializes in making photographs of people. He has an M.A. in photojournalism and 15 years' experience working in photography)*

## Noncredit Courses

### **CSch 0165 PHOTOGRAPHY AS A PERSONAL LANGUAGE.** No credit, \$98 (age 62, \$88.20).

You own a couple of cameras, perhaps a darkroom, too. Your technique is up to speed, so now what? What will you photograph? What kind of statement do you want to make? This class is designed to help extend your photographic ability toward a personal photographic vocabulary. Learn to select a topic and express yourself using that vocabulary, and to acknowledge your reasons for making photographs. Make and present new black and white photos at each class session to illustrate a particular viewpoint. In short, learn to make photographs that speak for themselves. After the first two sessions, the class will meet on alternate weeks to allow time for photography. Course format includes lecture/discussion and peer group observation. (Limited to 40)

Fall Spec Term, ★Sec 1, W, 6-8, Sept. 28, Oct. 5, 19, Nov. 2, 16, 30 (6 meetings), NCCE Dining Room. *No late fee through Sept. 21.*

*(Martin Fowler, B.F.A. from the San Francisco Art Institute, has extensive experience in advertising at Dayton Hudson, Willis and Borg, and Colle and McVoy. He has studied and worked with Imogen Cunningham, Morely Bear, and Ansel Adams. He is currently a partner at the Marketing Alliance and teaches design at Brown Institute)*

### **CSch 0166 DIGITAL IMAGING OVERVIEW.** No credit, \$116 (age 62, \$104.40).

Through lecture, demonstration, and location visits, gain a firm foundation in the growing field of digital photography and imaging. Examine digital cameras, Photo CD, PC and Macintosh systems, high-end workstations, and output. Focus on the fundamentals of computer-based imaging. (Limited to 24)

Fall Spec Term, ★Sec 1, T, 6:30-9:30, Sept. 27-Oct. 25 (5 meetings), NCCE 229. *No late fee through Sept. 20.*

Spring Spec Term, ★Sec 2, T, 6:30-9:30, Mar. 28-Apr. 25 (5 meetings), Arch 20. *No late fee through Mar 21.*

*(David Husom, an assistant professor in the Department of Studio Arts at the University of Minnesota, is a professional photographer with numerous exhibits and publication credits. A specialist in digital photography, he is a frequent speaker on the issues of photography, art, and technology)*

### **CSch 0167 ELECTRONIC IMAGING WORKSHOP I.** No credit, \$228 plus \$25 special fee. Total \$253 (age 62, \$205.20 plus \$25 special fee. Total \$230.20).

Gain experience operating the high-end Dicomed Imaginator workstation. Use sophisticated professional equipment to input, manipulate, and output digital-based photographs. A basic understanding of computer imaging is required (see CSch 0166 Digital Imaging Overview). Additional lab time will be arranged. (Limited to 12)

Fall Spec Term, ★Sec 1, W, 6-10, Sept. 28-Oct. 26 (5 meetings), Dicomed, 12270 Nicollet Ave. S., Burnsville. *No late fee through Sept. 21.*

Winter Spec Term, ★Sec 2, W, 6-10, Feb. 8-Mar. 8 (5 meetings), Dicomed, 12270 Nicollet Ave. S., Burnsville. *No late fee through Feb. 1.*

Spring Spec Term, ★Sec 3, M, 6-10, Mar. 27-Apr. 24 (5 meetings), Dicomed, 12270 Nicollet Ave. S., Burnsville. *No late fee through Mar 20.*

*(See David Husom's biography in CSch 0166)*

### **CSch 0168 ELECTRONIC IMAGING WORKSHOP II.** No credit, \$228 plus \$25 special fee. Total \$253 (age 62, \$205.20 plus \$25 special fee. Total \$230.20).

A second-level continuation course using the high-end Dicomed Imaginator workstation to produce very high resolution second-generation original photographs. Emphasis is on large-format output for offset printing or darkroom. Additional lab time will be arranged. Prerequisite is CSch 0167 Electronic Imaging Workshop I or consent of instructor. (Limited to 12)

Fall Spec Term, ★Sec 1, W, 6-10, Nov. 2-30 (5 meetings), Dicomed, 12270 Nicollet Ave. S., Burnsville. *No late fee through Oct. 26.*

Spring Spec Term, ★Sec 2, M, 6-10, May 1-June 5 (5 meetings—no class May 29), Dicomed, 12270 Nicollet Ave. S., Burnsville. *No late fee through Apr. 24.*

*(See David Husom's biography in CSch 0166)*

**CSch 0169 COLOR IN THE COMPUTER.** No credit, \$107 (age 62, \$96.30).

From our newspapers and office newsletters to our computer screens and home videos, we live in an increasingly colorful world. Learn about the basics of color theory, how technology creates the endless hues and values of color, and the artist's approach to color from an imaging consultant. In addition, more advanced areas of color theory will be examined through physics, color measurement, standards, space, and psychological reference. There will be hands-on projects including creating complementary color charts, a color wheel, Munsell color charts, and color illusion projects. Students should bring glue sticks, scissors, and ruler the first night of class. Designed for computer users, photographers, and graphic designers. (Limited to 24)

Fall Spec Term, ★Sec 1, T, 6:30-9:30, Nov. 1-29 (5 meetings), NCCE 229. *No late fee through Oct. 25.*

*(Ann-Marie Rose is a professional photographer and consultant/trainer to the imaging industry. Her digital photographs have appeared in Desktop Communication and Photographic Processing. She has taught at the University of Minnesota, the Minneapolis College of Art and Design, and the Winona School for Professional Photography)*

**CSch 0170 THE OTHER END OF THE PAINT-BRUSH: PAINTING IN OILS AND ACRYLICS.** No credit, \$93 (age 62, \$83.70).

Focus on the enjoyment and technique of painting in oils and acrylics. Make personal ideas artistically satisfying by improving your skills. Class format includes demonstrations, critiques, and discussions, and instruction is varied to benefit the more advanced student as well as the beginner. Bring a sketch pad and pencil to the first meeting, when a more detailed list of required supplies will be given. (Limited to 20)

Fall Spec Term, ★Sec 1, M, 6:30-9, Sept. 26-Oct. 24 (5 meetings), ArtB 151. *No late fee through Sept. 19.*

*(Louis Safer is a professor emeritus of art in the General College at the University of Minnesota. His work has been exhibited internationally and is included in the collection at the Smithsonian Portrait Gallery and the National Gallery in Finland)*

**CSch 0171 THE ART OF PORTRAITURE.** No credit, \$111 (age 62, \$99.90).

Learn the basic steps in portrait painting. Disciplines in drawing, color, rendering, and creative interpretation, among others, are covered to provide a firm foundation for portraiture. Work in oils, acrylics, or pastels. Bring an inexpensive set of pastels and some sheets of newsprint to the first meeting. (Limited to 20)

Spring Spec Term, ★Sec 1, M, 6:30-9, Apr. 3-May 8 (6 meetings), ArtB 161. *No late fee through Mar. 27.*

*(See Louis Safer's biography in CSch 0170)*

**CSch 0172 PAINTING IN WATERCOLOR.** No credit, \$92 (age 62, \$82.80).

The soft pastels of watercolor blend and flow to create a dreamlike image. Discover how textural effects, washes, and color combinations create moods in painting. Learn about the tools you need—paints, papers, brushes—through lectures, slides, and demonstrations of watercolor techniques. Practice these skills in painting sessions. Individual attention encourages creativity, and group critiques help refine skills. (Limited to 20)

Spring Spec Term, ★Sec 1, T, 1-3:30, Apr. 4-May 2 (5 meetings), St. Anthony Park Library, 2245 Como Ave., StP. *No late fee through Mar. 28.*

*(Marija Skutans Netz is an award-winning watercolorist whose paintings appear in local galleries as well as in private and corporate collections. She has taught at the University of Minnesota and is a popular watercolor workshop leader and guest speaker)*

**CSch 0173 WATERCOLOR: IN SEARCH OF A PERSONAL STYLE.** No credit, \$92 (age 62, \$82.80).

Experiment with some of the painting styles of contemporary watercolorists and develop awareness of your inner uniqueness as a source of creativity. This is a studio class; bring art supplies to the first session. Participants should have some experience with watercolor painting. (Limited to 20)

Fall Spec Term, ★Sec 1, W, 6:30-9, Sept. 28-Oct. 26 (5 meetings), ArtB 150. *No late fee through Sept. 21.*

*(See Marija Skutans Netz's biography in CSch 0172)*

## Noncredit Courses

**CSch 0174 CREATIVE DRAWING.** No credit, \$87 (age 62, \$78.30).

Learn to use the creative part of your mind and to apply the principles of design to the art of drawing. Using natural surroundings as subjects, tap your imaginative energy to produce line drawings with pencil, pen and ink, and charcoal. Learn the fundamentals of drawing and illustration for printing reproduction. Open to all levels of drawing skill. (Limited to 25)

Fall Spec Term, ★Sec 1, W, 7-9, Sept. 28-Nov. 2 (6 meetings), NichH 207. *No late fee through Sept. 21.*

*(Mary Kubik is an advanced graduate student in the Department of Design, Housing, and Apparel at the University of Minnesota)*

**CSch 0175 DRAWING YOUR LIFE—EVERY-DAY.** No credit, \$72 (age 62, \$64.80).

Use drawing journals to record the wonder and simple beauty around you—the backyard bird feeder, seasons of the year, remodeling of the kitchen, a visual diary of your children's lives. Use them to record travels or for a relaxing time-out project you give yourself each day. Drawing journals are a nonthreatening, informal art form that uses sketching without the pressure of producing public art. Using basic drawing principles, spend significant time drawing in class and completing creative journal assignments. Class includes demonstrations on simple color techniques. (Limited to 20)

Winter Spec Term, ★Sec 1, W, 6:30-8:30, Jan.

11-Feb. 8 (5 meetings), BorH 365, StP

Campus. *No late fee through Jan. 4.*

*(Kris Kirkeby is a free-lance scientific illustrator. She also teaches natural science drawing to adults and children)*

**CSch 0176 DRAWING IN COLOR.** No credit, \$87 (age 62, \$78.30).

Enhance your drawing skills through greater understanding of composition and color. Choose from such subject material as still lifes, human or animal forms, plants, flowers, landscapes, or architectural settings. Learn to make color three-dimensional using techniques like chiaroscuro and color blending. Develop a drawing series (two or three works) that satisfies your needs and demonstrates newfound skills. Supply list and syllabus provided at first session. (Limited to 25)

Spring Spec Term, ★Sec 1, M, 7-9, Apr. 3-May 8 (6 meetings), JonesH 2. *No late fee through Mar. 27.*

*(Mary Kubik is an advanced graduate student in the Department of Design, Housing, and Apparel at the University of Minnesota)*

**CSch 0178 INTERNATIONAL FOLK DANCING.** No credit, \$77 (age 62, \$69.30).

Learn joyful, lyrical, rhythmic, and exciting dances from around the world. Each class session covers basic folk dance steps and patterns as found in traditional dances from a variety of countries and cultures. In addition to becoming familiar with the dance itself, also learn historic and ethnographic background about each dance and its culture of origin. Finally, information about local folk dance sessions and workshops will be available to encourage participation in other community folk dance groups. Learn specific folk dances from Israel, Greece, England, America, Russia, Serbo-Croatia (Yugoslavia), Mexico, and Armenia or Turkey. This class is suitable for all ages and abilities; no previous dance experience is necessary. (Limited to 30)

Winter Spec Term, ★Sec 1, W, 7-8:30, Jan. 11-Feb. 22 (7 meetings), NorrisH 151. *No late fee through Jan. 4.*

*(Barbara Loeb teaches in the University of Minnesota Dance Program and is also a body/movement therapist trained in several different therapies and techniques. She has performed and choreographed on the east and west coasts, was an artist-in-residence at St. Olaf College for three years, and has studied folk dance in the U.S., Eastern Europe, England, and Greece)*

**CSch 0183 FRAME LOOM WEAVING.** No credit, \$88 (age 62, \$79.20).

In six short sessions learn how to weave on a frame loom. Learn how to select yarns appropriate for two-dimensional woven projects, which might include scarves, place mats, coasters, hats, shawls, and purses; to warp a portable loom and explore plain weave fabric variations; the strengths and limitations of frame loom weaving; and finishing techniques for handwoven projects. Examine frame loom weaving traditions from around the world. Participants need a frame loom for this course. Options will be discussed at first class session. (Limited to 15)

Winter Spec Term, ★Sec 1, Th, 6-8, Jan. 12-Feb. 16 (6 meetings), McNH 376, StP Campus. *No late fee through Jan. 5.*

*(Catherine Daly, Ph.D. in textiles and clothing, has extensive experience as a fiber arts educator. She has taught at Depth of Field and the Yarnery, and is a past president of the Weaver's Guild)*

**CSch 0187 VIDEO BASICS.** No credit, \$225 (age 62, \$202.50).

Designed for students with some video experience or none at all, this class focuses on how to shoot professional looking video, how to shoot for the editing booth, and how to use personal experience and talents to create better video programs. Concentrate on camera work and preproduction planning. Learn to work video as an interdisciplinary art, drawing on life experiences and other mediums (storytelling, song writing, poetry and short story writing, or improvisational acting) to make richer videos. Bring your camcorder or use Hi-8 camcorders outside of class on a limited basis. (Offered in cooperation with Intermedia Arts. Limited to 15)

Fall Spec Term, ★Sec 1, Th, 6-10, Sept. 22-Oct. 20 (5 meetings), Intermedia Arts, 425 Ontario St. S.E., Mpls. *No late fee through Sept. 15.*

*(Kim Downing, lecturer in the Department of Arts at the University of Minnesota, is a video artist and poet. Her videos have been exhibited at Intermedia Arts Gallery and the Minneapolis Institute of Arts. She has extensive experience teaching video courses and collaborates in the production of "What," a cable television program about local music)*

**CSch 0188 DESKTOP VIDEO.** No credit, \$180 (age 62, \$162).

Powerful video editing tools and network quality color are yours through the use of personal computer technology. Using devices like the Video Toaster, learn to edit and produce video that looks like it was done at a high-end production studio but for a fraction of the cost. Topics covered include 2-D paint box program (drawing and painting, pixel blending, cutting, pasting, copying), digital video effects (switcher and A-B roll editing), and chroma F/X color processor and character generator. Bring footage to edit on Hi-8 or 3/4-inch videotape. Some previous video editing experience required. Four hours of additional computer lab time will be available. (Offered in cooperation with Intermedia Arts. Limited to 10)

Fall Spec Term, ★Sec 1, SaSu, 12-4, Sept. 24, 25, Oct. 1, 2 (4 meetings), Intermedia Arts, 425 Ontario St. S.E., Mpls. *No late fee through Sept 16.*

*(Jerome Thelia, access coordinator at Intermedia Arts, has a B.A. in French and film studies. He has done free-lance video work in the Twin Cities and produced a feature film, Trauma. He has taught video production courses at Intermedia Arts)*

**CSch 0189 EDITING FOR BEGINNING VIDEO-MAKERS.** No credit, \$225 (age 62, \$202.50).

Designed to introduce beginning video makers to the art of editing. Learn professional techniques such as scripting, storyboarding, logging, and editing to create shorter, tighter programs with more powerful impact. In addition to hands-on skills, class discussion and collaboration will be emphasized to help you produce a video that is easy and fun to watch. Bring your own footage (travel tapes, family videos, or experimental art) to the first class. Two hours of editing lab time will be available each week. (Offered in cooperation with Intermedia Arts. Limited to 15)

Winter Spec Term, ★Sec 1, W, 6-10, Jan. 4-Feb. 1 (5 meetings), Intermedia Arts, 425 Ontario St. S.E., Mpls. *No late fee through Dec. 28.*

*(Kim Downing, lecturer in the Department of Arts at the University of Minnesota, is a video artist and poet. Her videos have been exhibited at Intermedia Arts Gallery and the Minneapolis Institute of Arts. She has extensive experience teaching video courses and collaborates in the production of "What," a cable television program about local music)*

**CSch 0190 HISTORIC MINNEAPOLIS: A WALKING TOUR.** No credit, \$30 (age 62, \$27).

Discover the historic city of Minneapolis. The tour begins at Nicollet Island Park on the south tip of the island and explores, in part, both the east and west banks of the Mississippi. Minneapolis has aggressively remodeled its core area, and though most of what it encompasses is only about 30-years old, this tour searches out visible remnants of the old city, as well. The walk covers the Gateway district, the warehouse area, the core of downtown, and newer developments near Loring Park, with a stop midway for a break. Examine the forces that have transformed the downtown, and look at new and historic styles of architecture. Tour is two or three miles, so wear comfortable walking shoes. In case of inclement weather, the tour will be postponed to Saturday, May 20. (Limited to 25)

Spring Spec Term, ★Sec 1, Sa, 1-4:30, May 13 (1 meeting), meet at Nicollet Island Park. *No late fee through May 5.*

*(Judith Martin is the director of urban studies at the University of Minnesota. Her research interests include contemporary urban development and design, historic preservation, and urban history. She was the instructor for The Meanings of Place, an Independent Study television course, and has published widely on the Twin Cities festival markets)*

## Noncredit Courses

**CSch 0193 HISTORIC MINNEAPOLIS RIVERFRONT: A WALKING TOUR.** No credit, \$30 (age 62, \$27).

Explore the St. Anthony Falls riverfront area around the birthplace of the Twin Cities. The tour begins at 125 S.E. Main Street (St. Anthony Falls Interpretive Program). It finishes at the fountains in front of Riverplace. Explore the east and west banks of the Mississippi River. The discovery of St. Anthony Falls by Father Hennepin in 1680 culminated in their use as a source of power for the early flour and lumber milling industries in Minneapolis. The Pillsbury A Mill, the earliest surviving mill still in operation, serves as a reminder of that period in history, as do the remnants of water outlets in the banks. The railroad has further shaped the landscape along the riverfront. These examples and other more recent attempts at revitalization of the riverfront area are visible and form a living history of the region. A break is taken midpoint along the tour. Wear comfortable walking shoes. In case of inclement weather, the tour will be postponed to Saturday, Oct. 1. (Limited to 25)

Fall Spec Term, ★Sec 1, Sa, 9 a.m.-12:30, Sept.

24 (1 meeting), meet at St. Anthony Main, 125 S.E. Main St. *No late fee through Sept. 16.*

*(David Wiggins is program manager for the Minnesota Historical Society's St. Anthony Falls Interpretive Program. He has worked with historic site interpretation since 1970)*

**CSch 0195 RUNNING OUT OF RED PAINT: EXPLORING THE ARTISTIC PROCESS.** No credit, \$83 (age 62, \$74.70). *Includes lunch.*

Picasso once said, "If I run out of red paint, I use blue paint." Poet Michael Dennis Browne, who has collaborated with composers, painters, and actors, explores the parallels between various methods used by artists of all media. This seminar stresses the importance of openness, which allows a composition or creation to move in a direction unanticipated by its maker. It also addresses the nature of artistic collaboration, highlighting examples of artistic crossover and cooperation. (Limited to 34)

Fall Spec Term, ★Sec 1, Sa, 9 a.m.-4, Oct. 8 (1 meeting), EBCEC 166, StP Campus. *No late fee through Sept. 30.*

*(Michael Dennis Browne, professor of English at the University of Minnesota, was the recipient of the 1989 Distinguished Teacher Award from the College of Liberal Arts. He is also the author of four published collections of poetry and the winner of the 1993 Minnesota Book Award for poetry)*

**CSch 0197 MORE BEHIND-THE-SCENES AT MUSEUMS.** No credit, \$82 plus \$3 special fee. Total \$85 (age 62, \$73.80 plus \$3 special fee. Total \$76.80).

Have you wondered what happens behind-the-scenes at a museum? Find out by visiting five different museums in the Twin Cities: the Frederick R. Weisman Art Museum, Bell Museum of Natural History, Hennepin County Historical Museum, Minnesota Children's Museum, and Walker Art Center. Spend the first hour learning about the function of a selected department of the museum, and then tour behind-the-scenes with a museum professional. Topics covered include a review of museum fundamentals, museum architecture, public relations, disaster preparedness, and exhibit preparation. Gain a new understanding and appreciation for day-to-day museum operations, as well as for their rich collections and programs. First class meets at the Hennepin County Historical Museum. List of other museum site visits and dates will be distributed at the first class session. (Limited to 18)

Spring Spec Term, ★Sec 1, W, 10 a.m.-12, Apr.

12-May 17 (5 meetings—no class Apr. 19),

Hennepin County Historical Museum, 2303 S. 3 Ave., Mpls. *No late fee through Apr. 5.*

*(Jane Marie Litwak is completing a Ph.D. in educational psychology with a minor in museum studies. She has worked in museums in the United States and Europe; her area of expertise is visitor studies)*

**CSch 0198 UNLEASHING YOUR CHARISMA: PERFORMING PRESENCE.** No credit, \$73 (age 62, \$65.70).

Whether you act, sing, dance, or perform in the business arena (as a lawyer, salesperson, or simply in meetings), your effectiveness is increased by bringing more of who you are into the present moment. That is the key to unleashing your charisma—being who you are. Through practical exercises of grounding, centering, focusing, and filling space, learn skills that enhance your ability to be in the moment in a full, potent way. (Limited to 20).

Fall Spec Term, ★Sec 1, M, 6:15-8:15, Sept. 26-

Oct. 24 (5 meetings), ChDev 216. *No late fee through Sept. 19.*

*(Michael Ellison, Ph.D., is an instructor in the Department of Theatre Arts and Dance at the University of Minnesota. He has directed and choreographed many shows, including world premiers at the Great American History Theatre, and has taught and performed across Canada, Denmark, and the United States)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



**CSch 0199 CREATING ART WITH MATH-EMATICS.** No credit, \$80 (age 62, \$72).

Simple geometric forms are often used in art. The late Dutch artist M.C. Escher involves strong mathematical themes even though he had no formal training in mathematics. Study his art (*Beatles, Birds, and Flatfish*) to see how he did it. Examine how a geometrical figure can be transformed into another figure. Discover these mathematical patterns in such everyday objects as playing cards and the letters of the alphabet. Learn to create designs using such simple forms as the equilateral triangle. Last class session is at a computer lab, where you can create an Escher-type drawing on the Macintosh using MacPaint. Some computer experience helpful.

Winter Spec Term, Sec 1, W, 6:15-8:15, Jan. 11-Feb. 8 (5 meetings), LindH 26. *No late fee through Jan. 4.*

*(Aparna Ganguli, instructor in the School of Mathematics at the University of Minnesota, earned a Ph.D. in mathematics education. She has 15 years' experience teaching mathematics as well as leading workshops for high school mathematics and science teachers. Her research interests include the use of the microcomputer as a tool for teaching mathematics)*

**History, Philosophy, Humanities, Etc.**

**CSch 0200 ROME IN AFRICA.** No credit, \$68 (age 62, \$61.20).

For more than 500 years the Romans ruled North Africa, and its wealth became proverbial. Africa contributed vastly to the agricultural well-being of the Roman Empire and became, in some respects, the most romanized of all the empire's conquered territories. Its inhabitants adopted Christianity with an enthusiasm matched only by that with which they later adopted Islam. Discover Roman Africa and learn about the earliest colonialism in Africa—its history and monuments—and read selections from remarkable works by two native Africans: *The Golden Ass of Apuleius* and *The Confessions of Augustine, Bishop of Hippo*.

Winter Spec Term, Sec 1, T, 10:15 a.m.-12:15, Jan. 10-31 (4 meetings), St. Anthony Park Library, 2245 Como Ave., StP. *No late fee through Jan. 3.*

*(Jackson Hershbell, professor in the Department of Classical and Near Eastern Studies at the University of Minnesota, has more than 35 years' teaching experience ranging from large lectures on Greek and Roman mythology to small graduate seminars)*

**CSch 0201 THE SUPREME COURT: PROPER MAKER OF PUBLIC POLICY?** No credit, \$80 (age 62 and Woman's Club of Mpls members, \$72).

The Supreme Court is probably the least understood, yet in some ways the most influential, branch of the federal government, and for 200 years has been an essential instrument of public policy. Assigned by the Constitution to interpret laws and legal language in the context of both initial meaning and intent and current societal demands, the justices often exercised their prerogative in political ways with controversial results. Learn more about this appointive judicial body, its operations, procedures, and its central role in our political power structure. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Fall Spec Term, ★Sec 1, Th, 10 a.m.-12, Oct. 6-27 (4 meetings), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Sept. 29.*

*(Paul L. Murphy is regents' professor of American history at the University of Minnesota. His numerous books and articles, including The Constitution in Crisis Times and World War I and the Origins of Civil Liberties, helped shape American constitutional history and particularly the history of civil liberties and civil rights in the United States)*

**CSch 0202 WINSTON CHURCHILL.** No credit, \$70 (age 62, \$63).

Learn about the humor, wit, determination, and deviousness of Winston Churchill, a major political leader of the 20th century. Explore his ideas, accomplishments, vision, creativity, sense of mission, and will to impose his idea of morality in a world pushed to the brink of annihilation. Revisit a life that included the vast change from horsepower to rocketry, participation in history's last major cavalry charge, and involvement in the decision to usher the world into the atomic age. (Limited to 30)

Winter Spec Term, ★Sec 1, W, 6:15-8:15, Jan. 4-25 (4 meetings), AkerH 225. *No late fee through Dec. 28.*

*(Deborah Bachrach is a postdoctoral associate in history at the University of Minnesota)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

**CSch 0203 BALKAN MADNESS AND OTHER WORLD DILEMMAS.** No credit, \$102 (age 62, \$91.80).

A view of contemporary world events in historical perspective. Understand some of the immense changes in the world today: sources of conflict in the former Yugoslavia; the resurgence of nationalism and racism in Germany and elsewhere; Russia and Eastern Europe after the revolutions; the chances for democracy and harmony in Europe and the Middle East; and other events as they happen during the course. (Limited to 25)

Spring Spec Term, ★Sec 1, M, 6-8, Apr. 3-May 8 (6 meetings), Phys 143. *No late fee through Mar. 27.*

*(Richard L. Rudolph is a professor in the Department of History at the University of Minnesota. He has traveled widely and has written and lectured about European history)*

**CSch 0205 FOUR CONTINENTS, FOUR GREAT CITIES.** No credit, \$84 (age 62 and Woman's Club of Mpls members, \$75.60).

Cross continents and explore the history, culture, architecture, and ambience of four important world cities: Rio de Janeiro, St. Petersburg, Johannesburg, and Jakarta. View slides of museums, religious structures, and physical features, and learn about each city's history and people. Experience the rich past and colorful present of these cities through experienced scholars and travelers who have the ability to bring the world to you. *St. Petersburg: Crucible of Modern Russia* (Jan. 4): Founded by fiat in 1703 as a European capital, St. Petersburg was Russia's economic, social, and political center until the government moved to Moscow after the revolution. Today, St. Petersburg struggles to maintain past architectural glories in the midst of Russia's uneasy transition to a market economy. *Rio de Janeiro: The Marvelous City* (Jan. 11): Rio is one of the largest cities in the western hemisphere, and a place where tremendous beauty and significant social problems collide. *Johannesburg: A City Divided* (Jan. 18): Johannesburg reflects a plural society with the greatest ethnic complexity of all the African countries. Physical divisions within the metropolitan area manifest societal divisions formed through decades of apartheid. *Jakarta: Differences and Inequalities in a Third World Mega City* (January 25): Examine life and urban problems in Indonesia's capital city, Jakarta, an exemplar of Third World mega cities. View the city's colorful landscapes and widely contrasting lifestyles, and

witness the results of overwhelming urban growth. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Winter Spec Term, ★Sec 1, W, 10 a.m.-12, Jan. 4-25 (4 meetings), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Dec. 28.*

*(Roger Miller [Jan. 4] is an associate professor of geography at the University of Minnesota. His specialties include urban historical geography and the history of planning, as well as an interest in the circum-Baltic region. Stuart Schwartz [Jan. 11], professor of history at the University with a research interest in colonial Brazil, has served as adjunct professor at several Brazilian universities. Sandy de Montille [Jan. 18], a graduate student in geography at the University, completed her master's degree in geography in Soweto, part of metropolitan Johannesburg. Helga Leitner [Jan. 25], an associate professor of geography at the University, spent nine months in Jakarta working on a World Bank higher education project. Her areas of specialization include urban and regional development problems in the U.S., Europe, and Southeast Asia, as well as issues of international migration)*

**CSch 0209 SHIPPING AND SHIPWRECKS ON LAKE SUPERIOR.** No credit, \$50 (age 62, \$45).

A cold and deep lake, Superior has been known for its violent storms and cruel ability to provide a frigid grave for numerous ships and sailors. Yet since prehistoric times, Lake Superior has remained important in moving goods and people. During the 19th and early 20th centuries, shipping activities expanded rapidly and vessel shapes and types proliferated due to large shipments of lumber, grain, and iron ore. Focus on the maritime history of Minnesota's North Shore, featuring shipwrecks whose explorations offer exciting recreation for divers and rich material for archaeologists. (Limited to 30)

Spring Spec Term, ★Sec 1, M, 6-8, Apr. 17-May 1 (3 meetings), Phys 157. *No late fee through Apr. 10.*

*(Scott Anfinson is the national register archaeologist for the State Historic Preservation Office. He is currently pursuing research on Plains Indian archaeology, shipwrecks on the Great Lakes, and the archaeology of cities)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0210 OLIVER KELLEY AND THE CHANGING MINNESOTA FARM.** No credit, \$54 (age 62 and Woman's Club of Mpls members, \$48.60). *Lunch not included.*

The family farm was quite different 145 years ago when Oliver and Lucy Kelley came to Minnesota. A log cabin, sod house, or simple frame shanty provided a humble beginning for many farmers and their families. With the introduction of horse-drawn farm machinery and high crop prices due to the start of the Civil War, an enthusiastic spark for agriculture ignited a prairie fire of immigration, settlement, and farming across the state. The business of Minnesota agriculture was born, and by the 1870s, wheat was king in the state. From 1850-1875 agriculture changed from small pioneer acreage to bonanza farms, and subsistence farmers became businessmen. Explore the early development of Minnesota agriculture, the roles of women and men on the family farm, and how their involvement in the Grange, Oliver Kelley's farm organization, contributed to early rural life. Class includes lecture, discussion, and bus trip to the Kelley Farm. Wear casual clothes and comfortable walking shoes. Lunch (11:30 a.m.-12:30) is on your own or in the Woman's Club dining room. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 40)

Fall Spec Term, ★Sec 1, W, 9 a.m.-4:30, Sept. 28 (1 meeting), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Sept. 21.*

*(James Mattson holds degrees in business and economics from the College of Agriculture at the University of Minnesota, where he is now completing a history degree. He is also site manager of the Minnesota Historical Society's Oliver Kelley Farm in Elk River, Minnesota)*

**CSch 0211 JERUSALEM, LAYERS OF SPIRIT AND CONFLICT.** No credit, \$102 (age 62 and JCC-StP members, \$91.80).

From an overlook embedded in the rocky hills above the city, one can feel the dizzying presence of Jerusalem's rich and dramatic history. Three great religions, repeated destruction and renewal, variegated currents of peoples and cultures, and an array of mystics, conquerors, poets, and pilgrims have forged this unique city. Hotly contested and widely venerated, it is a city in which the hope of peace and threat of conflict intertwine daily. Survey the history of Jerusalem from its origins more than 3,000 years ago to the city of today's headlines through slides, lecture, and discussion. (Offered in cooperation with the Jewish Community Center of Greater St. Paul. Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 4-Nov. 8 (6 meetings), Jewish Community Center of Greater St. Paul, 1375 St. Paul Ave. *No late fee through Sept. 27.*

*(Allan Rabinowitz lectures widely on Israel. He lived there for 10 years, working as a journalist and licensed tour and educational guide for the Jerusalem municipality and Hebrew University. He has written three travel books and his articles have appeared in the Jerusalem Post and other periodicals)*

**CSch 0212 NEW MIRACLE IN THE MIDDLE EAST? PROBLEMS AND POSSIBILITIES OF THE PALESTINIAN-ISRAELI AGREEMENT.** No credit, \$75 (age 62 and JCC-StP members, \$67.50).

How did the Israelis and Palestinians manage to work out the Declaration of Principles that led to peace negotiation, mutual recognition, and perhaps a Palestinian state? Focus on essential aspects of the conflict between these people since 1948, peace plans since the 1950s, and potential dangers to peace. (Offered in cooperation with the Jewish Community Center of Greater St. Paul. Limited to 25)

Fall Spec Term, ★Sec 1, M, 6-8, Nov. 14-Dec. 5 (4 meetings), Jewish Community Center of Greater St. Paul, 1375 St. Paul Ave. *No late fee through Nov. 7.*

*(Stephen Feinstein is professor of history at the University of Wisconsin-River Falls and an adjunct professor in Jewish studies at the University of Minnesota. He is currently writing a book, "Indelible Images: Contemporary Artistic Responses to the Holocaust")*

**CSch 0213 PERPETRATORS, RESCUERS, AND VICTIMS IN THE HOLOCAUST.** No credit, \$75 (age 62 and MMAA members, \$67.50).

Examine the thinking of Nazi perpetrators through a review of the Nuremberg trials and the examination of selected passages from the Claude Lanzmann film *Shoah*. Learn about examples of righteous gentiles in Europe during World War II, and listen to the compelling personal stories of Holocaust survivors. (Offered in cooperation with the Minnesota Museum of American Art. Limited to 22)

Winter Spec Term, ★Sec 1, M, 6-8, Feb. 13-Mar. 6 (4 meetings), Minnesota Museum of American Art, Studio H, Landmark Center, 5th at Market, StP. *No late fee through Feb. 6.*

*(See Stephen Feinstein's biography in CSch 0212)*

## Noncredit Courses

**CSch 0214 JUDAISM FROM CRISIS TO CRISIS.** No credit, \$115 (age 62 and JCC-StP members, \$103.50).

Understanding the Jewish experience provides insight into the role that all minorities play in majority societies: acceptance and rejection, contribution and condemnation. Reviewing the consistent pattern of action and response regarding Jewish people during their 4,000 plus years of history, this course addresses six major historical events: the Jewish Exile in 587 B.C.; Jewish relationships with Rome and the emerging Christian community; the relationship of the Jewish community with majority Christian Europe in the Middle Ages; the rise of modern anti-Semitism and the Jewish counterpoint, Zionism; the creation of a Jewish state from the ashes of the Holocaust; and the question of Jewish identity today. Explore the responses to these significant events that have allowed the Jewish people to gain strength through adversity. (Offered in cooperation with the Jewish Community Center of Greater St. Paul. Limited to 25)

Spring Spec Term, ★Sec 1, W, 6-8:30, Apr. 5-May 10 (6 meetings), Jewish Community Center of Greater St. Paul, 1375 St. Paul Ave. *No late fee through Mar. 29.*

*(Steven Derfler, Ph.D., is area executive director of the American Jewish Committee and an adjunct associate professor at the University of Wisconsin-River Falls. He continues to direct archaeological expeditions to Israel and has been actively involved in educating people about the ancient and modern Middle East)*

**CSch 0215 THE INQUISITION: MASS CONTROL THEN AND NOW.** No credit, \$70 (age 62, \$63).

For nearly 700 years the Inquisition exercised tremendous intellectual and physical influence on the lives of people in Europe and the New World. Like their European counterparts, New World inquisitors in Central and South America also conducted investigations in secrecy and burned those whose opinions on religious and other matters disagreed with established orthodoxy. Yet the Inquisition is more than a matter of history. The Inquisition's concept of *limpieze de sangre* (purity of blood) has a familiar ring in ethnic cleansing actions in Bosnia. There are also parallels to modern control of the masses in the statements and writings of conserva-

tive theologians who rail against liberation theology for the benefit of indigenous people in countries like Mexico. Learn about similarities between the Inquisition and several other examples of torture and mass control that exist today. (Limited to 30) Spring Spec Term, ★Sec 1, Th, 6-8, Apr. 6-27 (4 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Mar. 30.*

*(Deborah Bachrach is a postdoctoral associate in history at the University of Minnesota)*

**CSch 0216 VOICES FROM THE AMERICAN MOSAIC: EXPLORING ETHNIC HISTORY THROUGH ORAL HISTORY AND AUTOBIOGRAPHY.** No credit, \$80 (age 62, \$72).

More than ever, Americans are recognizing the reality that ours is indeed a "nation of nations." One of the most effective ways of understanding the current meaning of this is by looking at the historical experiences of ordinary immigrants through their own perspectives. This course introduces students to a selection of writings and recordings containing personal memoirs of immigrants and their descendants. These sources serve as the basis for classroom dialogue on America's immigrant and multicultural heritage. The documents and recordings will be selected from the archives of the Immigration History Research Center, one of the nation's premiere repositories of source material and ethnicity. (Limited to 25)

Winter Spec Term, ★Sec 1, T, 6-8, Jan. 10-Feb. 7 (5 meetings), Immigration History Research Center, 826 Berry St., StP. *No late fee through Jan. 3.*

*(Joel Wurl is curator and assistant director of the Immigration History Research Center at the University of Minnesota. He is responsible for selecting and acquiring collections, overseeing the archives, and providing reference assistance. He is the author of Discovering the American Mosaic: Some Reflection in Ethnic Archives, Past, Present and Future)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0217 AMERICAN INDIAN STUDIES: BEGINNING THE JOURNEY.** No credit, \$112 (age 62, \$100.80).

Studying any culture or ethnic group requires a basic context or framework. Begin with an examination of common and sometimes erroneous images and assumptions about American Indians. Develop a working vocabulary to discover American Indian groups, languages, and lifeways. Sample contributions to American Indian studies literature, music, history, and anthropology, and learn more about American Indian groups in Minnesota. Text: *Night Flying Woman* by Ignatia Broker. (Limited to 30)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 3-Nov. 14 (7 meetings), Cathedral Church of St. Mark, 519 Oak Grove, Mpls. *No late fee through Sept. 26.*

*(Bob Danforth is a teaching specialist in the Department of American Indian Studies at the University of Minnesota and a lecturer at the University of Wisconsin, Madison. He has a master's degree in cultural anthropology, and his doctoral dissertation focuses on the social context of Woodland Indian music)*

**CSch 0218 STORYTELLING TRADITIONS OF WOODLAND INDIANS.** No credit, \$94 (age 62, \$84.60).

Winter traditionally was storytelling time for many tribes, including Indians of the western Great Lakes. On dark, windy evenings families gathered to hear stories of Nanabozho, his daughters Oshkikwe and Majikwe, and Nokomis, his grandmother. Children were instructed in proper behavior through stories that revealed the consequences of unbecoming or negative behavior. Drawing from various sources spanning two centuries, this course informs students of the history and world view of Woodland Indians. (Limited to 25)

Winter Spec Term, ★Sec 1, T, 6-8, Jan. 10-Feb. 14 (6 meetings), KoltH S134. *No late fee through Jan. 3.*

*(Pauline Brunette Danforth, a Chippewa Indian, is a doctoral student at the University of Minnesota. She is also a health science advising specialist in the College of Liberal Arts)*

**CSch 0219 DEMOCRACY IN ACTION—THE LEGISLATIVE PROCESS IN MINNESOTA.** No credit, \$80 (age 62, \$72).

The Minnesota Legislature passes several hundred bills each year that affect the lives of four million Minnesotans, yet few people understand when, how, and why much of this legislation is passed. Examine the inner workings of the Minnesota Legislature through the eyes of a former staff person in order to better understand American legislative traditions.

The legislative process is a fascinating mixture of formal and informal systems including conference committees, floor debate, and miscellaneous meetings orchestrated by political leaders, lobbyists, constituents, staff, and reporters. The process is played out against a backdrop of constitutional mandates, limited budgets, changing public opinion, conflicting political agendas, and competing interest groups. Explore the roles of the formal and informal systems, participants, and legislative climate. If possible, one class session will include a trip to view a committee hearing and floor debate on an issue before the 1995 legislature. (Limited to 30)

Spring Spec Term, ★Sec 1, T, 6:30-8:30, Apr. 11-May 9 (5 meetings), NCCCE Library (Apr. 11-25), Minnesota Judicial Center Auditorium (May 2, 9), 25 Constitution Ave., STP. *No late fee through Apr. 4.*

*(Ron Nickerson is a park planner with the Minnesota Department of Natural Resources and a graduate student in the Department of Forest Resources. He was a staff person with the Minnesota House of Representatives Appropriations Committee from 1987 to 1991)*

**CSch 0220 THE RISE OF CIVILIZATIONS: AN ARCHAEOLOGICAL SURVEY.** No credit, \$80 (age 62, \$72).

What does civilization mean? What is social complexity? Learn how civilizations developed in different places and times in prehistory. Study cultures as diverse as the Shang dynasty in early China to the Hohokam tradition of the American Southwest. Look at the complex societies of the ancient Egyptians, the Incas, the classical Greeks, and the empire of the Great Zimbabwe. Discover the ways civilizations evolve and understand why some have collapsed. Different examples of complex societies will be presented and analyzed from an archaeological point of view to understand their cultural antecedents, social structure, and economic relations. Illustrated lectures will cover the development of some of the outstanding features of civilizations, including monumental architecture, written records, and advanced forms of political organization.

Winter Spec Term, Sec 1, T, 10 a.m.-12, Jan. 10-Feb. 7 (5 meetings), Lutheran Church of the Good Shepherd, Green Lecture Room, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Jan. 3.*

*(Deborah Shepherd is a Ph.D. candidate in interdisciplinary archaeological studies at the University of Minnesota. She recently completed an internship at the University working with Mimbres pottery. Her dissertation research focuses on the funerary ritual and symbolism of burial practices in late Iron Age Finland)*

## Noncredit Courses

### **CSch 0222 ARCHAEOLOGY OF MINNESOTA.** No credit, \$80 (age 62, \$72).

From arrowheads to fine china brought over the ocean in barrels, Minnesotans have left a trail. Follow this trail by examining artifacts at Historic Fort Snelling. Survey the discipline of archaeology as it has been used in exploring Minnesota since European settlement. Learn how archaeologists determine the use and significance of these artifacts. Discover how archaeological investigations continue to provide valuable insight into the early inhabitants of Minnesota. Learn how archaeologists work and why they continue to dig when written records exist. Examine methods of artifact dating and how artifacts are used to determine site function and to interpret the past. (Limited to 15) Fall Spec Term, ★Sec 1, T, 6-8, Nov. 1-29 (5 meetings), Historic Fort Snelling, StP. *No late fee through Oct. 25.*

*(Robert Clouse, Ph.D., is head of the archaeology department at the Minnesota Historical Society. His research includes a survey and testing of development projects for the Mille Lacs Band of Ojibwe, a survey of a mid-18th-century French fur trading post at Crane Lake, and an excavation of the historic Forestville Townsite in Fillmore County)*

### **CSch 0234 WHAT IS VIRTUE?** No credit, \$80 (age 62, \$72).

Explore the nature of virtue through Plato's *Meno* and *Protagoras*. Examine three questions addressed in these dialogues: What is virtue? Is virtue teachable? Is virtue knowledge, i.e., is knowing what virtue is enough by itself to make someone virtuous? Socrates believed that all wrongdoing was done out of ignorance, and that if one knew what virtue was, one could not help but be virtuous. This view, however, conflicts with the commonly held belief that people knowingly do wrong actions all the time. Review this debate through readings and class discussion. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 10 a.m.-12, Sept. 27-Oct. 25 (5 meetings), MacP. *No late fee through Sept. 20.*

Winter Spec Term, ★Sec 2, T, 6-8, Jan. 3-31 (5 meetings), FordH 70. *No late fee through Dec. 27.*

*(Del Reed is completing his dissertation in philosophy at the University of Minnesota. He has studied ancient Greek philosophy for more than 10 years)*

### **CSch 0239 ORDER AND CHAOS.** No credit, \$64 (age 62, \$57.60).

Increasingly, chaos theory, including the scientific study of complex adaptive systems, is acknowledged as one of the most important advances in scientific theory in the late 20th century. In this introduction to the topic, examine how whole areas of natural phenomena are perceived in new ways and described in new terminology. Investigate a growing interest in viewing social organizations (especially businesses) as complex and chaotic systems requiring novel planning and leadership. Are historical traditions, both cultural and religious, also subject to consideration in new ways? Conclude by asking: What kind of order do we expect? Spring Spec Term, Sec 1, W, 6-8, Apr. 5-26 (4 meetings), FordH 120. *No late fee through Mar. 29.*

*(David Shupe, lecturer in religious studies at the University of Minnesota, earned his Ph.D. in religion and culture from Syracuse University. He has twice taught Order and Chaos as a credit course at the University)*

### **CSch 0245 A PRACTICAL AND LEGAL GUIDE TO PRESERVING GREEN SPACE IN YOUR COMMUNITY.** No credit, \$80 (age 62 and Bell Museum members, \$72).

Are you concerned about saving your favorite woods, prairie, or wetland from development? Discover your legal rights and political options to protect community green space. Learn about the rights of private citizens and citizens groups versus private developers (including practical tips on organizing a neighborhood group); the rights of private citizens versus government entities; government regulation of private land development including the rights and obligations of planning commissions, park commissions, city councils, and watershed districts; government acquisition and regulation of green space; and protection programs available to private landowners. For novices and seasoned activists, an opportunity to share experiences. (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Fall Spec Term, ★Sec 1, T, 6:15-8:15, Oct. 4-Nov. 1 (5 meetings), BellMus 3, (use auditorium entrance facing Church Street). *No late fee through Sept. 27.*

*(Thomas E. Casey has been a practicing attorney for 18 years with an emphasis on environmental and land use issues. He has represented many citizens groups in land preservation cases and has six years' experience on a City Park and Open Space Commission)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0252 RITES OF PASSAGE FOR LIFE'S TRANSITIONS.** No credit, \$93 (age 62, \$83.70).

The rites of passage that have been so important in marking the individual's movement from one stage of life to another in tribal societies are largely absent in our own. Examine the phenomenon of initiation cross-culturally and from the perspective of depth psychology. Readings and discussion focus on modern passages, from childhood through old age, and the possibilities of enriching our own transitions through the recognition and creation of appropriate rites of passage. Women's experiences will be emphasized. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 6-8, May 2-30 (5 meetings), Phys 157. *No late fee through Apr. 25.*

*(Jennette Jones, Ph.D. in anthropology and a psychotherapist in private practice, is in the final stage of training as a Jungian analyst)*

**CSch 0253 FUNDAMENTALS OF JUNGIAN PSYCHOLOGY.** No credit, \$93 (age 62, \$83.70).

How can we best relate to the guides, the saboteurs, the wild animals, and the lovers within? How can we recognize and live with our complexes, understand our dreams, and tap the creative potential at the deep archetypal layers of the psyche? Focus on these and other topics in the psychology of C.G. Jung, the Swiss psychiatrist who—perhaps better than anyone else in the 20th century—explored the symbolic foundations of the human psyche. In addition to selected readings (optional), examine fairy tales, pop culture, political events, and personal experience as illuminated by the central concepts of Jungian psychology. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 4-Nov. 1 (5 meetings), FordH 120. *No late fee through Sept. 27.*

*(See Jeanette Jones's biography in CSch 0252)*

**CSch 0255 SHE SAID, HE SAID: WOMEN AND MEN SPEAKING.** No credit, \$80 (age 62, \$72).

People make assumptions about speech. Examine some of those assumptions as they relate to gender. Do men and women speak differently? Do women talk more than men? Do men interrupt women more often than they interrupt one another or more often than women interrupt men? Review stereotypes about men's and women's styles of communication; actual, if any, differences between male and female speakers; and changes in grammar over

time. Discuss assigned reading material, including work by Deborah Tannen and Robin Lakoff; share your observations about language; and participate in class exercises that test some claims made about men's and women's speech. (Limited to 25)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 12-May 10 (5 meetings), AkerH 317. *No late fee through Apr. 5.*

*(Jean Martin is completing a dissertation in English and has presented and published on the topic of women's use of language. She has taught linguistics, women's studies, literature, and composition courses at the University of Minnesota, and is also an editor of a cultural studies journal)*

**CSch 0270 COLD WAR POLITICS, SPIES, AND THE PRESS.** No credit, \$80 (age 62, \$72).

The early Cold War years evoke images of sepia-tinted newspapers and newsreels of frozen battlefields, noisy interrogations, and a glowering senator waving a list of suggested traitors at popping still cameras. Return to the great Ike age and the days when not everyone was wild about Harry. Survey the effect of U.S. Cold War politics on the news media and the justice system. Famous postwar spy figures such as Alger Hiss, the Rosenbergs, and Judith Coplon provided riveting news in the later 1940s and early 1950s. They also raised questions as to whether they were prejudiced by news media coverage before their trials began. Use the Rosenberg case as a fulcrum to consider the effect of news media on politics and vice versa, and what has changed about that relationship 40 years later. (Limited to 30)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Oct. 27 (5 meetings), AmundH 158. *No late fee through Sept. 22.*

Winter Spec Term, ★Sec 2, Th, 10 a.m.-12, Jan. 12-Feb. 9 (5 meetings), MacP. *No late fee through Jan. 5.*

*(John Neville holds a Ph.D. in mass communications from the University of Minnesota and is an experienced free-lance reporter and public relations writer)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

**CSch 0280 FOUNDING MOTHERS: EARLY AMERICAN FEMINISTS.** No credit, \$96 (age 62, \$86.40).

Read the speeches and writings of three leaders in the U. S. suffrage and women's rights movements: Sojourner Truth, Susan B. Anthony, and Mary Wollstonecraft. Explore the visions of these activists for women, the meaning and significance of *The Declaration of Rights and Sentiments* (women's bill of rights), and the importance of the Seneca Falls, N. Y., convention. Also examine the expectations of these activists for men, schools, and the government regarding the well-being of all women. (Limited to 30)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 22-Oct. 27 (6 meetings), AmundH 162. *No late fee through Sept. 15.*

*(Candyce Clayton has a Ph.D. in comparative literature from the University of Minnesota. She has taught classes at the University, several Minnesota private colleges, the University of Cincinnati, and Gottingen Universitat in Germany)*

**CSch 0282 WHAT'S WRONG WITH FREUD?** No credit, \$96 (age 62, \$86.40).

Why do so many U.S. feminists dismiss Freudian theory whereas so many French feminists accept it? Review Freud's essays on femininity and female sexuality and discuss them within the context of American culture and feminist thought. Then read the writings of various French feminists and consider the significance that their focus on language and body brings to the discussion. (Limited to 30)

Spring Spec Term, ★Sec 1, T, 6-8, Apr. 4-May 9 (6 meetings), AmundH 162. *No late fee through Mar. 28.*

*(See Candyce Clayton's biography in CSch 0280)*

**CSch 0290 DOWNTOWN VERSUS EDGE CITIES.** No credit, \$80 (age 62, \$72).

American downtowns were once a place for everyone, a place to see a first-run movie, attend theatre, shop, or simply gather with friends. However, U.S. urban areas have changed dramatically in recent decades, and many downtowns have faced increased economic and social pressures, including rising crime rates, higher concentrations of low-income residents, and declining real estate values. As urban edges have expanded, downtown centers have changed and been rebuilt. Take a look at issues concerning downtown redevelopment and address the questions: Do we still need downtowns, and what do we want to use them for? Are we content to continue evolving in a way that rejects downtown as a 21st-century option? (Limited to 35)

Spring Spec Term, ★Sec 1, Th, 6-8, Apr. 6-27 (4 meetings), AmundH 116. *No late fee through Mar. 30.*

*(Judith Martin is the coordinator of urban studies at the University of Minnesota. Her research interests include contemporary urban development and design, historic preservation, and urban history. She was instructor for The Meanings of Place, a Department of Independent Study course, and has published articles on Twin Cities festival markets)*

**CSch 0295 FAMILY, MARRIAGE, AND SEXUALITY THROUGH HISTORY.** No credit, \$105 (age 62, \$94.50).

An introduction to European family, marriage, and sexuality from ancient times to the 20th century, with some discussion of American patterns and cultural variations. How have these concepts changed through the centuries? Topics include: the changing nature of family structure and relations, attitudes toward children, gender roles, and attitudes towards sexuality. (Limited to 25)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 3-Nov. 7 (6 meetings), Phys 143. *No late fee through Sept. 26.*

*(Richard L. Rudolph is a professor in the Department of History at the University of Minnesota. He has traveled widely and has written and lectured about European history)*

## Writing

### Minnesota Writers Series

Enjoy the quiet beauty of the Minnesota Landscape Arboretum as a special setting for listening to the voices of some of Minnesota's very talented writers. Participate in one or all four day-long workshops with artists whose formats include journals, essays, poetry, and novels. Drawing from their work and that of other writers, and from sharing short selections of your own writing, learn more about source, context, and inspiration in writing, as well as potential ways to enrich your own style and technique. Michael Dennis Browne, winner of the 1993 Minnesota Book Award for Poetry; Alexs Pate, author of *Losing Absalom*; Phebe Hanson, journal writer and poet whose work appears in several anthologies; and Sandra Benítez, author of *A Place Where the Sea Remembers*, are the Minnesota writers featured in the 1994-95 program. See CSch 0308, 0309, 0313, 0319 for information about each workshop session and author.

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



**CSch 0301 CREATIVE WRITING.** No credit, \$105 (age 62, \$94.50).

Designed to focus on challenges and techniques involved in producing fictional (short stories and novels) and nonfictional (memoir) narratives. Challenges include writer's block, the difficulty of starting from scratch (followed by the difficulty of finishing what you've started), and deciding what to include in the story and what to leave out. Includes a look into the process of creating fiction: characterization, plot, dialogue, style, and authenticity of voice. Writing exercises will be offered as students explore new approaches to structure and style. Participants are welcome to bring in work for reading and to discuss problems that arise while writing. (Limited to 18)

Fall Spec Term, ★Sec 1, T, 6-8, Sept. 27-Nov. 8 (7 meetings), Phys 236A. *No late fee through Sept. 20.*

Fall Spec Term, ★Sec 2, W, 10 a.m.-12, Sept. 28-Nov. 9 (7 meetings), MacP. *No late fee through Sept. 21.*

*(Todd Finley received his M.A. in creative writing from the University of Minnesota. He currently is enrolled in the English education Ph.D. program and is writing his dissertation on narratives. His work includes co-authoring Designing the Future)*

**CSch 0302 FINDING THE NOVEL WITHIN.** No credit, \$91 (age 62, \$81.90).

It has been said that everyone has a novel in them waiting to be written. Release those imprisoned works in a supportive writing environment. Plot the story, develop characters, create a sense of time and place, and write those first chapters. This course is designed for those who have never written a novel, but who feel that they have a story to tell and enough basic writing skills to follow through with the guidance of a professional writer. (Limited to 20)

Spring Spec Term, ★Sec 1, W, 10 a.m.-12, Apr. 5-May 10 (6 meetings), MacP. *No late fee through Mar. 29.*

*(Faith Sullivan is the author of four novels, including The Cape Ann)*

**CSch 0303 WHOLE-BRAIN WRITING.** No credit, \$105 (age 62, \$94.50).

Offers a variety of whole-brain exercises designed to free students in their process of finding a personal narrative voice. Students will test and map out their brain dominance and talents, work on developing powerful writing, focus on a variety of writing problems, and study various strong "voices" from contemporary writers, learning their secrets of approach and execution. Right- and left-brain techniques include free-writing, captioning, group-writing, music-writing, spring-boarding (writing based on other writing), and persona-writing. (Limited to 20)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 3-Nov. 14 (7 meetings), Phys 157. *No late fee through Sept. 26.*

*(Todd Finley received his M.A. in creative writing from the University of Minnesota. He currently is enrolled in the English education Ph.D. program and is writing his dissertation on narratives. His work includes co-authoring Designing the Future)*

**CSch 0304 JOURNAL WRITING.** No credit, \$91 plus \$3 special fee. Total \$94 (age 62, \$81.90 plus \$3 special fee. Total \$84.90).

Journal writing is an expressive form that is free from conventions and rules. You cannot do it wrong. Students write about their lives and what they are thinking and, when they choose, share their work with others in the class. For those who love the journal form and have had no experience writing journals, or for those who have taken previous journaling classes. Students read journals and diaries of writers both past and present. Suggested text: Tristine Ranier's *The New Diary*. (Limited to 20)

Fall Spec Term, ★Sec 1, T, 10 a.m.-12, Oct. 4-Nov. 8 (6 meetings), MacP. *No late fee through Sept. 27.*

*(Edith Mucke, assistant professor emerita, is a former director of Continuing Education for Women at the University of Minnesota. She is the author of Beginning in Triumph. A worldwide traveler who has written 17 travel journals, she has taught journal writing for more than 20 years, encouraging and inspiring students to write)*

**CSch 0305 WRITING THROUGH GRIEF AND LOSS: WALK THE CIRCLE OF THE MOUNTAIN.** No credit, \$93 (age 62, \$83.70).

After any significant loss—death, divorce, disappointment—an individual experiences grief. Lasting from months to years, grief is part of the healing process. Writing is a tool for healing and for life. Through regular writing in a journal, explore this tool as a means to honor your personal journeys. Use the page as a listener when your story must be told and retold. Learn from the act of writing what the inner self can teach. Focus on techniques of writing as discovery and as craft, and on aspects of the healing process. Although this is not a therapy group, a confidential and supportive atmosphere is maintained. Come to each class with an easy-writing pen and a simple notebook. (Limited to 15)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 5-May 10 (6 meetings), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Mar. 29.*

*(Elizabeth Johnson is an advanced graduate student in the Creative and Professional Writing Program at the University of Minnesota. She is also a nurse)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

### **CSch 0306 HOW TO SAY IT: EXPERIMENTS IN STYLE.** No credit, \$105 (age 62, \$94.50).

What makes Toni Morrison's novels different from Ernest Hemingway's, or Grace Paley's stories different from those of Simon Ortiz or Sandra Cisneros? Of course subject matter is important, but there is also the shape of the sentence, the way words wind their way across the page. There are rhythms of voice, choices of syntax, and patterns of narration. Read short stories by a broad range of literary stylists, and then apply your new understanding of style to enrich your own work. This course is for language lovers and creative writers who want to experiment with *how* to say it. Texts include a grammar handbook and selected readings from a variety of authors. (Limited to 20)

Winter Spec Term, ★Sec 1, Th, 6:15-8:15, Jan.

12-Feb. 23 (7 meetings), AmundH 120. *No late fee through Jan. 5.*

*(Teresa Whitman's writing has appeared in Two Worlds Walking and the Mid-America Review. Her work has won an AWP award in fiction and a Loft-McKnight award in poetry. She has an M.A. in creative writing from the University of Minnesota, where she is completing a Ph.D. in English literature)*

### **CSch 0307 SELF AND PLACE IN CREATIVE WRITING.** No credit, \$91 (age 62, \$81.90).

Learn to articulate the connections between self and place, history and geography, and inner and outer landscapes to create stories grounded in place. Your place may be outdoors, in the mountains, by a quiet stream, the desert, a backyard, an urban park, a street, a house, a kitchen, or an office building. The philosophical foundation of this course is that self is grounded in geography and memory is invested in place. Students will read and write in and out of class, sharing work in a semiformal class setting. Open to beginning and advanced writers working in any genre. Course materials include an anthology. (Limited to 18)

Spring Spec Term, ★Sec 1, Th, 6-8, Apr. 20-May 25 (6 meetings), AmundH 104. *No late fee through Apr. 13.*

*(Blaine Cross is working on his Ph.D. in English at the University of Minnesota, exploring the nature/culture split as it has been presented in contemporary American nature writing, nonfiction, and poetry. He has taught courses in composition, literature, and creative writing)*

### **CSch 0308 ESSENTIAL ENCOUNTERS: EXAMINING RACE AND CULTURE IN WRITING.** No credit, \$85 (age 62 and Arboretum members, \$76.50). *Includes lunch.*

How do issues of race and culture influence your

thinking about self, others, and society, and how do these elements play a part in your writing? Whether you write primarily for personal purposes or for a public audience, this workshop offers an opportunity to participate in a safe yet challenging environment that will help you expand your thinking and progress toward more authentic writing. (Offered in cooperation with Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 22)

Winter Spec Term, ★Sec 1, Sa, 9:30 a.m.-4:30, Mar. 25 (1 meeting), Minnesota Landscape Arboretum, Snyder Bldg., Classroom 1, 3675 Arboretum Dr., Chanhassen. *No late fee through Mar. 17.*

*(Alexs Pate is a Minnesota fiction writer, essayist, and performance artist with a special interest in the arts as a catalyst for clarifying issues of race and culture in society. His stories and poems have been widely published and his novel, Losing Absalom, was published in spring 1994 by Coffee House Press)*

### **CSch 0309 ELEMENTAL WRITING: THE ESSENCE OF EARTH IN POETRY AND PROSE.** No credit, \$85 (age 62 and Arboretum members, \$76.50). *Includes lunch.*

Explore both literally and figuratively the connection between your writing and the essential element of earth. Use memory, imagination, and metaphor to uncover and give language to a few of your many selves. Focusing on the element of earth as symbol of introspection, intuition, and creativity, address these questions: Who am I? Who are my people? What do I value? Where am I going? Working in the special setting of the Arboretum, by day's end you should have both new writing and new self-knowledge to aid you in inventing characters, creating poems, or writing memoir or autobiography. (Offered in cooperation with Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 22)

Spring Spec Term, ★Sec 1, Sa, 9:30 a.m.-4:30, June 10 (1 meeting), Minnesota Landscape Arboretum, Snyder Bldg., Classroom 1, 3675 Arboretum Dr., Chanhassen. *No late fee through June 2.*

*(Sandra Benítez is a Puerto Rican American fiction writer who was born in Washington, D.C., grew up in Mexico, El Salvador, and Missouri, and eventually settled in Minneapolis. Her stunning novel, A Place Where the Sea Remembers, received widespread critical acclaim and recently won the first-ever Discover Award from Barnes and Noble)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0310 SUDDEN FICTION: WRITING THE SHORT-SHORT STORY.** No credit, \$91 (age 62, \$81.90).

Explore the art of the short-short story—those evocative, two- or three-page prose pieces (give or take a page) which lately became popular under the banners of “sudden fiction” or “flash fiction.” Short-shorts aren’t really new (think back to the highly condensed stories of writers like Hemingway, Colette, and Isaac Babel). What is new is the attention they are getting from readers and editors and, perhaps, their relevance in this age of sound bites and short attention spans. Learn what makes a good short-short tick by reading works of various authors, writing some short-shorts, and sharing your work in a relaxed, supportive, and fun environment. Beginning as well as experienced writers are welcome. (Limited to 20)

Winter Spec Term, ★Sec 1, W, 6-8, Jan. 11-Feb. 15 (6 meetings), Arch 15. *No late fee through Jan. 4.*

*(Blaine Cross is working on his Ph.D. in English at the University of Minnesota, exploring the nature/culture split as it has been presented in contemporary American nature writing, nonfiction, and poetry. He has taught courses in composition, literature, and creative writing)*

**CSch 0312 READING AND WRITING WOMEN’S AUTOBIOGRAPHY.** No credit, \$98 (age 62, \$88.20).

Read short excerpts from the autobiographical writings of other women, including Leslie Marmon Silko, Adrienne Rich, Maya Angelou, May Sarton, and Patricia Hampl, and gather inspiration and courage to examine your own life. Then remember and write down some of your own stories to gain an appreciation and understanding of your journey thus far. (Limited to 20)

Winter Spec Term, ★Sec 1, T, 10 a.m.-12, Feb. 7-Mar. 7 (5 meetings), Cathedral Church of St. Mark, The Chapter House Room, 519 Oak Grove, Mpls. *No late fee through Jan. 31.*

*(Phebe Hanson is a journal writer, poet [Sacred Hearts, Milkweed Editions], and associate professor emerita in the Liberal Arts Division of the Minneapolis College of Art and Design, where she teaches writing and literature courses)*

**CSch 0313 SPRING JOURNAL WORKSHOP WITH PHEBE HANSON.** No credit, \$85 (age 62 and Arboretum members, \$76.50). *Includes lunch.*

When the “darling buds of May,” as Shakespeare called them, begin to unfold, open your blank books and try out a variety of new ways to keep a journal. Expand your ideas of what a journal might be through many writing exercises and by reading short inspirational excerpts from the journals of the famous and the obscure. If weather permits, some writing will be outdoors. (Offered in cooperation with the Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 22)

Spring Spec Term, ★Sec 1, Sa, 9:30 a.m.-4:30, May 20 (1 meeting), Minnesota Landscape Arboretum, Snyder Bldg., Classroom 1, 3675 Arboretum Dr., Chanhassen. *No late fee through May 12.*

*(See Phebe Hanson’s biography in CSch 0312)*

**CSch 0314 CHILDHOOD MEMOIR.** No credit, \$80 (age 62, \$72).

Your first kiss, first bicycle, dark attics, smelly uncles, rear car seats, Dad’s lasagna, sister’s secret, and countless other memories. . . all located in a varied landscape, the narrative terrain of childhood. They are our first stories, chronicles of our awakenings, remembering how we transformed from the dependency of childhood to the sometimes bitter responsibilities of adulthood. Unearth these forgotten memories and sharpen them into prose. Learn how to avoid the quicksand of literary sentimentality while you discover how to shape idiosyncratic stories into captivating narratives. Learn how other authors negotiate the competing demands of story structure and truth. Read and discuss childhood autobiographies as diverse as Sam Levinson, Vivian Gornick, Russell Baker, Patricia Hampl, and C. G. Jung. Benefit from peer feedback about your writing. (Limited to 20)

Spring Spec Term, ★Sec 1, M, 6:15-8:15, Apr. 3-May 1 (5 meetings), Phys 236A. *No late fee through Mar. 27.*

*(Todd Finley received his M.A. in creative writing from the University of Minnesota. He is currently completing his Ph.D. dissertation, “Narrative and Reflection”)*

## Noncredit Courses

**CSch 0315 DREAMWRITING.** No credit, \$80 (age 62, \$72).

You can't think of an ending to your story that doesn't remind you of a bad television episode. Your poem seems flat. No matter how much you revise, the third paragraph of your essay refuses to take flight. What can you do? Some writers visit and remember worlds that reach away, behind, and ahead of them. You too can add the magic of your dream life to your prose. Explore your inner space through homework assignments and supportive sharing of dreamwriting. Learn how nighttime plots intersect with narratives, myth, poetry, and popular culture. Uncover connections between the dream world and the day world. Practical techniques assist your efforts to remember what Erich Fromm calls the "forgotten language of dream." (Limited to 20)

Winter Spec Term, ★Sec 1, M, 6:15-8:15, Jan.

23-Feb. 20 (5 meetings), Phys 236A. *No late fee through Jan. 17.*

(See Todd Finley's biography in CSch 0314)

**CSch 0317 WRITING IMAGINATIVE FICTION.** No credit, \$120 (age 62, \$108).

Discuss elements of writing the science fiction or fantasy story including building an alternate world and populating it with believable (sometimes non-human) characters who have desires and conflicts. Read and discuss essays by Ursula LeGuin, Joseph Campbell, and others that apply to the writing of science fiction and fantasy. Analyze markets for speculative fiction, and talk about how to prepare work for the editor's desk. Participants are encouraged to distribute copies of their work (at any stage of development) to benefit from fellow writers' insights and questions and to receive a detailed response from the instructor. Ample opportunity for feedback. Required reading will include a collection of essays as well as Barry Longyear's *Science Fiction Writer's Workshop-I*. (Limited to 20)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 5-May

24 (8 meetings), LindH 203. *No late fee through Mar. 29.*

(Rosanne Bane has an M.A. in creative and professional writing and is editor of *The Phoenix*. She has placed imaginative fiction in *Sing Heavenly Muse!* and *Midnight Zoo*, and has completed a novel, *Born Again*)

**CSch 0318 READING AND WRITING POETRY.** No credit, \$91 (age 62, \$81.90).

Focus on writing poetry while reading and discussing modern and contemporary poems written by poets of varied cultures. The poems read will gen-

erate ideas for in-class writing. There will also be other exercises for in-class and out-of-class writing, and part of the class time will be spent sharing these poems-in-process. Participants learn more about the creative process of writing poetry by reading poetry. A guest poet will visit the class. (Limited to 18)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 17-Nov. 21 (6 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Oct. 10.*

(Elizabeth Kilde Fischer has an M.A. in English and creative writing from the University of Minnesota. She has taught poetry and writing classes at the University and in public schools, and has published some of her work)

**CSch 0319 THE POET IN THE WORLD.** No credit, \$85 (age 62 and Arboretum members, \$76.50). *Includes lunch.*

During this day-long workshop we'll combine several writing sessions with reading a number of passionate, eloquent poems from Carolyn Forché's anthology *Against Forgetting: The Poetry of Witness*. We'll explore some ways in which the poetic imagination has responded to social justice issues in the 20th century, and discuss the validity of the often-invoked distinction between political and personal poetry, both in the United States and in the world. Authors include Anna Akhmatova, Robert Bly, Ernesto Cardenal, Nazim Hikmet, Linda Hogan, and Denise Levertov. Participants are invited to bring some of their own poems for the two open readings which will begin and end the day. (Offered in cooperation with Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 22)

Spring Spec Term, ★Sec 1, Sa, 9:30 a.m.-4:30,

Apr. 22 (1 meeting), Minnesota Landscape Arboretum, Snyder Bldg., Classroom 1, 3675 Arboretum Dr., Chanhassen. *No late fee through Apr. 14.*

(Michael Dennis Browne is a professor of English at the University of Minnesota and recipient of a 1989 Distinguished Teacher Award from the College of Liberal Arts. He is the author of four published collections of poetry [his most recent is *You Won't Remember This*, winner of the 1993 Minnesota Book Award for Poetry] and many texts for music. His awards include fellowships from both the National Endowment for the Arts and the Bush Foundation)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0321 WRITING FOR PUBLICATION.**

No credit, \$85 (age 62, \$76.50).

Refine your skills and learn procedures for selling your work in magazine, newspaper, book, and corporate markets. Review self-publishing. Share your writing in a supportive atmosphere and gain insight from professional editors and writers from a variety of publications. (Limited to 20)

Spring Spec Term, ★Sec 1, T, 6-8, Apr. 4-May 2 (5 meetings), Woodlake Lutheran Church, 7525 Oliver Ave. S., Richfield. *No late fee through Mar. 28.*

*(Judith Vick has a master's degree in journalism from the University of Minnesota. She is a published author, an editor of newspaper and magazine articles and several books, and a market consultant)*

**CSch 0350 FREE-LANCE MAGAZINE WRITING.**

No credit, \$115 (age 62, \$103.50).

Designed to help writers sell their nonfiction work to local and national magazines. In a supportive workshop atmosphere, students learn how to analyze markets, write query letters, conduct interviews, and research, organize, and write articles. (Limited to 15)

Fall Spec Term, ★Sec 1, W, 1-3, Sept. 28-Nov. 9 (7 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Sept. 21.*

*(Susan Perry has written articles for more than 100 magazines and newspapers, including Woman's Day, Working Woman, and the Minneapolis Star Tribune. She is a former writer/editor for Time-Life Books, co-author of Nightmare: Women and the Dalkon Shield, The Secrets Your Body Clocks Reveal, and Natural Menopause, and has ghosted or contributed to a variety of other books)*

**CSch 0351 WRITING A BOOK PROPOSAL.**

No credit, \$80 (age 62, \$72).

Designed to help writers put together a finished nonfiction book proposal to send to an agent or publisher. Emphasis is on nonfiction. Students learn how to research, write, and market a proposal, and should come to the first class with an idea for a book. (Limited to 20)

Spring Spec Term, ★Sec 1, W, 1-3, Apr. 5-May 3 (5 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Mar. 29.*

*(See Susan Perry's biography in CSch 0350)*

**CSch 0352 MAGAZINE WRITING.**

No credit, \$125 (age 62, \$112.50).

The rapidly growing world of magazines provides many opportunities for the free-lance writer. This practical class is designed to help both beginning and experienced writers tailor their work for magazines. Discuss how to get article ideas, how to

interview and search for information, how to develop a magazine writing style, and how to market your work. Class format includes workshop-style critiques of students' articles and usually a visit by guest editors or writers. (Limited to 30)

Spring Spec Term, ★Sec 1, T, 7-9, Apr. 4-May 23 (8 meetings), ClaOff B30, StP Campus. *No late fee through Mar. 28.*

*(Sara Saetre is an editor at Lerner Publications and a past editor of Health Sciences magazine whose free-lance work has appeared in the Utne Reader, Working Woman, Mpls./St. Paul magazine, and other publications. James Thornton is a full-time free-lance writer whose articles have appeared in Sports Illustrated, Glamour, Men's Health, Minnesota Monthly, and other magazines)*

**CSch 0353 WRITING MAGAZINE PROFILES.**

No credit, \$91 (age 62, \$81.90).

The profile is the most common magazine feature story. Learn interviewing, reporting, structuring, and writing techniques designed to better capture in words the essence of real-life characters. The class is designed for beginning or experienced fiction and nonfiction writers seeking to branch out beyond primarily personal subject matter. (Limited to 20)

Winter Spec Term, ★Sec 1, W, 7-9, Jan. 18-Feb. 22 (6 meetings), Phys 143. *No late fee through Jan. 11.*

*(See James Thornton's biography in CSch 0352)*

**CSch 0354 WIN A FREE TRIP: TRAVEL WRITING THAT SELLS.**

No credit, \$80 (age 62, \$72).

Capture that perfect destination and develop the editor's eye. Lectures, handouts, exercises, and written examples guide you in choosing and approaching a subject with language that's fresh and evocative, informative and concise. Craft the all-important query letter. Locate and target select as well as broad markets. Find a hook; compile a research bank; double results through second-time sales; create and market your unique niche. Weekly assignments and group discussion help you create exciting writing that could become a career. (Limited to 20)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Oct. 5-Nov. 2 (5 meetings), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Sept. 28.*

*(Carla Waldemar is a writer, editor, and reviewer. She has been a successful travel writer for 12 years, with work published in Twin Cities periodicals, the Chicago Tribune and New York Times, national magazines including Travel & Leisure and Midwest Living, and guide books such as Fodor, Zagat, and the London Economist)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

### CSch 0356 INTRODUCTION TO COPYEDITING. No credit, \$125 (age 62, \$112.50).

A practical, intensive introduction to basic editorial skills. Extensive weekly homework assignments are designed to help class members master editing marks, word usage, consistency, fine points of grammar, and other copyediting problems. Recommended for writers and for people whose jobs require editing skills, and for others who enjoy language and words. Text: *The Chicago Manual of Style* and possibly other supplemental readings. (Limited to 25)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Nov. 17 (8 meetings), MurH 308, LaVigne. *No late fee through Sept. 22.*

Winter Spec Term, ★Sec 2, W, 1-3, Feb. 1-Mar. 22 (8 meetings), MacP, Perry. *No late fee through Jan. 25.*

Spring Spec Term, ★Sec 3, T, 6-8, Apr. 4-May 23 (8 meetings), MurH 311, Medeiros. *No late fee through Mar. 28.*

*(Pamela LaVigne writes, copyedits, and oversees production for Update, a tabloid for University of Minnesota faculty, staff, and alumni, and for Footnote, a faculty newsletter. Susan Perry is a former writer/editor for Time-Life Books who now works full-time as a free-lance writer and editor. R.C. Medeiros, a Ph.D. candidate in English at the University of Minnesota, has worked as a writing consultant and editor in business, academic, and other professional contexts)*

### CSch 0362 THE FAULT WITH DEFAULT: TYPOGRAPHY FOR DESKTOP PUBLISHING. No credit, \$48 (age 62, \$43.20).

Explore the aesthetics of desktop publishing. Focus on page design and typographic selections based on criteria for good readability and legibility. Learn tips and techniques for optimizing program typographic capabilities. Develop an understanding of the aesthetics of type design and typography. Course includes slide lectures, discussions, and demonstrations. Designed for those familiar with desktop publishing software like Aldus Pagemaker or Quark Xpress. (Limited to 20)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 3-17 (3 meetings), ClaOff B26, StP Campus. *No late fee through Sept. 26.*

*(Janice Anderson, lecturer in the Department of Design, Housing, and Apparel at the University of Minnesota, has more than 15 years of experience as a graphic designer. She teaches a wide range of courses, including graphic design and typography)*

### CSch 0363 LAYOUT AND PAGE DESIGN: TIPS AND TECHNIQUES FOR DESKTOP PUBLISHING. No credit, \$48 (age 62, \$43.20).

Examine the creative opportunities for page design and publications on the Macintosh. Learn problem-solving skills, elements and principles of design, and depth perception cues of visual organization. Class includes lecture, discussion, and demonstrations. Designed for those familiar with Aldus Pagemaker or Quark Xpress basics. (Limited to 20)

Fall Spec Term, ★Sec 1, M, 6-8, Oct. 24-Nov. 7 (3 meetings), ClaOff B30, StP Campus. *No late fee through Oct. 17.*

*(See Janice Anderson's biography in CSch 0362)*

## Literature

### CSch 0401 WOMEN TRAVELERS: A LITERARY TRAVELOGUE. No credit, \$115 (age 62, \$103.50).

Though their names rarely appear in Granta collections or Norton anthologies, women have written some of the most stunning memoirs. Read and discuss selections from the anthology *Maiden Voyages*, which includes the work of Isabella Bird, Willa Cather, Isak Dinesen, Freya Stark, Annie Dillard, M.F.K. Fisher, Andrea Lee, and Mary Morris. Learn about the inspiring adventures of traveling women past and present, and share your own travel stories. Prepare to escape to other worlds. (Limited to 20)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Nov. 17 (8 meetings), St. Anthony Park Library, 2245 Como Ave., StP. *No late fee through Sept. 22.*

*(Kate Dayton is an enthusiastic traveler who incorporates her travels into poetry and prose. She has taught various writing courses at The Loft and has published reviews and articles in local and regional publications)*

**CSch 0403 WOMEN IN LITERATURE: THE PORTRAYAL OF WOMEN IN LITERATURE.** No credit, \$90 (age 62 and Woman's Club of Mpls members, \$81).

More novels have been written by men than by women, yet women are frequently the central characters. Describing emotional, moral, and social predicaments facing women allowed novelists to explore the human condition and incidentally provide insight into the role of women through modern history. Prior to the 20th century, this role was very limited. With few exceptions, wife/mother was the only role society considered permissible and desirable. This year's short stories and novels deal with changing views of sexuality from the late 19th century into the 20th century. Fall reading includes Chekov's *The Party* and Maupassant's *Selected Stories*. Winter readings are Hardy's *Jude the Obscure* and D.H. Lawrence's *Sons and Lovers*. Spring offers two novels by Colette, *The Ripening Seed* and *Cherie*. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Fall Spec Term, ★Sec 1, F, 10 a.m.-12, Oct. 14-Nov. 18 (6 meetings), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Oct. 7.*

Winter Spec Term, ★Sec 2, F, 10 a.m.-12, Jan. 20-Feb. 24 (6 meetings), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Jan. 13.*

Spring Spec Term, ★Sec 3, F, 10 a.m.-12, Apr. 21-May 26 (6 meetings), Woman's Club of Mpls, 410 Oak Grove. *No late fee through Apr. 14.*

*(Johanna Kheim has taught French and humanities at the University of Minnesota. Her doctoral studies at the University were in comparative literature with a focus on the 19th- and 20th-century novel)*

**CSch 0405 JEWISH FEMALE IDENTITY: LONGING TO BELONG.** No credit, \$78 (age 62 and JCC-StP members, \$70.20).

How do Jewish women create a space for themselves in the midst of conflicting pressures ranging from assimilation and orthodoxy to anti-Semitism and sexism? How do contemporary Jewish women struggle to belong in the Jewish community as women and as Jews within the larger non-Jewish

world? Use *An Interrupted Life*, Etty Hillesum's diary about her experiences during World War II in the Netherlands, and *America and I: Short Stories by American Jewish Women Writers*, a collection of short stories written from the 1930s to the late 1970s, to examine issues of female Jewish identity. (Offered in cooperation with the Jewish Community Center of Greater St. Paul. Limited to 25)  
Winter Spec Term, ★Sec 1, M, 6:30-8:30, Jan. 23-Feb. 20 (5 meetings), Jewish Community Center of Greater St. Paul, 1375 St. Paul Ave. *No late fee through Jan. 17.*

*(Pascale Bos has a master's degree in comparative literature with minors in women's studies and philosophy from the Universiteit van Amsterdam. Currently working on a Ph.D. in comparative literature at the University of Minnesota, her dissertation focuses on issues of identity and texts of female German-Jewish Holocaust survivors. In 1993 she received the Jewish women's studies award from the National Women's Studies Association)*

**CSch 0420 GATHERING GROUND: REGIONAL NATIVE AMERICAN WRITING.** No credit, \$88 (age 62, \$79.20).

Many contemporary Native American writers live and work in the Upper Midwest. The perception that Native American writing emanates primarily from the Southwest is changing significantly as regional writers of the Upper Midwest gain prominence. Read and discuss the fiction of several Anishinabe authors, including Gerald Vizenor and Kimberly Blaeser from the 1993 anthology *Earth Song, Sky Spirit*. Enjoy poetry from Oneida poet Roberta Hill Whiteman and other tribes from this region, and listen to guest Anishinabe and Dakota writers. Also, learn about local readings of Native American literature in the Twin Cities area. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 6-8, Apr. 11-May 16 (6 meetings), Phys 143. *No late fee through Apr. 4.*

*(Heid Erdrich holds a master's degree in poetry and fiction from Johns Hopkins University and is a member of Native Art Circle Writers. Her work has appeared in various literary journals and anthologies, and she teaches writing and Native American literature courses)*

## Noncredit Courses

**CSch 0425 TWO MODERN MASTERS' IMAGES OF THE URBAN JEW.** No credit, \$85 (age 62, \$76.50).

Read selected works of Bernard Malamud and Saul Bellow and learn more about their portrayal of urban Jewish life. In Bernard Malamud's great collection, *The Magic Barrel*, the protagonists' struggles are best understood through ideas about "Jewishness" emerging from the stories about New York Jews, even though three of the stories deal with Gentiles and still others are set in Italy. Whereas Malamud's New Yorkers are strangely isolated from most political events of the 1940s and 1950s, Saul Bellow's second novel, *The Victim*, brilliantly captures such external pressures as anti-Semitism, relentless social change, ferocious competition, and the sheer crush of the masses in New York City. All these forces bear down on a central character steadily stripped of his defenses and forced to fall back on sources of strength he did not know he possessed. Enjoy discussions comparing and contrasting these literary images of urban Jewish life. (Limited to 25)

Spring Spec Term, ★Sec 1, W, 10 a.m.-12, Apr. 12-May 3 (4 meetings), MacP. *No late fee through Apr. 5.*

*(Robert Solotaroff is professor of English at the University of Minnesota and a specialist in contemporary American fiction. He has published books on the work of Norman Mailer and Robert Stone)*

**CSch 0440 LATIN AMERICAN FICTION.** No credit, \$146 (age 62, \$131.40).

Latin American fiction has enjoyed a creative renaissance over the past 50 years, suggesting a growing sense of Latin American identity from Argentina to Mexico and Brazil to Peru. During these three quarters, participants read and study works by writers from several Latin American countries to gain an overview of fiction produced on the continent as a whole. Selected authors include two Nobel prize winners, Miguel Asturias (1967) and Gabriel Garcia Marquez (1982). Fall reading includes works by three pioneers of modern Latin American fiction: short stories by Luis Borges, *The Man of Maize* by Asturias, and *The Kingdom of the World* by Carpentier. Winter and spring reading includes works by Cortazar, Garcia Marquez, Fuentes, Vargas Llosa, and Isabel Allende. (Limited to 40)

Fall Spec Term, ★Sec 1, T, 1-3, Oct. 4-Dec. 6 (10 meetings), MacP. *No late fee through Sept. 27.*

Fall Spec Term, ★Sec 2, W, 10 a.m.-12, Oct. 5-Dec. 7 (10 meetings), MacP. *No late fee through Sept. 28.*

Winter Spec Term, ★Sec 3, T, 1-3, Jan. 3-Mar. 7 (10 meetings), MacP. *No late fee through Dec. 27.*

Winter Spec Term, ★Sec 4, W, 10 a.m.-12, Jan. 4-Mar. 8 (10 meetings), MacP. *No late fee through Dec. 28.*

Spring Spec Term, ★Sec 5, T, 1-3, Apr. 4-June 6 (10 meetings), MacP. *No late fee through Mar. 28.*

Spring Spec Term, ★Sec 6, W, 10 a.m.-12, Apr. 5-June 7 (10 meetings), MacP. *No late fee through Mar. 29.*

*(Johanna Kheim has taught French and humanities at the University of Minnesota. Her doctoral studies at the University were in comparative literature with a focus on the 19th- and 20th-century novel)*

**CSch 0443 NEGLECTED HEIRLOOMS: SHORT STORIES OF FAMOUS VICTORIAN NOVELISTS.** No credit, \$82 (age 62, \$73.80).

Examine authors whose names are familiar but whose short stories have sometimes been overlooked. The short stories of Robert Louis Stevenson, Oscar Wilde, Rudyard Kipling, and H. G. Wells are neglected heirlooms lost among the riches of Victorian literature. Perhaps one reason these stories receive less attention is because many are written in subgenres often classed as popular literature—ghost stories, fairy tales, fantasy, and science fiction. Come rediscover some real gems! Suggested texts: *Plain Tales From the Hills* by Kipling; *The Body Snatcher and Other Stories* by Stevenson; *Selected Short Stories* by Wells; and *Complete Shorter Fiction of Wilde*.

Winter Spec Term, Sec 1, T, 10 a.m.-12, Jan. 10-Feb. 7 (5 meetings), MacP. *No late fee through Jan. 3.*

*(Ruth Jeffries is an advanced Ph.D. candidate in the Department of English at the University of Minnesota specializing in the Victorian short story)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



**CSch 0445 EPIPHANIES: THE SHORT STORIES OF EARLY 20TH-CENTURY WRITERS.** No credit, \$82 (age 62, \$73.80).

Arthur Symons described the turn-of-the-century short story as "a sequence of scenes, woven around a sequence of moods." Using literary techniques including interior monologue, symbolism, and repetition, early 20th-century writers used the short story form to explore inner states of mind. These modernist short stories often focused on a trivial incident leading to an epiphany (revelation) for the character or for the reader. Participants will read and discuss the short stories of Katherine Mansfield (on reserve), *Dubliners* by James Joyce, *Chronicles of Clovis* by Saki (H. H. Munro), and *The Complete Shorter Fiction of Virginia Woolf*. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 10 a.m.-12, Apr.

4-May 2 (5 meetings), MacP. No late fee through Mar. 28.

(See Ruth Jeffries' biography in CSch 0443)

**CSch 0447 READING IMAGINATIVE FICTION.** No credit, \$120 (age 62, \$108).

Spend time reading, discussing, and responding to a selection of stories that are benchmarks in science fiction and fantasy, including work from such authors as Campbell, Sturgeon, Clarke, Wolfe, Bester, Heinlein, LeGuin, Asimov, Leiber, Aldiss, Delany, Borges, Bradbury, Chesterton, Dunsany, Joyce, Kafka, and Shelley. The instructor will offer a partial reading list and participants will complete it, so vote for your favorites. Readings will be selected from two texts: *The Book of Fantasy* (edited by J. L. Borges) and *The World Treasury of Science Fiction* (edited by D. Hartwell). (Limited to 25)

Winter Spec Term, ★Sec 1, W, 6-8, Jan. 11-Mar.

1 (8 meetings), Walker Library, 2880 Hennepin Ave. S., Mpls. No late fee through Jan. 4.

(Rosanne Bane has an M.A. in creative and professional writing and is editor of *The Phoenix*. She has placed imaginative fiction in *Sing Heavenly Muse!* and *Midnight Zoo*, and has completed a novel, *Born Again*)

**CSch 0448 TONI MORRISON'S BELOVED.** No credit, \$65 (age 62, \$58.50).

Engage in an in-depth discussion and analysis of Toni Morrison's complex and award-winning novel *Beloved*. Discover how Morrison uses the power of memory and storytelling; discuss her attempt to reconceptualize and retell a controversial and painful part of America's history. Analyze her use of the ghost story, the circular narrative, and the richness of language and imagery to create a bewitching tale of cultural, psychological, and historical significance. Please read the novel prior to class and prepare thoughts, insights, and questions. (Limited to 25)

Winter Spec Term, ★Sec 1, Th, 6-8, Feb. 2-23 (4 meetings), Sabathani Community Center, 310 E. 38 St., Mpls. No late fee through Jan. 26.

(Pamela Fletcher is a writer, editor, and educator who has taught women's literature and African-American literature. Her teaching experience includes the University of Minnesota, other local colleges, and *The Loft*)

**CSch 0450 BASEBALL, FICTION, AND FILM.** No credit, \$96 (age 62, \$86.40).

Over its long and colorful history, baseball has generated numerous novels and films. Recently, some of these have received significant critical attention and praise. Explore both the popularity and the art of three of these novels and two films: Mark Harris's *Bang the Drum Slowly*, Philip Roth's *The Great American Novel*, Bernard Malamud's *The Natural*, Barry Levinson's adaptation of Malamud's novel, also called *The Natural*, and Ron Shelton's *Bull Durham*. Also take a brief look at baseball historians, short story writers, and sports journalists such as Lawrence Ritter, Ring Lardner, and Roger Angell. (Limited to 25)

Winter Spec Term, ★Sec 1, M, 6-8, Feb. 13-Mar.

20 (6 meetings), LindH 217. No late fee through Feb. 6.

(Arthur Geffen is an associate professor in English and American studies at the University of Minnesota. He has written articles about American literature, notably on Whitman and Faulkner, and has also taught courses on sports and American culture)

**CSch 0453 CHILDREN'S BOOKS IN THE U.S.—A RAINBOW OF CULTURES.** No credit, \$83 (age 62, \$74.70).

Enhance your knowledge about contemporary U.S. children's literature written from a variety of cultural, ethnic, and racial perspectives. Using the University of Minnesota's Kerlan Collection of Children's Literature, its curator describes, shows slides, and shares materials and examples of multicultural children's and young adult's literature. View original literary manuscripts and illustrations by authors and illustrators from various cultures and races. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8:30, Sept. 27-Oct.

18 (4 meetings), WaLib 109. No late fee through Sept. 20.

(Karen Nelson Hoyle is a University of Minnesota professor and longtime curator of the University's Children's Literature Research Collections, including the Kerlan Collection. She has also served on both the Caldecott Award Committee and the Newbery Committee for distinguished children's literature)

## Noncredit Courses

### **CSch 0454 FARAWAY PLACES, FACES, AND VOICES: INTERNATIONAL CHILDREN'S BOOKS.** No credit, \$83 (age 62, \$74.70).

Explore the richness of diverse settings, lifestyles, and ideas by viewing the Kerlan Collection's original manuscripts of international authors, translator's manuscripts, and illustrations in works from around the world. This class offers an opportunity for teachers, librarians, and all those who love children's literature to learn about writing from other countries. Special emphasis is on works receiving the Mildred L. Batchelder Award, an honor given annually for best translation to English from another language of an international work for young readers. (Limited to 25)

Winter Spec Term, ★Sec 1, T, 6-8:30, Feb. 28-Mar. 21 (4 meetings), WaLib 109. *No late fee through Feb. 21.*

(See Karen Nelson Hoyle's biography in CSch 0453)

### **CSch 0455 PERUSING PLACE: CHILDREN'S LITERATURE SITES AND SETTINGS.** No credit, \$83 (age 62, \$74.70).

It has been said that books have the ability to take the reader to any place on earth—and even beyond. Experience an opportunity to tour the home sites of some of children's literature's well-known authors through slides and biographical materials. The tour begins with Minnesota's own Wanda Gag (*Millions of Cats*) in New Ulm and Maud Hart Lovelace (*Betsy Tacy* series) in Mankato. Then travel to the Missouri river town home of Mark Twain, and from there go east to New England, the site of Virginia Lee Burton's *Little House*. Next journey overseas to England's Lake Country, the home of Beatrix Potter, and on to Denmark to note Hans Christian Andersen's surroundings. Finally, gather information about special literary collections including the Pierpont Morgan, holder of Dickens's manuscript for *A Christmas Carol* and illustrations for *The Little Prince*; the Renier Collection at the Bethnel Green Museum of Childhood in London; and the Silverado Museum in California with its Robert Louis Stevenson treasures. Intended for the "dream traveler" as well as those planning future trips. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 6-8:30, Apr. 4-25 (4 meetings), WaLib 109. *No late fee through Mar. 28.*

(See Karen Nelson Hoyle's biography in CSch 0453)

## Natural and Physical Sciences

### **CSch 0517 BUTTERFLY BASICS.** No credit, \$38 (age 62, \$34.20).

Butterflies are most beautiful in their natural settings—fluttering above the rugged bluffs of a river, the marshy lowlands of a bog, or the upland grasses and wildflowers of a prairie. With appropriate landscape planning and management, you too can experience the wonder of these interesting insects in your backyard. Discussions, slides, and outdoor excursions offer insect identification and basic butterfly biology of various Minnesota species, information about plant-insect interactions, and basic landscape design and maintenance for attracting butterflies. Wear casual clothes and comfortable walking shoes. (Limited to 25)

Spring Spec Term, ★Sec 1, Sa, 1-3:30, May 6 and 13 (2 meetings), Minnesota Valley National Wildlife Refuge, Classroom B, 3815 E. 80 St., Bloomington. *No late fee through Apr. 28.*

(Dean Hansen holds a doctorate in entomology from the University of Minnesota. His teaching experience includes classes about trout stream ecology and fishing, butterflies, insects, and invertebrates)

### **CSch 0518 THE NATURAL HISTORY AND BIOLOGY OF OWLS.** No credit, \$28 (age 62 and Bell Museum members, \$25.20).

Although widespread and common in many areas, owls as a group are mysterious and poorly understood. Explore the natural history of the world's owls, paying particular attention to those of North America. Includes observation of live owls at the Raptor Center and an overview of the rehabilitation of injured owls. (Offered in cooperation with the Bell Museum of Natural History. Limited to 35)

Winter Spec Term, ★Sec 1, Th, 6:30-8:30, Jan. 19 and 26 (2 meetings), GRaptCtr 120, StP Campus. *No late fee through Jan. 12.*

(Mark Martell, a staff member of the Gabbert Raptor Center since 1981, has an M.S. in wildlife conservation from the University of Minnesota. He is a falconer and has done field work with bald eagles, burrowing owls, osprey, and peregrine falcons)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0519 DUCKS, GEESE, AND SWANS OF MINNESOTA.** No credit, \$68 (age 62 and Bell Museum members, \$61.20).

Waterfowl, an important component of the bird communities in Minnesota, have long been fascinating to professional ornithologists and bird-watchers alike. Examine the diversity, conservation, and behavior of waterfowl, and discuss key features for identification and classification. Gain an understanding of the feeding habits and necessary habitats that are important for management and conservation issues. Review mating systems, courtship displays, brood parasitism, and other interesting behaviors of waterfowl. Includes Saturday field trip to a wetland to practice identification and to observe behavior (Oct. 15 or 22, depending on weather; participants provide own transportation and may choose to carpool). Binoculars (or a spotting scope) and a field guide are recommended for the field trip. (Offered in cooperation with the Bell Museum of Natural History. Limited to 20)

Fall Spec Term, ★Sec 1, T, 6:30-8:30, Oct. 4-18 (3 meetings plus field trip), Ecology 150. *No late fee through Sept. 27.*

*(Kevin Johnson is a graduate student in the Department of Ecology, Evolution, and Behavior at the University of Minnesota. His research focuses on the evolution of courtship displays in dabbling ducks and animal communication)*

**CSch 0520 SOCIAL BEHAVIOR OF APES AND MONKEYS.** No credit, \$85 (age 62 and Bell Museum members, \$76.50).

Can primates form political alliances? Is culture unique to humans? The social life of monkeys and apes is far more sophisticated than most people realize. Like humans, monkeys and apes live in complex societies, develop through long childhoods, and exhibit cultural behavior. Sadly, these primates, who are among the most social of all animals, face the threat of extinction due to habitat destruction, hunting, and live capture for the research market. Explore male/female differences in behavior, mate choice and aggression, patterns of parental care, cultural behavior, and the evolution of intelligence in our closest living relative. Using the gorilla as a model, examine how conservation

efforts can help preserve these "brainy" animals. Includes a half-day Saturday field trip to Como Zoo (Oct. 22; participants provide own transportation and may choose to carpool). (Offered in cooperation with the Bell Museum of Natural History. Limited to 24)

Fall Spec Term, ★Sec 1, T, 6:15-8:15, Oct. 4-Nov. 1 (5 meetings plus field trip), BellMus 175 (use auditorium entrance facing Church Street). *No late fee through Sept. 27.*

*(Wayne McGuire has a doctorate in physical anthropology and is an adjunct professor at Hamline University. His research interests include parental care in human and nonhuman primates, and he has studied gorillas in both natural settings and zoological parks)*

**CSch 0522 TIGERS OF THE WORLD: BIOLOGY, BEHAVIOR, AND CONSERVATION.** No credit, \$53 (age 62 and Minnesota Zoo members, \$47.70).

The tiger has intrigued humankind since the beginning of civilization, but now these powerful yet secretive members of the feline family face extinction due to habitat destruction and poaching. Examine the unique adaptations of tiger species (e.g., habitat preference, social structure, and predatory specializations). Explore such modern conservation strategies as captive breeding programs, species survival plans, and habitat preservation helping to preserve these magnificent carnivores. Includes a behind-the-scenes look at the Minnesota Zoo's tiger exhibit. (Offered in cooperation with the Minnesota Zoo. Limited to 20)

Fall Spec Term, ★Sec 1, Sa, 9 a.m.-12:30, Dec. 3 and 10 (2 meetings), Minnesota Zoo, 13000 Zoo Blvd., Apple Valley (meet in lobby). *No late fee through Nov. 25.*

*(Ron Tilson is director of the conservation office at the Minnesota Zoo and coordinator of the Global Animal Survival Plan for tigers. He is an associate professor of conservation biology and wildlife and fisheries at the University of Minnesota. Nick Reindl is curator of the Northern Trail at the Minnesota Zoo. He has 17 years' experience managing captive tigers)*

## Noncredit Courses

### **CSch 0523 EARLY SPRING ORNITHOLOGY: ECOLOGY, BEHAVIOR, AND IDENTIFICATION OF MINNESOTA'S BIRDS.** No credit, \$132 (age 62 and Bell Museum members, \$118.80).

For novices as well as those who have acquired some basic bird identification skills. Classroom sessions cover a variety of avian biology, including migration and flight, vocalizations, plumages, breeding biology, geographical distribution, habitat preferences, social behavior, and sight and sound identification. On three local half-day Saturday field trips (Apr. 15, 22, 29) and one full-day Saturday field trip to the Weaver Marshes (Apr. 1), observe and identify resident and early spring migrant birds (especially waterfowl, hawks, and sparrows), and learn more about migration, song, ecology, and breeding behavior (**participants provide own transportation and may choose to carpool on field trips**). Binoculars and field guide are essential. (Offered in cooperation with the Bell Museum of Natural History. Limited to 20)

Spring Spec Term, ★Sec 1, T, 6:30-8:30, Mar. 28-

Apr. 25 (5 meetings plus 4 field trips), Ecology 150, StP Campus. *No late fee through Mar. 21.*

*(Bruce A. Fall is assistant to the director in the General Biology Program at the University of Minnesota, where he teaches introductory evolutionary biology. He has also organized and led ornithology field trips for the Bell Museum)*

### **CSch 0525 THE WOLF: BACK FROM THE BRINK OF EXTINCTION.** No credit, \$53 (age 62 and Minnesota Zoo members, \$47.70).

Of all North American species, the wolf is perhaps the most feared and misunderstood. In the lore of many civilizations *Canis lupis* is described as a relentless predator, a hungry enemy that hunts in packs instilling terror in its prey. Since the arrival of European settlers the wolf has been removed from over 99 percent of its range. Fortunately, with a new drive to conserve the species, the wolf is making a comeback—but without controversy. Examine the natural history of the wolf, how wolves communicate, and why a social hierarchy helps maintain strong pack ties. Learn about recent conservation efforts as well as canine behavior in zoo settings. (Offered in cooperation with the Minnesota Zoo. Limited to 20)

Winter Spec Term, ★Sec 1, Sa, 9 a.m.-12:30, Feb. 4 and 11 (2 meetings), Minnesota Zoo, 13000 Zoo Blvd., Apple Valley (meet in lobby). *No late fee through Jan. 27.*

*(Jackie Fallon is the wolf keeper at the Minnesota Zoo and also a wildlife educator at the Gabbert Raptor Center at the University of Minnesota. Steve Hage is the conservation education specialist at the Minnesota Zoo and a doctoral candidate in conservation biology at the University)*

### **CSch 0526 NATURAL HISTORY DRAWING.** No credit, \$108 (age 62 and Bell Museum members, \$97.20).

Increase your understanding and appreciation of nature and art through the drawing of natural objects. Each session begins with a brief introductory lecture followed by a drawing session with informal discussion and critiques. Natural history specimens are the subjects of a series of classically oriented drawing exercises. The museum's exhibits and collections serve as a rich source of subject material. At every opportunity, the natural history of the specimen at hand is discussed. Drawings are presented as a means of both exploring and describing nature. Students need to purchase some simple and relatively inexpensive drawing materials. Includes one Saturday morning field trip to Como Park Zoo (Feb. 11 or 18; **participants provide own transportation and may choose to carpool**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Winter Spec Term, ★Sec 1, T, 6:30-8:30, Jan.

24-Feb. 28 (6 meetings plus field trip), Bell Museum 175 (use auditorium entrance facing Church Street). *No late fee through Jan. 17.*

*(Don Luce, curator of natural history art, researches, designs, and produces exhibits for the Bell Museum at the University of Minnesota. He also does scientific illustrations and fine art. Interested in the history of scientific illustration, he has written a book and several articles on the life and art of Francis Lee Jaques)*

### **CSch 0527 BIRDS OF PREY: THEIR BIOLOGY AND ECOLOGY.** No credit, \$82 (age 62 and Bell Museum members, \$73.80).

Birds of prey have a long history of association with humans: through falconry, as competitors for the same food, and currently as indicators of environmental problems. Concentrating on but not limited to North America, this course provides an overview of identification, distribution, physiology, and natural history of owls, hawks, and eagles. Learn about falconry, rehabilitation, captive breeding, and reintroduction. Includes a tour of the Gabbert Raptor Center and the new exhibit on raptors at the Minnesota Science Museum in St. Paul (**requires entrance fee; participants provide own transportation and may choose to carpool**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 35)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Oct. 19-Nov. 16 (5 meetings), GRaptCtr 120, StP Campus. *No late fee through Oct. 12.*

*(Mark Martell, a staff member of the Gabbert Raptor Center since 1981, has an M.S. in wildlife conservation from the University of Minnesota. He is a falconer and has done field work with bald eagles, burrowing owls, osprey, and peregrine falcons)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0528 LATE SPRING ORNITHOLOGY: THE NATURAL HISTORY OF MINNESOTA'S BIRDS.** No credit, \$132 (age 62 and Bell Museum members, \$118.80).

An appreciation of the habits and biology of birds makes watching them more enjoyable and is also an ideal way to begin an interest in birds. In the classroom, focus on the biology and behavior of Minnesota's birds; on Saturday field trips, concentrate on finding and identifying birds (**full-day field trip Apr. 29; half-day field trips May 6, 13, 20; participants provide own transportation and may choose to carpool**). Concentrate on using bird songs to locate and identify different species. Binoculars and a field guide are essential for the field trips. (Offered in cooperation with the Bell Museum of Natural History. Limited to 20)

Spring Spec Term, ★Sec 1, Th, 6:15-8:15, Apr. 27-May 25 (5 meetings plus 4 field trips), BellMus 175 (use auditorium entrance facing Church Street). *No late fee through Apr. 20.*

*(Paul Cabe received his Ph.D. from the Department of Ecology, Evolution, and Behavior at the University of Minnesota. He combines a lifelong interest in birds with research interests in population biology and genetics)*

**CSch 0529 MARINE MAMMALS: BIOLOGY AND BEHAVIOR.** No credit, \$53 (age 62 and Minnesota Zoo members, \$47.70).

Of all animals, few are held in as much awe as those that live in the sea, particularly cetaceans (e.g., whales, dolphins, and porpoises). Explore the unique adaptations of marine mammal groups including social organization, behavior, and learning. Enjoy playful bottle-nose dolphins during a behind-the-scenes tour with the Minnesota Zoo's dolphin trainers. (Offered in cooperation with the Minnesota Zoo. Limited to 20)

Spring Spec Term, ★Sec 1, Sa, 9 a.m.-12:30, May 6 and 13 (2 meetings), Minnesota Zoo, 13000 Zoo Blvd., Apple Valley (meet in lobby). *No late fee through Apr. 28.*

*(Brian Joseph, D.V.M., is director of biological programs at the Minnesota Zoo)*

**CSch 0534 FALL WILDFLOWERS AND GRASSES OF MINNESOTA.** No credit, \$98 (age 62 and Bell Museum members, \$88.20).

Fall offers new challenges to wildflower enthusiasts as asters and goldenrods bloom abundantly in prairies, open woods, and wetlands. Explore and

study the beautiful autumn plant life of central Minnesota through lectures, slides, and field trips. Learn to distinguish asters, goldenrods, and grasses using field guides and simple keys. Sharpen identification skills during two half-day Saturday field trips (**Oct. 1, 22; locations dependent on where plants are in bloom. Participants provide own transportation and may choose to carpool**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Fall Spec Term, ★Sec 1, T, 6:15-8:15, Sept. 20-Oct. 18 (5 meetings plus 2 field trips), BioSci 163, STP Campus. *No late fee through Sept. 13.*

*(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has M.S. degrees in horticulture and landscape architecture, and a lifelong interest in the growing and propagation of native plants. His design business, Native Landscape Design and Restoration, Ltd., promotes the integration of natural and cultural systems)*

**CSch 0535 A CELEBRATION OF THE SEASON: SPRING WILDFLOWERS OF MINNESOTA.** No credit, \$110 (age 62 and Bell Museum members, \$99).

With winter's snow barely melted, native wildflowers begin blooming in a wide and wonderful array of color and form. Enjoy the blossoming of spring in Minnesota through the wildflowers of woodland, prairie, and bog. Evening sessions introduce the diversity of wildflowers found in the state and how to identify them using field guides and simple keys. Two half-day Saturday field trips (**Apr. 22, 29**) and one full-day Saturday field trip (**May 13**) enable you to test your botanical skills in three flower-rich areas (**locations dependent on conditions; participants provide own transportation and may choose to carpool**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Spring Spec Term, ★Sec 1, T, 6:15-8:15, Apr. 18-May 9 (4 meetings plus 3 field trips), BellMus 175 (use auditorium entrance facing Church Street). *No late fee through Apr. 11.*

*(See C. Colston Burrell's biography in CSch 0534)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

**CSch 0540 BRAIN AND MIND.** No credit, \$56 (age 62, \$50.40).

Begin to understand one of your body's most complex and mysterious organs, the brain. Learn how cells within the brain communicate with each other, which allows you to perceive and interact with the world around you. Examine how parts of the brain differ from each other in structure and function, especially the differences between the right and left halves. Explore the relationships between the parts of the brain and the physiological processes currently believed to be essential for the complex functions of attention, learning, and memory. (Limited to 30)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Oct. 12-Nov. 2 (4 meetings), MlrH 5-276. *No late fee through Oct. 5.*

*(John Pellegrini is a postdoctoral associate in the Department of Physiology at the University of Minnesota. His current research examines the neural control of movement)*

**CSch 0541 HUMAN EVOLUTION: AN IMMENSE JOURNEY.** No credit \$72 (age 62 and Bell Museum members, \$64.80).

What does it mean to be human? How have we evolved? Humans are the end product of a long evolutionary history. Explore this long and complex story beginning with the evolution of nonhuman primates and our hominid ancestors and ending with the origin of modern humans and the emergence of culture. Begin to understand human behaviors and the evolutionary background of some problems of the modern industrialized world, such as the possible link between modern sleeping arrangements and sudden infant death syndrome, and the short period of a woman's life span spent in pregnancy and the high occurrence of breast cancer. (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Spring Spec Term, ★Sec 1, W, 6:15-8:15, Apr. 12-May 10 (5 meetings), BellMus 175 (use auditorium entrance facing Church Street). *No late fee through Apr. 5.*

*(Wayne McGuire has a doctorate in physical anthropology and is an adjunct professor at Hamline University. His research interests include parental care in human and nonhuman primates, and he has studied gorillas in both natural settings and zoological parks)*

**CSch 0551 MINNESOTA GEOLOGY: 3.6 BILLION YEARS AND COUNTING.** No credit, \$172 (age 62, \$154.80).

Discover where volcanoes erupted onto a lifeless landscape, where an inland sea teemed thick with algae, where a mountain chain rose to unrivaled heights, where a great valley was filled with lakes of lava, where oceans lapped against white sand beaches, and where mile-thick ice caps slowly carved a new landscape. Discover the long, diverse, and often calamitous geologic history of Minnesota. Includes two full-day field trips, one to the Minnesota River Valley (**Saturday, Apr. 29**) and another to local areas (**Saturday, May 20**), plus a weekend trip to northeastern Minnesota (**May 5-7**) that involves one to two nights camping in state parks (**additional cost of about \$15 for group meals and camping fees for weekend trip; participants provide own camping equipment and transportation and may choose to carpool**). (Limited to 25)

Spring Spec Term, ★Sec 1, Th, 6:30-8:30, Apr. 20-May 18 (4 meetings plus 3 field trips—no class May 11), Minnesota Geological Survey, 2642 University Ave., StP. *No late fee through Apr. 13.*

*(Jim Miller received his Ph.D. from the University of Minnesota and is a senior geologist at the Minnesota Geological Survey. He specializes in the billion-year-old geology of the Lake Superior region)*

**CSch 0552 DRIFTING CONTINENTS/EXPANDING OCEANS: AN INTRODUCTION TO THE DYNAMIC EARTH.** No credit, \$58 (age 62, \$52.20).

Although geology is truly an ancient science, our understanding of the forces and processes that have shaped the earth over its 4.5 billion year history is a recent revelation. Learn about milestones in geologic thought that ultimately led to the breakthrough theory of plate tectonics just 30 years ago, and how this unifying theory explains the ever-changing landscape of the Earth's surface and the diversity of life that inhabits it. Learn why the Himalayas are the highest mountains in the world, why the Pacific Ocean is surrounded by volcanoes called the ring of fire, and why California is so prone to earthquakes and Minnesota is not. (Limited to 30)

Winter Spec Term, ★Sec 1, Th, 6:30-8:30, Jan. 12-Feb. 2 (4 meetings), Minnesota Geological Survey, 2642 University Ave., StP. *No late fee through Jan. 5.*

*(See Jim Miller's biography in CSch 0551)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**CSch 0560 QUARKS TO QUASARS: AN OVERVIEW OF 20TH-CENTURY PHYSICS.** No credit, \$125 (age 62, \$112.50).

From the theory of relativity to string theory, the discoveries of this century have dramatically altered our understanding of the physical world. This introductory overview of the physics and cosmology of the 20th century will include relativity; the big bang; quantum theory; atomic, nuclear, and elementary-particle physics; nuclear energy; and modern unification theories. There will also be a discussion of how modern physics has influenced our lives and changed our view of the world. Demonstrations and visual aids will illustrate lectures. Emphasis will be on a qualitative and conceptual understanding of the ideas and concepts of modern physics. No background in math or physics is required. Students are asked to purchase one textbook. (Limited to 40)

Fall Spec Term, ★Sec 1, Th, 6:15-8:15, Sept. 29-Nov. 10 (7 meetings), Phys 150. *No late fee through Sept. 22.*

*(Roger Jones is an associate professor of physics at the University of Minnesota. His books, Physics as Metaphor and Physics for the Rest of Us [text for the course], deal with the metaphorical and idolatrous character of science while explaining the major concepts of modern physics)*

**CSch 0562 A WORLD OF COMPLEXITY AND UNPREDICTABILITY.** No credit, \$70 (age 62, \$63).

If we can land people on the moon and return them home, why can't we accurately predict what the weather will be like in two days? The outlook of science and engineering during the industrial revolution had been one of confidence in how well the world can be known and predicted. But about a hundred years later doubts surfaced as to how much or how precisely anything could ever be brought to human understanding. The latest breach in that earlier confidence has been the exploration of nonlinear phenomena—events and actions that cannot be described simply and that develop in subtle and unpredictable ways. Explore this complexity through a look at catastrophe theory, chaos theory and fractals, and applications of this new outlook to areas such as meteorology, engineering, and human affairs. (Limited to 30)

Spring Spec Term, ★Sec 1, W, 6:15-8:15, Apr. 5-May 3 (5 meetings), Arch 10. *No late fee through Mar. 29.*

*(Gregory Ruffa has M.S. degrees in physics and astronomy, leading to work in astrophysics and the aerospace industry. His interests include cosmology, celestial mechanics, and the history and philosophy of science in all cultures)*

**CSch 0563 UNDERSTANDING X RAYS, ATOM SMASHERS, AND THE NUCLEAR FRONTIER.** No credit, \$70 (age 62, \$63).

Did you know that you are constantly moving through an invisible ocean of particles and radiation? Learn how these particles are produced naturally and how we create them artificially. From diagnostic X rays to cancer treatment, from smoke detectors to radon seepage in your basement, from the origins of the sun to collisions in atom smashers, you are affected daily by the new frontier of nuclear technology. Develop a clearer understanding of the nuclear age through demonstrations and experiments including detection of background radiation, activation of samples with a neutron source, and the use of a diffusion cloud chamber and Van de Graaff generator. Visit laboratories to observe equipment such as a mass spectroscope, magnetic resonance imaging machine, and a linear accelerator. (Limited to 20)

Winter Spec Term, ★Sec 1, W, 6:15-8:15, Jan. 18-Feb. 15 (5 meetings), Phys 131. *No late fee through Jan. 11.*

*(Axel Vischer is a postdoctoral research associate in the Department of Physics at the University of Minnesota. His research interests are nuclear and particle theory)*

## Noncredit Courses

### **CSch 0580 WITHOUT A LAB OF HER OWN: HISTORY OF WOMEN IN SCIENCE AND TECHNOLOGY.** No credit, \$60 (age 62, \$54).

Women remain a small percentage of practicing scientists in the United States and most other countries, and they compose an even smaller percentage of the practicing engineers. Why is this so? Who were the first women scientists and engineers and how did they make it into the laboratory and the manufacturing plant? What contributions have women made to the fields of biology, physics, and chemical engineering? What changes are being made by women in these fields today? Using scholarship in women's history and feminist philosophy of science, investigate women's involvement in science and technology from antiquity to the present, and learn how their experiences differed from male scientists. Examine the struggles and strategies of women scientists in the past and how these experiences have affected the situation for women in science and technology today. Final lecture will be presented by Helen Longino, author of *Science as Serial Knowledge* as well as numerous articles on both the philosophy and feminism of science. (Limited to 30)

Fall Spec Term, ★Sec 1, T, 6-8, Nov. 1-22 (4 meetings), AmundH 162. *No late fee through Oct. 25.*

*(Natalie McIntire completed a B.S. in mechanical engineering at Rensselaer Polytechnic Institute, and has held positions as structural, process, and manufacturing engineer in several corporations. Her M.A. is in the history of science and technology from the University of Minnesota. Helen Longino is a 1993-1995 Winton visiting professor in women's studies and philosophy at the University.)*

### **CSch 0591 CAN IT BE A FISH FRY WITHOUT THE WALLEYE? THE ACID RAIN PROBLEM.** No credit, \$41 (age 62 and Bell Museum members, \$36.90).

Although many species of popular sport fish can tolerate somewhat acid conditions, they may be hurt by the loss of other acid-intolerant species in the food chains of Minnesota lakes. Learn about acid rain—its causes and effects on lakes, streams, forests, and your car! Learn what is meant by "acid sensitive" and if Minnesota ecosystems are susceptible to acidification. Explore the impact of national legislation such as the Clean Air Act and its amendments on reducing the atmospheric chemicals that produce acid rain. Discuss issues like the movement of airborne pollutants across national boundaries and its impact on American-Canadian relations. (Offered in cooperation with the Bell Museum of Natural History. Limited to 30)

Winter Spec Term, ★Sec 1, W, 6:15-8:15, Jan.

11-25 (3 meetings), BellMus 175 (use auditorium entrance facing Church Street). *No late fee through Jan. 4.*

*(Kevin Vogel is a graduate student in the Department of Ecology, Evolution, and Behavior at the University of Minnesota. His research interests include using tree-ring data to understand past climatic changes, and how these changes may help us to predict the future)*

### **CSch 0592 A WARM MINNESOTA WINTER? GLOBAL WARMING SCENARIOS, CONSEQUENCES, AND POLICIES.** No credit, \$55 (age 62 and Bell Museum members, \$49.50).

If greenhouse gas concentrations in the outer atmosphere continue to increase at present rates, a four degree increase in the global mean temperature is expected. Minnesota and surrounding areas can expect an even greater increase. Learn about global warming causes and consequences. Examine the models scientists use to predict future climate changes, and explore the potential impact of climate change on agriculture in Minnesota and worldwide. Investigate the link between science and politics, and review national and local policies and strategies to curtail greenhouse gas emissions. (Offered in cooperation with the Bell Museum of Natural History. Limited to 30)

Fall Spec Term, ★Sec 1, W, 6:15-8:15, Oct. 5-26 (4 meetings), Bell Museum 175 (use auditorium entrance facing Church Street). *No late fee through Sept. 28.*

*(See Kevin Vogel's biography in CSch 0591)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



# The Practical Scholar course offerings

## University Access

**PSch 0600 STUDY SKILLS.** No credit, \$32 (age 62, \$28.80).

Thinking about returning to school? About to begin your first class? Already in school and having problems with your studies? Learn basic techniques to budget your time, develop efficient study habits, get the most from lectures and textbooks, take and organize notes, and study for and take exams. Includes lecture, classroom discussion, and practical exercises. (Limited to 25)

Fall Spec Term, ★Sec 1, Sa, 9 a.m.-1, Sept. 17 (1 meeting), AmundH 116. *No late fee through Sept. 9.*

Spring Spec Term, ★Sec 2, Sa, 9 a.m.-1, Apr. 1 (1 meeting), AmundH 116. *No late fee through Mar. 24.*

*(Jan DeNoble has taught classes and seminars for the University of Minnesota, government agencies, and private industry)*

**PSch 0603 OVERCOMING EMOTIONAL BLOCKS TO LEARNING.** No credit, \$49 (age 62, \$44.10).

Many adults want to finish their college degrees or complete additional professional training, but feel blocked by fears of failure (or success), anxiety, or lack of confidence in their academic ability. Explore the sources of these emotional blocks to academic success and how to overcome them. Learn about modifying personal belief systems, using positive self-talk, managing anxiety, and overcoming difficult learning histories. (Limited to 20)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 22-Oct. 6 (3 meetings), EddyH 102. *No late fee through Sept. 15.*

*(Glenn Hirsch is a licensed psychologist in private practice and a senior staff psychologist at University Counseling and Consulting Services)*

**PSch 0605 DECIDING TO ATTEND GRADUATE SCHOOL.** No credit, \$17 (age 62, \$15.30).

The decision to pursue a graduate degree can be difficult and involves assessing the value of a graduate degree to you as well as selecting an appropriate program. Explore the impact of attending graduate school on both your professional and personal life. Clarify your life/career goals, evaluate your options, and develop a plan of action. Includes discussion of factors to consider and questions to ask in researching possible graduate programs. (Limited to 30)

Fall Spec Term, ★Sec 1, Sa, 10 a.m.-12, Oct. 1 (1 meeting), AmundH 116. *No late fee through Sept. 23.*

Spring Spec Term, ★Sec 2, Sa, 10 a.m.-12, Apr. 1 (1 meeting), AmundH 120. *No late fee through Mar. 24.*

*(Theresa Maximovitch is a career management consultant for Career Dynamics, Inc. and a doctoral candidate in counseling psychology at Stanford University)*

**PSch 0606 APPLYING TO AND FINANCING GRADUATE SCHOOL.** No credit, \$26 (age 62, \$23.40).

Early planning is essential in applying to and successfully financing your graduate education. Many application deadlines are six months or more before the term begins. The first part of this session examines how the graduate school admission process works, when to apply, and how to put together an effective application. In the second half find out what types of aid and financial support are available including loans, grants, scholarships, fellowships, and assistantships. Includes time for questions. (Limited to 45)

Fall Spec Term, ★Sec 1, Sa, 9 a.m.-12, Oct. 15 (1 meeting), AmundH 120 *No late fee through Oct. 7.*

Spring Spec Term, ★Sec 2, Sa, 9 a.m.-12, Apr. 8 (1 meeting), AmundH 120. *No late fee through Mar. 31.*

*(Dennis Clayton, Ph.D., is assistant to the dean of the Graduate School at the University of Minnesota. Rose Miskowicz is financial aid counselor for graduate and professional students at the University)*

## Noncredit Courses

**PSch 0608 ASSESSING MATH SKILLS FOR THE GRE AND GMAT.** No credit, \$32 (age 62, \$28.80).

This three-hour clinic is designed to diagnose your readiness to take the mathematics portion of the Graduate Record Examination (GRE) and the Graduate Management Admission Test (GMAT). It will provide a description of the mathematics portions of both tests, a self-scored test of your mathematics skill levels as they relate to the GRE and GMAT, and information on what to do next with regard to studying for the tests (what to study and classes to take to help prepare for the tests). (Limited to 30)

Fall Spec Term, ★Sec 1, M, 6-9, Oct. 10 (1 meeting), AmundH 158. *No late fee through Oct. 3.*

*(Barbara Clothier is the mathematics counselor at Macalester College. She is also an instructor of mathematics and statistics. Her research interests are in educational psychology and developmental mathematics education)*

**PSch 0609 REVIEWING MATH FOR THE GRE OR GMAT.** No credit, \$125 plus \$12 special fee. Total \$137 (age 62, \$112.50 plus \$12 special fee. Total \$124.50). *Includes study materials.*

Designed to prepare you for the mathematics portions of the Graduate Record Examination (GRE) and the Graduate Management Admission Test (GMAT). Intended for people who need to brush up on their basic math skills and who would like some guidance and practice in solving the fundamental types of problems encountered on the GRE and GMAT. Topics covered will include material from arithmetic, algebra, geometry, and problem solving. For more extensive review of these subjects, students should consider taking PSch 0610, 0611, 0661, 0662, or 0663. On the last day of class there will be an assessment with a discussion following. Materials distributed at the first class meeting. (Limited to 30)

Fall Spec Term, ★Sec 1, M, 6-9, Oct. 17-Nov. 7 (4 meetings), AmundH 162. *No late fee through Oct. 10.*

Winter Spec Term, ★Sec 2, M, 6-9, Jan. 30-Feb. 20 (4 meetings), Phys 143. *No late fee through Jan. 23.*

Spring Spec Term, ★Sec 3, M, 6-9, Apr. 10-May 1 (4 meetings), FordH 160. *No late fee through Apr. 3.*

*(See Barbara Clothier's biography in PSch 0608)*

**PSch 0610 PREPARING FOR THE GRE.** No credit, \$215 plus \$25 special fee. Total \$240 (age 62, \$193.50 plus \$25 special fee. Total \$218.50). *Includes study materials.*

Become familiar with the various types of verbal, quantitative, and analytical questions presented on the Graduate Record Examination (GRE) General Test. In addition to learning test-taking strategies, participants will work with test-simulation exercises on reading comprehension, antonyms, analogies, sentence correction, problem solving, quantitative comparison, graphs, and analytical/logical reasoning. Includes advanced math strategies. Students needing basic math review (arithmetic, algebra, geometry, and story problems) should register for PSch 0609. Materials especially prepared for this seminar format distributed at the first class session. (Limited to 40)

Fall Spec Term, ★Sec 1, M, 5:30-9:30, Sept. 12, 19, 26; and Sa, 8:30 a.m.-12:30, Sept. 17, 24 (5 meetings), AmundH 240. *No late fee through Sept. 6.*

Fall Spec Term, ★Sec 2, TTh, 5:30-9:30, Nov. 15, 17, 22, 29, Dec. 1 (5 meetings), MechE 202. *No late fee through Nov. 8.*

Winter Spec Term, ★Sec 3, TTh, 5:30-9:30, Mar. 16, 21, 23, 28, 30 (5 meetings), NichH 213. *No late fee through Mar. 9.*

Spring Spec Term, ★Sec 4, TTh, 5:30-9:30, May 9, 11, 16, 18, 23 (5 meetings), NichH 213. *No late fee through May 2.*

*(Marianne Ahokas, instructor for the verbal section, is a staff member in the Learning and Academic Skills Center and a Ph.D. candidate in English at the University of Minnesota. Tom Lamb, instructor for the math section, has an MBA from the Carlson School of Management and has previously taught math courses in the General College at the University)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**PSch 0611 PREPARING FOR THE GMAT.** No credit, \$215 plus \$25 special fee. Total \$240 (age 62, \$193.50 plus \$25 special fee. Total \$218.50). *Includes study materials.*

Learn test-taking strategies for dealing with the verbal, quantitative, and analytical sections of the new Graduate Management Admissions Test (GMAT). After being introduced to proven methods for dealing with each of the question types, participants will work with test-simulation exercises in critical reasoning, problem solving, data sufficiency, sentence correction, essays, and reading comprehension. Materials especially prepared for this seminar format distributed at the first class session. (Limited to 40)

Fall Spec Term, ★Sec 1, TTh, 5:30-9:30, Sept. 22, 27, 29, Oct. 4, 6 (5 meetings), AmundH B75. *No late fee through Sept. 15.*

Fall Spec Term, ★Sec 2, T, 5:30-9:30, Dec. 13, Jan. 3, 10; and Sa, 8:30 a.m.-12:30, Dec. 17, Jan. 7 (5 meetings), AmundH 240. *No late fee through Dec. 6.*

Winter Spec Term, ★Sec 3, TTh, 5:30-9:30, Feb. 23, 28, Mar. 2, 7, 9 (5 meetings), AmundH 240. *No late fee through Feb. 16.*

Spring Spec Term, ★Sec 4, TTh, 5:30-9:30, May 25, 30, June 1, 6, 8 (5 meetings), AmundH 240. *No late fee through May 18.*

*(See instructors' biographies in PSch 0610)*

**PSch 0613 PREPARING FOR THE LSAT.** No credit, \$180 plus \$25 special fee. Total \$205 (age 62, \$162 plus \$25 special fee. Total \$187). *Includes study materials.*

Learn test-taking strategies and practice working with the various types of questions presented on the Law School Admissions Test (LSAT). Review logical and verbal reasoning, sharpen reading comprehension, practice solving analytical reasoning problems, brush up on parts of speech, word usage, and proper sentence structure, and learn a system to use to generate ideas for and complete the required 30-minute essay. After being introduced to proven methods for dealing with each of the question types, work with test-simulation exercises. Materials especially prepared for this seminar format distributed at the first class session. (Limited to 40)

Fall Spec Term, ★Sec 1, W, 5:30-9:30, Oct. 26-Nov. 16 (4 meetings), AmundH 240. *No late fee through Oct. 19.*

*(Marianne Ahokas is a staff member in the Learning and Academic Skills Center and a Ph.D. candidate in English at the University of Minnesota.)*

**PSch 0620 GRAMMAR REFRESHER.** No credit, \$96 (age 62, \$86.40).

Has it been too many years since you studied subjects, verbs, and all those other forgotten terms? Do you labor over sentences and agonize over paragraphs? This workshop is designed for people who had a strong background in grammar (however many years ago), but who would now like to review basic skills. It is intended for those considering returning to the classroom, those already in school and having problems with writing, and those who would like a refresher for personal correspondence. Topics include grammar, punctuation, sentence structure, and common problem areas. Format includes lecture, exercises, student participation, and weekly homework assignments. (Limited to 20)

Fall Spec Term, ★Sec 1, T, 6-8, Sept. 27-Nov. 1 (6 meetings), LindH 303. *No late fee through Sept. 20.*

Winter Spec Term, ★Sec 2, T, 6-8, Jan. 24-Feb. 28 (6 meetings), LindH 229. *No late fee through Jan. 17.*

*(Jan DeNoble has taught classes and seminars for the University of Minnesota, government agencies, and private industry)*

**PSch 0621 WORDS: MAKING THEM WORK FOR YOU.** No credit, \$48 (age 62, \$43.20).

Designed for people who want to increase their vocabulary and who enjoy working and playing with words. Includes Greek and Latin roots, words derived from these roots, and other useful words and word games. Appropriate for people planning to take undergraduate or graduate admissions exams or other tests requiring vocabulary skills. Students in section 1 may want to bring a bag lunch. (Limited to 25)

Fall Spec Term, ★Sec 1, Th, 11:30 a.m.-1, Oct. 6-27 (4 meetings), MacP. *No late fee through Sept. 29.*

Spring Spec Term, ★Sec 2, T, 6:15-7:45, Apr. 4-25 (4 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Mar. 28.*

*(See Jan DeNoble's biography in PSch 0620)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

### **PSch 0622 MORE WORDS: MAKING THEM WORK FOR YOU.** No credit, \$48 (age 62, \$43.20).

A continuation of PSch 0621, but not limited to students who have taken that class. Focus on the definition, pronunciation, and usage of words, with word origins, the "families of words," and word games also included. Designed for people who want to increase their vocabulary and build word power, and for those who enjoy working and playing with words. It's also appropriate for those planning to take undergraduate and graduate admissions exams or other tests requiring vocabulary skills. Students may want to bring a bag lunch. (Limited to 25)

Winter Spec Term, ★Sec 1, Th, 11:30 a.m.-1,

Jan. 19-Feb. 9 (4 meetings), MacP. *No late fee through Jan. 12.*

(See Jan DeNoble's biography in PSch 0620)

### **PSch 0623 PUNCTUATION REVIEW.** No credit, \$40 (age 62, \$36).

Should I use a comma or a semicolon? Does the period go inside or outside the closing quotation mark? How many spaces are there after a colon? If you're mystified by the ever-changing rules of punctuation, this course can help you sort it all out. Bring in your writing for comment and critique, suggest problem areas for classroom discussion, and complete in-class exercises. You may want to bring a bag lunch. (Limited to 20)

Spring Spec Term, ★Sec 1, W, 10:15 a.m.-12:45,

Apr. 12 and 19 (2 meetings), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Apr. 5.*

(See Jan DeNoble's biography in PSch 0620)

### **PSch 0624 MAKING SENSE OF GRAMMAR AND PUNCTUATION.** No credit, \$98 (age 62, \$88.20).

Whether correcting your own writing or completing a grammar exercise on a standardized test, it's easy to get stuck when a sentence doesn't look just right. Connecting with the basics of grammar and punctuation will help you learn how to make good choices when it comes to sentence construction. Designed for people who want to learn how to apply the basics of grammar and punctuation to everyday writing, and for individuals who are preparing for standardized tests (GMAT, LSAT, PPST, CEEB) that include a section on sentence correction. Participants use the *Prentice Hall Reference Guide to Grammar and Usage* (purchase at East Bank Bookstore, Williamson Hall, before the first class) to guide discussions and in-class exercises. (Limited to 25)

Spring Spec Term, ★Sec 1, W, 6:15-8:15, Apr. 5-May 10 (6 meetings), EddyH 20. *No late fee through Mar. 29.*

(Marianne Ahokas is a staff member in the Learning and Academic Skills Center and a Ph.D. candidate in English at the University of Minnesota)

### **First Step: Preparation for University Mathematics**

A program designed especially for people who need to review or update their skills in mathematics. May also be useful for those who are anxious about mathematics or who encounter blocks in performing mathematics computations. Through a combination of course work and supportive services, students can overcome their fear of mathematics and master the level of mathematics they need or want. The program helps students deal with their attitudes about math at the same time they are working on their math skills. Classes include *Math Skills Assessment Clinic*, *Basic Mathematics Review*, *Elementary Algebra*, *Intermediate Algebra*, and *Preparing for Graduate Statistics*.

### **PSch 0660 MATH SKILLS ASSESSMENT CLINIC.** No credit, \$32 (age 62, \$28.80).

The Assessment Clinic is the introductory step in the Math Preparation Program. It contains a brief discussion of math anxiety/avoidance, how it develops, and how it affects mathematics performance. A test is given that allows you to determine your current level of math skill. After self-scoring the test, you will receive an interpretation of the results. Additional topics include an overview of the University math program, a discussion of the nature of mathematics, and administration of the Math Anxiety Rating Scale. (The Practical Scholar offers another diagnostic clinic, PSch 0609, which is specifically designed for people who want to determine whether they are ready to take the math portions of the GRE or GMAT. See page 428) (Limited to 35)

Fall Spec Term, ★Sec 1, M, 6-9, Sept. 19 (1 meeting), NCEE 229. *No late fee through Sept. 12.*

(Douglas Robertson is a professor in the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. He has received the Morse-Alumni Award for Outstanding Contributions to Undergraduate Education as well as the CEE Distinguished Teaching Award. His research interests are in developmental mathematics education)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**PSch 0661 BASIC MATHEMATICS REVIEW.** No credit, \$130 (age 62, \$117).

Instruction in basic mathematics including fractions, decimals, ratio and proportion, percentages, the metric system, and word problems from these areas. Option of taking self-graded quizzes to monitor progress during class. Prepares you for PSch 0662 Elementary Algebra. (Limited to 30)

Fall Spec Term, ★Sec 1, Th, 6-7:30, Sept. 22-

Dec. 8 (11 meetings—no class Nov. 24), Phys 236A. *No late fee through Sept. 15.*

(See Douglas Robertson's biography in PSch 0660)

**PSch 0662 ELEMENTARY ALGEBRA.** No credit, \$170 (age 62, \$153).

Instruction in elementary algebra including signed numbers, solving equations and inequalities, graphing, factoring, rational expressions, roots, and word problems. Option of taking self-graded quizzes to monitor progress during class. Prepares you for PSch 0663 Intermediate Algebra. (Limited to 30)

Winter Spec Term, ★Sec 1, Th, 6-7:45, Jan. 5-

Mar. 16 (11 meetings), Phys 236A. *No late fee through Dec. 29.*

(See Douglas Robertson's biography in PSch 0660)

**PSch 0663 INTERMEDIATE ALGEBRA.** No credit, \$265 (age 62, \$238.50).

This second course in algebra covers rational expressions, radicals, roots, quadratic and rational equations and inequalities, conic sections, functions and relations, exponential and logarithmic functions, and word problems. Prepares you for Math 1031 College Algebra or Math 1051 Precalculus I. Since this is a second course in algebra, you must know the content of elementary algebra including linear equations and inequalities, exponents, factoring, elementary rational expressions, and roots (see PSch 0662). (Limited to 30)

Spring Spec Term, ★Sec 1, Th, 5:45-8:45, Mar.

30-June 8 (11 meetings), FordH 120. *No late fee through Mar. 23.*

(See Douglas Robertson's biography in PSch 0660)

**PSch 0665 TAKING THE STING OUT OF STATS: PREPARING FOR GRADUATE STATISTICS.** No credit, \$120 (age 62, \$108).

A preparatory course for upper-division undergraduate or graduate-level statistics in behavioral science, psychology, education, or sociology. Designed especially for those who are uneasy with the prospect of taking a statistics course or who want a basic understanding of statistical concepts. Focus is on developing statistical vocabulary and notation, descriptive statistics, probability distributions, and the fundamentals of hypothesis testing. Background in elementary algebra is helpful, but not essential. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 4-Nov. 22

(8 meetings), AmundH 240. *No late fee through Sept. 27.*

(Jennifer Robey is a Ph.D. student in educational psychology at the University of Minnesota. Her teaching experience includes statistics and study skills courses at the University)

## Career Development

### Individual Career-Education Counseling Program

Are you considering additional education to enter or re-enter the work force, to enrich your current job, or to make a career change, but aren't sure where to begin? The Continuing Education and Extension (CEE) Department of Counseling offers the Individual Career-Education Counseling Program to help you clarify your direction and take the first steps toward your new future.

CEE's professional counselors can help you develop a better understanding of your interests, values, skills, and personal style for work and education, identify techniques and resources for exploring the world of work, guide development of an action plan, and evaluate personal concerns that may be affecting your decision making. In addition, they can recommend career and educational testing to assist with the self-exploration process.

The six-session fee-based program is intended for current or prospective students interested in CEE and University of Minnesota courses and programs. Begin your planning by calling the CEE Counseling Department at 625-2500 to schedule a free initial consultation.

## Noncredit Courses

### **PSch 0700 RISK TAKING FOR PERSONAL GROWTH.** No credit, \$70 (age 62, \$63).

If you want to make changes in your life, your relationships, or your career, you have to take risks. Risk taking is necessary to make new friends or to enrich current relationships. This course is for those who feel they are missing out and life is passing them by, and includes taking stock of yourself as a risk taker, identifying the risks needed, overcoming risk-taking fears, assessing the benefits and consequences of the risk, taking smart risks, and building commitment and confidence. Learn how to please yourself instead of others. Designed as an educational experience, not as a therapy group. (Limited to 24)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29-Oct. 20 (4 meetings), AmundH 240. *No late fee through Sept. 22.*

*(Kevin J. Nutter, Ph.D., is the program director of the Career Development Center and an adjunct faculty member in educational psychology at the University of Minnesota. He is a former president of the Minnesota Career Development Association)*

### **CSch 0701 MID-LIFE CAREER BURNOUT: STRESSES AND STRAINS.** No credit, \$70 (age 62, \$63).

Have you been in your job for a long time? Are you feeling stressed by the pressures and routines of an active on-going career? Take time to explore the challenges of life at mid-career. Look at the signals that may precede burnout. Learn coping mechanisms, strategies for change, and decision-making approaches. This course is a blend of lecture, large and small group activities, and suggested exercises between sessions, and is designed as an educational experience, not as a therapy group. (Limited to 25)

Winter Spec Term, ★Sec 1, W, 6-8, Jan. 4-25 (4 meetings), FordH 70. *No late fee through Dec. 28.*

*(Jill Flower, Ph.D., is a licensed psychologist in private practice in St. Paul with 10 years of teaching experience)*

### **PSch 0702 CAREER DECISIONS: STRATEGIES FOR CHANGE.** No credit, \$105 plus \$25 special fee. Total \$130 (age 62, \$94.50 plus \$25 special fee. Total \$119.50).

Take the first step toward assessing your job, your goals, and yourself in relation to your career. Consider values, job satisfaction, job stress, and person-environment fit as key elements of the decision to stay where you are or to make a change. Explore educational training opportunities by learning ways to identify career alternatives. An opportunity to take the Strong Interest Inventory and the Myers-Briggs Type Indicator, two vocational assessment inventories. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8, Sept. 27-Nov. 1 (6 meetings), NCCE Library, Krantz. *No late fee through Sept. 20.*

Fall Spec Term, ★Sec 2, M, 6-8, Oct. 24-Nov. 28 (6 meetings), NCCE 229, Peterson. *No late fee through Oct. 17.*

Winter Spec Term, ★Sec 3, W, 6-8, Jan. 11-Feb. 15 (6 meetings), NCCE 229, Huck. *No late fee through Jan. 4.*

Winter Spec Term, ★Sec 4, Th, 6-8, Feb. 2-Mar. 9 (6 meetings), NCCE Library, Krantz. *No late fee through Jan. 26.*

Spring Spec Term, ★Sec 5, M, 6-8, Mar. 27-May 1 (6 meetings), NCCE 229, Strowig. *No late fee through Mar. 20.*

Spring Spec Term, ★Sec 6, W, 6-8, Apr. 26-May 31 (6 meetings), NCCE 229, Pelto. *No late fee through Apr. 19.*

*(Barbara Krantz is a licensed psychologist and career counselor for CEE Counseling at the University of Minnesota. She specializes in career, personal, and academic counseling with current and prospective students. Susanne Peterson is a counselor for CEE Counseling and a licensed psychologist. She has planned and taught courses in career development strategies, résumé writing, and the job search process. Christina Huck, Ph.D. and licensed psychologist, is a career counselor who has worked with University students and other adults. She has taught career planning classes and job search workshops. Her doctoral dissertation focused on mid-life career change. Andrew Strowig is career counselor for CEE Counseling. He has a doctorate in educational psychology from the University of Minnesota. Janet Pelto is a licensed psychologist and career counselor for CEE Counseling. She specializes in career, personal, and academic counseling with current and prospective students)*

**PSch 0703 CAREER UNREST AND MID-LIFE TRANSITIONS: REALIZING CHANGE.** No credit, \$89 (age 62, \$80.10).

Designed for individuals experiencing career unrest and considering a mid-life career change. Explore the theoretical and practical sides of changing careers. Topics include theories of adult/career development; integration of work, family, and community life roles; a definition of "mid-life crisis"; and an examination of factors that contribute to this phenomenon. Covers a model for targeting career unrest and a framework for dealing with life transitions. Techniques used to heighten self-awareness include vocational testing, written exercises, and imagery. Includes lecture, discussion, and small-group interaction. (Limited to 24)

Spring Spec Term, ★Sec 1, Th, 6-8, Apr. 6-May 4 (5 meetings), FordH 349. *No late fee through Mar. 30.*

*(Kevin J. Nutter, Ph.D., is the program director of the Career Development Center and an adjunct faculty member in educational psychology at the University of Minnesota. He is a former president of the Minnesota Career Development Association)*

**PSch 0704 PATHS TO SUCCESS: A BALANCE BETWEEN SKILL AND INTUITION.** No credit, \$70 (age 62, \$63).

Why are some individuals highly successful? What makes them so effective at work, in the community, and in their personal lives? For some people, success appears to be due to natural traits and fortuitous timing. For others, however, acquired skills and a centered outlook on life have brought them to the top. Discuss ideas presented in *The Seven Habits of Highly Effective People* by Stephen Covey and *The Path of the Everyday Hero* by Lorna Catford and Michael Ray. Discover your own inner resources and learn skills and outlooks to assist you in your path to success.

Winter Spec Term, Sec 1, W, 6-8, Jan. 11-Feb. 1 (4 meetings), NichH 201. *No late fee through Jan. 4.*

*(See Kevin J. Nutter's biography in PSch 0703)*

## Human Development

**PSch 0800 ASSERTIVENESS TRAINING.** No credit, \$71 (age 62, \$63.90).

Becoming assertive means not only standing up for your rights in negative, confrontational situations, but also being able to express your beliefs, feelings, and opinions in an honest, open, and appropriate way. Increase communication skills while reducing anxiety and feelings of resentment and guilt by

learning to distinguish assertive behavior from both passive and aggressive behavior. In class, experiment with ways to deal with day-to-day situations, choosing and practicing options that are the most effective for you. (Limited to 20)

Fall Spec Term, ★Sec 1, T, 10:15 a.m.-12:15,

Sept. 27-Oct. 25 (5 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Sept. 20.*

*(Ann Skytta, M.A., is a licensed psychologist with Associated Behavioral Consultants)*

**PSch 0803 STRESS AND SELF-ESTEEM.** No credit, \$35 (age 62, \$31.50).

The paradox of a person's self-esteem is that it is at once fragile while resilient. Most of us buffet life's storms, but often at the expense of our self-esteem. Discover how unrelieved stress effects your personal sense of well-being. Explore your own stress experiences and learn how to take more control over them. The course combines lecture, discussion, and in-class exercises, and is designed as an educational experience, not as a therapy group. (Limited to 20)

Fall Spec Term, ★Sec 1, Th, 6-8, Sept. 29 and Oct. 6 (2 meetings), NichH 201. *No late fee through Sept. 22.*

*(David W. Johnson, M.A., is director of the University of Minnesota Employee Assistance Program. Over the past 16 years he has presented workshops and seminars on numerous issues relating to employee health and well-being)*

**PSch 0804 PERFECTIONISM AND PROCRASTINATION.** No credit, \$48 (age 62, \$43.20).

Do you find yourself putting things off when you know you shouldn't? Are you always in a rush to get things done at the last minute, and do you make excuses when things are late? Is nothing you do quite good enough to measure up to your standards? Through a combination of lectures and small group discussions, learn how these behaviors originate and manifest themselves plus techniques to stop delaying tactics. Designed as an educational experience, not as a therapy group. (Limited to 25)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 12-26 (3 meetings), FordH 40. *No late fee through Mar. 22.*

*(Debra Harless is a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. She has worked as a university counselor and instructor with an emphasis in the area of learning skills. Her research interests include learning and teaching styles)*

## Noncredit Courses

### **PSch 0805 PLANNING NURSING HOME COSTS—EXPLORING THE ALTERNATIVES.** No credit, \$19 (age 62, \$17.10).

Long-term health care costs can be catastrophic. Minnesota costs average in excess of \$3,000 per month. Recent legislative changes at both the federal and state levels have made advanced planning imperative. How does the Medicaid program work? Are there alternatives to giving away entire estates rather than risking its loss? Receive specific information about all potential options, including Medicaid spend down planning, long-term care insurance, and other viable alternatives.

Fall Spec Term, Sec 1, T, 10:15 a.m.-12:15, Nov. 15 (1 meeting), Linden Hills Library, 2900 W. 43 St., Mpls. No late fee through Nov. 8.

*(Larry Houk is a graduate at the University of Minnesota Law School. He has more than 20 years' experience in the area of estate planning and trusts, and has taught seminars on the subject to audiences nationwide. He is the co-author of Spend Down Solution)*

### **PSch 0806 WHY A LIVING TRUST?** No credit, \$19 (age 62, \$17.10).

Much has been written about the living trust as an alternative to guardianship and probate. *Money* magazine (Mar. 1989) recommends the revocable living trust as a precaution against the costs and abuses associated with guardianship. *Fortune* magazine (Feb. 25, 1991) and *Modern Maturity* (Sept./Oct. 1991) recommend the revocable living trust as a means of avoiding the costs and delays normally incurred in the probate process. Designed to answer your questions about living trusts, such as: What are they? How do they work? When should they be considered as an alternative to a will alone? (Limited to 30)

Spring Spec Term, ★Sec 1, T, 10:15 a.m.-12:15, Apr. 4 (1 meeting), Linden Hills Library, 2900 W. 43 St., Mpls. No late fee through Mar. 28.

*(See Larry Houk's biography in PSch 0805)*

### **PSch 0815 IDENTITY AND INTIMACY IN CLOSE RELATIONSHIPS.** No credit, \$53 (age 62, \$47.70).

Balance is what people strive for, to connect with someone else yet remain individual. This class explores the dilemmas and choices in intimate relationships. People may behave as "attachers" (those who fear abandonment and being alone) or as "separators" (those who fear being trapped and smothered by others). At either extreme, individuals may have great difficulty in getting their needs met. An

understanding of how these patterns develop and are acted out allows participants to examine their own behavior. The course is structured to help students recognize their attitudes about intimacy and suggests steps to take to achieve a more comfortable balance. Designed as an educational experience, not as a therapy group. (Limited to 30)

Winter Spec Term, ★Sec 1, Th, 6-8, Jan. 12-26 (3 meetings), NCCCE 229. No late fee through Jan. 5.

*(Philip Colgan is the director of the Alcohol and Drug Counseling Education Program in the Department of Family Social Science at the University of Minnesota. He is also a psychotherapist in private practice in Minneapolis)*

### **PSch 0818 FIGHTING FAIR IN INTIMATE RELATIONSHIPS.** No credit, \$70 (age 62, \$63).

Many people try to avoid arguments with spouses or partners. Yet family theory states that couples cannot achieve intimacy without first learning constructive ways to handle conflict. Conflict in close relationships does not have to get out of control or end with one person losing. Learn about strategies used by couples who disagree—even argue—in ways that actually improve the quality of their relationships. Combines lecture, discussion, and in-class exercises. Designed as an educational experience, not a therapy group. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 6-8, Apr. 4-25 (4 meetings), FordH 50. No late fee through Mar. 28.

*(Elisabeth A. Horst, Ph.D., has written on gender issues and intimacy development. She is a psychotherapist in private practice)*

### **PSch 0845 MAN TALK, WOMAN TALK: BRIDGING THE GENDER COMMUNICATION GAP.** No credit, \$48 (age 62, \$43.20).

Research supports what men and women have known for centuries—that male and female communication styles often conflict with one another. Explore the nature and causes of this conflict, then address how the communication gap can be bridged through active listening, fair fighting, and related techniques. (Limited to 20)

Fall Spec Term, ★Sec 1, Th, 6-8, Nov. 3-17 (3 meetings), EddyH 102. No late fee through Oct. 27.

*(Glenn Hirsch is a licensed consulting psychologist in private practice and a senior staff psychologist at University Counseling Services)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



**PSch 0862 FINDING A COLLEGE THAT FITS: HELPING YOUR CHILD MAKE CHOICES.**

No credit, \$26 (age 62, \$23.40).

Do you find yourself perplexed by the almost bewildering array of college possibilities that your college-bound student faces? This course aims to provide parents and guardians with an understanding of the college admissions process, information on resources, some important inside tips, and the confidence to be an active participant in a vital part of their child's transition to adulthood. More specifically, information will be provided about what colleges look for from students; finding out about colleges; matching oneself to a college; applying for financial aid; and a college admissions planning calendar. Also, two representatives, one from a public and the other from a private institution, will discuss the advantages of attending their type of college. (Limited to 50)

Fall Spec Term, ★Sec 1, W, 6-9, Oct. 12 (1 meeting), NCCE 140. *No late fee through Oct. 5.*

Spring Spec Term, ★Sec 2, Sa, 9-12, Apr. 8 (1 meeting), NCCE 140. *No late fee through Mar. 31.*

*(Clifford J. Caine, Ph.D., is an author [How to Get Into College] and an educational consultant. He was previously director of men's residence halls and the student union at Macalester College, and served as director of student services and college counseling at Breck School)*

**PSch 0863 HOW TO GET INTO COLLEGE.**

No credit, \$26 (age 62, \$23.40).

Are you a high school student concerned about how, when, and where you are going to college? Learn a step-by-step approach to the college process that answers these questions: What are colleges looking for? When should I apply and how do I do it? What are my chances? Complete easy-to-use worksheets for self-evaluation, personal data, college data, college evaluation, and financial aid requests. Receive a three-year calendar and a checklist of events so that important deadlines will be met efficiently from your sophomore through senior years. Finally, discuss good techniques for interviewing and writing college essays. An expert on college entrance exams discusses SAT and ACT tests. (Limited to 50)

Winter Spec Term, ★Sec 1, Sa, 9 a.m.-12, Jan. 28 (1 meeting), NCCE 140. *No late fee through Jan. 20.*

*(See Clifford J. Caine's biography in PSch 0862)*

**Gardening, Finances, Wellness, Etc.**

**PSch 0903 FINANCIAL PLANNING FOR WOMEN.** No credit, \$51 (age 62, \$45.90).

Designed specifically to help women make sound financial decisions. Learn to assess your financial situation and what you should consider in planning for the future. Address formulating objectives, appropriate investments based on income needs and net worth, insurance needs, tax status, and sources of income for retirement years. Demonstrations on how to evaluate and select investments and determine risks associated with various investment options. Using case studies and examples, examine specific issues of concern to divorced, widowed, separated, or single women. (Limited to 40)

Fall Spec Term, ★Sec 1, T, 6-8, Sept. 27-Oct. 11 (3 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Sept. 20.*

*(Jennifer Fogg, M.B.A., is a registered investment advisor with MTI Financial Services of Edina)*

**PSch 0906 INVESTMENTS AND PERSONAL FINANCIAL PLANNING—STAGE ONE.** No credit, \$66 (age 62, \$59.40).

Sound financial planning especially for people age 40 and younger. Stage One emphasizes wealth accumulation, cash flow management, college funding, benefits utilization, and early retirement planning. *First Session: Basic Financial Management Process.* Taking your financial inventory, personal budgeting and planning, determining goals and objectives for investment, future expenditures and cash control procedures, savings, insurance, and wills. *Second Session: Basics of Investments.* Basic features and considerations of investing in liquid reserves, individual bonds and stocks, municipal bonds, and mutual funds. *Third Session: Putting It All Together.* Integrating your objectives with investment alternatives, basic tax considerations, and structuring an investment portfolio. (Limited to 40)

Winter Spec Term, ★Sec 1, T, 6-8:30, Feb. 7-21 (3 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. *No late fee through Jan. 31.*

*(See Jennifer Fogg's biography in PSch 0903)*

## Noncredit Courses

### **PSch 0907 INVESTMENTS AND PERSONAL FINANCIAL PLANNING—STAGE TWO.** No credit, \$66 (age 62, \$59.40).

Sound financial management especially for people age 40 and older. No prior course required. Stage Two emphasizes managing accumulated wealth and moving closer to retirement. *First Session: Basic Financial Management Process.* Taking your financial inventory, budgeting and planning, pre- and post-retirement, shifts in investment goals and objectives, future expenditures, insurance and estate management issues. *Second Session: Basics of Investments.* Basic features and considerations of investing in liquid reserves, individual bonds and stocks, municipal bonds, and mutual funds. *Third Session: Putting It All Together.* Integrating your objectives with investment alternatives, basic tax considerations, and structuring an investment portfolio which meets changing goals as you move toward and through retirement. (Limited to 40)

Winter Spec Term, ★Sec 1, Th, 6-8:30, Feb. 9-23 (3 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. No late fee through Feb. 2.

(See Jennifer Fogg's biography in PSch 0903)

### **PSch 0908 SOCIALLY RESPONSIBLE INVESTING: DOING WELL BY DOING GOOD.** No credit, \$56 (age 62, \$50.40).

Are you interested in applying your values and beliefs to your investment selections? This course begins with an overview of how to find financially strong investment alternatives. It then provides a process for identifying and prioritizing issues concerning corporate responsibility including research, selection, and monitoring. (Limited to 40)

Fall Spec Term, ★Sec 1, W, 6-8, Nov. 2-16 (3 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. No late fee through Oct. 26.

(See Jennifer Fogg's biography in PSch 0903)

### **PSch 0909 INVESTMENT ANALYSIS AND PORTFOLIO BUILDING.** No credit, \$56 (age 62, \$50.40).

Once you understand what basic investments are available, how do you choose among them? Explore investment alternatives (stocks, bonds, cash, real estate), researching investments (publications, libraries, company sources), and assessing allocation of resources based on age, income, and life circumstances. Emphasis is on understanding stocks and mutual funds and investment vehicles, and working with financial professionals. Sample portfolios are used to demonstrate investment strategies. A basic working knowledge of various types of investments is required. (Limited to 40)

Spring Spec Term, ★Sec 1, W, 6-8, Apr. 5-19 (3 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. No late fee through Mar. 29.

(See Jennifer Fogg's biography in PSch 0903)

### **PSch 0910 DEVELOPING AN INTERNATIONAL INVESTMENT PORTFOLIO.** No credit, \$37 (age 62, \$33.30).

An introduction to international investing in the global equity and bond markets. Over 60 percent of the global equity market is outside the U.S. How do you tap into it? Do the risks and rewards involved fit with your investment goals and style? Examine historical trends in various major markets, risks and returns associated with international investing, and strategies for allocating assets to this challenging investment category. Evaluate various investment vehicles such as individual stocks and closed-end funds for investing in global markets. (Limited to 40)

Spring Spec Term, ★Sec 1, W, 6-8, May 3, 10 (2 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls. No late fee through Apr. 26.

(See Jennifer Fogg's biography in PSch 0903)

### **PSch 0930 FITNESS FOR A LIFETIME.** No credit, \$65 (age 62, \$58.50).

Everyone can be both happy and healthy. The key is finding activities appropriate to your individual lifestyle, age, level of fitness, and interest. In this course, survey a variety of fitness activities and address the role of fitness in a balanced lifestyle. Each class session is divided into two segments: one is classroom-based and focuses on issues that may affect our activity choices and lifestyle habits; the other is participation-oriented and stresses different options for achieving a desired level of fitness. In the classroom, discuss such topics as the need for rest, balancing a busy life, nutrition, and stress reduction. For activity sessions, dress appropriately to participate in such things as walking, stretching, low-impact aerobics, sports, and games. (Limited to 20)

Winter Spec Term, ★Sec 1, T, 6-8, Jan. 10-31 (4 meetings), Gym 9, StP Campus. No late fee through Jan. 3.

(Mary Howell is an experienced kinesiology teacher as well as a coach and former member of the U.S. National Racewalking Team)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**PSch 0931 MEDITATION: SEEING THE MIND.** No credit, \$82 (age 62, \$73.80).

The human mind is vast—a universe in itself and the end point of millions of years of evolution. Meditative techniques help to give a direct awareness of this mind. Such experience is healing and joyful, like visiting a mountain wilderness or a pristine ocean beach. Through discussion and practice, learn techniques to focus the mind, some yoga exercises to help limber and center the body, and a form of sitting meditation. Wear loose, comfortable clothing and bring a cushion. (Limited to 25)

Fall Spec Term, ★Sec 1, T, 6-8, Oct. 11-Nov. 8 (5 meetings), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Oct. 4.*

*(Erik Storlie began a practice of sitting meditation in 1964 under Shunryu Suzuki Roshi, studied with Dainin Katagiri Roshi, and helped found the Minnesota Zen Meditation Center. A faculty member in English and humanities at Minneapolis Community College, his doctoral dissertation was a cross-cultural study of Puritan and Zen meditative experiences)*

**PSch 0932 WELLNESS AND THE ART OF SELF-CARE.** No credit, \$16 (age 62, \$14.40).

Your health is up to you. Look at the many ways to take care of yourself, including techniques to maintain balance among life activities and to reduce stress. Discuss the importance of affirmations and the joy of a healthy diet. Learn to get in touch with signals from your body and to take a responsible role in your own health care.

Fall Spec Term, Sec 1, T, 6-8, Sept. 27 (1 meeting), AmundH 162. *No late fee through Sept. 20.*

*(Amy Olson is a certified health and wellness educator and an experienced group leader)*

**PSch 0933 WHAT'S ALL THIS ABOUT HOLISTIC HEALTH?** No credit, \$24 (age 62, \$21.60).

Take a brief look at the holistic health movement, from philosophies and practices to application in your life. Understand what distinguishes holistic health from a traditional approach to health care and discover nontraditional options to improve your health.

Fall Spec Term, Sec 1, T, 6-9, Oct. 4 (1 meeting), Arch 35. *No late fee through Sept. 27.*

*(See Amy Olson's biography in PSch 0932)*

**PSch 0934 THE HUMAN BODY SHOP: A WEIGHT-LIFTING AND CONDITIONING WORKSHOP.** No credit, \$65 (age 62, \$58.50).

A one-day instructional and practical course on weight-lifting and general conditioning techniques. Review weight-lifting equipment, stretching, body movement, and cardiovascular training. Learn how to design your own workout program. Come prepared to exercise. Open to all skill levels. Older adults are welcome. (Limited to 15)

Fall Spec Term, ★Sec 1, Sa, 8 a.m.-4, Oct. 8 (1 meeting), URecCtr, Lower Level Fitness Center. *No late fee through Sept. 30.*

*(Claudelle Carruthers, a physical and occupational therapist, is an advanced graduate student in the School of Kinesiology and Leisure Studies at the University of Minnesota)*

**PSch 0936 FITNESS FOR THE ADVANCED EXERCISER: MAKING KNOWLEDGEABLE CHOICES.** No credit, \$65 (age 62, \$58.50).

Learn the inside story of exercise training, the anatomical and physiological adaptations that occur in the individual that exercises regularly. Exercises covered include endurance (aerobic), power and strength (anaerobic), and combinations of both. Explore concepts such as oxygen consumption, lactate threshold, tempo training, target heart rate, plyometrics, and ergogenic aids. Review components of sports nutrition such as carbohydrate loading and replacement, and fluid and mineral replacement and supplements. Contributions and limitations of exercise equipment will also be presented. (Limited to 25)

Fall Spec Term, ★Sec 1, W, 6-8, Sept. 28-Oct. 19 (4 meetings), UAqCtr, Wet Classroom. *No late fee through Sept. 21.*

*(Erik Ekstrom is a registered dietician and a Ph.D. candidate in exercise physiology at the University of Minnesota. He is active in cycling, running, and cross-country skiing)*

## Noncredit Courses

**PSch 0937 STRESS MANAGEMENT: THE BODY-MIND CONNECTION.** No credit, \$55 (age 62, \$49.50).

What is the best way to successfully handle demanding situations and stressful circumstances? The interaction between body and mind profoundly affects the impact of stress, and people who deal with stress successfully have learned to listen to their bodies and pay attention to signals that tell them to slow down or relax. Learn how practical body awareness skills as well as mental strategies can help to relieve the stress in your life. Discover techniques such as muscle relaxation, breath support, and field of attention. Join with others to strengthen your motivation to continue the exercises after the class ends. Includes participatory activities, group discussions, and selected readings. Wear comfortable clothes and bring a blanket or mat. (Limited to 20)

Winter Spec Term, ★Sec 1, T, 6-8, Jan. 10-24 (3 meetings), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in and enter from lot south of church). *No late fee through Jan. 3.*

*(Diane Aldis, a teaching specialist in the Dance Program at the University of Minnesota, has conducted many workshops on stress management)*

**PSch 0938 RECLAIMING YOUR BODY: INTRODUCTION TO BODY WORK.** No credit, \$85 (age 62, \$76.50).

Can you remember a time when your own movement felt as effortless and natural as a child's? For many, that freedom has been blocked by stress, chronic discomfort, or lack of energy. Learn ways to have both a healthier relationship with your body and improved movement through experiential exercises, discussions, and guided movement explorations of body-therapy techniques. Examine ways to change stressful movement habits, increase relaxation and physical well-being, and experience ease of movement. Briefly survey the body therapies and practitioners available locally. Includes discussions, demonstrations, and participation activities, as well as optional readings. Suitable for all ages and physical abilities. (Limited to 20)

Fall Spec Term, ★Sec 1, T, 6-7:30, Oct. 4-Nov. 15 (7 meetings), FolH 306. *No late fee through Sept. 27.*

*(Barbara Loeb is a body/movement therapist trained in several different therapies and techniques. Also a dance instructor at the University of Minnesota, she has performed and choreographed on the east and west coasts and was an artist-in-residence at St. Olaf College for three years)*

**PSch 0939 DANCING WITH THE PSYCHE: EXPERIENCING MOVEMENT THERAPY.** No credit, \$85 (age 62, \$76.50).

Life begins with movement. Throughout life we learn about ourselves, express ourselves, and relate to others by moving. Discover how movement and dance can be a medium for growth, self-healing, and understanding. Explore a variety of movement-therapy techniques including active imagination, partner work, authentic movement, and group rituals. Includes discussions, demonstrations, and participation activities as well as optional readings. Suitable for all ages and physical abilities. Wear comfortable clothes that permit you to move. (Limited to 20)

Spring Spec Term, ★Sec 1, T, 6-7:30, Apr. 4-May 16 (7 meetings), HHHctr 60. *No late fee through Mar. 28.*

*(See Barbara Loeb's biography in PSch 0938)*

**PSch 0949 HEADS TO TAILS: A PRACTICAL GUIDE TO PET CARE.** No credit, \$64 (age 62, \$57.60).

Nearly half of all households include a dog or cat. Good pet care begins with choosing your pet and continues through the life of the animal. Before choosing a pet, find out how to evaluate and match your needs and personality to various pet characteristics. The first few months with your puppy or kitten are critical for proper socialization and leadership training; examine preventative behavior as well as guidelines for some problem situations. Learn about common diseases along with actions you can take to prevent health problems. One session is devoted to emergency care and a tour of the University of Minnesota Veterinary Teaching Hospital. The last session explores the bonds developed with pets, how to communicate with veterinarians when a pet is sick, and issues of dealing with terminal illness and loss. (Limited to 30)

Winter Spec Term, ★Sec 1, M, 6:15-8:15, Jan. 23-Feb. 13 (4 meetings), AnScVM 125. *No late fee through Jan. 16.*

*(Dr. Beth Boynton is the community practice veterinarian at the University of Minnesota Veterinary Teaching Hospital. Her special interests include behavior and preventative medicine in dogs and cats)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**PSch 0950 LANDSCAPING THE MINNESOTA HOME GROUNDS.** No credit, \$80 (age 62, \$72).

Investigate ways to improve the design of your yard or garden. Explore the artistic aspects of gardening and learn the best placement, staging, and use of plants in landscape design. Learn the roles mood and balance play in landscape design and how to make small grounds have the effect of larger grounds. Establish pictorial effects in yards and grounds akin to the moods evoked by a painting. Includes a tour of a local garden. (Limited to 35)

Spring Spec Term, ★Sec 1, T, 6:30-8:30, Apr. 4-May 2 (5 meetings), HckrH 100, StP Campus.

No late fee through Mar. 28.

*(Glenn Ray is a consultant in horticultural arts with an emphasis on artistic aspects of gardening. He is a former director of the Minnesota Horticultural Society)*

**PSch 0952 FALL YARD CARE.** No credit, \$33 (age 62 and Minnesota Horticultural Society members, \$29.70).

Fall is an ideal time to improve your yard since many garden activities are well suited to cooler days. Learn what to do and why. Topics include basic information on tree and shrub planting (plant selection, planting techniques), herbaceous perennial transplanting (types and treatments), tender plant protection, turf care (seeding, herbicides, fertilizing), and yard-waste disposal (composting, mulching, off-site disposal). (Offered in cooperation with the Minnesota Horticultural Society. Limited to 25)

Fall Spec Term, ★Sec 1, Th, 6:30-8:30, Sept. 22 and 29 (2 meetings), Center for Northern Gardening, 1755 Prior Ave. N., Falcon Heights. No late fee through Sept. 15.

*(Jeffrey Johnson is a horticulturist at the Minnesota Landscape Arboretum with responsibility for maintaining the tree and shrub research nurseries. He is also a horticultural consultant, having studied and worked in the field for 15 years)*

**PSch 0953 PRUNING LANDSCAPE TREES AND SHRUBS.** No credit, \$33 (age 62 and Minnesota Horticultural Society members, \$29.70).

Trees and shrubs are an integral part of most landscape settings in the Upper Midwest, and pruning them is necessary to maintain an attractive and healthy condition. Learn to maximize beauty, flower and fruit, form, longevity, and safety in your landscape. Understand basic plant growth and development as it pertains to maintenance pruning. Other topics include pruning terminology, deciduous and evergreen treatments, timing, proper cuts/techniques, renewal pruning, hedges, and equipment.

(Offered in cooperation with the Minnesota Horticultural Society. Limited to 25)

Winter Spec Term, ★Sec 1, Th, 6:30-8:30, Feb.

23 and Mar. 2 (2 meetings), Center for Northern Gardening, 1755 Prior Ave. N., Falcon Heights. No late fee through Feb. 16.

*(See Jeffrey Johnson's biography in CSch 0952)*

**PSch 0954 USE OF EDIBLE PLANTS IN LANDSCAPING.** No credit, \$32 (age 62 and Minnesota Horticultural Society members, \$28.80).

Discover how to mix vegetable gardening and flower gardening. Edible landscaping allows you to incorporate food plants such as fruits, vegetables, and edible flowers into an ornamental landscape. It is an especially valuable option if you have a small yard or limited growing space. Find out how to grow eggplants with petunias and plant blueberries next to azaleas. Learn about design aspects, plant selection, and pest control in the mixed landscape. (Offered in cooperation with the Minnesota Horticultural Society. Limited to 25)

Spring Spec Term, ★Sec 1, Th, 6:30-8:30, May 4 and 11 (2 meetings), Center for Northern Gardening, 1755 Prior Ave. N., Falcon Heights. No late fee through Apr. 27.

*(Nancy Rose is a research horticulturist at the Minnesota Landscape Arboretum. She has a master's degree in horticulture and broad experience with ornamental plants)*

**PSch 0955 SELECTING TREES, SHRUBS, AND VINES FOR YOUR HOME AND GARDEN.** No credit, \$50 (age 62 and Arboretum members, \$45).

Review the best performing trees and shrubs for this area based on ongoing trials at the Minnesota Landscape Arboretum. The class plant list includes both deciduous and evergreen trees and shrubs. Mature size and form, fall color, and other ornamental traits are discussed. Cultural requirements and out-of-season characteristics such as bloom and winter silhouettes are illustrated in slide lectures. Includes early evening field trip to Arboretum (May 18; participants provide own transportation and may choose to carpool) to view plantings. (Offered in cooperation with the Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 30)

Spring Spec Term, ★Sec 1, Th, 6:15-8:15, May 4 and 11 (2 meetings plus field trip), HckrH 100, StP Campus. No late fee through Apr. 27.

*(Mike Zins is a horticulturist with the Minnesota Extension Service and has taught at the Arboretum for many years)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

## Noncredit Courses

### **PSch 0958 DESIGNING GARDENS AND YARDS WITH THE ENVIRONMENT IN MIND.** No credit, \$92 (age 62, \$82.80).

Your home is a small part of a much larger environmental framework; however, current practices of homebuilding and landscaping firms do not take into account the ecological function of your yard or its connection to the larger environment. Learn to design your home garden and yard as a living ecological entity, capable of having a measurable effect on storm water runoff, wildlife habitat, microclimatic conditions, and other environmental concerns. Explore how changing cultural ideals affect the appearance of American homes and gardens, and how the recent shift toward environmentalism is being reflected in the look of our residential areas. Discuss garden design in light of environmental values and issues. Includes a half-day Saturday field trip (**Oct. 8**) to tour a residential garden in the metro area (**participants provide own transportation and may choose to carpool**). (Limited to 25)

Fall Spec Term, ★Sec 1, W, 6:30-8:30, Sept. 28-Oct. 26 (5 meetings plus field trip), HckrH 100, StP. *No late fee through Sept. 21.*

*(Fred Rozumalski holds degrees in horticulture, ecology, and landscape architecture from the University of Minnesota. He practices ecosystem restoration and sustainable garden design in the Twin Cities with Native Landscape Design and Restoration, Ltd.)*

### **PSch 0960 ACROSS THE SEASONS: DESIGNING GARDENS FOR YEAR-ROUND BEAUTY.** No credit, \$64 (age 62 and Minnesota Horticultural Society members, \$57.60).

"As in all matters relating to design in gardening, the good placing of plants in detail is a matter of knowledge of an artistic character," wrote Gertrude Jekyll in *Color Schemes for Flower Gardens* (1936). For those who want to design their gardens to give beauty throughout the year. Learn how to incorporate design fundamentals with perennials, annuals, small trees, and shrubs. Review the history of gardens as well as current trends in creating the "new American garden." Learn to orchestrate seasonal interest, create effective winter landscapes, and acquire ideas on the uses of garden structures and materials (paths, benches, gates, walls, etc.). For novice and experienced gardeners. (Offered in cooperation with the Minnesota Horticultural Society. Limited to 25)

Spring Spec Term, ★Sec 1, W, 10 a.m.-12, Apr. 5-26 (4 meetings), Center for Northern Gardening, 1755 Prior Ave. N., Falcon Heights. *No late fee through Mar. 29.*

*(Carter Lee Clapsadle received his horticulture/plant biology degree from the University of Minnesota and is the landscape horticulturist for the College of St. Catherine. He is also a partner in the Clapsadle-Baugnet Design Studio, a graphics and garden design firm)*

### **PSch 0961 HOME FRUIT GROWING.** No credit, \$34 plus \$5 special fee. Total \$39 (age 62 and Arboretum members, \$30.60 plus \$5 special fee. Total \$35.60).

Learn how to grow a wide variety of tree- and vine-ripened fruit in your yard, garden, or home orchard. Fruit plantings can be combined into the landscape to provide beauty as well as nutritious, good tasting fruit. Review planting, site selection, choice of varieties, and pest control, with an emphasis on integrated pest management, drip and overhead irrigation, and general cultural care. Discuss methods to overwinter less hardy varieties and proper harvesting, handling, and storage of different types of fruit. (Offered in cooperation with the Minnesota Landscape Arboretum. Admission fee to Arboretum waived with course registration receipt. Limited to 30)

Spring Spec Term, ★Sec 1, Th, 6:30-8:30, May 4 and 11 (2 meetings), Minnesota Landscape Arboretum, Snyder Bldg., Classroom 1, 3675 Arboretum Dr., Chanhassen. *No late fee through Apr. 27.*

*(Peter Moe is the director of operations at the Minnesota Landscape Arboretum. He has grown fruit crops for many years)*

### **PSch 0962 BEAUTY IN THE BLEAK SEASON: LANDSCAPING FOR THE MINNESOTA WINTER.** No credit, \$80 (age 62, \$72).

Winter's stay in Minnesota is long. Traditionally, however, very little attention has been given to landscaping Minnesota home and business grounds specifically to create lovely winter settings. Examine a wide variety of northern winter landscapes, review plant materials that have outstanding winter features, and study plantings and pruning techniques that can transform bleak and barren surroundings into beautiful winter gardens. An half-day Saturday bus tour of selected Twin Cities winter landscapes (**Feb. 18**) concludes the course. (Limited to 35)

Winter Spec Term, ★Sec 1, W, 6:30-8:30, Jan. 25-Feb. 15 (4 meetings plus field trip), HckrH 100, StP Campus. *No late fee through Jan. 18.*

*(Glenn Ray is a consultant in horticultural arts with an emphasis on artistic aspects of gardening. He is the former director of the Minnesota Horticultural Society)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

**PSch 0964 ENVIRONMENTALLY SOUND LAKESHORE HOMELANDSCAPING.** No credit, \$92 (age 62, \$82.80).

The beautiful lakes that lakeshore home owners and north woods cabin owners have built on are slowly degrading. Maintenance practices of lakeshore landscapes greatly influence the health of freshwater lakes and the fish and wildlife species that live in and near them. Learn to create a comfortable lakeshore landscape for people to occupy and that attracts and accommodates wildlife. Explore design ideas for your property that protect lake water quality while reducing maintenance time and expense. Discover how a lakeshore ecosystem functions and how lakeshore homes can sit within a healthy ecosystem rather than replace it. Includes half-day Saturday field trip to a lakeshore habitat (**May 6; participants provide own transportation and may choose to carpool**). (Limited to 25) Spring Spec Term, ★Sec 1, W, 6:30-8:30, Apr.

19-May 17 (5 meetings plus field trip), HckrH 100, StP Campus. *No late fee through Apr. 12.* (*Fred Rozumalski holds degrees in horticulture, ecology, and landscape architecture from the University of Minnesota. He practices ecosystem restoration and sustainable garden design in the Twin Cities with Native Landscape Design and Restoration, Ltd.*)

**PSch 0967 GROWING AND PROPAGATING WILDFLOWERS AND NATIVE PLANTS.** No credit, \$92 (age 62 and Bell Museum members, \$82.80).

Native plants offer a wild beauty to landscaped yards or gardens and are surprisingly easy to cultivate. Fall is the best time to collect seeds, plan the garden, and prepare the soil; seeds should be planted in late winter/early spring. Learn to propagate, grow, and maintain wildflowers, ferns, and woody plants native to this region. Review native plant habitats, natural plant associations, and ways of using native plants. Demonstrations illustrate propagation techniques from seeds and cuttings and how to create optimum growing conditions in sun and shade. One half-day Saturday field trip to a local nursery specializing in wildflowers introduces the diversity of native plants available locally (**Oct. 8; participants provide own transportation and may choose to carpool**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 25) Fall Spec Term, ★Sec 1, W, 6:15-8:15, Sept. 28-Oct. 26 (5 meetings plus 1 field trip), BellMus 3 (use auditorium entrance facing Church Street). *No late fee through Sept. 21.*

(*C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has M.S. degrees in horticulture and landscape architecture and a lifelong interest in the growing and propaga-*

*tion of native plants. His design business, Native Landscape Design and Restoration, Ltd., promotes the integration of natural and cultural systems*)

**PSch 0968 TREE AND SHRUB CARE.** No credit, \$48 (age 62 and Arboretum and Minnesota Horticultural Society members, \$43.20)

Care of woody plants in the landscape is an ongoing process that starts with choosing a healthy tree or shrub at the nursery and continues through mature plant maintenance. Follow this process by reviewing plant selection, site selection, planting and transplanting, fertilization, pruning, and pest management. A half-day Saturday field trip to the Minnesota Landscape Arboretum (**May 6; participants provide own transportation and may choose to carpool**) includes demonstrations of tree and shrub care techniques. (Offered in cooperation with the Minnesota Landscape Arboretum and the Minnesota Horticultural Society. Admission fee to Arboretum waived with course registration receipt. Limited to 20)

Spring Spec Term, ★Sec 1, Th, 6:30-8:30, Apr. 20 and 27 (2 meetings plus field trip), Center for Northern Gardening, 1755 Prior Ave. N., Falcon Heights. *No late fee through Apr. 13.*

(*David Stevenson has a master's degree in natural resource management and is curator of plant collections at the Minnesota Landscape Arboretum*)

**PSch 0969 THE WELL ROUNDED GARDENER: DESIGN AND MAINTENANCE OF INTIMATE GARDEN SPACES.** No credit, \$62 (age 62 and Bell Museum members, \$55.80).

Shady corners, low spots, lakesides, and dry sunny banks are frequently considered problem spots by gardeners, but they can easily be transformed into unique floral and foliage displays. In this course, examine different types of gardens each week: shade and sun gardens; woodland wildflower and prairie gardens; herb, edible flower, and container gardens; and rock, bog, and water gardens. Focus on the practical aspects of gardening, from design through planting and maintenance. Discuss site selection, color schemes, plant selection, and special cultural practices. (Offered in cooperation with the Bell Museum of Natural History. Limited to 25) Winter Spec Term, ★Sec 1, T, 6:15-8:15, Jan.

10-31 (4 meetings), BellMus 3 (use auditorium entrance facing Church Street). *No late fee through Jan. 3.*

(*C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has M.S. degrees in horticulture and landscape architecture and a lifelong interest in the growing and propagation of native plants. His design business, Native Landscape Design and Restoration, Ltd., promotes the integration of natural and cultural systems*)

## Noncredit Courses

**PSch 0970 DESIGNING WITH WILDFLOWERS AND NATIVE PLANTS.** No credit, \$78 (age 62 and Bell Museum members, \$70.20).

Your garden is a community of plants and animals related to the neighborhood and the region. Learn to design your garden to minimize negative environmental impact, enhance wildlife value, and accommodate human needs without sacrificing beauty. Examine nature as a model for garden design and explore color, form, and texture in the natural world. Discuss soil/plant relationships, plant selection, and design examples. Topical issues include the importance of public opinion on garden design choices, weed ordinances, barriers to acceptance, and ideas of sustainability. (Offered in cooperation with the Bell Museum of Natural History. Limited to 25) Winter Spec Term, ★Sec 1, W, 6:15-8:15, Jan.

11-Feb. 8 (5 meetings), BellMus 3 (use auditorium entrance facing Church Street). *No late fee through Jan. 4.*

(See C. Colston Burrell's biography in PSch 0969)

**PSch 0980 SPANISH FOR TRAVELERS.** No credit, \$103 (age 62, \$92.70).

A survival course for those with no previous knowledge of Spanish. It will provide you with the basic Spanish vocabulary necessary for coping with these everyday travel situations: changing money, obtaining train tickets and information, renting hotel rooms, shopping, ordering meals, asking directions, and understanding telephones, post offices, and public transportation systems. Increased knowledge of Spain, Latin America, and Hispanic culture will help you travel more adventurously and more economically. Emphasis will vary from area to area within the Hispanic world. (Limited to 25)

Spring Spec Term, ★Sec 1, T, 6-8, Mar. 28-May 2 (6 meetings), FolH 148. *No late fee through Mar. 21.*

(Eric Narváez is an instructor at Normandale Community College. He holds an M.A. in foreign language education and Spanish, and has lived extensively in the Spanish-speaking world)

**PSch 0981 ITALIAN FOR TRAVELERS.** No credit, \$103 (age 62, \$92.70).

A survival course for those with no previous knowledge of Italian. It will provide you with the basic Italian vocabulary necessary for coping with these everyday travel situations: changing money, obtaining train tickets and information, renting hotel rooms, shopping, ordering meals, asking directions, and understanding telephones, post offices, and public transportation systems. Increased knowledge of Italian and of Italian culture will help you travel more adventurously and more economically. (Limited to 25)

Fall Spec Term, ★Sec 1, W, 7-9, Sept. 28-Nov. 2 (6 meetings), JonesH 10. *No late fee through Sept. 21.*

(Raffaella Anderson is a teaching specialist in the Department of French and Italian at the University of Minnesota)

**PSch 0982 FRENCH FOR TRAVELERS.** No credit, \$103 (age 62, \$92.70).

A survival course for those with no previous knowledge of French. It will provide you with the basic French vocabulary necessary for coping with these everyday travel situations: changing money, obtaining train tickets and information, renting hotel rooms, shopping, ordering meals, asking directions, and understanding telephones, post offices, and public transportation systems. Increased knowledge of French and of French culture will help you travel more adventurously and more economically. (Limited to 25)

Winter Spec Term, ★Sec 1, W, 7-9, Jan. 4-Feb. 8 (6 meetings), FolH 104. *No late fee through Dec. 28.*

(Instructor, to be assigned, will be an advanced graduate student in the Department of French at the University of Minnesota)

**PSch 0983 GERMAN FOR TRAVELERS.** No credit, \$103 (age 62, \$92.70).

A survival course for those with no previous knowledge of German. It will provide you with the basic German vocabulary necessary for coping with these everyday travel situations: changing money, obtaining train tickets and information, renting hotel rooms, shopping, ordering meals, asking directions, and understanding telephones, post offices, and public transportation systems. Increased knowledge of German and of German culture will help you travel more adventurously and more economically. (Limited to 25)

Spring Spec Term, ★Sec 1, W, 7-9, Mar. 29-May 3 (6 meetings), FolH 419. *No late fee through Mar. 22.*

(Instructor, to be assigned, will be an advanced graduate student in the Department of German at the University of Minnesota)

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.



## Compleat Scholar Weekends

Spend uninterrupted time reading a book, discussing a challenging idea, or studying with an expert. Compleat Scholar Weekends (CSW) combine the pleasures of learning with a weekend away from it all. Each weekend is led by a University of Minnesota faculty member or expert, is limited in size to allow for small group conversations, and is held at a comfortable retreat center or lodge with recreational facilities to enjoy during your free time.

### Registration Information

You may register for these weekends at any time before the stated deadline. Registrations are accepted on a first-come, first-served basis. Register in person or by mail in 206 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455; or call (612) 624-8880 for more information.

**Registrations may be charged to Visa, Discover, or MasterCard.**

### CSW 0700 SPRING WILDFLOWER WEEK-END. Apr. 29-30, 1995.

Spend a weekend searching for spring wildflowers in the lush woods and limestone bluffs of southeastern Minnesota. Floral dissection and use of a wildflower guidebook will be the most formal portion of the weekend. Rain or shine, explore the area of Lanesboro, including Beaver Creek Valley State Park, looking for harbingers of spring such as anemones, trillium, and blood root. Stay at Mrs. B's historic (circa 1890) bed and breakfast. Each room is furnished with traditional antiques and has its own bathroom. The weekend begins at 1 p.m. Saturday and concludes at 4 p.m. Sunday. There is a pre-trip lecture on Wednesday, Apr. 12, at 6 p.m. in Nolte Center Library. (Limited to 18)

**Registration is now open; deadline for registration is Mar. 29.**

Spring Spec Term, ★Sec 1, no credit, \$175 price includes one night lodging (double occupancy), three meals, and a pre-trip lecture.

*(Group leader is Roberta Sladky, former director of the University of Minnesota College of Biological Sciences greenhouse and currently the manager of Como Park Conservatory in St. Paul. She is a wildflower enthusiast and an experienced group leader)*

### CSW 0701 THE ANATOMY OF A TROUT STREAM. May 20-21, 1995.

Put on the hip boots, start wading and turning over rocks, and join aquatic entomologist Dean Hansen for an exploration into the basics of a trout stream ecosystem. Learn about water currents and temperature cycles, stream plants, and the myriad varieties of insects and crustaceans in Knapp Creek, a small "user-friendly" brook trout stream. Explore mayfly hatches, invertebrate drift, feeding strategies, and energy flows. Passive learners beware—you'll be getting your hands wet as you are introduced to clinging mayfly nymphs or trying your hand at simple underwater photomacrography. Don't worry about learning Latin names or memorizing minutia—look instead at the big picture of what makes a stream tick. Weekend includes free time to do fly angling. Stay at Seven Pines Lodge, a historic log retreat secluded in a pine forest wilderness and nestled on the banks of Knapp Creek. Located just over an hour's drive from the Twin Cities in Lewis, Wisconsin, Seven Pines was founded in 1903 as a family retreat by Charles Lewis, a Minneapolis grain broker. It is now on the National Register of Historic Places. The weekend begins at 9 a.m. on Saturday and concludes at 4 p.m. on Sunday. There is a pre-trip lecture on Monday, May 1, at 6 p.m. in Nolte Center Library. (Limited to 18)

**Registration is now open; deadline for registration is Apr. 20.**

Spring Spec Term, ★Sec 1, no credit, \$180 price includes one night lodging (double occupancy), four meals, and a pre-trip lecture.

*(Dean C. Hansen earned a Ph.D. in entomology at the University of Minnesota. He has extensive teaching experience and serves as a resource consultant for Bright Waters Fishing Shop, conducting fly-fishing trips to Idaho, Montana, and Wyoming)*

## Noncredit Courses

### **CSW 0702 WILDFLOWERS OF THE NORTH SHORE.** June 16-18, 1995.

Enjoy the wildflowers of the boreal forest along Minnesota's North Shore. Look for twin flower, ladyslipper, bunchberry, and the many members of the blueberry family along woodland trails of Judge C. R. Magney State Park and the coastal rocks of Lake Superior. Accommodations are at the picturesque Naniboujou Lodge on the shore of Lake Superior north of Grand Marais. The weekend begins Friday evening and concludes at noon on Sunday. There is a pre-trip lecture on Wednesday, May 31, at 6 p.m. in Nolte Center Library. (Limited to 20)

**Registration is now open; deadline for registration is May 16.**

Spring Spec Term, ★Sec 1, no credit, \$210 price includes two nights' lodging (double occupancy), four meals, and a pre-trip lecture.

*(Group leader is Roberta Sladky, former director of the University of Minnesota College of Biological Sciences greenhouse and currently the manager of Como Park Conservatory in St. Paul. She is a wildflower enthusiast and an experienced group leader)*

### **CSW 0703 WINTER WILDLIFE.** Feb. 17-19, 1995.

During this extended weekend, enjoy the northern beauty of Itasca State Park by studying adaptations of plants and animals to the Minnesota winter climate. Strap on the snowshoes for two half-day nature hikes to look for examples of wildlife activity and to discuss their strategies for survival. Use the afternoons for personal interests such as cross-country skiing or to carry out optional mini-experiments suggested by the instructor. The weekend begins Friday evening and concludes at noon on Sunday. The pre-trip meeting (Wednesday, Jan. 18, 6 p.m., St. Paul Student Center 202) includes an introductory lecture and time to plan transportation, food, and lodging arrangements at the Lake Itasca Forestry and Biological Station. This year's course also includes a half-day field trip to Cedar Creek Natural History Area (**Saturday, Feb. 4; participants provide own transportation and may choose to carpool.**) (Limited to 17)

**Registration is now open; deadline for registration is Jan. 17.**

Winter Spec Term, ★Sec 1, no credit, \$115 price includes two nights' lodging (double occupancy), a pre-trip lecture, and a half-day field trip.

*(Jake Miller has a Ph.D. from the Department of Ecology, Evolution, and Behavior at the University of Minnesota. He is a field biologist with an extensive teaching background and research experience focusing on bird behavior)*

### **CSW 0800 LIFE STORIES: A WORKSHOP, RETREAT, AND NARRATIVE ADVENTURE.** Mar. 17-19, 1995.

Since time began the questions have remained unchanged: Who am I? How did I get here? What is the meaning of my life? What do I want? Central to meaning-making and identity is narrative. We grew up reading, hearing, and viewing stories; ultimately, we create our lives in accordance with story structure, unwitting slaves to its design. Life Stories, by viewing the individual as a work of art in progress, provides a way for the student to read and perhaps rewrite his or her life script. Join with others at Wilder Forest, a retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities, to engage in the sacred business of exploring your lives and beliefs through narrative, discussion, reflection, and writing. Discuss famous autobiographies and memoirs (Ben Franklin, Vivian Gornick, Madeline Grumet) and work in mythology (Joseph Campbell, Pamela Berger, Carl Jung) to discover the relationship between artistic framing and reality. Reflect on your own life stories and discover how narratives have determined your beliefs and attitudes. Learn to become a powerful teller of your own future. Lecture, discussion, and activities are interspersed with free time to enjoy recreational facilities or just to relax in the beautiful woodland setting. Weekend begins Friday evening and concludes Sunday at noon. There is a pre-trip lecture on Tuesday, Feb. 28, at 6 p.m. in Nolte Center Library. (Limited to 16)

**Registration is now open; deadline for registration is Feb. 17.**

Winter Spec Term, ★Sec 1, no credit, \$212 price includes two nights' lodging (double occupancy), four meals, and a pre-trip lecture.

*(Todd Finley received his M.A. in creative writing from the University of Minnesota and is currently enrolled in the English education Ph.D. program. His dissertation focuses on narrative and reflection)*

**CSW 0801 MID-LIFE CAREER AUDIT: DECIDING WHAT TO DO WITH THE REST OF YOUR LIFE.** Feb. 3-5, 1995.

Are you at that stage of life when you would like to explore new options? Are you thinking about changing career paths? This weekend seminar is designed to help you re-evaluate your adult interests, values, and personal characteristics, and then apply this information to increase job satisfaction. Course includes a standardized assessment approach to help heighten self-knowledge and to develop an accurate picture of your work self. Complete an interest inventory, the Myers-Briggs Type Indicator, and other assessment tools. Interpret these inventories and apply this "new" knowledge to your own career development. Finally, develop an action plan for the next stage of your life. This weekend will be held at Wilder Forest, a meeting and retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. Lecture and discussion are interspersed with free time to enjoy recreational facilities or just to relax in the beautiful woodland setting. The weekend begins Friday evening and concludes Sunday at noon. There is a pre-trip lecture on Wednesday, Jan. 25, at 6 p.m. in Nolte Center Library. (Limited to 16)

**Registration is now open; deadline for registration is Jan. 3.**

Winter Spec Term, ★Sec 1, no credit, \$225 price plus \$17 special fee. Total of \$242 includes two nights' lodging (double occupancy), four meals, and a pre-trip lecture.

*(Kevin J. Nutter, Ph.D., is the program director of the Career Resource Center at the University of Minnesota. Alisa Eland, associate counselor in International Student and Scholar Services at the University, has an M.A. in counseling and student personnel psychology. She has extensive experience in career counseling)*

**CSW 0900 MENOPAUSE—WOMAN'S JOURNEY.** Apr. 7-9, 1995.

Explore the experience and meaning of menopause from a variety of perspectives: biology, psychology, culture, history, spiritual, and political. Designed for women age 35 and older, this weekend will be held at Wilder Forest, a retreat center on 980 acres of forests and lakes about an hour's drive from the Twin Cities. Read *The Silent Passage* by Gail Sheehy and selections from *Menopause: A Mid-Life Passage*, edited by Joan C. Callahan. Lecture and discussion are interspersed with free time to

enjoy recreational facilities or just to relax in the beautiful woodland setting. Weekend begins Friday evening and concludes Sunday at noon. There is a pre-trip lecture on Wednesday, Mar. 29, in Nolte Center Library. (Limited to 16)

**Registration is now open; deadline for registration is Mar. 7.**

Spring Spec Term, ★Sec 1, no credit, \$212 price includes two nights' lodging (double occupancy), four meals, and a pre-trip lecture.

*(Jacquelyn Zita, associate professor in the Department of Women's Studies and the Center for Advanced Feminist Studies at the University of Minnesota, is the author of Heresy and the Body: The Rhetoric of Menopause. She teaches Women and Biology, the Politics of Women's Health, and Sexuality and Self-Image at the University)*

★ Indicates limited-enrollment section. See abbreviations and symbols, page 54.

# Research Explorations (REX)

## What is the Research Explorations Program?

Research Explorations (REX) offers the opportunity for public participation in field and laboratory research projects of University of Minnesota faculty.

Research projects for 1994-95 have been scheduled throughout Minnesota as well as at other U.S. and international sites. Local projects deal with natural resources, social and health issues, agriculture, wildlife management, and other topics. One REX project takes place in the Dominican Republic (fall quarter) and another is scheduled for next summer in Germany.

REX participants share in the work load of the research team's day. Under the guidance of the project leader and staff, REX volunteers may be asked to hike, boat, climb, dig, or engage in other physical activities. Volunteers also may assist in data collection, observation, photography, sampling, questionnaires, interviews, and coding.

Volunteers enjoy experiential learning while advancing important research and expanding intellectual horizons.

### Application Process

Volunteers apply for a project of choice. Applications are screened, and the project leader has final approval. Many REX projects can accommodate only a limited enrollment. **Persons interested in participating in the REX program should call (612) 624-5092 for complete information and an application form.**

Although applications are accepted on a continuous basis, preference is given to those received at least four weeks prior to the start of desired participation. Applications received after the preferential due date may experience delayed responses. Due dates for 1994-95 are:

Fall quarter:	Aug. 29, 1994
Winter quarter:	Dec. 6, 1994
Spring quarter:	Feb. 27, 1995

### Qualifications for REX Participation

The most important qualifications required of REX participants are commitment, common sense, and adaptability to different situations and cultures.

Many projects require such general skills as observing, interviewing, and record keeping. Especially for field projects, camping or wilderness experience is also beneficial. Some projects do need more specific skills like training in electronics, computers, or photography.

### Special Fee

All REX participants pay a \$150 special fee that is applied to administrative costs; however, costs of field and laboratory expenses, compilation of research finds, and program planning and implementation *may* also be added to the special fee. Projects have different arrangements regarding accommodations, meals, ground transportation, and clothing and equipment needs, so special fee amounts vary.

Because REX participants are contributing money and time to research sponsored by the University of Minnesota, a tax-exempt organization, a special fee *may* qualify as a tax-deductible contribution. Participants are advised to seek qualified advice.

REX volunteers contribute their share of the cost of participating in the project and are responsible for travel expenses. Special fees do not cover airfare, costs to and from the assembly site, visas, passports, inoculations, medical or other emergencies, or other personal expenses.

### Cancellation and Refunds

Payment of the special fee is nonrefundable unless the research project is canceled by the REX program or the applicant is not accepted as a project participant. If a volunteer withdraws from a project 30 days or less prior to its start, the balance of special fees (if any) will not be refunded unless a replacement can be found. The research project depends on the financial contribution of participants' special fees for advance costs. No refunds or replacements can be made once the laboratory or field project has begun.

### Orientation

Prior to participation, volunteers receive necessary information regarding project objectives, site conditions, laboratory and field activities and techniques, clothing and equipment needs, and health and entry requirements (for international projects). Direction and learning continue at the research site.

## Project Expectations

The project leader is responsible for the involvement of the volunteer in the laboratory/field work of the research project. The project leader and REX staff reserve the right to end participation of any volunteer and require that the person leave the research site if he or she is unwilling to do the work, is unadaptable to the field conditions or to the research team, or does not adhere to University of Minnesota regulations and policies.

In some countries, the research team's presence requires governmental approval. Thus, it is crucial to respect the customs and laws of the host country. Though advance planning is always conducted, sometimes unforeseen situations do arise. Understanding, adaptability, and cooperation are therefore essential for all research participants.

## Academic Credit

Academic credit is available for participating in most REX projects. Inquire about earning credit when calling for application materials. Tuition paid for academic credit is **not** deductible as a charitable donation.

## REX Projects for 1994-95

### Science, Engineering, and Technology

**REX 0104 MUSHROOM DIVERSITY IN MINNESOTA OLD-GROWTH FORESTS.** This project will characterize a select group of mushrooms (*ectotrophic mycorrhizal* species) to obtain data on fungal biodiversity in Minnesota old-growth and mature forests. Required participant qualifications: basic biology and introductory botany experience, and hiking ability. Experience with mushroom collection and identification would also be helpful.

**REX 0108 EFFECTS OF SEDIMENT ON STREAMS.** Researchers studying the effects of sediment (clay) on physical, chemical, and biological processes in streams will dose different amounts of clay into artificial streams at the Monticello Ecological Research Station and measure its effects on light penetration, water chemistry, algae, invertebrates, and fish. Experience using a dissecting microscope and completion of basic chemistry courses would be helpful.

**REX 0112 MANAGEMENT AND GENETIC PRACTICES THAT INFLUENCE SHEEP PRODUCTION.** The objective of this project is to provide the participant with hands-on learning opportunities using sheep as an animal model. Activities include birthing, identification, shearing, feeding, record evaluation, and experimental data collection. Required participant qualifications: a willingness to learn, keen observation skills, ability to work with peers, and a respect for animals and their welfare.

**REX 0119 NEUROBIOLOGY OF PAIN AND OPIATES.** In order to develop analgesic agents without addictive properties, this research project employs a variety of techniques to determine the chemistry, anatomy, and pharmacology of pain transmission. Required participant qualifications: general knowledge of biology or biochemistry and ability to work with lab animals.

**REX 0121 IMPACT OF AGRICULTURAL CHEMICALS ON SURFACE AND GROUND-WATER.** Developed in conjunction with the Midwest Initiative on Water Quality, this ongoing project is part of a national program addressing the impact of agriculture on water quality. Required participant qualification: active interest in the research at hand.

**REX 0123 THE INFLUENCE OF NEUROTENSIN ON GASTRIC FUNCTION.** After surgically implanting a strain-gauge transducer in domestic turkeys, neurotensin is infused and intestinal motility monitored to determine the effects of neurotensin on intestinal function. Required participant qualifications: organizational ability, dexterity, and a willingness to work.

**REX 0130 STRESS EFFECTS ON LIVING PLANT CELLS.** A study of varietal differences in plant cell-membrane qualities based on resistance to water and salt stress is the focus of this project. Some laboratory and microscopy experience would be helpful skills for a research volunteer.

**REX 0139 PAPER RECYCLING TECHNOLOGY.** A Department of Forest Products research program on the physical changes in paper properties caused by paper recycling and the development of technology to reduce the adverse effects of recycling on paper quality. Participants with arithmetic facility and some lab or computer experience would be helpful.

**REX 0142 EVALUATING GRAPES FOR GROWING IN MINNESOTA.** REX volunteers participate in this project to learn about the feasibility and difficulties of growing grapes in a cold climate. Required participant qualification: a willingness to work outdoors under most conditions.

**REX 0152 FISH AND MUSSELS: RESEARCH TOWARD CONSERVATION.** Most freshwater mussels, such as the purple wartyback (*Cyclonaias tuberculata*), require a host organism to complete their life cycle. Effective rehabilitation of the purple wartyback includes identifying host organisms. Laboratory tests will be conducted to determine the organism(s) capable of serving as host(s) for this mussel. Required participant qualifications: enthusiasm and willingness to learn. Knowledge of aquarium maintenance, fishnet handling, and familiarity with a dissecting microscope are all skills that would be helpful, but they can be learned on the project.

**REX 0153 FUNCTION OF MALE REPRODUCTIVE EFFORT IN MONARCH BUTTERFLIES.** A REX volunteer will help rear and maintain monarch larvae and butterflies, set up and record matings, count eggs, and assist with electrophoresis of eggs as researchers examine the large material investment in mating made by male butterflies. Required participant qualification: a willingness to handle all life stages of butterflies. In addition, some knowledge of genetics and Mendelian inheritance would be helpful.

**REX 0162 REGULATION OF SMALL INTESTINAL REFLUXES IN TURKEYS.** Researchers believe that small intestinal reflux (SIR) activity, which is unique to birds, increases with increased lipid in the diet. Their goal is to determine the level of SIR activity in turkeys on normal diets and diets with increasing levels of lipid. Required participant qualifications: basic animal biology knowledge and manual dexterity. Basic chemistry and physiology experience would also be helpful.

**REX 0429 PROTEIN ENGINEERING OF FATTY ACID BINDING PROTEINS.** The goal of this project is to take an existing protein and modify it using a combination of genetic engineering and chemical methods to produce a new protein that will catalyze a new chemical reaction. Required participant qualifications: a desire to learn and work hard. The research team is willing to train, but laboratory experience, especially related to biochemistry, would be helpful.

**REX 0436 STARCH-BASED PLASTICS.** This project involves making useful plastics from agricultural sources such as starch or protein. The objectives are to process these materials and test their properties. Required participant qualifications: some understanding of chemistry and physics with engineering inclinations.

**REX 0438 STRUCTURE AND PROTEIN ENGINEERING.** The Ohlendorf lab studies the structure of large molecules like DNA and proteins. Knowledge of these structures is used to design better proteins and drugs. Current research is on toxic shock protein, dioxygenases, DNA binding proteins, and other proteins imported in cystic fibrosis. Required participant qualifications: a basic understanding of chemistry and biology.

**REX 0451 COMPUTER SIMULATIONS OF SOLIDS AND LIQUIDS.** Using computers to describe solids and liquids at the atomic level, graphic images of the motion of atoms can be obtained. Results provide new research insights into properties of solids and liquids and are also good teaching tools. Required participant qualifications: first-year college calculus-based physics and some knowledge of FORTRAN.

**REX 0470 PHOTOREFLECTANCE STUDIES OF SEMICONDUCTOR SUBSTRATES.** This project involves developing photorefectance as a tool to measure the electric-field profile of semiconductor substrates such as GaAs. Required participant qualifications: results-oriented attitude, willing to train and work on supercomputers, FORTRAN background, and familiarity with UNIX operating system on SUN work stations. Experience in physics or electrical engineering with semiconductor materials would be very helpful.

## Social Sciences

*Archaeology, Area Studies, Economics, Psychology, Geography*

**REX 0214 POTTERY EXCAVATED IN AKHMIM, EGYPT: ROMAN TRADITIONS IN THE ISLAMIC WORLD.** A general discussion of the Akhmim, Egypt, excavation, including the pottery, is in the press. REX volunteers help researchers prepare catalogs of the various Byzantine and Islamic pottery types brought back to the University for study. Familiarity with IBM computers, statistics, and Harvard Graphics would be helpful skills for a research volunteer.

**REX 0234 MISSIONARIES AND THE CONQUEST OF HONDURAN INDIANS.** Assistance is needed to transcribe and translate 16th- and 17th-century Spanish documents about early colonial life of the Honduran Indians and the Mercedarian Order mission system. Required participant qualification: fluency in Spanish.

**REX 0235 THE EVOLUTION OF THE SPANISH PRESS UNDER DEMOCRACY.** Assisting in the organization of a recently acquired collection of newspaper clippings and popular magazines published in Spain in the 1970s and 1980s, a REX volunteer can learn about politics, culture, society, and religion in modern Spain as it developed into a modern democracy after the death of Generalissimo Francisco Franco in 1975. Required participant qualification: reading knowledge of Spanish. Organization and WordPerfect software skills would also be helpful.

**REX 0241 CULTURAL DIVERSITY IN THE WORKPLACE.** Researchers look at local and national organizations to determine how they are assessing their future needs in relation to cultural diversity. Required participant qualifications: good communication and library research skills. Experience in corporate settings or the public sector other than the University is preferred. Knowledge of other languages is also desirable.

**REX 0245 ATTITUDES TOWARD AND USES OF SEXUALLY EXPLICIT MATERIALS IN THE UNITED STATES, CZECHOSLOVAKIA, THE NETHERLANDS, AND THE UNITED KINGDOM.** Researchers compare cross-cultural attitudes of (1) health and mental health professionals and (2) clients seeking help for sexual problems toward sexually explicit materials of various kinds. Required participant qualifications: detail orientation, willingness to help recruit potential subjects, and ability to work collaboratively with a research team.

**REX 0246 ASSESSMENT PROTOCOL FOR EVALUATION OF THE SEVERITY OF SEXUAL ABUSE.** The goal of this project which is the development of an assessment tool for mental health clinicians to use in evaluating clients with a history of sexual abuse. Required participant qualifications: attention to detail; good reading, comprehension, and analytical skills; and a willingness to help develop a project that is just beginning and not completely focused. Clinical experience would also be helpful.

**REX 0268 IMPACT OF PERSUASIVE INFORMATION ON AIDS PREVENTION.** Participants help analyze AIDS messages in the mass media and then attempt to predict trends of AIDS hotline calls, HIV infection, and public opinion. Required participant qualifications: good understanding of IBM-compatible computers and word processing. In addition, comfort with mathematics and statistics would be helpful.

**REX 0271 CPR FOR FAMILIES.** This project will examine the efficacy of a videotape produced to help families adjust to living with heart disease. Required participant qualifications: good communication skills and ability to work with patients, family, and staff. Knowledge of CPR and heart disease would also be helpful.

**REX 0272 VISUAL CONTROL OF POSTURE IN THE ELDERLY.** Promoting the reality that one can live in control of one's daily life and daily activities as one advances in age is the premise of this project. Among other issues, researchers seek to better understand the role of vision in the control of upright posture, both while standing and moving. Required participant qualification: good communication skills. Some experience in general physiology, biology, or physics would also be helpful.

**REX 0273 YOUTH DEVELOPMENT STUDY.** A longitudinal study of 1,000 St. Paul youths examining the developmental and mental health implications of working during high school. Along with questions about work, the survey taps other related aspects of adolescent life, including family, peer, and school experiences. Required participant qualifications: good communication skills and flexible hours. In addition, knowledge of dBase IV and WordPerfect software would be helpful.

**REX 0274 GUN VIOLENCE YOUTH INTERVENTION PROJECT.** With the goal of decreasing youth involvement in firearm violence and/or improving the realism of their attitudes toward such violence, this research project works with small groups of school-age adolescents to decrease gun violence by providing a more realistic picture through the provision of near- or real-life experiences with the consequences of gun violence. Required participant qualification: ability to work with urban students of high school age. Familiarity with statistics and research tool development, group facilitator skills, and video production experience would also be helpful.

**REX 0260 IMPACT OF FAMILY SEXUAL ABUSE TREATMENT ON FAMILY FUNCTIONING.** Working with project staff, REX volunteers will accompany interviewers to meetings with family members at homes or agencies to evaluate the impact of child sexual abuse treatment on family functioning. Required participant qualifications: interpersonal skills. Basic computer/keyboard skills would also be helpful (speed not important).

**REX 0261 RELATIONSHIPS IN ADOPTIVE FAMILIES.** Examine variations in openness in adoptive family relationships and the consequences of contact between the adoptive and birth parents for the adopted child, the adoptive parents, and the birth mother. Required participant qualifications: interest in research, ability to work both independently and with small groups, and a willingness to participate in a variety of project roles.

**REX 0265 COPING WITH CHRONIC ILLNESSES.** Participants help identify psychosocial predictors of psychological adjustment and treatment compliance among kidney transplant recipients including coping strategies, control beliefs, and social support. Required participant qualifications: good interpersonal, interviewing, and organizational skills.

**REX 0267 ELDER ROLE MODELS IN LONG-TERM CARE.** Through analysis of intensive life-history interviews, this project seeks to understand the experience of successful aging, particularly among fragile elders. Required participant qualification: computer literacy.

**REX 0269 LIFESTYLE INTERVENTION TO ENHANCE QUALITY OF LIFE OF PERSONS WITH MULTIPLE SCLEROSIS.** An intervention designed to enhance health and quality of life of multiple sclerosis (MS) patients will be piloted and evaluated in this project. Required participant qualifications: good communication and organization skills. An understanding of MS would also be helpful.

**REX 0407 HISTORICAL ATLAS OF THE ST. PAUL CENTRAL BUSINESS DISTRICT.** Using geographic information system (GIS) technology, volunteers assist in the creation of a series of maps showing the development of the central business district of St. Paul. Required participant qualification: ability to work with systematic records. In addition, computer knowledge would be helpful.

---

## Medicine

**REX 0301 NUTRITION AND ORAL HEALTH OF THE ELDERLY.** By interviewing nursing home residents and working with nurses, nutritionists, medical records, and other sources, researchers gather data to understand the connection between good nutrition and good oral health. There are no required qualifications for participation.

**REX 0302 BETTER HEALTH AT LOWER COST.** This four-year research project attempts to improve the quality of life for frail elderly people and reduce their need for expensive care in hospitals and nursing homes. Required participant qualifications: good interpersonal and communication skills.

**REX 0303 TEMPORAL AND SPATIAL EXPRESSION OF GROWTH FACTORS IN REGENERATION.** Relying on in vivo experiments conducted on a rat model, this project seeks to identify cell dialogs/interactions leading to regeneration rather than scarring after injury. Required participant qualifications: knowledge of basic sterile techniques, practical experience in preparing basic reagents (e.g., buffers), and familiarity with use of compound microscope.

**REX 0305 NEURAL MECHANISMS OF HYPERALGESIA.** This research team is studying the spinal neural mechanisms that contribute to nociception in rats. The goal is to determine whether excitatory amino acids or opiates can modulate hyperalgesia produced by intraplantar injection of capsaicin. No specific skills are required of participants, but some experience in life sciences would be helpful.

**REX 0310 CARDIOVASCULAR DISEASE IN DIABETES.** This project tracks 242 patients evaluated at the University of Minnesota for possible kidney transplantation to monitor their long-term outcome with respect to heart disease. Required participant qualifications: telephone skills and empathy for chronically ill adults.

**REX 0312 PHASE PROPERTIES OF SKIN LIPIDS.** The goal of the project is to characterize the phase properties of model lipids of the skin in order to understand cohesion and permeability. No specific skills are required of participants, but a chemistry background or laboratory experience would be helpful.



**REX 0316 THE IMMUNOLOGY OF MULTIPLE SCLEROSIS.** Researchers hope to identify the antigens involved in stimulating the immune systems of persons with multiple sclerosis. Required participant qualifications: laboratory skills such as using pipettes and balances, good record keeping, and attention to detail. Also, knowledge of sterile techniques, tissue cultures, and electrophoresis would be helpful.

**REX 0317 AUTOIMMUNE INNER EAR DISEASE.** Researchers' goal is to determine if some forms of inner ear disease are autoimmune in nature, that is, if they are caused by a self-directed attack on the ear by their immune system. Required participant qualifications: interest in medical research and comfortableness using animals in research. Experience in chemistry and histology would also be helpful.

**REX 0318 PERCEPTIONS OF FACTORS THAT CAUSE SUCCESS OR FAILURE IN WEIGHT REDUCTION.** It might be that weight loss (plus exercise) could drastically reduce many of the most common and expensive diseases, but there is no agreement on how to prove this. This study attempts to identify the weight reduction measures employed by targeted populations that have succeeded (or failed). Required participant qualifications: interviewing skills and some basic knowledge of weight-control physiology.

**REX 0324 ALCOHOL AND DEGENERATIVE DISEASES.** This study seeks to develop lab tests for quantification of long-term alcohol consumption. Required participant qualifications: familiarity with basic laboratory procedures and equipment.

**REX 0334 THE INFLUENCE OF ALUMINUM TOXICITY UPON EMBRYONIC BONE DEVELOPMENT.** This project examines the influence of aluminum upon local versus systemic factors that are known to be important in embryonic bone development, using the chick embryo as the experimental model. Required participant qualifications: completion of basic course work in organic and inorganic chemistry plus one to two years course work in the biological sciences, including cell biology.

**REX 0335 QUALITY ASSURANCE/PATIENT SAFETY MONITORING.** This study attempts to assess and follow up on a variety of surgical patient parameters (e.g., pulse oximetry, vitals, intra- and post-operative complications) in order to improve quality of care and patient safety. Required participant qualifications: experience with statistics and computers.

**REX 0337 DETERMINATION OF INCOMPETENCY.** This project seeks to determine the criteria and events surrounding decision making when an elderly person can no longer care for his or her person and possessions. Required qualifications of participant depend on area of study and interest.

**REX 0339 RETROSPECTIVE ANALYSIS OF PAIN DATA.** Researchers are trying to learn more about the validity of using epidural steroids for lower back pain through the application of statistical analysis. REX participants who have experience using statistics and computers would be helpful.

**REX 0344 BIOMEDICAL RESEARCH ON DISEASES OF MUSCLE.** Working closely with the project leader, graduate students, and research staff, volunteers join in research related to muscle diseases (myotonia, periodic paralyses, and malignant hyperthermia) and general skeletal muscle physiology. Required participant qualifications: an interest in science, patience, and comfortableness using animals for research.

**REX 0348 INFECTION AND IMMUNITY.** The goal of these projects in human and veterinary medicine is to understand, on a cellular and molecular level, those aspects of immunity that are important for recovery from specific infections. Required participant qualifications: self-motivation, critical-thinking skills, and basic knowledge of biological sciences.

**REX 0351 ANALYZING HEART IMAGES OBTAINED WITH MAGNETIC RESONANCE IMAGING.** Analyzing magnetic resonance images with appropriate software will give a clear understanding about the functional and morphologic status of the heart. Required participant qualifications: interest in medical science and in analyzing scientific and display data in an appropriate fashion, and familiarity using software programs (e.g., Excel) on the Macintosh or IBM. Computer-programming skills (SUN) would also be helpful.

**REX 0352 NEUROIMAGING STUDIES OF BRAIN FUNCTION AND DYSFUNCTION.** This project's aim is to identify brain areas involved in specific cognitive functions and possible sites of dysfunction in psychiatric disorders. While no specific skills are required of volunteers, a willingness to work hard and as part of a team, some knowledge of computers (Macintosh or IBM), communication skills, and a general background in biology or physical sciences would be beneficial.

## Noncredit Courses

**REX 0360 REGIONAL RURAL INJURY STUDY.** Funded by the Centers for Disease Control, the primary purpose of this project is to identify the magnitude and potential risk factors of the injury problem in rural populations in a five-state region representative of the major types of agricultural production in the United States. Required participant qualifications: excellent organizational and writing skills plus basic math abilities.

### Education

**REX 0612 ALZHEIMER'S DISEASE CAREGIVER TRAINING PROGRAM.** The aim of this project is to develop an educational program with formal classes and a structured practicum for spouses of individuals with early or moderate Alzheimer's Disease. Required participant qualification: ability to develop learning materials, especially for adult learners.

**REX 0614 CITIZENSHIP IN THE CLASSROOM.** Participants will assess how students and teachers view and understand important concepts in citizenship such as tolerance and patriotism. Focus is on how teachers of social studies perceive their roles as teachers and as citizens. Required participant qualifications: strong language, writing, and interpersonal skills.

### Music, Art, and Language

**REX 0803 CITYSONGS: A TWIN CITIES DEMONSTRATION PROJECT IN MUSIC.** CitySongs seeks to promote healthy psychosocial development among diverse youth via popular music participation. Required participant qualifications: ability to type field notes and work with culturally diverse young people and adults.

**REX 0804 2D ON 3D.** This project deals with flat or two-dimensional images on three-dimensional form. The images change proportion as the viewer changes position. Required participant qualification: the skills of a beginning artist (e.g., simple flat painting).

**REX 0902 THE ORIGIN OF ENGLISH WORDS.** This project is part of a University of Minnesota effort to compile a new etymological dictionary of English. Participants should have an interest in the research topic.

**REX 0904 THE GERMAN LANGUAGE IN MINNESOTA.** In an ongoing project, the speech of Minnesota natives who speak German is recorded for a linguistic analysis of the changes that have taken place in the language since it was imported into Minnesota. Required participant qualification: knowledge of German.

### *Sampling of tentative projects for summer 1995*

**REX 0107** Home Lawn Fertilization in the Twin Cities

**REX 0109** Forest Biodiversity and Succession

**REX 0144** Breeding and Producing Fruit Crops in Minnesota

**REX 0147** Reducing the Need for Pesticides: Development of Insect- and Disease-Resistant Vegetables

**REX 0151** Minnesota Forest Bird Diversity Initiative.

**REX 0200** An Interpretative History of Duluth

**REX 0209** Kelheim: Origins of an Iron Age City

**REX 0252** Source, Presentation, and Retail Pricing of Fresh Vegetables

**REX 0444** Precast Concrete Members Subjected to Earthquake Loading

**REX 0453** Design of Computer-Aided Instruction in Molecular Behavior

**REX 0609** Decision Case Study for Environmental Education

**REX 0906** Language and Literacy Development of American Indian First-Grade Students

---

# General Information

Contents	Page
Faculty .....	453
Funding of Extension Classes .....	453
Student services fee .....	453
Campus activities, services, and facilities .....	453
Student board (Extension Classes) .....	459
Student representation, University of Minnesota senate .....	459

---

## Faculty

The teaching staff in Extension Classes consists primarily of University of Minnesota faculty. In some instances, faculty members from other educational institutions and specialists in professional and business fields have been selected to teach courses. All Extension Classes instructors are approved by the academic departments through which classes are offered.

**Additional staff**—Faculty other than those listed under each department may be assigned to teach certain courses.

**CEE Distinguished Teaching Awards**—Students and staff are invited to make nominations for the CEE Distinguished Teaching Award. The award is given annually to teachers providing credit and noncredit instruction offered or cosponsored by Continuing Education and Extension. Nomination forms are available from the Dean's Office (624-2517). Nominations are due by Mar. 15; awards are made in the fall.

## Funding of the Extension Classes program

While the state legislature has begun to help fund Continuing Education and Extension, the Extension Classes program—including instructional, administrative and staff costs, and related costs—is supported mainly by students' tuition. Therefore, depending on overall enrollments, program adjustments are sometimes necessary, as is the cancellation of classes in which enrollment is low.

## Student services fee

Continuing Education and Extension students registered for one credit or more may elect to pay the student services fee if they wish to use the services

covered by the fee. Students may obtain a written fee statement at the Student Relations Unit, 150 Williamson Hall, on the Minneapolis campus. If you have questions, contact the Student Relations Unit (625-5333).

Two student services (health service coverage and use of recreational facilities) may be elected and paid separately; see descriptions below.

If you are interested in hospitalization insurance, contact Boynton Health Service, 624-0627.

## Campus activities, services and facilities

### *Art rentals, Frederick R. Weisman Art Museum (625-9495)*

The Frederick R. Weisman Art Museum (formerly the University Art Museum) maintains a rental collection of framed original prints, watercolors, photographs, and drawings. Extension students with a University identification card and current fee statement may rent art works for use in the home or present place of residence. Art rental is located in the museum store at the museum's main entrance off the southeast corner of the pedestrian level of the Washington Avenue Bridge.

Hours of the new Frederick R. Weisman Art Museum are:

Monday through Friday	11 a.m. to 5 p.m.
Weekends	12 noon to 5 p.m.

All exhibitions are free and open to the public. Posters, catalogs, t-shirts, handmade jewelry, cards, and an array of unique gift items are available in the museum store. Hourly parking is available in the museum ramp. Call 625-9494 for more information.

---

## General Information

---

### *Recreational Sports Facilities and Programs*

An Extension student may use the Recreational Sports facilities and programs by purchasing a Participation Permit each term at one of the Recreational Sports offices: University Recreation Center (Minneapolis campus) or 104 St. Paul Gymnasium (St. Paul). Call 625-6800 or 625-8283 for the latest fee amounts. Proof of registration is necessary for purchase (see below).

Eligible students must be enrolled through Extension for six or more credits for that quarter and be admitted to a degree-granting program at the University. Students must present their paid fee statement (confirmation of registration) and proof of admission to a degree program, available from the CEE Counseling Office, 314 Nolte Center, 625-2500.

Students who cancel classes must surrender their permit, which becomes invalid immediately upon cancellation.

Students must present the Participation Permit each time they use the facilities. The sports facilities include swimming pools, fitness centers, handball/racquetball courts, squash courts, tennis courts, gymnasiums (basketball, volleyball, badminton) sports fields, etc.

### *Athletic tickets (624-8080)*

University Extension students taking credit classes are eligible to purchase student season athletic tickets for men's intercollegiate athletic events (credit requirement is subject to change).

Reserved tickets at reduced rates with specific seat assignments are available for football beginning in August. Hockey season tickets will go on sale starting in September; reduced-rate reserved season tickets will be available. Basketball season tickets will be reduced-rate reserved seating; tickets go on sale late in September.

For details on purchasing student tickets, please call the Athletic Ticket Office in Mariucci Arena, 624-8080. Hours are 9 a.m. to 5 p.m. Monday through Friday. Proof of registration is required. Ticket prices and regulations on eligibility and availability are subject to change.

All tickets purchased are nontransferable. If a student's classes are canceled by either the University or the student, athletic tickets must be returned to the Athletic Ticket Office.

Regulations governing purchase, transfer, and cancellation of the above tickets are available on request from the Athletic Ticket Office (624-8080).

Extension students may NOT pick up fee statements in advance at Westbrook Hall. Register as early as possible by mail to insure you receive your fee statement back in time to pick up tickets. You also may choose to register and pay fees in person so you receive your fee statement immediately.

### *Women's intercollegiate athletic tickets (624-8080)*

Any Extension student, with a current I.D. and Extension fee statement, may purchase tickets for women's intercollegiate athletic regular season events at the student price of \$3. Tickets are available at the door one hour before any basketball, gymnastics, soccer, softball, swimming/diving, track and field, and volleyball event. Season ticket passes may be purchased at the athletic ticket office in Mariucci Arena (east entrance). Youth group discount tickets may also be purchased at this ticket office.

There is no admission charge to women's cross country, golf, and tennis events.

Call 624-8080 for ticket information or the Gopher Sports Hotline at 626-STAT (7828) for 24-hour recorded updates and results.

### *Campus access for students with disabilities*

The University of Minnesota has available accessibility maps for the Minneapolis and St. Paul campuses. The maps, known as the "Campus Accessibility Guide," indicate disability parking areas, building entrance levels, elevators, curb cuts, and accessible buildings.

Those who would like copies of the guides should telephone Disability Services at 626-1333. Similar maps are located in the *Student-Staff Directory*.

Telecommunication devices for the deaf (TDDs) are available for use by students with hearing impairments at the following locations: Disability Services, 30 Nicholson Hall, 626-1333, and 12 Johnston Hall, 624-4037, weekdays until 4:30 p.m.; Coffman Information Center, 138 Coffman Union, 625-4177, evenings and weekends until 12 midnight; St. Paul Campus Office for Student Affairs, 190 Coffey Hall, 625-9225, until 4:30 p.m. weekdays. Other locations are listed in the student-staff directory under TDD Network.

For information about the message relay system for people with hearing impairments, call the Minnesota Relay Service, 297-5353.

For blind students, tape and braille materials also are available from the Communication Center of State Services for the Blind, telephone 642-0500.

Assistance on campus is available from Disability Services, 30 Nicholson Hall, 626-1333.

Wesbrook Hall is an accessible building. The ground-level entrance is on the right of the main entrance on Pleasant Street. Inside the building, go left to the elevator. Rest rooms are to the right on the ground floor.

### *Disability services*

The University's mission is to provide optimal educational opportunities for all students including those with physical, sensory, learning, and/or psychological disabilities. The University recognizes that disabled students sometimes have unique needs that must be met for them to have access to campus programs and facilities. In general, University policy calls for accommodations to be made on an individualized and flexible basis. It is the responsibility of students to seek assistance at the University and to make their needs known.

One of the first places to seek assistance is at Disability Services (DS). This office is provided by the University of Minnesota to promote program and physical access, which means ensuring the rights of disabled students and assisting the University in meeting its obligations under federal and state statutes. DS provides direct assistance such as information, referral, advocacy, support, and academic accommodations (i.e., interpreters, readers, test accommodations, etc.) for enrolled and prospective students, as well as consultation to faculty and staff to ensure access to their programs and facilities. The office will also assist disabled students in obtaining services from other University or community resources. Educational specialists are available to assist students with disabilities as well as serve as liaisons between the University and the Division of Rehabilitation Services. For more information, contact Disability Services, 30 Nicholson Hall, 626-1333 (voice or TDD).

### *Computer purchases*

The University of Minnesota Bookstores computer department has contracts with major computer hardware, software, and accessory companies to provide products at reduced prices. These prices are below the prices normally found at retail computer stores, but are available only to students, faculty, staff, and departments that are affiliated with the University of Minnesota.

The products that you can purchase from the University of Minnesota Bookstores computer department are tested and supported through the University. This ensures that the computer equipment and software you purchase is compatible with all University requirements and services.

You are eligible to participate if you are enrolled in a course of study that will lead to a degree from the University of Minnesota. Contact the computer department at 625-3854 for details on eligibility and restrictions.

### *E-mail accounts*

As a registered Extension student, you are given an electronic mail (e-mail) account and access to the internet computer network. You can access this account via several terminals on campus or at home with your own modem and computer and the free software provided by the University. E-mail training classes, helplines, and in-person assistance are available to help you get started. The e-mail helpline is 626-7676 and the microcomputer helpline is 626-4276.

Your student e-mail account can be used to contact advisers, professors, classmates, and even students or faculty at other universities. Using e-mail, you can research book titles at the library, read the Minnesota Daily, and check tomorrow's weather forecast.

E-mail is a benefit of your Extension registration but it is also a privilege and responsibility. Student use of e-mail is governed by the University's *Guidelines on Misuse of Computer Facilities*. Privileges are subject to revocation and students are subject to University disciplinary procedures if they use the system in ways that are deemed excessive, wasteful, illegal, or unauthorized.

### *Health service (625-8400)*

Students registered for at least one Extension class and spouses of students may use Boynton Health Service on a fee-for-service basis. Students who are admitted to a University of Minnesota degree or certificate program and who are registered for six or more credits have the additional option of enrolling in Boynton's Extended Coverage Benefits Plan. This prepaid plan entitles students to receive certain outpatient services at no charge and to receive others at reduced cost.

Extended coverage may be purchased at the cashier's window, second floor, Boynton Health Service between 8 a.m. and 5 p.m. Be sure to bring your Extension fee statement and proof that you are in a certificate or degree program (your day school transcript or a letter from your adviser). Coverage must be purchased before the end of the second week of the quarter or first week of summer terms.

Students who pay the extended coverage fee receive general medical care and laboratory tests at Boynton at no charge. Partial charges are made for routine physical examinations and some specialty care.

## General Information

Full fees are charged for prescription drugs, contact lenses, eye glasses, and dental care. Mental health services, x-rays, and minor surgical procedures are charged to students for collection from their insurance. Students who do not have insurance must pay full charges for these services.

The Extended Coverage Benefits Plan does not cover hospitalization or surgery. Extension students who have paid for extended coverage and are registered for six or more credits may purchase the University-sponsored hospitalization insurance offered to day school students.

To obtain brochures describing both of these plans in greater detail, stop by 101 Westbrook Hall or call 625-3333 and ask that the Boynton Health Service literature be sent to you. For specific questions concerning the Extended Coverage Benefits Plan, call 624-1471. For insurance questions, call 624-0627.

Boynton Health Service is located on the East Bank at 410 Church Street S.E. Hours are 8 a.m. to 5 p.m., Monday through Friday; closed holidays.

When the Health Service is closed, emergency care is available at the Emergency Department of University Hospital. Follow-up care after an emergency must be obtained at Boynton to be covered.

### *Libraries (624-4552)*

The University of Minnesota-Twin Cities Libraries contain more than 5 million catalogued volumes. In addition to books and periodicals, the libraries have substantial holdings of government documents, manuscripts, archives, audio recordings, video tapes, and electronic files and databases.

**Humanities and social science collections:** The main humanities and social sciences collections are in Wilson Library on the West Bank and include American studies, anthropology, art, business, film, geography, history, language, literature, philosophy, political science, religion, sociology, and women's studies. The collections for education, library science, and psychology are found in Walter Library on the East Bank. The collections in design, vocational education, family social science, rural sociology, and textiles are found in the St. Paul Central Library on the St. Paul campus.

**Science collections:** The main science and technology collection, including chemistry, engineering, geology, and physics is housed in Walter Library. The health science collections, including allied health, dentistry, medicine, mortuary science, nursing, pharmacy, and public health are in the Bio-Medical Library in Diehl Hall on the East Bank. The agricultural and biological sciences collections are

found in the St. Paul Central Library on the St. Paul campus.

**Many subject collections** are located in other buildings, as well. Call for locations on materials in horticulture, architecture, entomology, mathematics, forestry, plant pathology, law, journalism, maps, music, machine-readable data files, government publications, biochemistry, natural history, veterinary medicine, East Asia, South Asia, and the Middle East. Special collections exist for children's literature, social welfare history, and other areas.

**Reference and research service points** are located in major library buildings: for education, library science, and psychology, Walter Library first floor; for humanities and social sciences, Wilson Library, first floor; for business, Wilson library, second floor; for government publications, Wilson Library, fourth floor; for bio-medical subjects, Diehl Hall, third floor; for science and engineering, Walter Library, second floor; and on the ground floor of the St. Paul Campus Central Library.

### *Locker rental service*

Full-size and half-size lockers are available for rental by the quarter. Deposit cards must be purchased and are available on the campus you are renting a locker: On the East Bank, stop at the Coffman Service Center; on the St. Paul campus, go to the St. Paul Cashier Office, 107 Coffey Hall (except for lockers in the Classroom Office building, contact the Coffman Service Center); and for the West Bank, purchase your deposit card at the West Bank Bursar's Office.

Locker rental offices are at the Service Center in Coffman Memorial Union for the East Bank, the Skyway Service Center for West Bank, and on the St. Paul campus at 213 Agricultural Engineering and 32 McNeal Hall. For more information, call the East Bank main office at 625-0981 for East Bank and St. Paul lockers; call 624-6338 for West Bank locker rental information.

The Coffman Service Center, on the ground level of Coffman Memorial Union, offers several additional services: postal services, MTC monthly pass and commuter ticket sales; parking coupons; discount movie passes; discount entertainment passes; and campus bus (Route 13) punch cards.

### *Lost and Found*

For lost and found assistance, check the lost and found office in the building where you may have lost items. For additional help or information, contact one of the main lost and found offices: Coffman Information Desk, 625-4177, for East Bank; 100 West Bank Skyway, 624-6338, for West Bank; and

the Coffey Hall Post Office, 625-8284, for the St. Paul campus.

### *Parking facilities*

Parking for Extension students is available in several University public parking facilities, and in some contract facilities after 4:30 p.m. on weekdays. Parking rates vary by facility depending on proximity to campus and the facility type. Please call 626-PARK (7275) to request a parking map and rates.

When special events such as concerts and athletic games are occurring on campus, special event rates go into effect at some facilities. **However, Extension students may park in Lot 33 on the East Bank (at the intersection of Fifth St. S.E. and 17th Ave. S.E.) after 4:30 p.m. for the regular daily rate if they have a special event hang tag.** Call Extension Classes at 625-3333 for information on obtaining a special event hang tag.

Please call Parking Services at 626-PARK (7275) if you need additional parking information.

**Disabled parking**—Some of the parking facilities and metered areas have designated disabled parking spaces. A state-issued disabled permit is required to use these spaces. Disabled patrons are charged the same parking rates as other patrons, except for metered areas which are free for vehicles bearing a state-issued disabled permit. For more information on disabled parking, call the University Police department at 624-3550 or the Office for Students with Disabilities.

### *Phones*

Campus-only phones (free of charge) are located at several convenient indoor and outdoor locations on the Minneapolis and St. Paul campuses. They can be used to call other University numbers but cannot be used for placing off-campus calls. To call a University number from these phones, dial the last five digits of that number. To call University Information, simply dial "O" for Operator. (University Information is open weekdays from 7:45 a.m. to 4:30 p.m.) **To report any emergency, dial 911.** This 911 emergency number is answered 24 hours a day.

A campus phone is located in the lobby of Westbrook Hall.

### *Police services*

The University Police Department is your full-service law enforcement agency for the campus community, available to Extension students and others for responsive crime control, emergency, and other related public service and assisting roles.

Strategic priorities of prevention, interception, and investigation are implemented by almost one hundred employees, including over forty security monitors who are University students providing building security, crime reporting, and rules enforcement. Regular officers are extensively trained, certified according to state standards, and completely authorized agents of the criminal justice system. You are urged to help them help you—report crimes, take advantage of informational and prevention programs by the department, and by all the means that can be achieved together—protect yourself. Contact University Police from any campus phone by dialing the appropriate telephone numbers listed below:

**Police-Fire-Medical Emergency (only) ..... 911**  
**Escort ..... 624-WALK**  
Non-urgent contacts (dispatcher) ..... 624-7828  
Chief of Police ..... 624-2575  
All other (including program requests) 624-3550

### *Publications*

#### **Info**

**Info**, a newsletter for University Extension students, is published monthly (except May, June, and July). It contains information important to Extension students, faculty, and persons interested in learning more about University Extension Classes. Issues include articles on new courses, activities and facilities open to Extension students, registration information, faculty, and timely University policy decisions which affect Extension students.

**Info** is mailed automatically to all Extension students who have registered for classes within the past two years. To place someone's name on the mailing list, call 624-2388 (birth dates required for coding purposes).

#### **Student-Staff Directories**

University student-staff directories are available at Twin Cities campus bookstores to Extension students with a current paid fee statement. The directory contains phone numbers, addresses, and e-mail addresses of University offices, faculty, and staff members, and phone numbers and addresses of Twin Cities campus day students. The directory also is available to e-mail users through Gophernet.

#### **The Minnesota Daily**

The University of Minnesota student newspaper, *The Minnesota Daily*, is available on campus Monday through Friday during academic quarters and by mail subscription. The *Daily* covers campus and community news and has an arts and entertainment section on Thursdays, and an international section

## General Information

on Wednesdays. Subscription rates (subject to change) are \$22 a quarter for fall, winter, and spring; \$15 for summer sessions; and \$80 a year (150 issues). The Minnesota Daily, University of Minnesota, 720 Washington Ave. S.E., Suite 349, Minneapolis MN 55414 (627-4080).

### *Internships and Community Service (OSLO)*

The Office for Special Learning Opportunities (OSLO) maintains listings of internship and community service opportunities for students in all programs of study. Placements are available in a wide variety of fields, including government, business, human services, science and technology, health care, ecology, education, the arts, broadcasting, publishing, and more. In some cases, it is possible to earn credit for these experiences, either through taking a course that requires a field experience or through carrying out a directed study project under the direction of a faculty member. Students can discuss these options with an OSLO adviser in 220 Johnston Hall (624-7577).

### *Concerts and Lectures*

Northrop Auditorium has been a major source of entertainment and a cultural outreach for the University of Minnesota for over 60 years. Diversity reigns in its year-round programming. The Northrop Dance Season presents major nationally and internationally acclaimed companies, those which are currently the most exciting artistically. The 1994-95 season includes the National Ballet of Canada presenting *Swan Lake* with full orchestra, Belgium's innovative Teresa De Keersmaecker, Bill T. Jones/Arnie Zane Dance Company staging a new work entitled *Still/Here*. The Mark Morris Dance will perform its celebrated tour de force, *L'Allegro, il Penseroso ed il Moderato* with music by a chorus and The St. Paul Chamber Orchestra. Also on the season are Principals of Paris Opera Ballet and the Minnesota debut of Dayton Contemporary Dance Company, which focuses on African American contemporary dance tradition. The boldly kinetic Susan Marshall & Company presents new dances, and France's Ballet du Rhin stages a bouquet of pastoral charm in *La Fille Mal Gardée* (The Ill-Chaperoned Daughter).

The 1994-95 Discover Series, co-presented by Northrop Auditorium and Walker Art Center, will show new directions in performance. The second year of the Northrop Jazz Series will feature such giants as Joe Henderson, Edward Wilkerson Shadow Vignettes, and Wynton Marsalis Septet.

Northrop presents The Joffrey Ballet's enchanting *Nutcracker* for the holidays. The lavish \$1.5 million production is acclaimed for its first-rate dancing, beautiful costumes, and magical staging—all with Tchaikovsky music and a full orchestra. Houston Grand Opera will bring its new production of Gershwin's *Porgy and Bess* to the Northrop stage. A lively program of free musical entertainment is offered each summer. For more information, call the University of Minnesota Arts Ticket Office (612) 624-2345.

### *Student Employment Center*

Students enrolled for six or more Extension credits may use the University's student employment services. The Student Employment Center posts on- and off-campus job vacancies on bulletin boards outside the office in 120 Fraser Hall. After review of eligibility and qualifications, students may be referred to the employer. The employer makes the hiring decision. Student service is offered 8:30 a.m. to noon and 12:30 to 4 p.m. weekdays. (Job listings are posted outside the office and may be viewed evenings.) Proof of registration is required. For more information and details on eligibility, contact the Student Employment Center, 120 Fraser Hall, on the Minneapolis campus (624-8070).

### *Theatre*

Generations of University of Minnesota students have attended play performances at University Theatre. Whether in the modern four-theatre facility of Rarig Center or on board the popular Minnesota Centennial Showboat (now under renovation), University Theatre audiences see the brightest young talent in the Twin Cities. Performances are offered throughout the year and ticket prices are \$3 to \$7. (Extension students are eligible for discounts.) Information about current offerings is available by calling the University Arts Ticket Office at 624-2345.

### *Transportation between campuses (bus)*

Transportation between the **Minneapolis and St. Paul campuses** is available seven days a week on special white or maroon-and-gold buses marked "Route 13." The West Bank terminal is in front of Blegen Hall and the main East Bank campus terminal is in front of Jones Hall (intersection of Pleasant Street S.E. and Pillsbury Drive S.E.). The St. Paul terminal is adjacent to the St. Paul Student Center. Buses leave these terminals at 5-minute, 10-minute, and 30-minute intervals on weekdays and at 20-25 minute intervals on week nights (from 6:45 p.m. to 9:05 p.m.) and weekends.



There is no charge for riding these buses unless one enters or exits at stops located off campus (see *Student-Staff Directory* for route map and bus stops). The current fare at off-campus pay stops is 85 cents (\$1.10 during rush hours, Monday through Friday from 6 a.m. to 9 a.m. and 3:30 p.m. to 6:30 p.m.) Reduced-fare punch cards are available at the student unions and bursar offices. Fares are subject to change and may change July 1, 1994. Call Transit Services at 625-9000 or check pocket schedules for current information.

A popular park-and-ride stop is located on Como Ave. at 29th Ave. S.E. for students using the **Como Avenue park-and-ride facilities**. There is a charge to park at the Como lots and there is a nominal charge to board or exit the bus to either campus (call for parking costs and fares). Bus fare discount cards for the Como Lot and Rollins Lot (near 15th Ave. S.E. and Rollins) can be obtained at the West Bank Union Skyway, Coffman Union, and at the Bursar's office in 145 Williamson Hall, the Cashier's office in 107 Coffey Hall, the West Bank Bursar's office in 101a Anderson Hall, and at the U of M Transit Services office.

With the completion of the Transitway (exclusive roadway for buses between the Minneapolis and St. Paul campuses), there is frequent service via the Transitway and less frequent service along the original Como Avenue route.

The Route 13 campus buses also stop at the Huron Blvd. Parking Complex, the Recreational Sports Complex on University Ave., and at the Fairgrounds Parking Lot.

Transportation is available between the **East Bank and West Bank**. Service is available on the Route 13-S buses at 40-minute intervals between Blegen Hall on the West Bank and Jones Hall/Eddy Hall on the East Bank. East Bank-West Bank bus service also is available during the evening at 40-minute intervals on Route 13-W buses operating between Blegen Hall and Lyon Lab/Amundson Hall on Washington Avenue near Church Street.

Current schedule information is posted at each terminal and pocket schedules are available on Route 13 buses, at the student unions, and at the new U of M Transit Services office in the new Washington Ave. Parking Ramp, 511 Washington Ave. S.E., Minneapolis (telephone 625-9000, Monday through Friday, 7:45 a.m. to 4:30 p.m.)

For information about parking rates, call 626-PARK.

## Student Board (Extension Classes)

The Extension Classes Student Board was formed to serve Extension students, faculty, and the administration in the exchange of ideas and information pertaining to the Department of Extension Classes.

It is composed of Extension students elected to the student board each year, plus appointed Extension students, the dean of Continuing Education and Extension (or a representative) and an Extension Classes faculty member. Any Extension student is eligible to be appointed to the student board. Eligibility is registration in any Extension class. There is no credit requirement.

All students are urged to communicate their ideas, suggestions, and concerns to their student board. Students interested in joining the board, or in talking with members about a particular concern, should call 626-8501 for referral to a board member.

**Eligibility for candidacy**—A candidate for election to the student board must have earned a minimum of 12 University of Minnesota credits in the last five years and be carrying, at the time of election, three credits in Extension Classes (semester, quarter and special term registrations count equally). Students wishing to become candidates may file for candidacy during January 1995 at 200 Westbrook Hall, Minneapolis campus; or call 626-8501 for deadlines and information.

Upon application for candidacy, eligibility will be verified. Once certified as a candidate, the student is free to campaign in a manner in harmony with the guidelines (available at time of filing) established by the Assembly Committee on Student Affairs. Extension Classes students will be provided with a brief sketch of each candidate's qualifications.

Election of candidates will be held during the mail-in election period during spring quarter. Please read the following carefully:

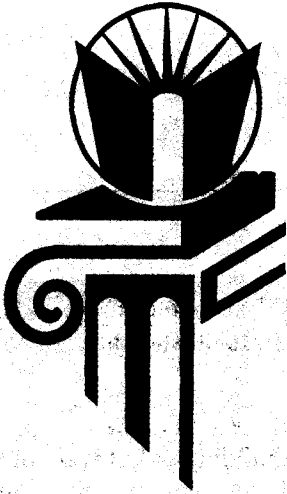
**Eligibility for voting**—To be eligible to vote in the election a student must be registered for credit in Extension Classes and return an official ballot by mail or in person by the close of the election period (about the first week of spring quarter; dates vary each year). For further information, call 626-8501.

## University Senate

University of Minnesota students are entitled to serve in the University Senate. The University of Minnesota is one of the few universities in the

country in which students may be elected to the academic governing body. So far as is known, it is one of only a few universities whose Extension students also serve in that body.

The University Senate considers matters of importance to the academic governance of the University, including the internal affairs of the institution as well as the role of the University in the community. Student representatives are elected from 19 colleges, schools, or other academic units within the University, including Continuing Education and Extension. Student senators and alternates are appointed from the membership of the Extension Classes Student Board.

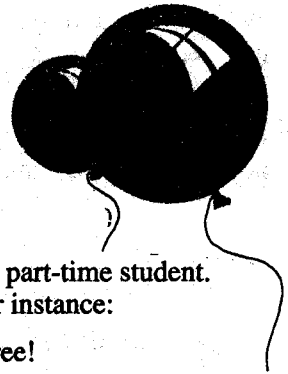


## Adult and part-time students, we're for you!

On the next 16 pages, read about:

- Student services
- Campus facilities and services
- Learning opportunities through CEE
- Special programs, options, activities

## You're invited ... to Education Fest



Continuing Education and Extension will present "Education Fest," Thursday, Sept. 8, 5 to 8:30 p.m., at Nolte Center on the east bank campus.

Education Fest is an open house for you, the adult and part-time student. The atmosphere is informal, but there's plenty to do. For instance:

- Learn about degrees and extension classes
- Park free!
- Pick up catalogs, course information
- Talk with a program adviser
- Get information about financial aid
- Take a campus tour
- Shake hands with Goldy Gopher
- Register for prizes
- Free posters, bookmarks, other items
- Refreshments
- Discover new learning opportunities: self-paced independent study courses, research internships, management seminars, teacher education, and much more.

The registration office in Westbrook Hall is open until 8 p.m., and you may register for a class that evening.

Complementary parking is provided on campus near Nolte Center on the evening of the Education Fest. From University Avenue, turn right on 17th Ave. S.E. (Church Street on campus). Go straight ahead about one block to the parking facility—watch for signs.

Have questions, need directions? Call 624-2388.

## **About the University:**

---

### *Some public misperceptions and some CEE realities*

**Misperception:** *All the classes are so big.*

**Reality:** In a recent winter quarter, only 6 of over 500 Extension classes had more than 100 students in them. Most classes range from 10 to 30 students.

**Misperception:** *There is no place to park.*

**Reality:** On the east bank and west bank campuses, there are hundreds of parking spaces available within three blocks of the classroom buildings. Cost is about \$2 or less for surface lots and many ramps and garages, including the convenient ramp at Fourth Street S.E. and 17th Avenue S.E. Hundreds more low-cost parking spots are available at the Huron Blvd. Parking Complex just off Oak and Fourth Streets S.E., across from Mariucci Arena. (Prices and availability subject to change.)

**Misperception:** *You're just a number at the "U."*

**Reality:** You will have your own CEE adviser to help you in selecting classes and planning your education—whether you just want to take a few courses or work toward a master's degree. These are full-time professional academic advisers who know just about everything there is to know about the University—and what they don't know, they'll find out and report to you. You can come in and visit (make an appointment for your convenience) or call anytime.

**Misperception:** *You can never get the classes you need.*

**Reality:** Hundreds of classes are scheduled each term. Often several sections of a required course are offered each quarter; choose the one that fits your schedule. Students who register by mail within the first day or two of registration get their first class choice most of the time. If you are in a degree program and there is a class you absolutely must have to continue progress toward your degree, you may register early (consult with an adviser on how to do this).

**Misperception:** *The entrance requirements changed a few years ago. It's a lot harder to get in now.*

**Reality:** Anyone can take University Extension classes and find out whether they're "college-able." If you're just registering for a class, you don't need to worry about high school record, class standing, or college entrance exams.



## Getting Started

Getting started on an education through Continuing Education and Extension isn't difficult. Here's some of the ways you can learn more.

### **Information meetings**

The Continuing Education and Extension Counseling Office conducts several regularly scheduled information groups for prospective students in August and September (and more later in the year).

You will learn about registration options, procedures, and general University requirements and have questions answered about getting started as an Extension student. Call CEE Counseling at 625-2500 to reserve your space in the next meeting.

### **You are not alone**

Extension students juggle lots of responsibilities—college, job, family, community activities—and sometimes it seems there just isn't enough time for it all. It can help to talk with others who share your problems and your dreams. Check with an adviser at CEE Counseling (625-2500) for referrals to campus organizations and services that fit your needs and interests. The Extension Student Board, for example, meets monthly and works on issues important to adult and part-time students.

### **We're here when you're here... and then some**

The Extension Classes registration office in 101 Wesbrook Hall (east bank) is open until 8 p.m., Monday through Thursday, when classes are in session. You can register, cancel, pay fees, inquire about your registration status, and obtain information easily in one place.

**Saturdays, too**—Now the registration office is open one Saturday morning, 9 a.m. to 1 p.m., during in-person registration dates for each term; an adviser will be available, also. In addition, advisers are available for evening appointments; call 625-2500. And the east bank and west bank bookstores are open evenings early in the term and some Saturdays as well; check the bookstores section of this bulletin for dates.

**Plus, we've added FAX registration (625-1511), student e-mail accounts, telephone textbook orders, credit card payment for tuition and fees, new degree programs with classes at local community colleges, new graduate degrees, and more. Watch for the Extension Classes newsletter, *Info*, for information about other opportunities during the year. Call 624-3300 to be added to the mailing list.**



---

## Study Skills Help

---

### **Tutoring program for second languages**

Evening classes in foreign languages are some of the most popular Extension courses offered. People take language classes for lots of reasons—to earn credit toward degree requirements, to prepare for travel outside the U.S., and to learn more about their own ancestry.

To help insure your mastery of a new language, Extension Classes has instituted a new tutoring program in second languages.

Tutors will be available evenings to answer your questions, help you review, explain usage, and provide the support you need to help make your learning experience a satisfying one. It's free, take advantage! Tutors are on duty or can be arranged in the following languages; call the appropriate department for hours and location.

**German 625-2080**

**French 624-4308**

**Spanish 625-5858**

### **Preparation for Graduate School**

Through the Compleat Scholar/Practical Scholar, several short-term classes or one-session workshops are offered to help you prepare for graduate school admission or study. An introductory workshop is offered this fall on applying to graduate school. Later, classes are offered in financing graduate school, assessing math skills for graduate admissions exams, preparing for the GRE (also GMAT and LSAT), and other topics. See the University Access section of the Compleat Scholar course listings or call 624-8880 for details.

### **Helpful Courses**

Many credit and noncredit courses (at regular tuition rates) are offered in study skills. In General College, *GC 1421 Writing Laboratory: Basic Writing*, includes tutorial help; follow-up course is *GC 1422 Writing Laboratory: Communicating in Society*. Other credit courses to aid in skills development include *LASk 1001 Becoming a Master Student* and *Rhet 1441 College Reading and Learning Skills*.

For help in mathematics, read about the Preparatory Mathematics Program offered by the General College and the Compleat Scholar/Practical Scholar. The program aids adult and re-entry students in correct placement in noncredit courses. Examples include *GC 0621 Elementary Algebra*, *GC 0623 Plane Geometry*, *GC 0625 Intermediate Algebra*, and others. Compleat Scholar/Practical Scholar offers supportive services along with these courses, including the *Math Skills Assessment Clinic* and *Math Tutorial* (free weekly sessions) especially to help those who encounter blocks in math work. See the University Access section of the Compleat Scholar in the noncredit course offerings.

### **Students of Color**

Students also may contact the appropriate learning and resources center about study aids available there: American Indian, 624-2555; Asian/Pacific, 624-2317; African American, 625-1363; Chicano/Latino, 625-6013.

## Counseling and Advising: We Can Help

If you're wondering . . .

*What kinds of degrees and certificates can be completed through Extension Classes?*

*How do I go about planning a program?*

*What financial aid is available?*

*How do I choose a career or major that will be consistent with my goals and interests?*

*What additional education would I need for a new career or to get ahead in my present job?*

*How does my previous college work transfer to the University of Minnesota?*

. . . then contact the CEE Counseling Office, 314 Nolte Center, at 625-2500 (e-mail address via internet is [CEEAdv@maroon.tc.umn.edu](mailto:CEEAdv@maroon.tc.umn.edu)).

Continuing Education and Extension's professional staff of academic advisers and counselors are ready to assist you in formulating your educational and career goals.

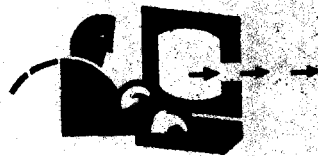
Advisers are available for day or evening appointments and can be reached by phone or e-mail to answer questions, as well.

Registration information meetings (offered every term) give new students assistance in registering, general requirements, degree program admission, and other information to help you get started. Call 625-2500 to sign up.

The CEE Counseling Office provides career counseling for current or prospective students. Career testing is available to help you learn more about your values, interests, and personal characteristics to help you achieve career and educational goals. Other career programs are offered throughout the year. A fee is charged for career counseling programs. Call 625-2500 for more information.



## **We're "U"ser friendly**



### **Bringing the "U" to you**

*The classes you need.* Whether it's for professional development, earning a degree, or just personal-interest learning, you'll find a variety of opportunities—both credit and noncredit. Classes are scheduled evenings and weekends when working people can take them. Everything you need from accounting to zoology. From one-morning workshops to graduate degrees. You can even take regular day school classes.

*The people you need.* The services you must have are in place, and Extension staff are working to make more of the University accessible to you. The University's experienced faculty and support staff work evenings and weekends for you. Advising, instructor's office hours, bookstores, computer labs, e-mail accounts, libraries, lounge areas, parking, registration—we're delivering the services it takes whether it's through later hours, by mail, or by telephone.

### **The Nolte Study**

The recently remodeled study on the ground floor of the Nolte Center for Continuing Education is the perfect place to study, stop and relax before class, meet friends and classmates, or pick up Continuing Education and Extension publications and registration materials.

The Nolte Study is open week nights, Monday through Thursday, until 7 p.m. An Extension staff member is available to help answer questions and make referrals.

Nolte Center is conveniently located on the East Bank campus near many classroom buildings. It is within easy walking distance to Extension offices in Wesbrook Hall, to Walter Library, and to University parking complexes on Fourth Street S.E. and on Washington Avenue.

### **Building accessibility for students with disabilities**

Wesbrook Hall became an accessible building in 1991. The ground-level entrance is on the right side of the main entrance on Pleasant Street S.E. Inside the building, go left to the elevator. Restrooms are to the right on that level. Several parking spaces in front of Wesbrook are reserved only for vehicles with handicapped permits.

Call Disability Services, 626-1333, for campus accessibility guides that show disabled parking places, building entrance levels, elevators, curb cuts, and accessible buildings.

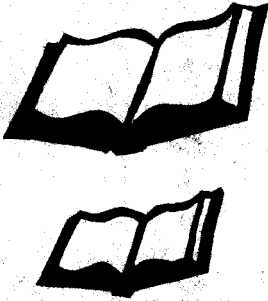
For the hearing impaired, a TDD (625-4177) is available at the Coffman Information Center, 138 Coffman Union, evenings and weekends.

### **Campus escort service: 624-WALK**

The University police department conducts an evening campus security escort service on all campuses during regular academic terms. Security escorts will accompany Extension students between buildings and to parking lots or bus stops on or adjacent to campus. Use a campus phone to request an escort at 624-WALK.



# Bookstores: Where to Find What You Need



## **Convenience, service, and much more**

- Telephone book orders (call in and have your books shipped to you)
- VISA, Mastercard, Discover
- Computer sales at discount prices to registered students
- Art materials, school supplies, notebooks, U of M sportswear, popular and reference literature, greeting cards, even gum and candy.

- Extended hours—bookstores are open evenings early in the term. The University of Minnesota Bookstore—East Bank (in Williamson Hall) is open Saturdays, also. Call for hours (listings appear below).
- Bookstores post lists of required textbooks for each class. Textbook information is available by telephone and books can be sent between the St. Paul campus and Minneapolis campus bookstores.

Check the index for the page number where you will find more about bookstore policy and procedures.

## **University of Minnesota Bookstores and Locations**

**The University of Minnesota Bookstore—East Bank (625-6000).** Courses in the College of Liberal Arts (except for CLA departments listed below at the west bank bookstore), General College, College of Education, and the Institute of Technology. Located in Williamson Hall.

**The University of Minnesota Bookstore—West Bank (625-3000).** School of Management. CLA in history, Afro-American and African studies, political science, geography, sociology, international relations, theatre arts, music (and music education), studio arts, economics, public affairs, and urban studies. Located on the street level on Washington Avenue adjacent to Blegen Hall.

**The University of Minnesota Bookstore—St. Paul (624-9200).** Books for classes scheduled on the St. Paul campus. Located on the lower level of the St. Paul Student Center.

**The University of Minnesota Health Sciences Bookstore (625-8600).** Books for classes offered by departments in the Medical School, School of Dentistry, College of Pharmacy, School of Nursing, School of Public Health, mortuary science, and other health sciences courses. Located in Moos Health Science Tower.

# **Student Board; Rec Sports**

---

## **Student Board: Get Involved**

**Seeking more graduate-level Extension classes. Recognizing outstanding Extension students. Improving campus security. Reviewing student services. Presenting the Extension student's viewpoint to University and government officials. A forum for ideas and issues.**

---



These are the kinds of concerns, problems, and opportunities the Extension Classes Student Board considers every year—issues important to Extension students. Guests at student board meetings have included University central officers, regents, legislators, and department heads.

You can join the student board at any time when you are registered as an Extension student. Extension student board members also may be appointed to the University Senate, the primary academic governing body of the University.

All students are urged to communicate their ideas, suggestions, and concerns to the student board. If you would like to speak to a board member about a particular issue or are interested in attending a meeting or joining the board, call 626-8501 to leave a message.

## **Be a Sport!**

Enjoy recreational sports activities of all kinds to help you keep in shape and to unwind from work or study. As a registered Extension student, you are eligible to purchase the Department of Recreational Sports participation permit. (Some restrictions and enrollment requirements apply.)

You may participate in organized sports and intramurals and in open recreation (including the use of many new University recreational facilities such as racquetball and tennis courts, fitness equipment rooms, swimming pools, and gymnasiums).

The individual, dual, and team intramural sports include soccer, tennis, basketball, bowling, ice hockey, swimming, broomball, softball, track, volleyball, flag football, and many more.

For men and women, sports clubs (over 50 of them) are organized for archery, badminton, ballroom dance, bowling, crew, soccer, rugby, fencing, cycling, martial arts, sailing . . . plus much more.

For further information about these programs and activities, telephone Rec Sports at 625-6800 or drop by 101 Cooke Hall on the Minneapolis campus (on the St. Paul campus, 104 St. Paul Gym). (Facilities may be subject to limited availability during busy periods.)

## Completing a Degree Through Extension Classes



You can complete a University of Minnesota bachelor's degree any one of several different majors through Extension registration. The courses you take and the graduation requirements you meet are determined by the college or program that grants the degree—not Extension Classes. This means your degree is the same as the one day school students earn (with the exception of the B.A.B. and B.I.N. degrees, especially designed for part-time and adult students and offered by CEE only).

You must be admitted to a degree program to get a degree. Simply registering for classes and compiling credits does not mean you are in a degree program. Meet with an academic adviser from CEE Counseling before you begin taking classes so you can determine when to apply for admission into a degree program. Call CEE Counseling at 625-2500 to make an appointment.

### Degrees and majors

Undergraduate degrees from the Carlson School of Management, College of Liberal Arts, University College, Institute of Technology, College of Agriculture, and College of Human Ecology can be completed—or almost completed with some substitution, previous course work, or day school registration—in the following areas. (*This list is subject to change annually.*)

**Business—Applied (B.A.B.)**

**Business—General Management (B.S.B.)**

**Business—Accounting (B.S.B.)**

**Anthropology**

**American Studies**

**Art History**

**Studio Arts (B.A.)**

**Biology (B.A.)**

**Civil Engineering**

**Child Psychology**

**Computer Science**

**Economics**

**Electrical Engineering**

**English**

**History**

**Individualized Study Program (B.I.S.)**

**Individually Designed Interdepartmental Major**

**Information Networking (B.I.N.)**

**Inter-College Program**

**Mathematics**

**Mechanical Engineering**

**Philosophy**

**Political Science**

**Program for Individualized Learning**

**Psychology**

**Sociology (B.A. or B.S.)**

**Speech-Communication**

Completing a degree will require careful planning and scheduling of classes, so see an adviser early and often. See the degrees section near the end of this bulletin for more information, also.

# Innovations and Excellence: All our best to you



Take advantage of new small-group classes that stress interaction with University faculty, interaction with your peers, and academic challenge unequaled anywhere in the country. See the departmental listings in the credit section of this bulletin for complete descriptions.

## **Interdepartmental Studies: Learning isn't what it used to be. It's better.**

For complete descriptions of these Interdepartmental Studies courses, see the credit courses section of the bulletin.

**ID 3201 AIDS/HIV: Cultural Perspectives.** Study of AIDS from a variety of approaches—medical, historical, artistic, philosophical, sociological. Multimedia examination; guest speakers with a variety of backgrounds.

**ID 5525-5526 Garbage, Government, and the Globe.** Garbage and waste—and how to handle it—as it affects the economy, environment, politics, and health. Faculty from several disciplines.

**ID 3335 Physics as a Liberal Art.** Science as a humanistic field—the aesthetic, ethical, spiritual implications of physics are examined. Physics professor Roger Jones is the instructor.

**ID 5615-5616-5617 Ways of Knowing.** Faculty from six very different areas—as diverse as biology and political science—review in 5-week courses the way they study, experiment, and draw conclusions about a body of knowledge. There are startling similarities and differences. Faculty from several disciplines.

**ID 3925 Life/Career Planning.** Faculty from College of Liberal Arts Career Development will help students explore and reassess their skills, values, interests. Each student will develop an individualized career plan.

## **Hidden Treasures—an academic assortment**

**Pol 1001/Econ 1102 American Government/Principles of Macro-Economics.** A combined offering of two introductory courses that reflects their real-life integration.

**Phil 5615 Minds, Bodies, and Machines.** Philosophical relevance of cybernetics, artificial intelligence, and computer simulation.

**Chn 3162 Chinese Fiction in English Translation.** Knowledge of Chinese not required. Discover Chinese narrative prose from 1200 to 1900.

**Slav 3511 Southeast Europe: Slavic Cultural Diversity.** Understand the roots of cultural and ethnic diversity of Slavic peoples.

**WoSt 3600 Women and Work: Gender in the Workplace.** Employment issues and gender; how gender is constructed, altered, and refined by the workplace.

## **Honors Courses in Extension Classes**

Special Honors Opportunities are offered by the College of Liberal Arts to bring together the very best Extension students and some of the University's outstanding faculty. Admission is by special permission.

**HSem 3050 Stress, Coping, and Health.** Nursing professor Mariah Snyder (winter).

**HSem 3060 Can Russia Be Reformed? A Historical Perspective.** History professor Thomas Noonan (spring)

## Independent Study: Educational Freedom

### Credit courses by correspondence

An Independent Study course from the University of Minnesota can round out your program. Independent Study offers hundreds of full-credit courses through correspondence. It's real college work, but

with flexibility built in. You can register any day of the year. You study at home, mail in course work, and get evaluations back from your instructor by mail.

You can enroll in Independent Study courses at any time—by phone, fax, mail, or in person. Credit cards are accepted for tuition payment and other expenses. You can order books and supplies by mail, study where you are on your own schedule, and you never have to set foot on campus.

These are full-credit courses that can be used to fulfill University distribution requirements and CEE certificates. Graduate credit is available for selected television and group independent study courses.

All courses come with a study guide that coordinates your textbook reading, gives study notes, and explains assignments. In addition, many courses include video cassettes, audio cassettes, or computer disks.

### A new study option from Independent Study

Group Independent Study courses will combine the advantages of home correspondence study with class meetings, providing first-hand contact with the professor and your fellow students. Interactive television will link classrooms at several campuses of the University, making these courses available over a wide geographic area. Graduate credit will be available for some courses.

Group Independent Study (GIS) courses begin on a specific date, last about six months, and include three to five class meetings for lectures, discussions, and group activities. Students do most of their study at home and spread out their correspondence course work over six months, and still have several opportunities for person-to-person interaction with the instructor and other students.

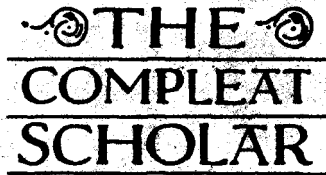
### Two courses are planned for fall/winter 1994-95.

**Biol 5003 Genetics (GIS version)** will be offered simultaneously at the Minneapolis campus, Duluth campus, and Rochester CEE center. Four evening class meetings—Sept. 22, Nov. 1, Dec. 15, and Jan. 26. Graduate credit available.

**FSoS 5240 Special Topics: Violence in the Family (GIS version)** will be offered simultaneously at the Minneapolis, Morris, and Crookston campuses. Five evening meetings are planned, tentatively scheduled for one each month in September, October, November or December, January, and February.

For more information about Group Independent Study and hundreds of regular Independent Study courses, call to request the Independent Study bulletin at (612) 624-0000 or 1-800-234-6564; FAX (612) 626-7900. Department of Independent Study, University of Minnesota, 45 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455

# The Compleat Scholar, Management Advancement Program



The Compleat Scholar and Practical Scholar programs make up a comprehensive curriculum of courses offering University learning without credit. Compleat Scholar courses focus on areas in the liberal arts—the arts, literature, social sciences, natural and physical science, and writing. Practical Scholar courses focus on problem-solving and skill-building areas—human development, practical insights, and academic skills.

These courses are scheduled for one to eleven meetings and offer stimulating and challenging learning in lecture and discussion format without grades or exams. Some courses include field trips and guest speakers. All are led by experienced instructors, most by University faculty.

A sampling of titles for this year appears below. See the **Noncredit Course Offerings** section of this bulletin for complete listings. Or call 624-8880.

*Running Out of Red Paint: Exploring the Artistic Process*

*Unleashing Your Charisma: Performing Presence*

*Explore Your Imagination: Theatre Masks*

*Behind-the-Scenes at Museums*

*Four Continents, Four Great Cities*

*The Inquisition: Mass Control Then and Now*

*She Said, He Said: Women and Men Speaking*

*Childhood Memoir*

*How to Say It: Experiments in Style*

*Reading Imaginative Fiction*

*Perusing Place: Children's Literature, Sites and Settings*

*Butterfly Basics*

*Natural History Drawing*

*Overcoming Emotional Blocks to Learning*

*Punctuation Review*

*Mid-Life Career Burnout: Stresses and Strains*

*Risk Taking for Personal Growth*

*What's All This About Holistic Health?*

*Spanish for Travelers*

*Pruning Landscape Trees and Shrubs*

## **Management Advancement Program (MAP)**

If you are a professional who remains committed to your own improvement, an executive or manager concerned with developing the talents of those you supervise, or a decision maker looking to gain an edge for your organization, then MAP is for you. The Management Advancement Program provides up-to-the-minute seminar education at highly competitive rates and taught by top-notch leaders with a wealth of private-sector experience.



The seminars and workshops of the Management Advancement Program meet at the University's comfortable Earle Brown Conference Center in convenient one- to three-day time blocks. Before and after each program, the Management Advancement Program offers each registrant a unique opportunity to make sure his/her learning objectives are met and questions answered. MAP seminar learning, where the University serves business professionals. Call 626-8713 for registration materials. A sampling of workshops offered last year includes:

*Handling Difficult People*

*Coaching Employees to Improve Performance*

*Making Teams Work Better*

*Cultural Diversity: Managing Differences*

*Leadership, Power, and Vision*

*Creating Fast-Cycle Business Processes*

*Interpersonal Communication*

*Self-Assessment and Supervisory Skill Building*

*Reality-Based Re-Engineering*

*Barcoding*

*Finance and Accounting for Managers*

*Multi-Cultural Marketing*

*Quality Customer Service*

# Split Rock Arts Program; The Master Teacher



**SPLIT ROCK**  
arts program  
Duluth, Minnesota

The Split Rock Arts Program is a summer series of intensive, residential week-long workshops in the visual and literary arts and in the nature and applications of creativity. Workshops are led by outstanding University of Minnesota artists and nationally renowned guest artists who bring their unique gifts and perspectives to the teaching process.

Home base for Split Rock is the University's Duluth campus. Split Rock participants are encouraged to draw upon the spectacular forest and shoreline environment of northeastern Minnesota as they engage in the creative process.

Participants may choose from over 40 workshops held over a six-week season. Some include trips along the North Shore, some offer methods and approaches from other cultures, some combine artmaking with the personal and social concerns of our near and far worlds, and some link creativity to our emotional and spiritual well-being.

Split Rock workshops include:

*Writing Essays in the Forest*

*Nature Photography: Creating the Photographic Essay*

*Enhancing Creative Potential*

*Contemporary Quilting: Pieced, Painted, Patterned*

*Autobiography of the Soul*

*Writing Children's Picture Books*

*Creating and Manipulating Fabric Surfaces*

*The Remembered Earth: A Writing Workshop*

*Improvisational Beadworking*

*The Self as the Source of the Story*

*Contemporary Basketry*

*Writing the Short Story*

*Close Encounters: Photographing People*

*An Intensive Poetry Workshop*

For complete information and your copy of the latest Split Rock Arts Program catalog, call 624-6800 or write Split Rock Arts Program, 306 Wesbrook Hall, 77 Pleasant Street S.E., University of Minnesota, Minneapolis, MN 55455.

## Classroom Teachers—Professional Development and Graduate Study



GRADUATE DEGREE AND COURSE  
COLLEGE OF EDUCATION  
CONTINUING EDUCATION AND EXTENSION

A new cooperative program of the College of Education and Continuing Education and Extension, "The Teacher Leader," provides practicing teachers with new master's degree options and related course work.

Several master's degrees will be available, including the M.Ed. in Leadership that features much of the required course work off campus. In addition, classes often are broadcast to interactive television classrooms in suburban high schools. The unique delivery system permits teachers to take classes at these remote sites.

Staff in CEE are committed to providing services that will facilitate students' participation in the program and help assure their success. These include:

- Course scheduling that permits completion of the master's degree in three years.
- Convenient late afternoon and evening classes.
- The option of taking required courses at remote sites.
- Easy mail registration and centralized support services, such as textbook delivery, through a separate CEE office designated for the Teacher Leader program.

For information about degree requirements, call 625-1855.

# New Degrees, Research Explorations



## New Degree Programs

Continuing Education and Extension is developing new degrees to serve better the adult and part-time learners in Minnesota. Emphases in these programs include new "applied degrees," offered in cooperation with community colleges and others institutions through the Twin Cities Higher Education Partnership, as well as expanded opportunities for post-graduate learning. See descriptions in the Degrees and Certificates section of this bulletin and call the Counseling Department at 625-2500 to talk with an adviser about the programs listed below (referrals to sponsoring departments are sometimes necessary).

**Bachelor of Applied Business (B.A.B.)**—Offered in cooperation with Inver Hills Community College, this degree is a practitioner-oriented program especially for people already in the workplace who want to expand their career skills and opportunities. Required classes meet evenings at Inver Hills.

**Bachelor of Information Networking (B.I.N.)**—Offered in cooperation with North Hennepin Community College, this degree combines practical experience and technical learning. Students take core courses at North Hennepin that enable them to learn and apply information processing, management principles, computer applications in networking, and working with data over various networks and between platforms.

**Master of Social Work—Weekend (M.S.W.)**—Course requirements can be completed in two years through weekend attendance. Designed for people working in the helping professions; minimum of one year of experience required for admission.

**Master of Liberal Studies (M.L.S.)**—Timely and timeless learning in a new graduate degree program designed for adults and part-time learners. Seminar courses provide a broad-based interdisciplinary approach to learning that students also apply to in-depth study of topics significant to them. (Available fall 1994 pending approval)

In CEE, you'll also find undergraduate degrees available in more than 25 majors or options as well as master's degrees in English (literature or writing), business taxation, and education (teacher leadership). See the Degrees and Certificates section of this bulletin.

## REX puts you in "U" research



Discover a new type of educational experience—one that merges a little work, possibly a little travel, and a lot of learning. That's what Research Explorations (REX) provides. This Extension Classes program matches faculty with people who want to join a research team and work on important projects—in the laboratory, in the field, and in the community. Although REX is a noncredit program, it is usually possible to arrange for directed study to earn credit as part of your REX experience. The principal requirements are curiosity, adaptability, and a willingness to support academic and scientific inquiry. Call 624-5092 for a complete listing of over 50 REX opportunities, such as the following.

*Neurobiology of Pain and Opiates*

*Native American Myth Busting*

*Agricultural Chemicals and Groundwater Contamination*

*Women in Science, Engineering, and Mathematics*

*Origins of an Iron Age City in Bavaria*

*Relationships in Adoptive Families*

*Soil Fertility and Crop Productivity*

*Origin of English Words*

*Quality of Life After Heart Surgery*

*Paper Recycling Technology*

*Attention Deficit Disorder: Determining Test Norms*

*Food Issue Decision Cases*

*The German Language in Minnesota*

*Behavior of High-Strength Concrete*

*...and many more*





## Daytime Classes, Seniors Learning

### Joint day/Extension classes

In addition to the approximately 2,000 evening and late afternoon classes listed in this bulletin, many day school classes are open to you as joint day/Extension classes. If daytime classes are convenient for you, the variety and number of courses offered during the day may help you accelerate progress toward a degree.

Check the Credit Course Offerings section of this bulletin for departments that will offer joint day/Extension classes this year (a note appears near the beginning of the department's course listings).

Call 624-2388 about two weeks before mail registration starts each quarter to request a day school Class Schedule and procedures for registration through Extension. (Regularly enrolled day students may not register through Extension for additional day classes.)

### Senior Citizen Rates

If you're 62 or older, you can register free for no credit in any regular credit Extension class that does not have class size limits. You may take limited-enrollment classes for no credit on a space-available basis. Classes may be taken for credit for only \$6 a credit (space-available basis for limited-enrollment classes). Course fees and special fees must be paid, however. See the Enrollment Information section of this bulletin.

### Elderhostel—For Those Over 60

Elderhostel, a living-and-learning program for people 60 and older, will offer week-long sessions at the University again this year. Elderhostel students stay on or off campus in modest facilities, interacting with peers and younger students, and take specially designed college-level, noncredit short courses. Extracurricular and evening activities also are offered. Originally a summer program, Elderhostel sessions now are scheduled throughout the year. Cost to hostellers in 1994 is approximately \$360 for accommodations, meals, and class instruction. Elderhostel is a national program now in its 19th year. The University of Minnesota—Twin Cities is one of many Minnesota colleges participating.

In the past, typical course titles have included *City Arts and Architecture*, *Sommerfest at Orchestra Hall*, and *Spring at the Mississippi Headwaters*. Call 624-7004 for more information about Elderhostel.

# The Nolte Scholarship Fund



## *Supporting Adult Students into the 21st Century*

**W**e are heading for a new century, in a rapidly changing world, and for most adults, higher education is no longer a luxury. It is a necessity. Education can enable us to reason clearly, perform more effectively, and adapt to change readily. The University offers thousands of adults the second chance to attain a University education by attending classes part-time in the evenings.

But not every potential student is able to afford an education. For adults in low-paying jobs without tuition reimbursement, or those whose lives have been disrupted by job loss, divorce, or death, the lack of funds for education is a major barrier to improving their lives.

Traditional student assistance programs are not geared for adult part-time students. The Nolte Scholarship Fund may be their only recourse. This fund was established in 1986 to help fill the void in financial assistance programs for adult part-time students. Often adult students are balancing the multiple responsibilities of work and family as well as taking classes. Without the modest assistance of the Nolte Fund, they would put their University degrees on hold indefinitely.

As one of our recipients said recently, "Earning my degree was a goal that seemed impossible before I received my scholarship."

Last year, only about one in nine needy adult students received assistance. Join the supporters of the Nolte Fund by sending a contribution of \$35, \$50, or whatever you can manage—and please do it today. We can't afford to waste the potential these students represent. Send your gift to:

**The Nolte Fund/U of M Foundation  
CEE Development Office, 305 Wesbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455**

Again, in the words of a scholarship recipient, "Thank you for the opportunity you have provided me, and be assured that the contributions made toward these scholarship programs really do make a difference in people's lives!"

# Degrees & Certificates

For further information about degrees and certificates, telephone CEE Counseling: 625-2500 or inquire via internet: CEEAdv@maroon.tc.umn.edu

Contents	Page
Undergraduate degrees .....	478
Graduate degrees .....	497
Certificates .....	501

## Degrees

### Note: Important Admissions Information

All students admitted to a University of Minnesota baccalaureate degree program must meet the preparation standards listed below (see exception).

1. Four years of English (with emphasis on writing, reading, speaking skills, and literary understanding and appreciation)
2. Three years of mathematics (one year each of elementary and intermediate algebra and geometry)
3. Three years of science (including one year each of biological and physical sciences)
4. Two years (or three college quarters) of a single second language
5. Two years of social studies (including U.S. history)

Also recommended, but not required, are courses in computer skills and the visual and performing arts.

These required preparatory courses can be completed in high school or in Extension Classes or CEE Independent Study courses. If you did not complete these requirements in high school, an adviser in the CEE Counseling Office (625-2500) can help you select the equivalent course at the University which will satisfy the requirement.

**Exception:** Applicants who graduated from high school before 1987 are exempt from these requirements but are strongly encouraged to complete them to enhance their chances for academic success.

If you have questions about gaining admission to a degree program or the preparation requirements, please contact an adviser in CEE Counseling at 625-2500.

**Degree and certificate program requirements may change and occasionally programs are discontinued. The University will make every reasonable effort to assist admitted students in completing a program.**

Several college degrees, in more than 25 major areas, may be earned completely through Extension attendance.

Students seeking a college degree through Extension should consult, early in their planning, with an adviser at the CEE Counseling Office (625-2500). Advisers can explain degree requirements, help in course selection, review transcripts of previous college work, and refer students to college offices and major advisers when appropriate.

Simply taking classes and earning credit does not mean a student has been admitted to a degree program. *Students must apply to the college or program which grants the degree.* An adviser can explain when and how to apply for admission to a college and help in course selection.

In addition to undergraduate degrees, a master of arts in English (through CEE and the Graduate School), a Master's in Social Work (weekend program), a Master of Liberal Studies (tentatively scheduled for fall 1994), and a master of business taxation (M.B.T.) may be completed through Extension classes, as well as portions of other graduate programs, upon approval by that graduate program. Also, master's degrees in business administration and in industrial relations are available in the evening through the Carlson School of Management. Call 624-0006 (M.B.A.) or 624-5810 (M.A.I.R.) for information.

Colleges and degrees are described in detail on the following pages.

## Academic Progress

For students not held to other college, department, or program academic standards, CEE will determine scholastic standing by evaluating satisfactory progress with the following criteria:

## Undergraduate Degrees

*Completion of two-thirds (66%) of total credits for the review period with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W, V, or X are not included in this calculation.*

**The formula for determining satisfactory progress is as follows:** (Total credits grades A, B, C, or S) divided by (Total credits graded A, B, C, D, F, S, N, or I) equals 66%.

Grades in repeated courses and noncredit remedial courses are considered in total credits.

Students who do not meet the criteria for good academic standing will not be eligible to receive financial aid, veterans benefits, and specially funded programs.

Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing.

Students are encouraged to contact an academic progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Students in certificate programs who do not register for at least one credit within six consecutive quarters will be withdrawn from their certificate program.

## Undergraduate degrees

Beginning this fall, the University of Minnesota—Twin Cities campus colleges are moving toward a common, standardized list of liberal education requirements (the “general” courses required in any degree) that will apply to most degree programs. These liberal education requirements will make degree planning easier. For example, with one standard set of “general” requirements, students who are undecided about a major can begin working on these requirements and be assured that these courses will apply toward their degree.

The new liberal education requirements are available now to first-year students (38 or fewer credits) who are officially admitted into a degree program. Beginning in fall 1996, newly admitted first-year students and transfer students will be able take advantage of these requirements.

If you are officially admitted to a degree program, check with your college adviser as to which liberal education requirements you should pursue. If you are an Extension student not yet admitted to a

degree program, the requirements you should pursue will depend on when you will be admitted and how many credits you have earned. Check with an adviser in CEE Counseling for assistance; telephone 625-2500.

A detailed explanation of the liberal education requirements and list of applicable courses is included below.

## The New Liberal Education Requirement

The University of Minnesota—Twin Cities Liberal Education Requirements listed here, and the courses that meet these requirements, apply to students entering a degree program at the Twin Cities campus for the first time fall quarter 1994 with fewer than 39 credits. (Students entering a degree program before fall 1994 or with 39 or more credits are responsible for earlier liberal education requirements in the colleges or programs.) An academic adviser can help students with requirements and course options.

Note: Students pursuing the Bachelor of Information Networking and Bachelor of Applied Studies degrees should consult their adviser about their liberal education requirements.

### LIBERAL EDUCATION REQUIREMENTS

*Overview*—A liberal education introduces students to the modes of inquiry and subject matter of the major branches of knowledge, including the factual information and theoretical or artistic constructs that form their foundation; the “ways of knowing”—the kinds of questions asked and how insight, knowledge, and data are acquired and used; the changes over time of their central ideas or expressive forms; and the interrelationships among them and with human society in general. To these ends, study by all undergraduate students on the Twin Cities campus is guided by a common framework.

### THE DIVERSIFIED CORE CURRICULUM

*Physical and Biological Sciences*—Comprehension of physical and biological principles; understanding of and ability to use the methods of scientific inquiry—the ways in which scientists investigate physical and biological phenomena and appreciation of the importance of science and the value of a scientific perspective. **(Phys/L) (Phys/NL) (Bio/L) (Bio/NL)**

*Requirement:* A minimum of 3 courses totaling at least 12 credits, including 1 course with laboratory or field experience in the physical sciences and 1 course with laboratory or field experience in the biological sciences.

**History and Social Sciences**—Knowledge of how historians and social scientists describe and analyze human experiences and behavior; study of the interrelationships among individuals, institutions, structures, events, and ideas; understanding of the roles individuals play in their historical, cultural, social, economic, and political worlds. **(Hist) (SSci)**

**Requirement:** A minimum of 3 courses totaling at least 12 credits, including one course with historical perspective.

**Arts and Humanities**—Understanding of approaches to the human condition through works of art, literature, and philosophy; knowledge of how artists create and humanistic scholars think; ability to make aesthetic judgments. **(AH) (Lit) (Phil) (Vis)**

**Requirement:** A minimum of 3 courses totaling at least 12 credits, including courses in two of the following: literature, philosophical perspective, and visual or performing arts.

**Mathematical Thinking**—Acquisition of mathematical modes of thinking; ability to evaluate arguments, detect fallacious reasoning, and evaluate complex reasoning chains; appreciation of the breadth of applications of mathematics and its foundations. **(Math)**

**Requirement:** A minimum of 1 course totaling at least 4 credits.

## THE DESIGNATED THEMES OF LIBERAL EDUCATION

The designated themes of liberal education offer a dimension to liberal learning that complements the diversified core curriculum. Each of the themes focuses on an issue of compelling importance to the nation and the world, the understanding of which is informed by many disciplines and interdisciplinary fields of knowledge.

**Requirement:** A minimum of 6 courses (or 5 courses if the student includes an approved practicum), including one course in each of the following areas:

**Cultural Diversity**—Understanding of the roles gender, ethnicity, and race play in structuring the human experience in and developing the social and cultural fabric of the United States. **(CD)**

**International Perspectives**—Comprehension of the ways in which the student is part of a rapidly changing global environment dominated by the internationalization of most human endeavors. **(IP)**

**Environment**—Knowledge of the interaction and interdependence of the biophysical systems of the natural environment and human social and cultural systems. **(Envt)**

**Citizenship and Public Ethics**—Reflection on and determination of a clearer sense of your present and future civic relationships and your obligations to the community. **(C/PE)**

The student may satisfy liberal education requirements with a variety of courses and credits because some courses serve multiple goals in the curriculum. For example, some courses satisfy a diversified core requirement and a designated theme requirement, and other courses satisfy the requirements for each of two designated themes. Thus, the student may satisfy the designated theme requirements with a smaller number of courses than is stated in the requirement.

### Abbreviations Used in the Curriculum Lists:

AH	<i>Arts and Humanities</i>
Biol/L	<i>Biological Science with Laboratory</i>
Biol/NL	<i>Biological Science/No Laboratory</i>
CD	<i>Cultural Diversity</i>
C/PE	<i>Citizenship and Public Ethics</i>
Envt	<i>Environment</i>
Hist	<i>Historical Perspective</i>
IP	<i>International Perspective</i>
Lit	<i>Literature</i>
Math	<i>Mathematical Thinking</i>
Phil	<i>Philosophical Perspective</i>
Phys/L	<i>Physical Science with Laboratory</i>
Phys/NL	<i>Physical Science/No Laboratory</i>
SSci	<i>Social Science</i>
Vis	<i>Visual or Performing Arts</i>

## COURSES THAT SATISFY REQUIREMENTS FOR DIVERSIFIED CORE CURRICULUM—

The following charts list all University of Minnesota courses that fulfill each of the diversified core curriculum areas. Students who qualify for Honors may use an honors version of any course to satisfy the same requirement.

**Extension Classes Students Please Note:** Not all courses are offered through Extension; those that are offered through Extension are not offered each quarter or even each academic year. *Check the Credit Course Offerings section of this Bulletin for course schedules.* Check the *Day School Class Schedule* for classes offered during the day.

**Topics Courses**—Some listed courses may be topics courses (the number for most topics courses ends in zero); whether or not the specific topic fulfills a core or a theme requirement depends on the particular topic of that course and during that term. Be sure to check with the department offering the course before registering for a topics course which you are using to meet any requirement.

## Undergraduate Degrees

### *Physical and Biological Sciences*

	<i>Core</i>	<i>Themes</i>
AgEt 3025	Phys/NL	
AnPl 3010	Biol/NL	Envt
AnSc 3510	Bio/NL	
Ast 1019	Phys/NL	Envt
Ast 1031	Phys/NL	Envt
Ast 1032	Phys/NL	Envt
BioC 1401	Biol/NL	
Biol 1009	Biol/L	
Biol 1201	Biol/L	
Chem 1001	Phys/L	
Chem 1002	Phys/L	
Chem 1008	Phys/NL	
Chem 1051	Phys/L	
Chem 1052	Phys/L	
EEB 1019	Phys/NL	Envt
Ent 1005	Biol/L	Envt
Ent 3005	Biol/NL	
Ent 3200	Biol/NL	
FR 3103	Phys/NL	Envt
FR 3104	Biol/NL	Envt
FScN 1020	Biol/L	
FScN 1612	Biol/NL	
GC 1112	Biol/NL	Envt
GC 1131	Biol/L	
GC 1132	Biol/NL	
Geo 1001	Phys/NL	Envt
Geo 1005	Phys/NL	Envt
Geo 1011	Phys/NL	
Geo 1012	Phys/NL	Envt
Geo 1019	Phys/NL	Envt
Geo 1021	Phys/L	
Geo 1601	Phys/NL	
Geog 1402	Phys/NL	Envt
Geog 1425	Phys/L	
Hort 1036	Biol/L	
Hort 3003	Biol/L	
NRES 3020	Biol/L	Envt
NRES 3060	Biol/NL	Envt
Phys 1001	Phys/L	
Phys 1005	Phys/L	
Phys 1041	Phys/L	
Phys 1042	Phys/L	
Phys 1104	Phys/NL	
Phys 1105	Phys/NL	

### *Core*

### *Themes*

Phys 1106	Phys/NL	
Phys 1107	Phys/L	
Phys 1108	Phys/L	
Phys 1109	Phys/L	
Phys 1251	Phys/L	
Phys 1252	Phys/L	
Phys 1253	Phys/L	
Phys 1254	Phys/L	
Psy 3031	Biol/NL	
Psy 3061	Biol/NL	
Soil 1020	Phys/L	Envt
Soil 1425	Phys/L	

### *History and Social Sciences*

#### *Core*

#### *Themes*

Afro 3001	Hist	IP
Afro 3061	SSci	CD
AgEc 3040	Hist	
AmSt 1001	SSci	CD
AmSt 1002	SSci	CD
AmSt 1003	SSci	CD
Anth 1102	SSci	IP
Anth 3003	SSci	IP
Anth 3116	SSci	Envt
Anth 3303	SSci	
Clas 1043	Hist	
Clas 1082	Hist	
CPsy 1301	SSci	
CPsy 3309	SSci	
CPsy 3331	SSci	
CSCL 1302	Hist	
CSCL 3472	Hist	
Econ 1101	SSci	
Econ 1102	SSci	
Econ 1104	SSci	
Econ 1105	SSci	
EdPA 3120	Hist	
Engl 3851	SSci	
Engl 3853	SSci	CD
EPsy 3132	SSci	CD
FScN 3472	SSci	
FSoS 3600	SSci	CD
GC 1221	Hist	
GC 1235	SSci	C/PE
GC 1281	SSci	
GC 1511	SSci	

## Undergraduate Degrees

	<i>Core</i>	<i>Themes</i>		<i>Core</i>	<i>Themes</i>
Geog 3101	SSci	CD	Pol 1041	SSci	C/PE
Geog 3102	SSci		Pol 1054	SSci	IP
Geog 3141	SSci	IP	Pol 3051	SSci	
Geog 3161	SSci	IP	Pol 3835	SSci	IP
Geog 3331	SSci	IP	Psy 1001	SSci	
Geog 3381	SSci	IP	Psy 3011	SSci	
Hist 1011	Hist	IP	Psy 3051	SSci	
Hist 1012	Hist	IP	Rhet 1303	Hist	
Hist 1013	Hist	IP	Soc 3101	SSci	C/PE
Hist 1031	Hist	IP	Soc 3481	SSci	IP
Hist 1032	Hist	IP	Soc 3501	SSci	CD
Hist 1033	Hist	IP	Soc 3524	SSci	
Hist 1301	Hist	CD	Soc 3601	SSci	IP
Hist 1302	Hist	CD	SW 3202	SSci	C/PE
Hist 3151	Hist		WoSt 1002	SSci	CD
Hist 3152	Hist		WoSt 1003	SSci	IP
Hist 3401	Hist		WoSt 3103	Hist	
Hist 3402	Hist		WoSt 3405	SSci	
Hist 3403	Hist		WoSt 3406	SSci	CD
Hist 3615	Hist				
Hist 3704	Hist	IP	<b>Arts and Humanities</b>		
HMed 3040	Hist	Env't		<i>Core</i>	<i>Themes</i>
HMed 3401	Hist		Afro 3601	Lit	IP
HMed 3402	Hist		Arch 1301	Vis	
HMed 3403	Hist		Arch 1401	AH	
HSci 1711	Hist	IP	Arch 3411	Vis	IP
HSci 1712	Hist	IP	Arch 3412	Vis	IP
HSci 1713	Hist	IP	ArtH 1016	Vis	IP
HSci 1811	Hist	IP	ArtH 3014	Vis	IP
HSci 1812	Hist	IP	ArtH 3015	Vis	IP
HSci 1813	Hist	IP	ArtH 3017	AH	IP
HSci 3331	Hist	CD	ArtS 1101	Vis	
HSci 3332	Hist	CD	ArtS 1301	Vis	
HSci 3711	Hist	IP	ArtS 1302	Vis	
HSci 3712	Hist	IP	ArtS 1401	Vis	IP
HSci 3713	Hist	IP	ArtS 1520	Vis	
HSci 3811	Hist	IP	ArtS 1602	Vis	
HSci 3812	Hist	IP	ArtS 1701	Vis	
HSci 3813	Hist	IP	Arts 1811	Vis	
HSci 3825	Hist	IP	ArtS 1812	Vis	
HSci 5332	Hist		Clas 1042	AH	
Jour 1001	SSci		Clas 3001	Lit	
Jour 3614	Hist		Clas 3035	AH	
Jour 3796	SSci		Clas 3081	Lit	
Pol 1001	SSci		Clas 3082	Lit	
Pol 1025	SSci	IP	Clas 3142	Vis	IP

# Undergraduate Degrees

	<i>Core</i>	<i>Themes</i>		<i>Core</i>	<i>Themes</i>
CSCL 1301	AH		Ital 3303	Lit	
CSCL 1303	AH		Ital 3305	Lit	
CSCL 3132	Lit		Ital 3501	AH	IP
CSCL 3172	Vis		Ital 3502	AH	IP
CSCL 3175	AH		LA 1301	Vis	
CSCL 3176	Vis	IP	LA 1401	AH	
CSCL 3321	AH		LA 3413	Vis	
CSCL 3458	AH		Mus 1021	Vis	IP
DHA 1101	AH		Mus 3021	Vis	IP
DHA 1300	AH		Phil 1002	Phil	
Dnce 1101	Vis	IP	Phil 1003	Phil	
Dnce 3401	Vis	IP	Phil 1006	Phil	CD
Dnce 3402	Vis	IP	Phil 3001	Phil	
Dnce 3486	Vis	CD	Phil 3002	Phil	
Dnce 3666	Vis	IP	Phil 3003	Phil	
Dnce 5487	Vis	IP	Phil 3004	Phil	
Engl 1017	Lit		Phil 3302	Phil	C/PE
Engl 1018	Lit		Phil 3502	AH	
Engl 1591	Lit	CD	RelS 1001	AH	
Engl 3241	Lit		Rhet 1310	AH	CD
Engl 3242	Lit		Rhet 1380	Lit	IP
Engl 3411	Lit		Rhet 3382	AH	C/PE
Engl 3412	Lit		Rhet 3395	AH	CD
Engl 3413	Lit		Rhet 3690	AH	C/PE
Engl 3455	Lit		Th 1101	Vis	CD
Engl 3591	Lit	CD	Th 1102	Vis	
Engl 3651	Lit		VoEd 5010	AH	C/PE
Engl 3671	Lit		WoSt 1001	AH	CD
EngW 1101	Lit		WoSt 3102	Phil	C/PE
Fren 3101	Lit	IP	WoSt 3303	Lit	CD
Fren 3103	Lit	IP	WoSt 3304	Vis	CD
GC 1365	Lit	CD	WoSt 3306	Lit	CD
GC 1371	Lit		WoSt 3307	Lit	CD
GC 1374	Vis		WoSt 3308	Lit	IP
GC 1375	Vis	CD			
GC 1836	Lit	CD			
Hum 1004	AH	IP			
Hum 1005	AH	IP			
Hum 3004	AH	IP			
Hum 3005	AH	IP			
Ital 3201	Lit				
Ital 3209	Lit				
Ital 3219	Lit				
Ital 3289	Lit				
Ital 3301	Lit				
			<b><i>Mathematical Thinking</i></b>		
			<i>Core</i>	<i>Themes</i>	
			Ast 1040	Math	
			EPsy 3260	Math	
			GC 1456	Math	
			Math 1001	Math	
			Math 1005	Math	
			Math 1031	Math	
			Math 1105	Math	
			Math 1106	Math	
			Math 1131	Math	



## Undergraduate Degrees

	<i>Core</i>	<i>Themes</i>		<i>Core</i>	<i>Themes</i>
Math 1142	Math		AmSt 1003	SSci	CD
Math 1151	Math		CDis 5103		CD
Math 1251	Math		CSCL 3979		CD, C/PE
Phil 1001	Math		Dnce 3486	Vis	CD
Stat 1001	Math		Engl 1591	Lit	CD
Stat 3011	Math		Engl 3591	Lit	CD
			Engl 3853	SSci	CD
<b><i>Citizenship and Public Ethics</i></b>			Engl 5482		IP, CD
	<i>Core</i>	<i>Themes</i>	Engl 5483		IP, CD
AgEc 3920		C/PE	EPsy 3132	SSci	CD
Anth 5117		Envl, C/PE	FScN 3610		CD
CSCL 3979		CD, C/PE	FSoS 3600	SSci	CD
DHA 5485		C/PE	FSoS 5252		IP, CD
FScN 1102		C/PE	FSoS 5500		CD
GC 1235	SSci	C/PE	GC 1365	Lit	CD
GC 1294		C/PE	GC 1375	Vis	CD
Hist 3348		C/PE	GC 1463		CD
Jour 5274		C/PE	GC 1836	Lit	CD
NRES			Geog 3101	SSci	CD
C/PE			Hist 1301	Hist	CD
Phil 3302	Phil	C/PE	Hist 1302	Hist	CD
Pol 1041	SSci	C/PE	Hist 3347		CD
Pol 3309		C/PE	Hist 3801		CD
Pol 3323		CD, C/PE	Hist 3861		CD
Pol 3331		C/PE	Hist 3862		CD
Pol 3352		C/PE	Hist 3871		CD
Pol 3661		C/PE	Hist 3872		CD
Pol 5303		C/PE	HSci 3331	Hist	CD
Pol 5737		C/PE	HSci 3332	Hist	CD
Pol 5738		C/PE	Phil 1006	Phil	CD
Rhet 3266		C/PE	Phil 3234		CD
Rhet 3382	AH	C/PE	Pol 3323		CD, C/PE
Rhet 3690	AH	C/PE	Pol 3739		CD, C/PE
Soc 3101	SSci	C/PE	Rhet 1101		CD
Spch 3431		C/PE	Rhet 1310	AH	CD
Spch 3601		C/PE	Rhet 3395	AH	CD
Spch 3625		C/PE	Rhet 5170		IP, CD
Spch 5431		C/PE	Rhet 5680		CD
SW 3202	SSci	C/PE	Soc 3501	SSci	CD
VoEd 5010	AH	C/PE	Spch 5211		CD
WoSt 3102	Phil	C/PE	Spch 5452		CD
			Th 1101	Vis	CD
<b><i>Cultural Diversity</i></b>			WoSt 1001	AH	CD
	<i>Core</i>	<i>Themes</i>	WoSt 1002	SSci	CD
Afro 3061	SSci	CD	WoSt 3303	Lit	CD
AmSt 1001	SSci	CD	WoSt 3304	Vis	CD
AmSt 1002	SSci	CD			

## Undergraduate Degrees

	<i>Core</i>	<i>Themes</i>		<i>Core</i>	<i>Themes</i>
WoSt 3306	Lit	CD	NRES 5060		Envt
WoSt 3307	Lit	CD	NRES 5100		Envt
WoSt 3406	SSci	CD	PIPa 3004		Envt
<b><i>Environment</i></b>			ScAg 1500		Envt
	<i>Core</i>	<i>Themes</i>	Soil 1020	Phys/L	Envt
AgEc 3610		Envt	Soil 5605		Envt
AgEc 5650		Envt			
AnPl 3010	Biol/NL	Envt	<b><i>International Perspectives</i></b>	<i>Core</i>	<i>Themes</i>
Anth 3116	SSci	Envt	Afro 3001	Hist	IP
Anth 5117		Envt, C/PE	Afro 3601	Lit	IP
Ast 1019	Phys/NL	Envt	AgEc 3007		IP
Ast 1031	Phys/NL	Envt	AgEc 3070		IP
Ast 1032	Phys/L	Envt	AgEc 5730		IP
BioC 5301		Envt	AgEc 5750		IP
Biol 1051		Envt	AgEc 5790		IP
Biol 3051		Envt	AgET 5027		IP
EEB 1019	Phys/NL	Envt	Agro 5200		IP
Ent 1005	Biol/L	Envt	Anth 1102	SSci	IP
Ent 5320		Envt	Anth 3003	SSci	IP
FR 1201		Envt	Anth 3261		IP
FR 1203		Envt	Anth 3293		IP
FR 3103	Phys/NL	Envt	Anth 3294		IP
FR 3104	Biol/NL	Envt	Anth 5115		IP
FR 3250		Envt	Anth 5325		IP
FR 5104		Envt	Arch 3411	Vis	IP
FR 5114		Envt	Arch 3412	Vis	IP
FR 5226		Envt	Arth 1016	Vis	IP
FR 5231		Envt	Arth 3014	Vis	IP
FR 5232		Envt	Arth 3015	Vis	IP
FR 5250		Envt	Arth 3017	AH	IP
FW 1002		Envt	ArtS 1401	Vis	IP
FW 3052		Envt	CAPS 5280		IP
FW 5604		Envt	Clas 3142	Vis	IP
GC 1112	Biol/NL	Envt	CSCL 3176	Vis	IP
Geo 1001	Phys/NL	Envt	DHA 3212		IP
Geo 1005	Phys/NL	Envt	DHA 5217		IP
Geo 1012	Phys/NL	Envt	DHA 5465		IP
Geo 1019	Phys/NL	Envt	Dnce 1101	Vis	IP
Geog 1402	Phys/NL	Envt	Dnce 3401	Vis	IP
HMed 3040	Hist	Envt	Dnce 3402	Vis	IP
MicB 5611		Envt	Dnce 3666	Vis	IP
NRES 1010		Envt	Dnce 5487	Vis	IP
NRES 1040		Envt, IP	Econ 5307		IP
NRES 3020	Biol/L	Envt	Econ 5337		IP
NRES 3060	Biol/NL	Envt	Econ 5401		IP
NRES 5020		Envt	Econ 5431		IP

## Undergraduate Degrees

	<i>Core</i>	<i>Themes</i>		<i>Core</i>	<i>Themes</i>
Econ 5432		IP	Ital 3501	AH	IP
Engl 5482		IP, CD	Ital 3502	AH	IP
Engl 5483		IP, CD	Jour 5801		IP
Fren 3101	Lit	IP	Mus 1021	Vis	IP
Fren 3103	Lit	IP	Mus 3021	Vis	IP
FScN 5643		IP	Mus 3604		IP
FSoS 5252		IP, CD	Mus 3605		IP
GC 1251		IP	Mus 3606		IP
Geog 3141	SSci	IP	NRES 1040		Envt, IP
Geog 3161	SSci	IP	Pol 1025	SSci	IP
Geog 3211		IP	Pol 1054	SSci	IP
Geog 3331	SSci	IP	Pol 3835	SSci	IP
Geog 3381	Hist	IP	Pol 5410		IP
Hist 1011	Hist	IP	Pol 5461		IP
Hist 1012	Hist	IP	Pol 5471		IP
Hist 1013	Hist	IP	Pol 5477		IP
Hist 1031	Hist	IP	Pol 5478		IP
Hist 1032	Hist	IP	Pol 5479		IP
Hist 1033	Hist	IP	RelS 1031		IP
Hist 3471		IP	Rhet 1380	Lit	IP
Hist 3474		IP	Rhet 5170		IP, CD
Hist 3475		IP	Soc 3481	SSci	IP
Hist 3703		IP	Soc 3601	SSci	IP
Hist 3704	Hist	IP	Spch 5231		IP
Hist 3721		IP	Spch 5232		IP
Hist 3722		IP	Spch 5233		IP
Hist 3881		IP	Spch 5451		IP
Hist 3882		IP	WoSt 1003	SSci	IP
Hist 3883		IP	WoSt 3308	Lit	IP
HSci 1711	Hist	IP	WoSt 5301		IP
HSci 1712	Hist	IP			
HSci 1713	Hist	IP			
HSci 1811	Hist	IP			
HSci 1812	Hist	IP			
HSci 1813	Hist	IP			
HSci 3711	Hist	IP			
HSci 3712	Hist	IP			
HSci 3713	Hist	IP			
HSci 3811	Hist	IP			
HSci 3812	Hist	IP			
HSci 3813	Hist	IP			
HSci 3825	Hist	IP			
Hum 1004	AH	IP			
Hum 1005	AH	IP			
Hum 3004	AH	IP			
Hum 3005	AH	IP			

## Continuing Education and Extension

### *Bachelor of Information Networking (B.I.N.)*

The Bachelor of Information Networking is offered by Continuing Education and Extension at the University of Minnesota in conjunction with North Hennepin Community College (NHCC). The University offers the upper-division courses and awards the degree. North Hennepin offers lower division and prerequisite courses and is the site for most of the courses in the program.

## Undergraduate Degrees

The B.I.N. degree is an interdisciplinary blend of computer science, management and information systems, liberal arts, science and engineering, and practical hands-on experience. Students in the program will gain a thorough understanding of both the design and management of voice, video, and data transmissions over various networks and between different platforms.

B.I.N. graduates are prepared to assume a wide range of positions in the industry that Vice President Al Gore calls "the most important and lucrative marketplace of the 21st century." Career opportunities exist in software development, network design and administration, interactive television, fiber optic information services, and other areas. If you are interested in the B.I.N. degree call the CEE Counseling Department at (612) 625-2500 to speak with a B.I.N. adviser or inquire via internet: [UBIN@maroon.tc.umn.edu](mailto:UBIN@maroon.tc.umn.edu).

### Admission to the program

Each year up to 20 students will be admitted into the B.I.N. program. The application process is competitive and based on the following criteria:

- completion of specific physics, mathematics, and computer science courses;
- a minimum of 70 quarter credits transferable to the program plus a minimum G.P.A. of 2.60;
- priority is given to applicants with 90 transferable quarter credits, 3.00 G.P.A., and residents of Minnesota and reciprocity states.

### B.I.N. Curriculum

The curriculum of the B.I.N. consists of 182 credits. Lower division and prerequisite course work can be completed at NHCC, the University of Minnesota, or upon evaluation, other colleges and universities. Courses listed below with 3-digit numbers are NHCC lower division courses (equivalent courses from other institutions may be substituted); 4-digit courses are University of Minnesota courses.

#### First- and Second-Year Courses

CSci 102*	Computer Programming in C (5 credits)
CSci 250*	Assembly Language Programming (4 credits)
CSci 260*	Algorithms and Data Structures (5 credits)
Econ 106	Macro-Economics (4 credits)
Econ 107	Micro-Economics (4 credits)
Engl 194	Technical Writing (3 credits)
Engr 241/243	Circuit Analysis I: DC (6 credits)

Engr 242/244	Circuit Analysis II: AC (6 credits)
English 111	Freshman English I (5 credits)
English 112	Freshman English II (5 credits)
Math 121*	Calculus I (5 credits)
Math 122*	Calculus II (5 credits)
CSci 240*	Discrete Structures (5 credits)
Math 232*	Linear Algebra (5 credits)
Phys 150*	General Physics (4 credits)
Phys 151/154*	General Physics & Lab (6 credits)
Phys 152/155*	General Physics & Lab (6 credits)
Phys 153/156*	General Physics & Lab (6 credits)
Speech 100	Interpersonal Communication (3 credits)
Speech 101	Fundamentals of Speech (4 credits)

#### Third-Year Courses

Acct 224	Principles of Accounting (4 credits)
Bus 220	Introduction to Management (4 credits)
CSci 5102	Software Systems II (4 credits)
CSci 5113	Object Programming in C++ (4 credits)
CSci 5201	Computer Architecture (4 credits)
CSci 5211	Data Communication and Computer Networks (4 credits)
CSci 5212	Network Programming Lab (2 credits)
IDS 5102	Introduction to Information Systems Analysis (4 credits)
IEOR 5703	Project Management (4 credits)
Psy 203	Psychology (5 credits)
Math 201	Probability and Statistics for Engineering and the Sciences (4 credits)
Elective	Social Science (4 credits)

#### Fourth-Year Courses

CSci 5180	Software Engineering (4 credits)
CSci 5221	Advanced Computer Networking (4 credits)
CSci 5222	Network Operation and Administration Lab (4 credits)
Elective	Business Finance, Information and Decision Sciences, or Management (4 credits)
Elective	Computer Science, Electrical Engineering, or Management (4 credits)

Electives	Computer Science, Electrical Engineering, Management, or Internship (8 credits)
Elective	Humanities (4 credits)
Elective	Liberal Education (4 credits)
Elective	Practicum (2 credits)
New Course	Legal and Political Issues of Networking (4 credits)

\* Prerequisites for admission

### ***Bachelor of Applied Business (B.A.B.)***

The Bachelor of Applied Business is offered by Continuing Education and Extension in cooperation with Inver Hills Community College (IHCC). The University offers the upper division courses and awards the degree. Inver Hills offers lower division course work, including a two-year degree (Associate of Science in Applied Business) which meets all prerequisites, and is the site for the University courses.

The B.A.B. is a new practitioner-oriented degree intended for adult and part-time students. Courses address real-world business issues and relate workplace skills to student experience. A unique professional skills core of courses emphasizes applied skills. Graduates of the B.A.B. program will be prepared with a portfolio of skills and competencies that will be valuable in their current jobs and help them advance in their careers.

### **Admission to the Program**

Each year 40 students will be admitted in fall and spring quarters. Students who have completed all prerequisites are given priority in consideration. Students may choose, with adviser approval, to begin course work before admission. The application process is competitive and based on the following criteria:

- completion of required prerequisite courses such as business, mathematics, statistics, economics, and certain other general requirements in the arts, science, and social sciences;
- a minimum of 70 quarter credits transferrable to the program and a minimum G.P.A. of 2.20;
- consideration will be given to other criteria, including grade-point average and work experience or significant accumulated life experience.
- priority is given to applicants with 90 transferable quarter credits and to residents of Minnesota or reciprocity states.

### **B.A.B. Curriculum (180 credits)**

The courses listed below are the curriculum for the

B.A.B. degree. Lower division and prerequisite course work can be completed at IHCC, the University of Minnesota, and upon evaluation, other colleges and universities.

### **Lower Division Courses (70–94 credits)**

#### *Essential Business Core—Required Coursework*

(These are general titles or topics; equivalent courses may be substituted upon approval.)

- Introduction to Business
- Microeconomics
- Legal Aspects of Business
- Managerial Communications
- Principles of Accounting I
- Principles of Management
- Math for Decision Making
- Principles of Marketing
- Human Relations
- Introduction to Computer Science
- Statistics for Decision Making

#### *Additional Preparation Coursework*

(Completion before admission recommended.)

- English Composition
- Global Economic Geography
- Principles of Accounting II
- Fine Arts/Humanities
- Speech
- Psychology/Sociology
- Business Operations
- Science

### **Upper Division Courses—University of Minnesota (86 credits)**

#### *Professional Skills Core (40 credits)*

- Historical Perspectives and Contemporary Business Challenges (4 cr)
  - Problem Solving in Complex Organizations (4 cr)
  - Small Group Behavior and Teamwork (4 cr)
  - Managing Organizational Relationships (4 cr)
  - Communicating for Results (4 cr)
  - Accessing and Using Information Effectively (4 cr)
  - Quantitative Skills for Decision Making (4 cr)
  - Leadership in a Global and Diverse Workplace (4 cr)
  - Planning and Implementation at the Business Unit Level (4 cr)
  - Project Management in Practice (4 cr)
- Functional Area Applications (20 credits)*
- Accounting and Finance for Managers (4 cr)
  - Operations in Manufacturing and Service Businesses (4 cr)

## Undergraduate Degrees

Marketing and Sales (4 cr)  
Management and Human Resource Practices (4 cr)  
Practicum (4 cr)

### *Elective Courses*

26 credits with at least 16 at the upper division level

## College of Liberal Arts

### *Bachelor of Arts (B.A.)*

The Bachelor of Arts degree from the College of Liberal Arts can be earned in several major fields through Continuing Education and Extension. Some requirements of the degree program may be met with credits transferred from other accredited colleges and universities. Students wishing to earn the B.A. degree through Continuing Education and Extension should talk with an adviser from CEE Counseling (625-2500) as soon as the decision has been reached.

Candidates for the B.A. degree must complete 180 credits acceptable to CLA (a minimum of 45 credits graded A, B, or C in University of Minnesota CLA courses, 72 of them in 3000- and 5000-level courses). A maximum of 12 credits of D may be applied toward the 180-credit requirement. Students must also satisfy the upper level composition requirement, second language, world studies, U.S. cultural pluralism, and groups A, B, C, and D (listed below). Finally, B.A. candidates must complete a major sequence in the field selected and complete at least 28 credits in 3000- or 5000-level courses from units outside their major department (interdepartmental majors are exempt from this requirement).

Most students try to meet the Writing Practice requirement, second language, and many of their general education requirements in their first 90 credits, leaving the last half of their programs free for work in their major field and electives. Although it is usually desirable to meet these requirements early, it is not necessary to complete them before applying for admission to a major program. Sophomores (39 or more credits) in good standing may apply for admission to majors.

*The following majors currently can be completed in Extension Classes:*

American Studies  
Art  
Art History  
Child Psychology  
Computer Science  
Economics  
English  
History

Individualized Study Degree Program (B.I.S.)  
Individually Designed Interdepartmental Major (IDIM)

Philosophy  
Political Science  
Psychology  
Speech-Communication

Majors in other departments—Anthropology, Biology, Mathematics, and Sociology—can be nearly completed through Extension Classes. A few courses must be taken in day classes (the departments concerned sometimes permit substitution).

Students also may choose to complete a minor. A minor is an approved concentration of 15 to 25 3000- and 5000-level credits in a single department or program. Approved minors are listed in the departmental entries in the CLA bulletin. For additional information, call CEE Counseling, 625-2500.

The minors that can be completed in Extension Classes are:

Art  
Child Psychology  
Computer Science  
Dutch  
Economics  
English  
History  
Mathematics  
Philosophy  
Political Science  
Psychology  
Sociology  
Spanish  
Speech-Communication  
Women's Studies

Condensed descriptions of major requirements for these degrees are given with course listings under department headings in this bulletin. Each major's departmental office has complete descriptions of their major and minor requirements. The departments also have advisers to advise you in your major.

A copy of the 1994-96 CLA Bulletin is essential to the CLA degree candidate. It can be obtained by calling Admissions, 625-2008. In addition, a copy of "Pursuing a Bachelor's Degree through Continuing Education and Extension" should be obtained from CEE Counseling, 314 Nolte Center, 625-2500.

### Changes in attendance and graduation plans

Admitted CLA students must submit to their college advising office a "leave of absence and noncontinuation form" if they do not plan to enroll in an upcoming quarter.

Continuing Education and Extension B.A. candidates usually follow the general education requirements in use at the time of their formal admission to CLA. The current requirements are described below. Transfer students entering fall 1984 or after must also meet these requirements. Students absent from CLA for more than two years, if they have fewer than 60 credits, must complete the graduation requirements in effect at the time they reenter. Those with 60 or more credits at the time of last attendance may elect to satisfy either the former or the current requirements although they are encouraged to complete the current requirements.

For questions regarding leaves of absence or graduation requirements, students are encouraged to contact their CLA advising office or CEE Counseling at 625-2500.

### Liberal education requirements

Student formally admitted to CLA with fewer than 39 transferrable credits in fall 1994 or later are required to complete the Twin Cities campus liberal education curriculum. Students who were formally admitted to CLA before fall 1994 may petition to complete the current liberal education curriculum or may opt to complete the former CLA general education curriculum. Beginning in fall 1996, all transfer students admitted to CLA will be required to complete the Twin Cities campus liberal education curriculum.

The new Twin Cities campus liberal education curriculum is described on page 478. The former CLA general education curriculum is described below. Consult with your academic adviser to determine which curriculum applies to you.

### CLA former general education curriculum

*Note: Transfer students who have completed an Associate of Arts (A.A.) degree in 1986 or thereafter from a Minnesota community college have completed Writing Practice and Groups A, B, C, and D automatically. Second language, World Studies and Cultural Pluralism may still be required, depending on the type of major or bachelor's degree sought. If you completed an A.A. before 1986 or have further questions, contact an adviser at 625-2500.*

### English Composition Requirement

Writing Practice requirement or exemption and 3000-level writing course designated by the major department.

### Second Language Requirement

The study of a second language is considered essential for a liberal education. The College of Liberal Arts expects students to begin second language study in high school. Knowledge of a second language gained before entering CLA may be used to meet part or all of the language requirement. Students who are unsure about their level of proficiency may consult a language department or a college office adviser for placement assistance. Normally, one to two years of high school study equals one quarter of college study. Students may repeat language study completed in high school, but it is to their advantage to start their college work at as high a level as possible. International students whose primary language is not English are exempted from the requirement. They may not earn credit for skills in their primary language.

*Graduation requirement:* The graduation requirement for the B.A., B.I.S., and B.F.A. degrees requires students to demonstrate proficiency usually attained after the first six quarters of college study in one language by passing a graduation proficiency examination that tests reading, writing, listening, and speaking skills.

For students who entered CLA prior to fall 1988, the graduation requirement for the B.I.S. is different. Please contact your B.I.S. adviser at 624-8006.

*Preparation requirement:* All entering students are expected to meet the University's second language entrance requirement (two years of high school language instruction).

All B.A., B.F.A., and B.I.S. students who register for French, German, or Spanish courses beyond the entrance requirement, must pass the appropriate entrance proficiency examination.

Students who meet the entrance standard may continue their study at higher levels in the same language or may begin study in another language.

Study abroad programs through the Global Campus include courses that may fulfill second language requirements. For information, call (612) 625-3379.

### General Education requirements

At least 48 credits in four groups, distributed as follows:

Group A—Language, Logic, Mathematics, and the Study of Argument: 8-10 credits (normally 2 courses, at least one a "formal language")

## Undergraduate Degrees

Group B—Physical and Biological Universe: 12-15 credits (normally 3 courses, at least two “foundation” courses and one with approved 2-hour laboratory)

Group C—The Individual and Society: 16-20 credits (normally 4 courses—with at least one from each of the following three sub-areas): (1) Individual and Institutional Behavior; (2) The Historical Perspective; (3) Social and Philosophical Analysis

Group D—Literary and Artistic Expression: 12-15 credits (normally 3 courses)

### World Studies requirement

In order for students to transcend the boundaries set by major European and North American educational traditions, students studying for a bachelor of arts or B.I.S. degree are asked to examine cultures substantially different from their own. Students must take at least two courses (8 to 10 credits) dealing with the cultures of Asia, Africa, Latin America, or with traditional American Indian cultures. These courses also may be used to satisfy other College of Liberal Arts requirements. A list of approved courses is found in Section IV of the 1994-96 CLA bulletin. A list of Extension classes meeting this requirement can be obtained by calling CEE Counseling, 625-2500.

Study abroad programs through the Global Campus include courses that may fulfill world studies requirements. For information, call (612) 625-3379.

### U.S. Cultural Pluralism requirement

The CLA U.S. Cultural Pluralism requirement emerged from an acknowledgement of the importance of the importance of studying diverse cultures, in particular, African-American, American Indian, Asian-American, and Chicano cultures. In order to acquire a greater appreciation for cultural diversity in the United States, B.A. and B.I.S. degree students are required to complete at least two courses (8-10 credits) with a primary focus on issues of social and cultural diversity, with special attention to issues of race, gender, and ethnicity. A list of approved courses that satisfy this requirement appears in section IV of the 1994-96 CLA bulletin. There is no restriction on the use of these courses to satisfy any other requirement. This graduation requirement applies to all students who entered CLA in fall 1986 or later and who have taken no previous college work prior to that date. Students who entered CLA between fall 1986 and second summer session 1990 and who completed at least one college credit before fall 1986 are exempt from the requirement. This requirement applied to all students entering CLA fall 1990 and thereafter.

### Special notes on groups A-D:

1. Courses used for English composition and for language requirements may not be used for group distribution requirements.
2. The College will offer opportunities to fulfill by examination any distribution requirement except the Group B laboratory requirement. (The CLEP subject examinations may be used for partial fulfillment.) Extension students may call CEE Counseling (625-2500) for information.
3. Honors courses or sections may be substituted for regular courses or sections (unless otherwise specified).
4. Courses approved for the world studies or U.S. cultural pluralism requirements, which are also approved for a group distribution requirement may be used to fulfill both the world studies or U.S. cultural pluralism requirements and the relevant group distribution requirement.
5. At least one Group B course must include an approved laboratory and at least two must be from the Group B basic foundation courses offered through Extension and shown on the CLA list of courses that meet group distribution requirements.
6. At least one Group A course must deal specifically with a formal language or a formal symbolic system.
7. Extension students may call 625-2500 for a copy of CLA courses meeting group distribution requirements offered through Extension or Independent Study.

### Bachelor of Fine Arts (B.F.A.)

The Department of Art and the Dance Program offer the Bachelor of Fine Arts to students who demonstrate superior professional promise. They are “performance” degrees; students must apply through the departments to be accepted into the programs. Application involves the presentation of a portfolio or an audition. Standard CLA requirements are modified somewhat for students in the degree programs. B.F.A. students must complete the second language requirement. Students should contact the department concerned for details or call CEE Counseling, 625-2500. This degree is not available entirely through Extension.

### Bachelor of Music (B.M.)

The School of Music offers the B.M. degree for students who demonstrate superior professional promise in the areas of performance, jazz studies, music education, and music therapy. Students must apply through the department to be accepted into the



program. Students should contact the department concerned for details or call CEE Counseling, 625-2500. This degree is not available entirely through Extension.

### ***Bachelor of Science (B.S.)***

The Bachelor of Science degree is offered in six areas: child psychology, speech and hearing science, economics, geography, sociology, and urban studies. Its requirements are more concentrated than those of the B.A. program. Usually, no second language, world studies, and cultural pluralism courses are required for the B.S., although there are departmental exceptions (e.g. geography). Some of these majors are not entirely available through Extension.

For further information, call CEE Counseling, 625-2500.

### ***Bachelor of Individualized Study (B.I.S.)***

The Bachelor of Individualized Studies degree enables students to design an individualized program of study based on their personal academic objectives. Program proposals must define three areas of concentration, one of which may be outside CLA (maximum of 40 non-CLA credits). Proposals must be planned with a B.I.S. adviser and approved by CLA faculty advisers. CLA general education requirements are the same as for the B.A. degree. For further information about the B.I.S. degree or the Individually Designed Interdepartmental Major for the B.A. degree, call CEE Counseling, 625-2500, or CLA Individualized Degree Programs, 624-8006.

### ***College of Liberal Arts Honors Program***

Continuing Education and Extension students may work toward graduating with the honors designations *cum laude*, *magna cum laude*, or *summa cum laude* through the College of Liberal Arts Honors Program. Students who are earning 50 percent A's in all of their University of Minnesota credits may be eligible to enter the Honors Program. Honors advisers will work with CEE students to help them develop appropriate honors courses to meet honors graduation requirements. Each year several Extension students graduate with honors. Students interested in working toward honors graduation should call the CLA Honors Program, 624-5522, and make arrangements to talk with an adviser.

### ***Dean's List and CLA Scholars***

Each quarter, the college publicly recognizes superior academic performance through transcript memoranda, notices posted outside the Dean's Office in Johnston Hall, and announcements to academic departments.

To appear on the Dean's List, you must complete at least 12 credits and earn a quarterly G.P.A. of at least 3.66. To be recognized as a CLA Scholar, you must complete at least 15 credits and earn a quarterly G.P.A. of at least 3.75. CLS Scholars are invited by the Dean to a special reception and receive a certificate recognizing their accomplishment.

Extension registrations are included in determining these honors. The G.P.A. calculation used for the Dean's List and CLA Scholars differs from that which produces the transcript G.P.A. If you believe that your qualify for either list but are not included, please consult with the staff in 106 Johnston Hall.

An official letter verifying that a student in a combined CEE-CLA degree program has achieved the Dean's List may be requested in 106 Johnston Hall. Students also may request that this information be sent at no charge to their hometown newspapers.

## **Carlson School of Management**

### ***Bachelor of Science in Business (B.S.B.)***

The B.S.B. degree may be earned through Continuing Education and Extension. Admission to the program is competitive, and students wishing to complete the B.S.B. degree through Extension should talk with an adviser in CEE Counseling (625-2500) as soon as they have made this decision.

Candidates for the degree complete a minimum of 180 credits, part of which (upon evaluation) may be transferred from other accredited colleges or universities. The first 90 credits involve the completion of certain pre-management requirements through Extension courses or while registered in the College of Liberal Arts of the University of Minnesota. Students planning to complete pre-management work over a longer period of time, such as five years, are cautioned that requirements for admission to the Carlson School of Management (CSOM) are subject to change. *Students are responsible for consulting an adviser annually regarding pre-management and admission requirements.*

The Carlson School Undergraduate Studies office offers evening appointments for CEE students. Call 624-3313 for information.

**Grading policy**—The Carlson School of Management uses a plus/minus grading system for all CSOM classes. For more information, contact an adviser at 624-3313.

Upon completion of the pre-management program, students interested in a business degree must make formal application to the school. *A minimum of 40*

## Undergraduate Degrees

*credits of upper division Carlson School of Management course work (3000-level and 5000-level courses offered by departments in the school) must be completed after admission to the Carlson School.*

Credits earned at universities outside the United States, armed forces college credits, or credits earned through special examination may be accepted at the discretion of the Carlson School of Management staff. Contact a Carlson School of Management adviser at 624-3313 to discuss acceptability of such credits.

All Extension students admitted to the B.S.B. degree program are responsible for information in the bulletin of the Carlson School of Management (call 625-2008), the quarterly *Undergraduate Update*, the current Pre-Management and Upper Division Planning Sheet to that bulletin (call 624-3313), and the Extension Classes bulletin.

**Application deadlines**—Fall Quarter, June 1. Spring quarter, January 15

**Second Language Requirement**— If you graduated from high school after June 1986 and you are admitted to the CSOM fall of 1993 or later, you must have completed two high school years or three college quarters of the same second language prior to admission to the CSOM. Students who graduated high school June 1986 or earlier are exempt from the second language requirement.

**The Carlson School requires the following lower division requirements for admission into the B.S.B. program:**

**Management-Related "Tool" courses** (A/F grading required)

Introduction to Financial Reporting (Acct 1050 or equivalent)

Microeconomics (Econ 1101 or equivalent)

Macroeconomics (Econ 1102 or equivalent)

Information and Decision Sciences (IDSc 1010 or equivalent)

Operations and Management Sciences (OMS 1020 or equivalent statistics course)

Calculus (Math 1142 or 1251 or equivalent)

**Other lower division major requirements**

General Psychology (Psy 1001 or equivalent; A/F grading required)

One symbolic systems course chosen from the following list: CSci 3101, 3102, 3104, 3113; Engl 3851; Ling 3001, 3111, 5401, 5402; Math 1131, 1252 (formerly 1221); Phil 1001. (A/F grading required)

One international/global social science course (A/F or S/N grading)

**Additional University of Minnesota liberal education requirements**

Group A: Writing Practice (Comp 1011 or equivalent; A/F grading required)

Group B: Any two science courses, one with laboratory (A/F or S/N grading)

Group C: Any two social science courses not listed above (A/F or S/N grading)

Group D: Any two literary or artistic expression courses (A/F or S/N grading)

A list of all the Extension and Independent Study courses that fit in groups A, B, C, and D is available at 314 Nolte Center or by calling 625-2500.

**Note:** Students applying to the Carlson School in fall 1996 or later will complete the new University-wide liberal education requirements.

**Electives (A/F or S/N grading)**

In addition, applicants to the Carlson School of Management must have 90 total credits by the time of admission. Numerous University of Minnesota courses can be used toward elective credit in the B.S.B. Many students use second languages as their electives. Please contact Undergraduate Studies at 624-3313 to determine if a course you're interested in would count for general elective credit in the Carlson School.

**General admission requirements for all students applying to the Carlson School of Management**

The Carlson School of Management admission decision is based on academic, personal, and professional achievement.

To be considered for admission, the following are required:

1. Course work completed or in progress to total 90 credits by the time of admission.
2. Completion of the following "tool" courses on an A-F basis by the time of enrollment: Acct 1050, Econ 1101 and 1102, IDSc 1010, OMS 1020, and Math 1142 or 1251. Although one or two tool courses may be in progress at the time of application, all else being equal, preference is given to students who have completed all the tool courses.
3. Completion of all but five pre-management courses by the time of application. Any of the tool courses in progress at the time of application are included in this total.
4. An overall grade-point average in all transferable and tool credits of approximately 2.80\*. A course taken fall 1992 or later in which a D+, D, D-, was earned may be repeated once. Although the cred-

its will be counted once, the original and second grades will be averaged in determining the grade-point average for admission to the CSOM. (Credits of N earned fall quarter 1987 and later and all grades of F count in the grade-point average used for admission.)

\* (As space permits, students with strong credentials, such as significant leadership experience or particularly rigorous course work, but slightly lower grade-point averages may be considered for admission.)

5. Equivalent courses taken at other institutions (upon evaluation) may be substituted for required University courses.
6. In addition to the application, students are asked to submit an Application Addendum to provide additional information about their background and achievements to allow a broader view of their qualifications for admission.

### Requirements for graduation from the Carlson School of Management

**Note:** Students admitted to the Carlson School of Management prior to fall 1989 are responsible for the requirements published in the CSOM bulletin current at the time of their admission. Students previously admitted to the CSOM who have not taken courses for one year or longer should consult with a Carlson School adviser at 624-3313 before continuing.

1. Complete a minimum of 180 quarter credits with a minimum of the final 45 credits taken at the University of Minnesota.
2. Complete a minimum of 72 credits in business and economics course work and at least 72 credits in non-business and economics course work.
3. Complete 40 credits of upper division business courses after official admission to the Carlson School of Management. (Upper division business courses are those 3000-level and 5000-level courses offered by departments in the school and listed in the Carlson School of Management bulletin.)
4. Have a minimum grade average of C (2.00) in all work taken after admission to the Carlson School of Management and in all upper division business administration courses.
5. Complete upper division course requirements for the appropriate degree program as listed below (either the general management program or accounting program). Pre-management course requirements listed above also must be completed and cannot be used to satisfy the upper

division requirements listed below. *Accounting students must complete 50 percent of their total number of accounting classes (usually 5 courses minimum) at the University of Minnesota.*

6. A minimum of 135 transferable credits completed upon graduation must be on the A-F grading system.

**Grade-Point Average**—Each credit of N and F earned after admission to the Carlson School of Management is assigned 0 grade points and will be included in the grade-point average. No degree credit is granted for a grade of N or F.

**Honors**—Students with the appropriate grade-point average may graduate with distinction or with high distinction. For information, call the Carlson School of Management, 624-3313.

### Bachelor of Science in Business—Requirements Common to Both Accounting and General Management Programs

**Note:** Students who take a course without fulfilling a prerequisite may not take the prerequisite course for credit later except by permission from the Undergraduate Studies Office.

- I. **28 credits of Core Courses** (A-F grading required)
  - Acct 3001, Introduction to Management Accounting
  - Mgmt 3001, Fundamentals of Management
  - BFin 3000, Finance Fundamentals
  - IDSc 3030, Information Systems and Information Management (prerequisites are IDSc 1010 and OMS 1020)
  - Mktg 3000, Principles of Marketing
  - OMS 3000, Introduction to Operations Management
  - IR 3002, Personnel and Industrial Relations
- II. **4-credit Economics course** selected from the following (A-F grading required)
  - Econ 3101, Microeconomic Theory
  - Econ 3102, Macroeconomic Theory
  - Econ 3105, Managerial Economics
  - Econ 3701, Money and Banking
- III. **5-credit Senior Policy Course** (A-F grading required) Prerequisite completion or concurrent registration in core courses.
  - Mgmt 3004, Business Policy: Strategy Formulation and Implementation
- IV. **12 credits Communications course** (A-F grading required)
  - Comp 3022, Critical Reading and Writing for Management

## Undergraduate Degrees

Comp 3032, Preprofessional Writing for Business

One course from the following:

Rhet 3254, Advanced Public Speaking

Rhet 3266, Discussion Methods

Spch 1101, Fundamentals of Speech Communication

Spch 3111, Leadership Communication

Spch 3411, Small Group Communication Processes

Spch 3605, Public Speaking (instructor approval required)

Spch 5422, Interviewing and Communication

Th 3803, Topics: Platform Performance

- V. **4-credit International course** (A-F grading required). One course selected from a prescribed list of courses in the following areas: AgEc, BGS, Econ, FSMg, Geog, IntR, Pol, PA. Check with an adviser for courses that satisfy this requirement at the CSOM undergraduate advising office, 624-3313.

**Bachelor of Science in Business—General Management Program Additional Major Requirements**

- I. **Elective credit, to reach 180**, usually selected from the College of Agriculture, Institute of Technology, the College of Liberal Arts, or the Carlson School of Management
- II. **20-24 credits in Area of Emphasis** (A-F grading required for all courses comprising the area of emphasis—listed below)

Emphases are available in Actuarial Science, Banking, Finance, Small Business and Entrepreneurship, Marketing, Logistics Management, Operations Management, General Management, and a self-directed emphasis. Consult the Carlson School of Management bulletin (call 625-2008 to request one) and a Carlson School adviser (624-3313) for details.

**Bachelor of Science in Business—Accounting Program Additional Major Requirements**

For students in the accounting program, the following courses must be completed (in addition to the courses listed above that are common to both the regular and accounting program); A-F grading required.

BLaw 3058, Introduction to Law, and the Law of Contracts and Agency

Acct 3101, Intermediate Financial Reporting

Acct 3201, Intermediate Management Accounting

Acct 5102, Advanced Financial Reporting I

Acct 5125, Auditing Principles and Procedures

Acct 5135, Introduction to Taxation

8 credits upper division Accounting Electives; A-F grading required (Acct 3199 and Acct 3299 do not apply)

### Institute of Technology (B.S.)

Many credits for a bachelor's degree in Civil Engineering, Computer Science, Electrical Engineering, and Mechanical Engineering can be completed through registration in Extension classes. However, students must be formally admitted in these programs. See separate department sections for more information.

**Residency Requirement**—A student earning a bachelor's degree must complete 45 credits after admission to the Institute of Technology, and at least 30 of those credits must be completed in the senior year.

**Admission**—Students planning to complete degrees in the above fields primarily through Extension classes should contact an adviser in the appropriate department at an early date and *must apply for admission to the Institute of Technology after completing lower division requirements*. Contact CEE Counseling at 625-2500 for more information and application forms.

A copy of "Pursuing a Bachelor's Degree in Continuing Education and Extension" can be obtained from the CEE Counseling Office, 314 Nolte Center. For a current Institute of Technology bulletin, call 625-2008.

**Honors**—Students with the appropriate grade-point average may graduate with "distinction" or "high distinction."

The following are tentative schedules designed to assist students in Civil Engineering, Electrical Engineering and Mechanical Engineering in planning a program of studies leading toward the completion of a certificate or degree program (for Computer Science courses, see the schedule in the *Course Offerings* section). Every effort will be made to adhere to the schedules given here, but they are subject to change whenever necessary. Courses in addition to those listed may also be offered. For specific degree requirements, please consult the most recent Institute of Technology Bulletin.

### Civil Engineering

**Students must be formally admitted to upper division Civil Engineering in the Institute of Technology.** A degree will not be granted based on course completion alone. Contact the CEE Counseling Office at 625-2500 for information.

(See *Institute of Technology Bulletin* for full course descriptions and offerings.)

## Electrical Engineering Curriculum Guide

See also the current Institute of Technology bulletin for full course descriptions.

The bachelor of electrical engineering (B.E.E.) requires completion of a minimum of 192 quarter credits. Further information about the B.E.E. program can be obtained by requesting a copy of the Electrical Engineering Curriculum Guide from the Department of Electrical Engineering, 4-178 Electrical Engineering/Computer Science, University of Minnesota, 200 Union Street S.E., Minneapolis, MN 55455; (612) 625-3300.

The general requirements listed below apply to students enrolled in the lower division and planning to qualify for the B.E.E. degree.

**Students must be formally admitted to upper division Electrical Engineering in the Institute of Technology.** A degree will not be granted based on course completion alone. Contact CEE Counseling for information, (612) 625-2500.

### Lower Division Electrical Engineering Program

- Comp 1011, Writing Practice—5 credits
- Math 1251, 1252, 1261, 3251, 3252, 3261 or Math 1211, 1221, 1241, 3311, 3321, 3331, Calculus, Multivariable and Vector Analysis—24-27 credits
- Phys 1251-1252-1253, General Physics (with lab) or 1271/1275, 12181/1285, 1291/1295—12-15 credits
- Phys 1254 or 3501, Modern Physics—4 credits
- Chem 1051, 1052, General Principles of Chemistry—4 credits. (*Chem 1004-1005 or Chem 1014 may be substituted for Chem 1051-1052*)
- CSci 3113, Introduction to Programming in C—4 credits
- CSci 3121, Survey of Data Structures and Algorithms—4 credits
- EE 1000, Introduction to Electrical Engineering—1 credit
- EE 1400, Circuits Laboratory—1 credit
- EE 3009-3010, Linear Circuits I-II—8 credits
- EE 3351-3352, Introduction to Logic Design, Introduction to Microprocessors—8 credits
- Liberal education electives
- Technical elective (AEM 3036 or ME 3301)—4 credits
- CREDIT TOTAL: 88-94**

## Mechanical Engineering

It is possible to earn all but approximately 24 to 28 credits toward a bachelor's degree in Mechanical Engineering through Extension Classes. The Mechanical Engineering degree can then be completed after a limited amount of day school attendance or through University-Industry Television for Education (UNITE). Depending upon the selection of the coherent elective option, students may need to take more courses in day school.

**Students must be formally admitted to upper division Mechanical Engineering in the Institute of Technology.** A degree will not be granted based on course completion alone. Contact CEE Counseling for further information (625-2500).

The following information indicates in a general fashion how a program of study leading ultimately to the award of a bachelor's degree in Mechanical Engineering might be approached. The courses listed are required courses which are often offered through Extension. They do not include all requirements for the bachelor's degree in Mechanical Engineering. See the current Institute of Technology Bulletin for full requirements and course descriptions. (Students must satisfy the Institute of Technology admission and residency requirements given at the beginning of this section.)

### First year, 20 credits:

- Math 1251 (formerly 1211) fall quarter (4 credits)
- ME 1025 fall quarter (4 credits)
- Math 1252 (formerly 1221) winter quarter (4 credits)
- CSci 3101 winter quarter (4 credits)
- Math 1261 (formerly 1241) spring quarter (4 credits)

### Second year, 24 credits:

- ME 3900 or Stat 3091 fall quarter (4 credits)
- Math 3261 fall quarter (4 credits)
- Phys 1251 or 1271/1275 fall semester (4 credits)
- AEM 1015 winter quarter (4 credits)
- Phys 1252 or 1281/1285 spring semester (4 credits)
- Math 3251 spring quarter (4 credits)

### Third year, 21 credits:

- Phys 1253 or 1291/1295 fall semester, 4 credits
- AEM 3016 winter quarter, 4 credits
- AEM 3036 spring quarter, spring quarter
- Comp 1011 spring quarter, 5 credits

### Fourth year, 24 credits:

- ME 3201 fall quarter, 4 credits
- ME 3301 fall quarter, 4 credits
- ME 3203 winter quarter, 4 credits
- ME 3303 winter quarter, 4 credits
- ME 3205 spring quarter, 4 credits
- ME 5342 spring quarter, 4 credits

## Undergraduate Degrees

### **Fifth year, 8 credits:**

IEOR 3000 fall quarter, 4 credits

ME 3701 spring quarter, 2 credits

ME 3702 spring quarter, 2 credits. *ME 3701 and 3702 meet concurrently*

### **Day Only, or Infrequent Extension Offerings:**

MatS 3400

Senior Laboratory requirement

ME 3020

ME 5254 (Summer Extension)

ME 5260

Chem 1051, 1052 (Substitute Chem 1004 and 1005 or Chem 1014)

EE 3009, 3005/3006

Coherent upper division technical elective program; many courses are scheduled in Extension. See adviser for suitable programs and program approval.

Liberal education courses—27 credits required in addition to Comp 1011 and a senior writing course (36 total). Students beginning fall 1994 or later will complete the campus-wide liberal education requirements.

## **University College (B.A., B.S.)**

University College (UC) offers students on all University of Minnesota campuses the opportunity to design an individualized baccalaureate degree program drawing upon courses, faculty, and other learning resources from across the University. Students pursuing one of the two UC program options, The Program for Individualized Learning or the Inter-College Program (ICP), are assisted by academic and faculty advisers in the development and execution of an academic program tailored to meet their specific educational goals. It is recommended that students who are interested in either program attend an informational advising session. Each program holds these small group information sessions every week. Attendance can be scheduled through each program's office.

**The Inter-College Program (ICP)** allows students to plan and pursue a cross-college academic program suited to individual needs. ICP is appropriate for those students who have clearly defined academic goals and discover they cannot achieve those goals without an inter-college curriculum. A student's ICP plan is drawn up with guidance and approval from academic advisers and designated faculty advisers. The degree program may include two or three areas of concentration, or may integrate courses from two or more colleges into a cohesive theme. Depending on how a student fulfills liberal education requirements, ICP leads to either a bachelor of arts or a bachelor of science degree.

To be considered for admission to ICP, a student must have a 2.00 grade-point average; completed at least 80 credits of college work (minimum of 15 credits from the University of Minnesota and at least 9 credits of upper division work); completed designated prerequisites and/or meet grade-point average requirements for areas with concentration or collegiate grade-point restrictions; and prepared an approved ICP degree plan and goal statement.

Deadlines for submitting applications to ICP vary each year. For more information on application deadlines and to schedule an ICP First Step meeting, call 624-2004 or visit ICP in 107 Armory.

**The Program for Individualized Learning** serves students with clear educational goals who wish to design and carry out individualized B.A. or B.S. degree programs. Students tend to select the program because they value the freedom to make significant choices about what and how they learn, because they have experiences they can use as foundations for further learning, and because they want to use a variety of educational resources at the University and in the community.

Students are admitted on the basis of evidence that they have the attributes and academic skills needed to pursue a self-directed degree program, e.g., skills in writing, project design, and educational planning. A degree program can incorporate a variety of learning resources, including University classes, independent study courses, and self-designed projects. Knowledge gained from independent learning prior to admission may be applied if it can be demonstrated and evaluated as college-level learning.

Individualized Learning students design their degree programs around a set of standards, called graduation criteria. The criteria combine learning in a major area of study with learning in the liberal arts. Students pursue programs in a wide variety of fields, often studying in many disciplines and creating new and innovative areas of study. Examples of recent degree programs include: international business, youth studies, reconstruction archaeology, Irish studies, and folk music and folklore.

For more information about the Program for Individualized Learning, students should read the *University College Bulletin* and arrange to attend an information session. Call (612) 624-4020 or stop by the office in 107 Armory.

**University College Independent Study (UC 3075)** is an undergraduate independent study course listing available to students who wish to pursue projects that go beyond the scope of any single department or college of the University. Projects are interdis-

plinary in nature or are done in departments that do not have an undergraduate independent study course for nonmajors. Students will be asked to select an appropriate faculty monitor and to complete the UC 3075 Independent Study contract prior to registering. Students may take 3 to 15 credits of UC 3075. Additional information may be obtained from the Inter-College Program Office of University College, 107 Armory, (612) 624-2004.

## College of Agriculture and College of Human Ecology

### *Bachelor of Science (B.S.) in Food Science*

Although this degree is not available entirely through Extension, many courses in the food science major as well as some general education requirements for this degree are offered through Continuing Education and Extension.

The B.S. in Food Science can be completed in one of two colleges, Agriculture or Human Ecology. Students interested in the bachelor's degree in Food Science should contact the College of Agriculture (624-3045) or the College of Human Ecology (624-1717) and the Department of Food Science and Nutrition (624-1290) for advising.

Students should apply for admission to the College of Agriculture or the College of Human Ecology as soon as they have decided to pursue a degree in Food Science and after completing 39 acceptable credits. Application forms for admission and CEE registration information is available at CEE Counseling, 625-2500.

## Graduate degrees

Be sure to read the section on graduate credit, page 39.

### *Master of Arts (M.A.) in English*

The Department of English in cooperation with the Graduate School offers a master of arts degree specifically designed to meet the needs of Continuing Education and Extension students. The degree is in every way equal to the usual day-program degree, but the advising system, class scheduling, and special activities offered recognize that CEE students lead complex lives. This degree is particularly suited to adult students who see their graduate study as a means for professional advancement or personal growth. Typically, M.A. students do not go on to doctoral study.

### **The M.A. Program: Two Emphases**

A student may select between two M.A. emphases, one of them specialized and one focused on more usual topics in language and literary study. Applicants who see themselves primarily as practicing writers may apply for the special emphasis on *Creative and Professional Writing*. Students are admitted to this workshop-based degree primarily on the basis of careful review of their portfolios of writing. The emphasis on *Literary Genre* focuses on issues in literary study and allows considerable flexibility in designing a course of study. Both emphases have the same basic requirements:

- 1. 44 credits (11 courses) of course work.** Each emphasis has slightly different course work requirements, but all require 8 credits (2 courses) at the 8000 level, including one seminar, and 8 credits (two courses) in related fields outside of English.
- 2. Reading knowledge of one modern or classical language.** A student can meet the requirement in one of three ways: by having completed at least 15 college-level quarter credits in the language with a grade of A (or 20 quarter credits with an average grade of B); by completing one of several special programs of course work designed to develop foreign language skills; or by scoring well on the Graduate School Foreign Language Test (GSFLT) offered through University Counseling Services.
- 3. Qualifying examination taken during the course of your studies.** Offered twice a year, in the fall and spring quarters, this four-hour examination asks the student to analyze and interpret two works announced one quarter in advance. A student must pass the examination no later than four years after admission.
- 4. A writing project: two or three "Plan B" papers.** Instead of a traditional master's thesis, a student completes three major writing projects (two in the writing emphasis) on topics defined with faculty members.

Both emphases allow the necessary flexibility to plan a course of study from courses scheduled in the evening. Under special circumstances, students may enroll in day school classes as well.

### **Admission Procedures**

General information about admission to the M.A. program can be found in the current *Graduate School Bulletin*. More information and application forms may be obtained from the English Graduate Studies Office in 209 Lind Hall (625-3882).

## Graduate Degrees

**Requirements:** You do not need to have an undergraduate degree in English, but you should have a strong background in literature and related fields with a minimum of 16 credits in English (at least 12 in upper division work).

**Admission Criteria:** We judge your application on the basis of your previous academic record, Graduate Record Examination scores, proposal for graduate study in CEE, letters of recommendation, and writing sample. No single factor determines acceptance.

**How To Apply:** The University of Minnesota requires simultaneous application to the Department of English and to the Graduate School. The admission procedure is lengthy. If your file is incomplete, or if your materials are sent to the wrong office, your application cannot be reviewed. Please follow the process described below with care to ensure that all materials arrive by the admission closing dates.

**The following materials should arrive at the Graduate School Admissions Office by December 31, 1994** (Graduate School, University of Minnesota, 309 Johnston Hall, 101 Pleasant Street S.E., Minneapolis, MN 55455; telephone 612/625-3014).

1. Completed application for admission. Please indicate that you are applying to the M.A. program through Continuing Education and Extension. Write "CEE" at the top of the application form and in item #13 (Proposed Major Field) on the form. Say which of the emphases you wish: literary genre or writing. Applicants to the program in writing should specify their intended area of specialization (fiction, poetry, or nonfiction).
2. Official transcripts from all colleges or universities attended.
3. Application fee (\$30; subject to change).
4. Applicants whose native language is not English should submit official scores from the Test of English as a Foreign Language (TOEFL). (An overall TOEFL score of at least 620 is required for admission to this program.) For information about this examination, write to TOEFL, Box 899, Princeton, NJ 08541, U.S.A.

**The following materials should arrive at the English Graduate Office by January 10, 1995** (Department of English, University of Minnesota, 209 Lind Hall, 207 Church Street S.E., Minneapolis, MN 55455; telephone 612/625-3882, fax 625-8565).

1. Letters of recommendation from three people who can judge your academic performance and your promise as a graduate student.

2. Official scores from the general test (the aptitude portion) of the Graduate Record Examination (GRE). The departmental code is 2501. Scores from a GRE taken within the last five years are required. For information on registering to take this exam, contact the Educational Testing Service, Box 955, Princeton, NJ 08541, telephone (609) 771-7670; or University Counseling Services, University of Minnesota, 109 Eddy Hall, 192 Pillsbury Drive S.E., Minneapolis, MN 55455, telephone (612) 624-2815, if you live near the University of Minnesota campus; or your local university or college counseling service.

Although the advanced test in literature is not normally required, if your undergraduate transcript is a "narrative transcript," or if it contains "pass/no-credit," "credit," or other ungraded notations for a substantial number of courses taken during your junior or senior year, you should also take the GRE Subject Test in Literature in English and have the score sent to the Department of English graduate office. GRE scores are not required of students whose native language is not English, although a TOEFL score is.

3. A sample of expository writing, usually a paper written for a literature course. If you are applying to the writing program, you submit a substantial sample of your creative work (fiction, poetry, or nonfiction) and a description of your writing background.
4. A proposal, perhaps a letter, in which you write about yourself as a reader, writer, and scholar—saying if you can why you chose graduate study in English through Continuing Education and Extension and how it might fit in your life.

Although the Graduate School may consider your application complete and notify you accordingly once they have received your application form, transcripts, and fees, the English department cannot begin to review your application until all the additional materials described above have been received. The English department cannot notify you when your application is complete or when materials are missing. Contact the English Graduate Office (612/625-3882) to find out the status of your application file. Upon review of your completed file, the department will forward its recommendation to the Graduate School. The Graduate School, which is the official admitting unit, makes the final decision.

**Application Deadlines:** All application materials must be in the English Graduate Office by January 10, including both the materials sent directly to that office and the materials sent to the Graduate School.



You must therefore be sure to send your application, transcripts, fee, and TOEFL Score (international students only) to the Graduate School at least two weeks in advance of the January 10 deadline. While January 10 is the application deadline for all programs in the department, applications to the *Program in Creative and Professional Writing* will be considered through March 15 if space is available.

### ***Master of Business Taxation (M.B.T.)***

This program is designed to help students acquire a conceptual understanding of taxation and to develop technical competence in the practical application of the rules of taxation in business and personal decision making. This Carlson School of Management program is offered only in the evening by the Department of Accounting through Continuing Education and Extension. It is designed to accommodate the nontraditional student who is employed during the day and enrolled in the program on a part-time basis during the evening. Students enrolled part time can expect to complete the program in approximately two to three years. Students enrolled full time can complete the program in a shorter period.

#### **Requirements for the Master of Business Taxation Degree**

**Degree requirements**—A student is required to have gained, through course work, a common body of knowledge in the various areas of business. When the appropriate course work is lacking, a student must make up the deficiencies. These courses may be taken after admission.

A student must complete 46 credits, including 16 credits in business, economics, and accounting; 14 credits in the fundamentals of tax, tax research, tax procedures, and corporate tax; and 16 credits of elective tax courses. A student must maintain a 3.00 grade-point average. The final examination is oral.

**Special admission requirements**—Results of the Graduate Management Admissions Test (GMAT) or the Law School Admission Test (LSAT) are required. Applicants will be considered for admission during fall, winter, spring, or first summer session.

For further information, contact Master of Business Taxation Program, 645 Management/Economics Building, University of Minnesota, 271 19th Ave. S., Minneapolis, MN 55455; telephone (612) 624-7511.

### ***Graduate Minor Program in Gerontology***

A graduate minor program in gerontology may be pursued at both the Ph.D. and the M.A./M.S. levels. The program for an individual student is developed in consultation between the student and the Director of Graduate Studies designated by the All-University Council on Aging.

#### **Requirements for the Graduate Minor in Gerontology**

**Degree requirements**—The course "Multidisciplinary Perspectives on Aging" (4 credits) is required for both the doctoral and master's minor programs. This course focuses on a multidisciplinary introduction to aging and the aging process. The course is cross-listed in seven departments or colleges of the University.

The master's degree minor program requires a minimum of nine graduate-level quarter credits including the "Multidisciplinary Perspectives on Aging" course (4 credits). The remaining five or more credits would be taken from the designated course list, available from the All-University Council on Aging, in two of the following four areas: biological or medical sciences; psychological, behavioral, or social sciences; humanities or fine arts; public policy, practice, economics, politics, or law.

The doctoral degree minor program requires a minimum of 18 graduate-level quarter credits including the "Multidisciplinary Perspectives on Aging" course (4 credits). The remaining 14 or more credits would be taken in courses selected from the designated course list available from the All-University Council on Aging. The program must include at least two courses in two or more of the following four areas: biological or medical sciences; psychological, behavioral, or social sciences; humanities or fine arts; public policy, practice, economics, politics, or law.

**Admission requirements**—Graduate students electing the Ph.D. or M.A./M.S. minor program in gerontology must have been accepted by the Graduate School and the major program in which they are enrolled. Admission to the program will be contingent upon enrollment in good standing within a recognized Ph.D. or M.A./M.S. degree granting program at the University of Minnesota.

For further information, call the All-University Council on Aging at (612) 625-9099 for the current designated course list and to meet with the Director of Graduate Studies. Or write Director of Graduate Studies, Graduate Minor Program in Gerontology,

## Graduate Degrees

All-University Council on Aging, University of Minnesota, 330 Humphrey Center, 301 19th Ave. S., Minneapolis, MN 55455-0421.

### ***Master of Education (M.Ed.)***

Master of Education degrees offered by the College of Education are available through Extension Classes. A complete program currently is offered in leadership. In addition, many courses required for other M.Ed. degrees are available through Extension.

These 45-credit master's degree programs are intended for licensed teachers and other educational professionals who wish to enhance their knowledge and skills for career advancement and more effective teaching.

Call (612) 626-7196 or (612) 625-6501 for information about these and other graduate programs in education. For information about teacher licensure in Minnesota, call the State Department of Education at 296-2046.

### ***The Master of Liberal Studies (M.L.S.)***

The Master of Liberal Studies is a new graduate degree program, pending approval this summer from the Higher Education Coordinating Board.

The M.L.S. is designed for adult and part-time students—those with a bachelor's or previously earned advanced degree—and a lively intellectual curiosity and a desire to resume (or begin), on a part-time basis, the lifelong business of a liberal education. Evening classes and comprehensive student services provide the convenience that busy people need in continuing their educations.

Broadly interdisciplinary, the program helps students (1) to gain an appreciation of perspectives and methodologies across many academic areas and (2) to conduct inquiry that illuminates and critically examines significant topics that they want to study in depth.

#### **Admission to the program**

- Forty students a year are admitted to the program. Inquire as soon as possible about admission. Winter or spring deadlines for fall admission likely will be implemented in 1994-95.
- Although the M.L.S. is designed for working adults, there are no specific vocational implications related to admission or program requirements.
- The student must have an earned bachelor's degree from an accredited institution.

- Admission is based on academic record and other indicators of the student's ability to succeed in graduate study.

#### **Program features and requirements**

The M.L.S. is a 44-credit program (11 courses) designed for completion in three years by taking one class a term, including summers. (Students may choose to accelerate or stretch out their course work, however.) Students will be encouraged to move through the program as a cohort, taking classes together when possible.

Curriculum requirements include the following courses:

- An introduction to graduate interdisciplinary liberal education (4 credits)
- Three M.L.S. seminars that are specially designed interdisciplinary courses (12 credits)
- Six elective courses drawn from 5000- and 8000-level courses in a variety of academic areas (24 credits)
- A final project course (4 credits)

The introductory course will be offered frequently and is designed to orient students to graduate study generally and in their area of interest; develop writing and research skills; explore issues in interdisciplinary study; acquaint students with each other and core faculty in the program.

The M.L.S. seminars are specially designed interdisciplinary courses offered on a variety of topics; at least one of these courses each year will emphasize scientific perspectives.

The electives may be selected from across the University's curriculum but students likely will select courses from a recommended list of courses that are interdisciplinary in nature or those suited particularly to their degree plan (adviser approval required).

The final project course is a "capstone" intended to complete the student's program and replaces a thesis and final written or oral exams.

For more information about admission and requirements, call (612) 625-9001.

### ***Master of Social Work (M.S.W.)—Weekend Program***

Designed for people working in the helping professions who want an advanced degree and career credential, the Master of Social Work—Weekend Program offered by the School of Social Work allows students to complete the M.S.W. in two years through Saturday and Sunday classes.

This degree prepares students to work with clients

in schools, clinics, hospitals, community centers, public and private agencies, and corporations. The M.S.W. also prepares professionals as community organizers, administrators, social planners, and lobbyists for policy reform. The M.S.W. is considered the terminal degree for professional social work practice.

**Degree requirements**—The CEE M.S.W. weekend offerings correspond to the School of Social Work curriculum. Students complete three courses per quarter plus 12-credit field internships (concurrently or in summer). First-year courses include foundation classes in human behavior in the social environment and social work policy, practice, and research. Second-year courses include a concentration in direct practice or human services management supplemented by electives. Contact the School of Social Work for a detailed list of courses and descriptions.

**Admission requirements**—Applicants must have a bachelor's degree with a 3.00 g.p.a (preferred); 39 credits in the social sciences; a course in human biology that includes physiological and anatomical development; a course in statistics; a minimum of one year of paid or volunteer social work (or related) experience. Most applicants exceed these requirements, but some applicants who cannot meet these requirements may also be accepted.

For application information and materials, contact the Director of M.S.W. Admissions, School of Social Work, University of Minnesota, 426 Ford Hall, 224 Church Street S.E., Minneapolis, MN 55455; (612) 624-1096.

## Certificates

**Degree and certificate program requirements may change or programs may occasionally be discontinued. The University will make every reasonable effort to assist admitted students in completing a program.**

Students not certain they can devote the time necessary to earn a college degree may wish to consider a certificate program. Some certificate programs are regarded by business and industry as valuable professional and technical preparation for employment and promotion. Students are encouraged to consult with employers regarding the usefulness of the certificate in seeking new employment or possible promotional opportunities. With careful planning, some certificates can be, if the student wishes, a stepping stone to a degree. Work on a certificate may be done in Extension Classes, Extension Independent Study, Continuing Education for Women

courses, day school, summer session, or any combination of these. (Certificate programs marked with **(IS)** are available entirely through Extension Independent Study.)

A wide variety of certificate programs is administered by Continuing Education and Extension (CEE). The curricula are described in detail in the following pages. Certificate programs are organized at the collegiate level; students entering them should have adequate educational preparation or other experience to work effectively with college materials. Certificate programs consist of degree credit courses or a combination of degree and certificate credit courses. Certificate credit courses are college level in quality, and represent an accelerated and specialized approach to the subject matter. Certificate credit classes (course number begins with a "0" or is followed by a C, as in 0120C) are rarely transferable to a degree program.

A student may transfer credit from other accredited institutions of higher education, although a minimum of 25 percent of credits required for any certificate must be earned through the University of Minnesota—Twin Cities campus. The residency requirement cannot be met by repeating courses at the University of Minnesota which have already been completed successfully at another institution. Courses need not be taken in order, except as prerequisites make it necessary.

Certificate requirements may be modified from time to time. There is no time limit on the use of credits. Students may not enroll in more than three certificates programs at one time.

Students interested in taking courses toward certificate programs on the S-N grading system should first consult an adviser at 314 Nolte Center, (612) 625-2500.

### Application

Students can obtain a copy of "CEE Certificate Program Information" with an application form by contacting CEE Counseling, (612) 625-2500, 314 Nolte Center. A nonrefundable \$20 application fee (VISA/Mastercard available) will be required with all applications. Students are urged to consult with an adviser early in their program, and before completing an application for admission, regarding application time, admissibility to a certificate, residency requirements, and specific admission information for each certificate.

Admission criteria vary among certificate programs. Admission decisions are based on previous college performance (better than a C average is required), educational objectives, and patterns of course work completed. Students will be asked to include a

## Certificates

written statement outlining how the certificate program help to meet their educational goals. Students will be notified of admission status by mail approximately three weeks after all transcripts and application materials are received. If admitted, students will receive a written evaluation describing how previous college course work applies to their certificate program.

### Completion

A student nearing completion of the required work and expecting to receive a certificate must file a Certificate Completion Form at the *beginning* of the term in which the certificate is to be awarded. A nonrefundable \$20 certificate fee (VISA/Mastercard available) will be required at the time the Certificate Completion Form is filed. Certificate application forms can be obtained from CEE Counseling, 314 Nolte Center, (612) 625-2500.

Upon completion of a specified program with at least a C (2.00) overall average (including a 2.00 grade-point average in University of Minnesota courses), the student is awarded a certificate. Certificates are awarded by CEE (not by individual University of Minnesota colleges). All certificates are dated and awarded as of each quarter of the academic year.

### Academic Progress

For students not held to other college, department, or program academic standards, CEE will determine scholastic standing by evaluating satisfactory progress with the following criteria:

*Completion of two-thirds (66%) of total credits for the review period with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W, V, or X are not included in this calculation.*

**The formula for determining satisfactory progress is as follows:** (Total credits grades A, B, C, or S) divided by (Total credits graded A, B, C, D, F, S, N, or I) equals 66%.

Grades in repeated courses and noncredit remedial courses are considered in total credits.

Students who do not meet the criteria for good academic standing will not be eligible to receive financial aid, veterans benefits, and specially funded programs.

Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing.

Students are encouraged to contact an academic

progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Students in certificate programs who do not register for at least one credit within six consecutive quarters will be withdrawn from their certificate program.

### Continuing Education and Extension Honors

All CEE Certificates may be earned with honors. A student earning a 3.00 to 3.49 grade-point average in University of Minnesota credits within the certificate will be awarded a certificate "with distinction" and 3.50 to 4.00 "with high distinction." At least 60 percent of the requirements for a certificate with honors must be earned at the University of Minnesota and must be taken on the A-F grading system.

Colleges at the University of Minnesota retain the right to determine honors requirements for a degree; therefore, earning a certificate with honors does not automatically gain a student entry into a college's honors program.

For further information concerning the Honors Program for certificate students, call CEE Counseling, 625-2500.

### Guide to certificates offered through Continuing Education and Extension

Accounting, page 506  
Alcohol and drug counseling education, page 503  
Arts, liberal, page 504  
Business administration, page 507  
Cardiovascular perfusion technology, page 503  
Child Abuse Prevention Studies (CAPS), page 504  
Civil engineering, page 512  
Computer science, page 510  
Counseling, alcohol and drug education (ADCEP) page 503  
Credit and financial management, page 508  
Electrical engineering, page 513  
Engineering, page 510  
Financial management, page 508  
Industrial engineering, page 514  
Industrial relations, page 509  
Liberal arts, page 504  
Mechanical engineering, page 514  
Ophthalmology technician certificate, page 505  
Science and quantitative methods, page 505  
Science, engineering and, page 511  
Undergraduate Development Certificates in  
Accounting, page 506

- Business Administration, page 507
- Computer science, page 510
- Engineering and science, page 511
- Civil engineering, page 512
- Electrical engineering, page 513
- Industrial engineering, page 514
- Mechanical engineering, page 514

**Alcohol and Drug Counseling Education (ADCEP) certificate (51 credits)**

Courses for this program are offered through Continuing Education and Extension in cooperation with the Department of Family Social Science, College of Human Ecology. Requirements for the certificate include completion of 10 courses, plus 1000 hours of supervised internship. In addition, a two-quarter commitment is required of all interns to participate in Personal Growth, Ethics, and Counseling Supervision. Students may apply earned credits toward a baccalaureate degree through the Inter-College Program. In addition, qualified students may apply earned graduate credits toward an M.Ed. degree and possibly toward other master's or doctoral degrees.

The 10 content/clinical courses are designed to prepare individuals to work with clients experiencing a range of problems associated with chemical use/abuse. While planned specifically for persons interested in careers in the field of alcohol and drug use problems, the content courses are also offered as continuing education for educators, clergy, nurses, social workers, psychologists, and other professional persons.

The supervised internship is provided for interns who have successfully completed the content/clinical courses. Students may specialize in one of four tracks for the internship: prevention, assessment, primary care, and aftercare. Individual internship placement is made on the basis of an evaluation of the student's previous experience and relevance to the student's vocational goals. Successful completion of the internship leads to the certificate.

**Requirements**

- FSoS 3026 Assessment of Alcohol and Drug Abuse Problems
- FSoS 3027 Current Issues and Pharmacology of Alcohol and Drug Abuse
- FSoS 3028 Treatment of Alcohol and Drug Use Problems
- FSoS 3029 Counseling Skills Practicum I
- FSoS 3030 Counseling Skills Practicum II
- FSoS 3031 Counseling Skills Practicum III
- FSoS 3032 Chemical Abuse and the Family: An Overview

FSoS 3035 Clinical Internship in Chemical Use Problems

FSoS 3037 Group Therapy: Theory and Practice  
Plus an elective course (3000- or 5000-level for 3 credits)

Any of the above courses may be taken for either undergraduate or graduate credit. No credits may be transferred to this program from other institutions, except for possible experience substitution on the internship.

Persons wishing to apply for admission to the program should write to Dr. Philip Colgan, Alcohol and Drug Counseling Education Program, Department of Family Social Science, 388 McNeal Hall, 1985 Buford Ave., University of Minnesota, St. Paul, MN 55108; telephone 625-3778 (FAX 625-4227). **Applications are accepted on a continuing basis.**

**Behavior Analyst in Community Environments certificate (30-33 credits)**

A moratorium has been placed on further admissions to this certificate. Contact an adviser in CEE Counseling, (612) 625-2500 for more information.

**Cardiovascular Perfusion Technology certificate (Garamella, Lynch, Jensen-CRC-Perfusion Training Program) (50 credits)**

The Cardiovascular Perfusion Technology Certificate program has been developed by the University of Minnesota Heart and Lung Institute in cooperation with Continuing Education and Extension and the Cardiac Research Committee (CRC). The CRC is a private, nonprofit Minnesota corporation engaged in cardiac surgery and research with a 20-year history in perfusion education.

This program is designed to prepare individuals to become an integral part of a cardiac surgical team as a clinical perfusionist. The responsibilities of the perfusionist include set-up and operation of the heart-lung bypass machine and related instrumentation, including cardiac assist devices. The perfusionist is a skilled practitioner, knowledgeable in the areas of human patho-physiology, pharmacology, hematology, and instrumentation.

The 12-month course begins each year in July. Students receive didactic, laboratory, and clinical training. Along with the University Hospital, clinical affiliation exists with eight metropolitan area hospitals and cardiac surgery teams for clinical training. The program is accredited by the Committee for Allied Health Education Accreditation of the American Medical Association. Graduates from the program will receive Certificates from Continuing

Education and Extension and are eligible for the national Board examination available through the American Board of Cardiovascular Perfusion.

**Prerequisite:** A bachelor's degree, master's degree, or equivalent from an accredited college. Preferred majors: health science degrees, nursing, respiratory care, human biology. Preference will be given to applicants with practical experience in critical care, perfusion assistance, patient monitoring, and cardiovascular research. Specific prerequisites required: human anatomy and physiology, chemistry, physics, mathematics. Grade-point average of 2.75. Factors such as experience and current professional responsibilities also will be considered in admitting students to this program.

#### **Admissions procedures**

Applications are available from the Perfusion Training Program, University of Minnesota Heart and Lung Institute, 425 East River Road, Minneapolis, MN 55455. Telephone (612) 625-7168 or 1-800-US-HEART. Application period is from January 1 to February 28 each year. Final review of applications will be made by a selection committee of the program; interviews with the final applicants may be requested. Admission to the program is limited to six people.

#### **Child Abuse Prevention Studies certificate (20 credits)**

The School of Social Work and Continuing Education and Extension are pleased to offer a post-baccalaureate certificate program in Child Abuse Prevention Studies (CAPS).

The purpose of the CAPS program is to provide learning opportunities for professionals and post-baccalaureate students who wish to increase their knowledge and skill in the area of child abuse and neglect prevention. A cohort of 20-25 students will be admitted to this 20-credit, two-year program each year, or every other year. Coursework will begin in the fall and finish in the spring, six quarters later. The program requirements for the CAPS certificate include three core courses (9 credits), one elective (3 credits), one directed study (2 credits), and a student-designed practicum with accompanying seminar (6 credits).

Coursework is presented at the graduate level, but may be taken for graduate or undergraduate credit. Students will register for one course requirement of the program each quarter. The three core courses are planned to meet one night per week from 4 to 7 at McNeal Hall on the St. Paul Campus. Please refer to the Social Work department section of this bulletin for descriptions of the three core courses.

A limited number of graduate level students may be allowed to register for the core course sequence without being admitted to the CAPS certificate program with permission by the School of Social Work.

#### **Requirements:**

SW 5301 Child Abuse Prevention I (Research and Theory)

SW 5302 Child Abuse Prevention II (Program Development, Implementation, and Evaluation)

SW 5303 Child Abuse Prevention III (Strategies for Policy and Systems Change)

5000-level elective

5000-level Directed Study

SW 5030 Integrated Experience (Practicum and Seminar)

SW 5030 Integrated Experience (Practicum and Seminar)

A new cohort is expected to begin Fall 1994 with applications accepted beginning in February 1994. For further information and application materials, please contact the CAPS Certificate Coordinator, Continuing Education and Extension Counseling, 314 Nolte Center, 315 Pillsbury Drive SE, Minneapolis, MN 55455-0197; (612) 625-2500.

#### **Geriatric Pharmacy certificate**

Continuing Education and Extension offers a Certificate in Geriatric Pharmacy program for registered pharmacists. A moratorium has been placed on admissions to this certificate program pending review by the department. For more information, contact Continuing Education in Pharmacy at (612) 624-2442.

#### **Liberal Arts certificate (IS) (45 credits)**

The program of the Liberal Arts certificate is offered to students who wish an introduction to a liberal arts education. It is the equivalent of one full-time year of university-level study. With careful planning, the certificate may constitute the freshman year of a degree program in arts or business fields. A minimum of 50 percent of all course work (23 credits) must be taken on the A-F grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

**English Requirement (5-8 credits):** Comp 1011, Writing Practice or equivalent

**Core Requirement (32 credits):** 8 credits in each of the following groups:

Group A, Language, Logic, Mathematics, and the Study of Argument

Group B, Physical and Biological Universe

Group C, Individual and Society

Group D, Literary and Artistic Expression

**Electives:** Additional liberal arts courses to make a minimum of 45 credits total for the certificate

Students interested in the Liberal Arts certificate should be sure to call (612) 625-2500 for a copy of CLA courses meeting the liberal education requirements offered through Extension before taking any courses. If you are pursuing a liberal arts degree concurrently, it is important that you obtain regular advising to assure that the courses you choose for the certificate will also apply toward your degree.

### **Science and Quantitative Methods certificate (45 credits)**

This certificate is designed to provide students with a basic foundation of knowledge in sciences and quantitative methods. Through careful course selection, this certificate can be adapted to suit the needs of students seeking a variety of majors. It is particularly appropriate for those wishing to pursue advanced study in health, agricultural, or general sciences or for students who may, for personal or professional reasons, wish to enhance their quantitative skills. All courses carry college credit and are applicable to a baccalaureate degree in CLA, CBS, Agriculture, and all of the pre-health science areas at the University of Minnesota. This certificate may also address the needs of students already holding baccalaureate degrees but lacking the necessary science component for admission to Medical School, the Ophthalmology Technician Certificate, or the Cardiovascular Perfusion Technology Certificate.

A minimum of 50 percent of all course work must be taken on the A-F grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota. Early planning with a CEE adviser is strongly encouraged to assure that coursework will satisfy requirements for completion of the program.

#### **Core requirements (21-25 credits)**

Comp 1011

Natural and Physical Sciences (8-10 credits)

Quantitative Methods (8-10 credits)

**Electives:** Additional courses to make a minimum of 45 credits, selected from the following areas:

Astronomy

Biology

Biochemistry

Biostatistics

Cell Biology and Neuroanatomy

Chemistry

Composition\*

Ecology, Evolution, and Behavior

Food Science and Nutrition

Genetics and Cell Biology

Geology and Geophysics

Health Science Unit courses

History of Medicine

History of Science

Information and Decision Sciences

Kinesiology

Logic

Mathematics

Medical Terminology courses

Microbiology

Operations Management Sciences

Physics

Physiology

Plant Biology

Psychology\*

Public Health\*

Rhetoric\*(courses in technical writing and speech only)

Scientific Reasoning

Speech\*

Statistics (and Social Science statistics courses)

Veterinary Pathobiology

\*Courses from these departments may be applied to the certificate but must be pre-approved by your certificate adviser.

Additional science courses which apply toward a degree plan may also be acceptable (consult with a CEE adviser, 625-2500).

### **Ophthalmology Technician certificate**

The Ophthalmology Technician certificate was planned by the Department of Ophthalmology at the University of Minnesota and Continuing Education and Extension. The objective of the certificate program is to provide individuals with technical and mechanical skills and knowledge required in the treatment and diagnosis of eye diseases so that they may qualify for employment under the supervision of ophthalmologists as ophthalmic medical technicians.

Currently, employment opportunities are excellent throughout the United States. Starting salaries compare favorably with baccalaureate-level health care professionals.

## Certificates

The 21-month program begins each September. Requirements for the certificate will include completion of nine months of didactic and clinical training immediately followed by a 12-month externship. Admission is limited to 10 students. The program is accredited by the Committee for Allied Health Evaluation and Accreditation of the American Medical Association. Graduates from the program will be eligible to take the certification examination available through the Joint Commission on Allied Health Personnel in Ophthalmology.

For more information about the program, contact: School of Ophthalmic Medical Technology, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101, (612) 221-3000.

### Undergraduate Development Certificates in Accounting

The accounting certificates can be of value to individuals in junior accounting positions in industry, to management personnel who are required to deal with common finance and accounting data, and to business people who wish to have a basic understanding of the elementary principles of accounting and corporation finance. The Level II certificate provides a background for additional study in preparation for the Certified Public Accountant and Certified Management Accountant examinations. In most cases, students who work toward the certificate have already completed a bachelor's degree. Students who do not have a bachelor's degree should consider the accounting program in the Bachelor of Science in Business degree as a preferable alternative.

Students planning to take either the CPA or CMA exams should contact the following organizations for information about requirements needed to take the exams. CPA: Minnesota State Board of Accountancy, (612) 296-7937. CMA: Institute of Certified Management Accountants, 1-800-638-4427.

### Admission to Undergraduate Development Certificates in Accounting

To be considered for admission, students must have completed the equivalent of a minimum of 90 (quarter) college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed with particular emphasis on the most recent course work.

**Note:** Upper division management courses (i.e., 3000- and 5000-level) in CEE are taught with the expectation that, in addition to having completed all pre-management course work, students will have either earned a B- grade average in 90 credits of

college-level work, or they will have already completed a bachelor's degree.

#### Level I (60-64 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 16 credits in accounting courses at the University of Minnesota.

#### Core Requirements

- Comp 1011, Writing Practice I or equivalent
- Comp 3022, Critical Reading and Writing for Management
- Econ 1101-1102, Principles of Macro and Microeconomics
- Math 1111, College Algebra and Analytic Geometry
- Math 1142, Short Calculus or Math 1251, Calculus I
- Acct 1050, Introduction to Financial Reporting
- Acct 3001, Introduction to Management Accounting
- Acct 3101, Intermediate Financial Reporting
- Acct 5102, Advanced Financial Reporting I
- Acct 3201, Intermediate Management Accounting
- IDSc 1010, Fundamentals of Information Development and Use
- OMS 1020, Data Analysis and Statistical Inference for Managers
- IDSc 3030, Information Systems and Information Management

**Note:** Students who are contemplating continuing toward a degree from the Carlson School of Management should consult with a CEE adviser (625-2500) before they begin working toward the Level II Accounting Certificate.

#### Level II (88-92 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits in accounting courses at the University of Minnesota.

#### Core Requirements (72-80 credits)

- Comp 1011, Writing Practice I or equivalent
- Comp 3022, Critical Reading and Writing for Management
- Econ 1101-1102, Principles of Macro and Microeconomics
- IR 3002, Personnel and Industrial Relations
- Math 1111, College Algebra and Analytic Geometry
- Math 1142, Short Calculus or Math 1251, Calculus I
- Acct 1050 (formerly 1024/1025), Introduction to Financial Reporting



- Acct 3101, Intermediate Financial Reporting
- Acct 5102, Advanced Financial Reporting I
- Acct 3001, Introduction to Management Accounting
- Acct 3201, Intermediate Management Accounting
- IDSc 1010, Fundamentals of Information Development and Use
- OMS 1020, Data Analysis and Statistical Inference for Managers
- IDSc 3030, Information Systems and Information Management
- Accounting Elective (12 credits): 12 credits of 3000- and 5000-level accounting electives

**Electives (12 -13 credits)**

- BFin 3000, Finance Fundamentals
- BLaw 3058, Business Law
- BGS 3002, Business and Society
- BGS 3004, International Business
- Econ 3105, Managerial Economics
- Ins 5100, Risk Management and Insurance
- LM 3000 Introduction to Logistics Management
- Mktg 3000, Principles of Marketing
- Mgmt 3001, Fundamentals of Management
- Mgmt 3004, Business Policy: Strategy Formulation and Implementation
- OMS 3000, Introduction to Operations Management

**Undergraduate Development Certificates in Business Administration**

These certificate programs have been approved by the Carlson School of Management and arranged under the supervision of members of the faculties concerned. They are designed to present integrated, high quality, university-level courses of study of shorter length and scope than the full four-year degree programs. They are designed especially for students who wish to obtain a general grounding in the basic principles and theories of business administration and for those who want training or an opportunity for advancement in some specific field of business. Students admitted to business certificates usually are working toward an eventual Bachelor of Science in Business degree or have already completed a bachelor's degree in another area.

It is possible for a student to move from a course of study for a certificate into a planned program leading to a bachelor of science in business degree. Anyone who contemplates such a long-range objective should consult a CEE adviser before proceeding further so as to avoid any loss of credits or possible future rejection from the degree program.

**Note**—Upper division management courses (i.e., 3000- or 5000-level) in CEE are taught with the

expectation that, in addition to having completed all pre-management course work, students will have either earned a B- grade average. Students who have completed a bachelor's degree will be individually reviewed with particular emphasis on the final 90 quarter credits.

**Level I (49-52 credits)**

This certificate, requiring the satisfactory completion of 49-52 credits of course work, is the equivalent of one academic year of full-time study. It offers a firm grounding in most of the basic fields of business administration. All of the credits received in completing the Level I Certificate are automatically credited toward a Level II Certificate and represent half of its required work load.

All courses must be taken on the A-F grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits of business courses from the core requirement at the University of Minnesota.

**Pre-management Requirement (37-40 credits)**

- Comp 1011, Writing Practice or equivalent
- Econ 1101-1102, Principles of Economics
- IDSc 1010, Fundamentals of Information Development and Use
- OMS 1020, Data Analysis and Statistical Inference for Managers
- Acct 1050 (formerly 1024/1025), Introduction to Financial Reporting
- Math 1111, College Algebra and Analytic Geometry
- Psy 1001, General Psychology

**Core Requirement (12-13 credits)**

- Acct 3001, Introduction to Management Accounting
- Econ 3105, Managerial Economics
- BGS 3002, Business and Society
- BGS 3004, International Business
- IDSc 3030, Information Systems and Information Management
- IR 3002, Personnel and Industrial Relations
- Ins 5100, Risk Management and Insurance
- BFin 0001C Introduction to Investments (certificate credit—does not apply toward a degree program)
- BFin 3000 Finance Fundamentals
- Mktg 3000 Principles of Marketing
- BLaw 3058 Business Law
- Mgmt 3001 Fundamentals of Management
- Mgmt 3004 Business Policy: Strategy Formulation and Implementation
- Math 1142 Short Calculus or Math 1251 Calculus Differential

---

## Certificates

---

**Note:** Students who are contemplating continuing toward a degree from the Carlson School of Management should consult with a CEE adviser (625-2500) before they begin working toward the Level II Business Administration certificate.

### Level II (90 credits)

The Level II Business Administration certificate is a continuation of the Level I certificate, expanding the pre-management and core requirement to provide a broader base of general knowledge and an opportunity for specialization. The completion of the certificate requirement of 90 credit-hours represents the equivalent of two academic years of full-time university-level study. The course program may be considered to be roughly that of the sophomore and junior years of a four-year degree program with particular emphasis on the basic principles and theories of business administration.

Only non-business electives may be taken on the S-N grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits of business courses (not including the pre-management requirement) at the University of Minnesota.

### Pre-management Requirement (42-45 credits)

Comp 1011, Writing Practice or equivalent  
Econ 1101-1102, Principles of Economics  
Acct 1050 (formerly 1024/1025), Introduction to Financial Reporting  
IDSc 1010, Fundamentals of Information Development and Use  
OMS 1020, Data Analysis and Statistical Inference for Managers  
Math 1111, College Algebra and Analytic Geometry  
Math 1142, Short Calculus or Math 1251, Differential Calculus  
Psy 1001, General Psychology

### Core Requirement (24 -25 credits)

Acct 3001, Introduction to Management Accounting  
Econ 3105, Managerial Economics  
OMS 3000, Introduction to Operations Management  
IDSc 3030, Information Systems and Information Management  
BFin 3000, Finance Fundamentals  
BGS 3002, Business and Society  
BGS 3004, International Business  
Mktg 3000, Principles of Marketing  
BLaw 3058, Business Law

IR 3002, Personnel and Industrial Relations  
Ins 5100, Risk Management and Insurance  
LM 3000, Introduction to Logistics Management  
Mgmt 3001, Fundamentals of Management  
Mgmt 3004, Business Policy: Strategy Formulation and Implementation

### Electives in the Carlson School of Management:

At least 16 additional upper division credits in courses in business administration. These may be selected from the core group above or from other courses.

**Other Electives:** Non-business courses from areas such as physical and biological science, individual and society, and artistic expression to make a minimum of 90 credits for the certificate.

### Credit and Financial Management certificate (63-66 credits)

The Credit and Financial Management certificate program was developed cooperatively by Continuing Education and Extension, the Carlson School of Management of the University of Minnesota, and the National Association of Credit Management. The program is directed to students seeking careers in trade credit management, commercial bank and finance company loan management, and senior executive positions in financial management.

Specialized training and skills are necessary in the administration of accounts receivable in today's business. The trade credit manager must often function as an adviser to customers. Analyzing lines of credit requires familiarity with all financial and marketing aspects of the customer's business. Credit managers must also be able to communicate and work with top management in their companies toward the integration of sales and financial goals, and thus are in a unique position to advance to senior management positions.

All courses must be taken on the A-F grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 16 credits at the University of Minnesota.

For more information about working toward the certificate program, contact Nancy Gonzalez in CEE Counseling, (612) 625-2500.

Not all of the courses required for the National Association of Credit Management (NACM) certification are available at the University of Minnesota. These additional courses required by the NACM are available by correspondence from the

national office of the NACM and at local community colleges. Please contact the NACM at (612) 341-9615 for specific information about obtaining these additional non-University classes to obtain NACM certification.

**Note**—Upper division management courses (i.e., 3000- or 5000-level) in CEE are taught with the expectation that, in addition to having completed all pre-management course work, students will have either earned a B- grade average in 90 credits of college-level work, or they will have already completed a bachelor's degree.

### Admission to the Credit and Financial Management certificate

To be considered for admission, students must have completed the equivalent of a minimum of 90 (quarter) college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed with particular emphasis on the final 90 quarter credits.

#### Core Requirement (55-58 credits)

(**Note**—Credit and Financial Management Certificate students should take BLaw 3078 and 3088 as soon as possible. These courses are currently under review for continuance.)

Acct 1050 (formerly 1024/1025), Introduction to Financial Reporting

Acct 3001, Introduction to Management Accounting

Acct 3101, Intermediate Financial Reporting

BLaw 3058-3078, 3088, Business Law

Econ 1101-1102, Principles of Economics

IR 3002, Personnel and Industrial Relations

Mgmt 3002, Psychology in Management

Mktg 3000, Principles of Marketing

Comp 1011, Writing Practice

Spch 1101, Fundamentals of Speech-Communication: Oral Communication

BFin 3000, Finance Fundamentals

#### Electives

Acct 3201, Intermediate Management Accounting

Econ 3701, Money and Banking

GC 1275 (formerly GC 3732), Consumer Transactions and the Law

BFin 3100, Financial Management

BFin 3601, Financial Management of Depository Institutions (*offered infrequently*)

Ins 5100, Risk Management and Insurance

Mgmt 3001, Fundamentals of Management

LM 3000, Introduction to Logistics Management

### Industrial Relations certificate (45 credits)

This program of study is arranged and coordinated by the Industrial Relations Center of the Carlson School of Management. It is designed to provide technical training in the field of industrial relations and in the use of specialist techniques. Advanced professional training in industrial relations is available only through the day and evening M.A. programs and Ph.D. program. See the *Graduate School Bulletin*.

**Caution**—Courses at the 3000 level are taught primarily for juniors and seniors. Courses taught at the 5000 level are taught primarily for juniors, seniors, and graduate-level students.

Students may use S-N grading in Psy 3801 and in non-business electives up to a maximum of 12 credits in the certificate. Students transferring to this program from other accredited institutions must take a minimum of 12 credits in industrial relations at the University of Minnesota.

**Note**—Upper division management courses (i.e., 3000- or 5000-level) in CEE are taught with the expectation that, in addition to having completed all pre-management course work, students will have either earned a B- grade average in 90 credits of college-level work, or they will have already completed a bachelor's degree.

#### Core Requirement (33 credits)

Econ 1101-1102, Principles of Economics

IR 3002, Personnel and Industrial Relations

IR 3007, Collective Bargaining and Labor Relations

IR 3010, The Individual in the Organization, *or* Psy 5702, Psychology of Individualized Behavior in Organizations

Psy 1001, General Psychology

Psy 3801, Introduction to Statistical Methods or approved substitute (e.g. OMS 1020)

Soc 1001, Introduction to Sociology

#### Electives (12 credits)

Econ 3501 or 5531, Labor Economics

Econ 5534, Economic Security

Econ 5561, Wages and Employment

IR 0001C and 0002C, Supervision I and II (certificate credit—does not apply toward a degree program)

IR 3000, Topics in Industrial Relations

IR 5000, Topics in Industrial Relations

IR course (any 3000 or 5000 level IR course)

IDSc 3002 (formerly MIS 3102), Fundamentals of Management Information Systems

Mgmt 3001, Fundamental of Management

### Undergraduate Development Certificates in Engineering and Science

The technical progress of American industry has reached its high level of production through engineering teamwork. The engineering team is a three-part team:

- a. Engineers and scientists who formulate ideas and create new products and services.
- b. Engineering technicians who help develop, test, and apply these ideas and creations.
- c. Skilled workers who make the products and perform routine services.

It is the responsibility of our colleges and universities to provide training opportunities for persons capable of becoming professional engineers, scientists and engineering technicians. Vocational and technical colleges have the responsibility of training the skilled worker.

The Department of Extension Classes of Continuing Education and Extension offers a variety of certificates for the part-time student who has the ability to carry college-level courses leading to a career at the engineer or engineering technician level. Interested students should study these certificate programs carefully and select the program best suited to their interests, abilities, present and future employment, and ultimate educational goal.

The UDC is intended to provide a focus to the planning of continuing education activities in particular disciplines, and recognition of completion of clearly identified segments of an educational program indicative of increasing levels of technical capability. Degree credit courses offered in certificate programs may be applied toward a subsequent baccalaureate degree with departmental approval. If a later degree is anticipated, early contact with the academic department and application for admission to the Institute of Technology is important.

In general, 45-credit certificates indicate familiarity with the topical area equivalent to that of a first year in a collegiate program. An important feature of the UDC Series is that the credit content, i.e., 45, 90, 135, will be included as a part of the title of the certificate. (For example, UDC in Electrical Engineering—90 credits.) This feature will be of considerable value when the certificate is later presented by the individual to an employer or agency for consideration. Students interested in working toward a certificate should contact an adviser in the CEE Counseling Office, telephone 625-2500, as

soon as possible. However, application for admission to the certificate programs should not be made until students have completed 12 applicable credits.

### Undergraduate Development Certificate in Computer Science—45 credits

The initial Undergraduate Development Certificate in Computer Science (UDC) is designed to provide maximum exposure to computer science in a 45-credit program. It should be recognized, however, that this concentration is achieved at the expense of related scientific and general nontechnical topics. Students subsequently pursuing degree programs will be required to make up these deficiencies. Potential degree students should make early contact with CEE Counseling and the Department of Computer Science.

The UDC in Computer Science—45 credits can represent a first step for a student with college-level ability into a field of technical and scientific computer application. It can also provide a means of broadening the perspectives and skills of persons already employed at the programmer or technician level.

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits in the concentration requirement at the University of Minnesota.

#### Core Requirement (21-24 credits)

Math 1251, 1252, 1261, Differential Calculus, Integral Calculus, Algebra and Geometry of Euclidian Space (formerly 1211, 1221, 1241)

Comp 1011, Writing Practice or equivalent

CSci 3311, Discrete Structures of Computer Science

#### Concentration Requirement (16-20 credits)

CSci 3316 The Structure of Computer Programming I; and CSci 3317 The Structure of Computer Programming II

CSci 3321 and CSci 3322, Algorithms and Data Structures I and II

CSci 3327 Introduction to the Organization of Computer Systems

**Electives**—Nontechnical electives to make a minimum of 45 credits for the certificate. Institute of Technology nontechnical electives may be chosen from the following fields: anthropology, art, biological sciences, botany, classics, economics, geography, history, humanities, languages (except scientific language courses), literature, music theory, philosophy, political science, psychology, religion, social science, sociology, speech, zoology and others (see the current I.T. bulletin). Students entering

fall 1994 and later should choose these electives from the campus-wide liberal education requirements.

### **Undergraduate Development Certificate in Computer Science—90 credits**

This certificate continues the development of the undergraduate core curriculum begun in the Undergraduate Development Certificate in Computer Science—45 credits. The CSci courses provide a base for later specialization while related technical electives give exposure to at least one technical discipline of particular interest to the student.

If a student's objective is an undergraduate degree, planning of the completion of this certificate should include early consultation with a CSci adviser to plan the concentration and technical requirements.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota, not including those taken for the UDC in Computer Science—45 credits. Elective credits may not be used to satisfy this residency requirement.

**Prerequisite:** Completion of the UDC in Computer Science—45 credits

#### **Core Requirement (16 credits)**

Math 3251 Vector Differential Calculus

Math 3261 Differential Equations with Linear Algebra

Stat 3091 Introduction to Probability and Statistics  
CSci 5102 Structure and Programming of Software Systems II

**Concentration Requirement (12 credits):** Any 12 credits in 3000 or 5000 courses in computer science.

**Related Technical Requirement (8 credits)—**Courses chosen in this group should reflect areas in which students see potential application of personal computer science skills. Some examples of related technical areas include health sciences, transportation, and environmental engineering. Course selection should be worked out with an adviser in Computer Science in the field selected.

Tightening job markets and shifting national priorities often call for an interdisciplinary orientation. Upon successful petition, up to 8 additional credits may be taken from this area in place of the nontechnical electives group requirement (see below) in order to form a coherent, expanded related technical area.

**Electives—**Courses from nontechnical or biological science electives, to make a minimum of 90 credits, including those from the 45 credit UDC in Computer Science.

### **Undergraduate Development Certificate in Engineering and Science—45 credits**

The UDC in Engineering and Science—45 credits is designed to provide students with the fundamentals of mathematics, physics, and broad technical communications skills which will enable them to handle certain engineering support assignments in any engineering field and will give them the necessary background for more specialized or advanced study either as engineers or as engineering technicians. All courses in the UDC in Engineering and Science—45 credits program carry degree credit, representing the first year of required course work for an engineering degree, and are applicable to a baccalaureate degree upon admission to the Institute of Technology.

Refer to the introductory statement about the UDC at the beginning of this section.

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits from the core requirement at the University of Minnesota.

**Prerequisite:** High school graduate or equivalent; 2 years of algebra and 2 years of geometry, including trigonometry.

#### **Core Requirements (36 credits)**

Comp 1011, Writing Practice or equivalent

Math 1251, Differential Calculus (formerly 1211)

Math 1252, Integral Calculus (formerly 1221)

Math 1261, Algebra and Geometry of Euclidean space

Phys 1251, or 1271/1275, 1252 or

1281/1285, General Physics and Lab

Chem 1001, or 1051 Chemical Principles I

#### **Plus two of the following five courses:**

CSci 3101, A FORTRAN Introduction to Computer Programming

CSci 3102, A Pascal Introduction to Computer Programming

Chem 1051 or 1052, Chemical Principles I or II

CSci 3113, An Introduction to Programming in C

ME 1025, Engineering Graphics

**Electives—**Courses from nontechnical electives to make a minimum of 45 credits for the certificate.

### **Undergraduate Development Certificate in Engineering and Science—90 credits**

(Includes 45 credits from Undergraduate Development Certificate in Engineering and Science)

This certificate is designed for students who have an engineering degree objective and who wish to continue working toward one of the engineering cur-

## Certificates

riculums of the Institute of Technology. It will also be of value to technicians who desire to widen and deepen their technical role.

This approach involves interweaving into one expanding pattern the elements of basic science, engineering science, professional engineering work, and design. To build the sound foundation required in engineering work, the first two years of all engineering curriculums emphasize the basic sciences of mathematics, physics, and chemistry.

Work in nontechnical and biological science electives is also required throughout the entire engineering program. This is intended to broaden viewpoints and to add to perspective.

All classes in the UDC in Engineering and Science—90 credits carry degree credit and are transferable to the Institute of Technology when admission requirements are satisfied. Refer to the introductory statement on the UDC at the beginning of this section.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits from the core requirement or spread requirement at the University of Minnesota, not including those taken for the UDC in Engineering and Science—45 Credits.

**Prerequisite:** Completion of the UDC in Engineering and Science—45 credits.

### **Core Requirements** (20-24 credits)

Math 3251 or 3311, Vector Differential Calculus  
Math 3261 or 3321, Differential Equations with Linear Algebra  
AEM 1015, Statics  
Phys 1253 or 1291/1295, General Physics and Laboratory  
Chem 1051 or 1052, Chemical Principles I or II

**Spread Requirement**—A minimum of 8 credits from the following courses

Math 3262 or 3331, Sequences, Series, and Approximation  
AEM 3016, Deformable Body Mechanics  
AEM 3036, Dynamics  
EE 3009, Linear Circuits I  
EE 1400, Circuits Laboratory  
CE 3400, Fluid Mechanics  
Chem 1051 or 1052 (if not used previously), Chemical Principles I or II  
Phys 1254 or 3501, Physics  
Stat 3091, Probability and Statistics or  
ME 3900, Introduction to Engineering Statistics

**Electives**—Courses from nontechnical or biological science electives, or mathematics or chemistry

or Comp 3031 or physics or Comp 3085 or additional courses from the spread requirement to make a minimum of 90 credits total for the certificate. Institute of Technology nontechnical electives may be chosen from the following fields: anthropology, art, biological sciences, botany, classics, economics, geography, history, humanities, languages (except scientific language courses), literature, music theory, philosophy, political science, psychology, religion, social science, sociology, speech, zoology and others (see the current I.T. bulletin). Students entering fall 1994 and later should choose these electives from the campus-wide liberal education requirements.

### **Undergraduate Development Certificate in Civil Engineering—90 credits**

(Includes 45 credits from Undergraduate Development Certificate in Engineering and Science)

The Undergraduate Development Certificate in Civil Engineering—90 credits, enables a student to continue the Undergraduate Development Certificate work in courses normally required in civil engineering degree programs and establishes the prerequisite work needed to pursue courses at the third-year level. Elective credits may be chosen from third-year offerings in civil engineering. It is designed to help engineering technicians assume a role of increased responsibility in working with civil engineers. It also represents a coherent body of study in helping determine whether further work toward a civil engineering degree should be pursued. Upon acceptance by the Institute of Technology, a student may transfer appropriate work completed in a certificate program to a bachelor's degree program.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota, not including those taken for the UDC in Engineering and Science—45 credits.

**Prerequisite:** Completion of the UDC in Engineering and Science—45 credits.

**Core Requirements** (25 credits selected from the following)

Math 3251 or 3311, Vector Differential Calculus  
Math 3261 or 3321, Differential Equations with Linear Algebra  
Math 3252 or 3331, Multivariable Integral Calculus  
Chem 1051-1052 or 1004-1005† or 1031-1032, General Principles of Chemistry  
Phys 1253 or 1291/1295, General Physics and Laboratory  
AEM 1015 Statics  
AEM 3016, Deformable Body Mechanics  
CE 3400, Fluid Mechanics

- CSci 3101, FORTRAN  
 CSci 3113, Introduction to Programming in C  
 CSci 3102, Introduction to PASCAL  
 ME 3301, Thermodynamics
- Concentration Requirement** (20 credits)—Select courses from the list below in the fields desired  
 CE 3100, Introduction to Surveying and Mapping  
 CE 3200, Introduction to Transportation Engineering  
 CE 3300, Soil Mechanics  
 CE 3400, Fluid Mechanics (if not taken in core requirement)  
 CE 5405, Hydrology and Hydrologic Design  
 CE 5603, Introduction to Construction Materials  
 CE 5401, Water Resources Engineering  
 CE 5500, Analysis and Design of Water Supply Systems  
 CE 5501, Analysis and Design of Wastewater Systems  
 CE 5703, Project Management

**Undergraduate Development Certificate in Electrical Engineering—90 credits**

(Includes 45 credits from Undergraduate Development Certificate in Engineering and Science)

The Undergraduate Development Certificate in Electrical Engineering—90 credits enables a student to continue the Undergraduate Development Certificate work in courses normally required in electrical engineering degree programs and establishes the prerequisite work needed to pursue courses at the third-year level. It is designed to help engineering technicians assume a role of increased responsibility in working with industrial engineers. It also represents a coherent body of study in helping determine whether further work toward an electrical engineering degree should be pursued. Upon acceptance by the Institute of Technology, a student may transfer appropriate work completed in a certificate program to a bachelor's degree program.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits in the core requirement at the University of Minnesota, not including those taken for the UDC in Engineering and Science—45 credits.

**Prerequisite:** Completion of the UDC in Engineering and Science—45 credits.

**Core Requirement** (minimum of 36 credits selected from the following)

- Math 3251 or 3311, Vector Differential Calculus  
 Math 3261 or 3321, Differential Equations with Linear Algebra

- Math 3221, Introduction to Linear Algebra and Linear Differential Equations  
 Math 3252 or 3331, Multivariable Integral Calculus  
 EE 1400, Circuits Laboratory  
 EE 3009, Linear Circuits I  
 EE 3010, Linear Circuits II  
 Phys 1253/1254 or 3501, General Physics and Laboratory  
 Third-Year Electrical Engineering courses (3000-5000 level)

**Electives**—Courses from nontechnical or biological science electives, to make a minimum of 90 credits, including those from the UDC in Engineering and Science—45 credits. Institute of Technology nontechnical electives may be chosen from the following fields: anthropology, art, biological sciences, botany, classics, economics, geography, history, humanities, languages (except scientific language courses), literature, music theory, philosophy, political science, psychology, religion, social science, sociology, speech, zoology and others (see the current I.T. bulletin). Students entering fall 1994 and later should choose these electives from the campus-wide liberal education requirements.

**Undergraduate Development Certificate in Electrical Engineering—135 credits**

(Includes 90 credits from Undergraduate Development Certificate in Electrical Engineering)

An increasing number of employers are recognizing the value of an individual who has completed the course work that is central to the third year of an electrical engineering bachelor's program together with supporting topics. The objective may either be demonstration of ability to participate more actively in the engineering team or for the individual to pursue the remainder of the work toward a Bachelor of Electrical Engineering Degree on an accelerated basis. Course sequences at the fourth-year level may also serve either of the above two purposes.

Students transferring credits to this program from other accredited institutions must take a minimum of 36 credits at the University of Minnesota, not including those taken for the UDC in Electrical Engineering—90 credits.

**Prerequisite:** Completion of the UDC in Electrical Engineering—90 credits

**Core Requirement** (minimum of 30 credits selected from the following)

- EE 3011, Signal Analysis  
 EE 3012, System Design  
 EE 3060, Analog Electronics

## Certificates

EE 3062, Digital Electronics  
EE 3110, Electric and Magnetic Fields  
EE 3111, Electromagnetic Waves  
EE 3351, Introduction to Logic Design and Microprocessors  
EE 3352, Microprocessors  
EE 3400-3401-3402, Junior Electrical Engineering Laboratory  
Comp 3031, Technical Writing for Engineers  
Any other EE 5000-level courses

**NOTE**—Students working toward a degree should check with an I.T. adviser before choosing technical electives.

**Electives**—Courses from nontechnical (maximum 6 credits) or technical electives (including fourth-year courses in electrical engineering) to make a minimum of 135 credits for the certificate. Institute of Technology nontechnical electives may be chosen from the following fields: anthropology, art, biological sciences, botany, classics, economics, geography, history, humanities, languages (except scientific language courses), literature, music theory, philosophy, political science, psychology, religion, social science, sociology, speech, zoology and others (see the current I.T. bulletin). Students entering fall 1994 and later should choose these electives from the campus-wide liberal education requirements.

### Undergraduate Development Certificate in Industrial Engineering—90 credits

(Includes 45 credits from Undergraduate Development Certificate in Engineering and Science)

The Undergraduate Development Certificate in Industrial Engineering—90 credits enables a student to continue the Undergraduate Development Certificate work in courses normally required in industrial engineering degree programs and establishes the prerequisite work needed to pursue courses at the third-year level. It is designed to help engineering technicians assume a role of increased responsibility in working with industrial engineers. It also represents a coherent body of study in helping determine whether further work toward an industrial engineering degree should be pursued. Upon acceptance by the Institute of Technology a student may transfer appropriate work completed in a certificate program to a bachelor's degree program.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota, not including those taken for the UDC in Engineering and Science—45 credits. Prerequisite: Completion

of the UDC in Engineering and Science—45 credits.

**Prerequisite:** Completion of the UDC in Engineering and Science—45 credits

### Core Requirements (29 credits)

CSci 3101, A FORTRAN Introduction to Computer Programming  
Math 3261, Differential Equations with Linear Algebra  
Math 3251, Vector Differential Calculus  
*Math 3321 may be substituted for 3261 and 3251*  
Stat 3091, Probability and Statistics or  
ME 3900, Introduction to Engineering Statistics  
IEOR 3000, (formerly IEOB 5000) Introduction to Industrial Engineering Analysis  
Comp 3031, Technical Writing for Engineers  
Phys 1253 or 1291/1295, General Physics and Laboratory

**Concentration Requirements (19 credits):** Select at least four courses from those listed below:

IEOR 5010, Introduction to Work Analysis  
IEOR 5020, Engineering Cost Accounting, Analysis and Control  
IEOR 5030, Quality Control and Reliability  
IEOR 5040, Introduction to Operations Research  
IEOR 5050, Engineering Economic Analysis  
Other IEOB courses as they are offered

**Note**—Prerequisites and course overlap between certificate and degree credit courses should be evaluated by an I.T. adviser.

### Undergraduate Development Certificate in Mechanical Engineering—94-99 credits

(Includes 45 credits from Undergraduate Development Certificate in Engineering and Science)

The Undergraduate Development Certificate in Mechanical Engineering—94-96 credits enables a student to continue the Undergraduate Development Certificate work in courses normally required in mechanical engineering degree programs and establishes the prerequisite work needed to pursue courses at the third-year level. It is designed to help engineering technicians assume a role of increased responsibility in working with mechanical engineers. It also represents a coherent body of study in helping determine whether further work toward a mechanical engineering degree should be pursued. Upon acceptance by the Institute of Technology a student may transfer appropriate work completed in a certificate program to a bachelor's degree program.



Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota, not including those taken for the UDC in Engineering and Science—45 credits.

**Prerequisite:** Completion of the UDC in Engineering and Science—45-48 credits.

**Core Requirements** (45 credits)

CSci 3101, A FORTRAN Introduction to Computer Programming

Math 3261, Differential Equations with Linear Algebra

Math 3251, Vector Differential Calculus

*Math 3321 may be used in lieu of Math 3261 and 3251*

AEM 1015, Statics

AEM 3016, Deformable Body Mechanics

AEM 3036, Dynamics

Phys 1253 or 1291/1295, General Physics and Laboratory

ME 3020, Mechanical Engineering Computation

ME 3201, Mechanical Engineering Systems Analysis

ME 3203, Analysis of Mechanism Systems or

ME 3205, Engineering Systems Design

ME 3301, Thermodynamics

ME 3303, Applied Thermodynamics or

ME 5342, Heat Transfer

**Electives**—Additional electives from the following courses to make a minimum of 94-96 credits including credits from UDC in Engineering and Science—45 credits.

ME 3205, Engineering Systems Design (if not used in core requirement)

ME 5342, Heat Transfer (if not used in core requirement)

ME 5344, Thermodynamics of Fluid Flow

ME 3701-3702, Basic Measurement Laboratory I-II

CE 3400 or AEM 3200, Fluid Mechanics

IEOR 3000, Introduction to Industrial Engineering Analysis

ME 3900 or Stat 3091, Statistics

**Note**—ME 1025 Engineering Graphics or accepted equivalent is required if not already taken in the UDC Engineering and Science—45 credits

# Numbering/Symbols/Maps

## Abbreviations

Contents	Page
Course numbering .....	516
Symbols .....	516
Department abbreviations .....	517
Campus building abbreviations .....	519
Abbreviations and addresses for off-campus classes .....	520
Maps .....	521-528

### Course numbering

All University courses carry four-digit numbers. The first digit indicates the credit level of the course. See sample below:

0000C to 0999C	Certificate credit course
0000 to 0999	Noncredit course
1000 to 1999	Introductory degree-credit course—primarily for freshmen and sophomores
3000 to 3999	Intermediate degree-credit course—primarily for juniors and seniors. Also open to other students with at least C averages overall and in all prerequisite work
5000 to 5999	Advanced degree credit course—primarily for juniors, seniors, and graduate-level students
8000 to 8999	Degree credit course open only to students who have been admitted to the University of Minnesota Graduate School

To take a course beginning with the numeral 5 (indicating a degree credit course intended primarily for juniors, seniors, and graduate students) or beginning with the numeral 8 (indicating a course intended only for students admitted to the University of Minnesota Graduate School) for graduate credit, see *Graduate Credit*, page 39.

### Symbols

The following symbols are used throughout this bulletin:

- A hyphen between numbers indicates a sequence course, the units of which must be taken in order, unless otherwise indicated.
- ★ Enrollment space limited. See instructions on registration in limited-enrollment sections, page 12.
- ⊙ A joint day/Extension class open to Extension students and to regularly enrolled day school students.
- † All courses listed before this symbol must be completed before credit may be received.
- § No credit is given if credit has been received for equivalent course listed after this symbol.
- ¶ Concurrent (simultaneous) registration is allowed (or required) in courses listed after this symbol
- # Consent of instructor.
- (IS) Course also available through Department of Independent Study. See page 43.
- Δ Consent of department offering course is required.
- cr Credit
- Qtr Quarter
- Sem Semester
- Spec Special Term
- S/N Satisfactory/No credit grading system. See page 36.
- A/F Letter grading system. See page 36.
- Lect Lecture
- Rec Recitation
- Prereq Prerequisite. See page 35.
- Sec Section
- Equiv Equivalent
- Grad Graduate

**Department abbreviations,  
course designators**

Acct, *Accounting*  
 AdEd, *Adult Education* (Vocational and Technical Education)  
 AEM, *Aerospace Engineering and Mechanics*  
 Afro, *Afro-American and African Studies*  
 AgEc, *Agricultural and Applied Economics*  
 AgEn, *Agricultural Engineering*  
 AgET, *Agricultural Engineering Technology*  
 Agro, *Agronomy and Plant Genetics*  
 AmIn, *American Indian Studies*  
 AmSt, *American Studies*  
 ANE, *Ancient Near Eastern Studies*  
 AnSt, *Ancient Studies*  
 AnSc, *Animal Science*  
 Anth, *Anthropology*  
 Arab, *Arabic*  
 Arch, *Architecture*  
 ArEd, *Art Education* (Curriculum and Instruction)  
 ArtH, *Art History*  
 ArtS, *Art*  
 Ast, *Astronomy*  
 BAB, *Bachelor of Applied Studies*  
 BIN, *Bachelor of Information Networking*  
 BioC, *Biochemistry*  
 Biol, *Biology*  
 BFin, *Finance*  
 BGS, *Business, Government, and Society*  
 BLaw, *Business Law*  
 BIE, *Business and Industrial Education* (Vocational and Technical Education)  
 CAPS, *Clinical and Population Sciences* (College of Veterinary Medicine)  
 CBN, *Cell Biology and Neuroanatomy*  
 Chem, *Chemistry*  
 Chic, *Chicano Studies*  
 CAPy, *Child and Adolescent Psychiatry*  
 CPsy, *Child Psychology*  
 Chn, *Chinese*  
 CE, *Civil and Mineral Engineering*  
 Clas, *Classical and Near Eastern Studies*  
 CLS, *Clinical Laboratory Science*  
 CVM, *College of Veterinary Medicine*  
 CDis, *Communication Disorders*  
 CLit, *Comparative Literature*  
 CSDS, *Comparative Studies in Discourse and Society* (Cultural Studies and Comparative Literature)

CSch, *Compleat Scholar* (noncredit)  
 CSW, *Compleat Scholar Weekends* (noncredit)  
 Comp, *Composition and Communication*  
 CSci, *Computer Science*  
 CrSr, *Croatian and Serbian Language*  
 CSCL, *Cultural Studies and Comparative Literature*  
 CI, *Curriculum and Instruction* (Curriculum and Instruction; includes ArEd, Elem, CISy, SeEd)  
 CISy, *Curriculum and Instructional Systems* (Curriculum and Instruction)  
 Dnce, *Dance*  
 Dan, *Danish*  
 Dsgn, *Design* (Design, Housing, and Apparel)  
 DHA, *Design, Housing, and Apparel* (includes former Dsgn, Hsg, TexC)  
 Dtch, *Dutch*  
 EAS, *East Asian Studies*  
 EALL, *East Asian Languages and Literature*  
 EEB, *Ecology, Evolution, and Behavior*  
 Econ, *Economics*  
 EdPA, *Educational Policy and Administration* (includes courses formerly in HiEd, SPFE, and EdAd)  
 EPsy, *Educational Psychology*  
 EE, *Electrical Engineering*  
 Elem, *Elementary Education* (Curriculum and Instruction)  
 Engl, *English* (language and literature)  
 EngW, *English* (creative writing)  
 ESL, *English as a Second Language*  
 Ent, *Entomology*  
 FE, *Family Education* (Vocational and Technical Education)  
 FPCH, *Family Practice and Community Health*  
 FSoS, *Family Social Science*  
 BFin, *Finance* (business)  
 Fin, *Finnish*  
 FW, *Fisheries and Wildlife*  
 FScN, *Food Science and Nutrition*  
 FSSP, *Foreign Studies SPAN* (formerly FoSt)  
 ForP, *Forest Products*  
 FR, *Forest Resources*  
 Fren, *French*  
 FrIt, *French and Italian*  
 GC, *General College*  
 GCB, *Genetics and Cell Biology*  
 Geog, *Geography*  
 Geo, *Geology and Geophysics*

---

## Department abbreviations

---

Ger, <i>German</i>	Nav, <i>Naval Science</i>
Grk, <i>Greek</i>	Nor, <i>Norwegian</i>
HSU, <i>Health Science Units</i>	Nurs, <i>Nursing</i>
Hebr, <i>Hebrew</i>	OMS, <i>Operations and Management Science</i>
Hndi, <i>Hindi</i>	Per, <i>Persian</i>
Hist, <i>History</i>	Phcg, <i>Pharmacognosy</i>
HMed, <i>History of Medicine</i>	Phar, <i>Pharmacy Practice</i>
HSci, <i>History of Science and Technology</i>	Phil, <i>Philosophy</i>
HSem, <i>Honors Opportunities (CLA)</i>	PE, <i>Physical Education</i>
Hort, <i>Horticultural Science</i>	PMed, <i>Physical Medicine and Rehabilitation</i>
Hsg, <i>Housing (Design, Housing, and Apparel)</i>	Phys, <i>Physics</i>
HRD, <i>Human Resource Development (Vocational and Technical Education)</i>	PBio, <i>Plant Biology</i>
Hum, <i>Humanities</i>	PIPa, <i>Plant Pathology</i>
IEOR, <i>Industrial Engineering/Operations Research</i>	Plsh, <i>Polish</i>
IR, <i>Industrial Relations</i>	Pol, <i>Political Science</i>
CEBS, <i>Certified Employee Benefits Specialist</i>	Port, <i>Portuguese</i>
IDSc, <i>Information and Decision Sciences</i>	PSch, <i>Practical Scholar (noncredit)</i>
IofT, <i>Institute of Technology</i>	Psy, <i>Psychology</i>
ID, <i>Interdepartmental Study</i>	PA, <i>Public Affairs</i>
IntR, <i>International Relations</i>	PubH, <i>Public Health</i>
Ins, <i>Insurance</i>	Rec, <i>Recreation, Park and Leisure Studies</i>
Ital, <i>Italian</i>	RelS, <i>Religious Studies</i>
Jpn, <i>Japanese</i>	REX, <i>Research Explorations (noncredit)</i>
JwSt, <i>Jewish Studies</i>	Rhet, <i>Rhetoric</i>
Jour, <i>Journalism and Mass Communication</i>	Russ, <i>Russian</i>
Kin, <i>Kinesiology</i>	Scan, <i>Scandinavian</i>
Kor, <i>Korean</i>	SeEd, <i>Secondary Education (Curriculum and Instruction)</i>
LA, <i>Landscape Architecture</i>	Slav, <i>Slavic</i>
LgTT, <i>Language, Teaching, Technology</i>	SAPh, <i>Social and Administrative Pharmacy</i>
LAS, <i>Latin American Studies</i>	SW, <i>Social Work</i>
Lat, <i>Latin</i>	Soc, <i>Sociology</i>
LASk, <i>Learning and Academic Skills</i>	Soil, <i>Soil Science</i>
Ling, <i>Linguistics</i>	SALC, <i>South Asian Languages and Cultures</i>
LM, <i>Logistics Management</i>	Span, <i>Spanish</i>
Mgmt, <i>Management</i>	SpPt, <i>Spanish-Portuguese</i>
Mar, <i>Marathi</i>	Spch, <i>Speech-Communication</i>
Mktg, <i>Marketing</i>	Stat, <i>Statistics</i>
MatS, <i>Materials Science and Engineering</i>	Swed, <i>Swedish</i>
Math, <i>Mathematics</i>	TexC, <i>Textiles and Clothing (Design, Housing, and Apparel)</i>
MthE, <i>Mathematics Education</i>	TrIn, <i>Translation and Interpreting</i>
ME, <i>Mechanical Engineering</i>	Th, <i>Theatre Arts</i>
MeSt, <i>Medieval Studies</i>	Turk, <i>Turkish</i>
MicB, <i>Microbiology</i>	UrbS, <i>Urban Studies</i>
MELC, <i>Middle Eastern Languages and Cultures</i>	CVM, <i>College of Veterinary Medicine</i>
Mil, <i>Military Science</i>	VoEd, <i>Vocational Education</i>
MdGk, <i>Modern Greek</i>	WoSt, <i>Women's Studies</i>
Mus, <i>Music</i>	YoSt, <i>Youth Studies</i>
MuEd, <i>Music Education</i>	

**Campus building abbreviations**

Campus and parking maps are included in this bulletin following this list. Special maps designed to help students with mobility handicaps get around the Minneapolis and St. Paul campuses are available. Call Disability Services, 624-4037, and ask for the "Guide for Students with Disabilities." The map shows handicapped parking places, building entrance levels, accessible buildings, curb cuts, location of modified rest rooms, and more.

ABLMS (StP), <i>Andrew C. Boss Laboratory-Meat Science</i>	FieldHse, <i>University Field House (1800 University Ave S.E.)</i>
AgEng(StP), <i>Agricultural Engineering</i>	FolH, <i>Folwell Hall</i>
Agr(StP), <i>Agronomy</i>	FordH, <i>Ford Hall</i>
AkerH, <i>Akerman Hall</i>	FronH, <i>Frontier Hall</i>
ApH, <i>Appleby Hall</i>	FraserH, <i>Fraser Hall</i>
AlderH (StP), <i>Alderman Hall</i>	FScN(StP), <i>Food Science and Nutrition</i>
AmundH, <i>Amundson Hall</i>	GRaptCtr (StP), <i>Gabbert Raptor Center</i>
AndH, <i>Anderson Hall (West Bank)</i>	GorL (StP), <i>Gortner Laboratory of Biochemistry</i>
AnScVM (StP), <i>Animal Science/Veterinary Medicine</i>	GrnH (StP), <i>Green Hall</i>
Arch, <i>Architecture</i>	Gym (StP), <i>Gymnasium (St. Paul campus)</i>
Armory, <i>Armory Bldg.</i>	HckrH(StP), <i>Haecker Hall</i>
ArtB, <i>Art Building (2020 Washington Ave. So., Minneapolis, West Bank)</i>	HodsonH (StP), <i>Hodson Hall</i>
BellMus, <i>Museum of Natural History</i>	HrG(StP), <i>Horticulture Greenhouse</i>
BFAB, <i>Bierman Field Athletic Bldg.</i>	HSUnitF, <i>Health Sciences Unit F</i>
BioSci(StP), <i>Biological Sciences Center</i>	HHHctr, <i>Hubert H. Humphrey Center (West Bank)</i>
BlegH, <i>Blegen Hall (West Bank)</i>	Intermedia Arts (formerly UC Video), <i>Intermedia Arts of Minnesota (425 Ontario S.E.)</i>
BorH (StP), <i>Borlaug Hall</i>	IHCC, <i>Inver Hills Community College (8445 College Trail, Inver Grove Heights)</i>
BuH, <i>Burton Hall</i>	JacH, <i>Jackson Hall</i>
Career & Cont Educ Bldg, <i>North Henn Comm Coll</i>	JohH, <i>Johnston Hall</i>
CentLib (StP), <i>Central Library</i>	JonesH, <i>Jones Hall</i>
ChDev, <i>Child Development</i>	KaufL (StP), <i>Kaufert Lab</i>
CookeH, <i>Cooke Hall (1900 University Ave S.E.)</i>	KlaCt, <i>Klaeber Court</i>
ChRC, <i>Children's Rehabilitation Center</i>	KoltH, <i>Kolthoff Hall</i>
CivMinE, <i>Civil and Mineral Engineering</i>	Law, <i>Law Building (West Bank)</i>
CMU, <i>Coffman Memorial Union</i>	LindH, <i>Lind Hall</i>
ClaOff (StP), <i>Classroom Office Bldg.</i>	MacP, <i>MacPhail Center (1128 LaSalle Ave., Minneapolis)</i>
CofH(StP), <i>Coffey Hall</i>	Mayo, <i>Mayo Memorial Hospital</i>
DiehlH, <i>Diehl Hall</i>	McNH(StP), <i>McNeal Hall</i>
EBCEC (StP) <i>Earle Brown Continuing Education Center</i>	MechE, <i>Mechanical Engineering</i>
Ecology (StP), <i>Ecology Bldg.</i>	MdbH, <i>Middlebrook Hall (West Bank)</i>
EddyH, <i>Eddy Hall</i>	Mgmt/Econ, <i>Management/Economics Bldg. (West Bank)</i>
EdHAn, <i>Eddy Hall Annex</i>	MlrDH, <i>Millard Hall</i>
EE/CSci, <i>Electrical Engineering/Computer Science Bldg.</i>	MMA, <i>Mayo Memorial Auditorium</i>
ElectE, <i>Electrical Engineering</i>	MoosT, <i>Moos Tower (formerly HSUnitA)</i>
EltH, <i>Elliott Hall</i>	MurH, <i>Murphy Hall</i>
FergH, <i>Ferguson Hall (West Bank)</i>	MusEd, <i>Music Education</i>

---

## Campus building abbreviations

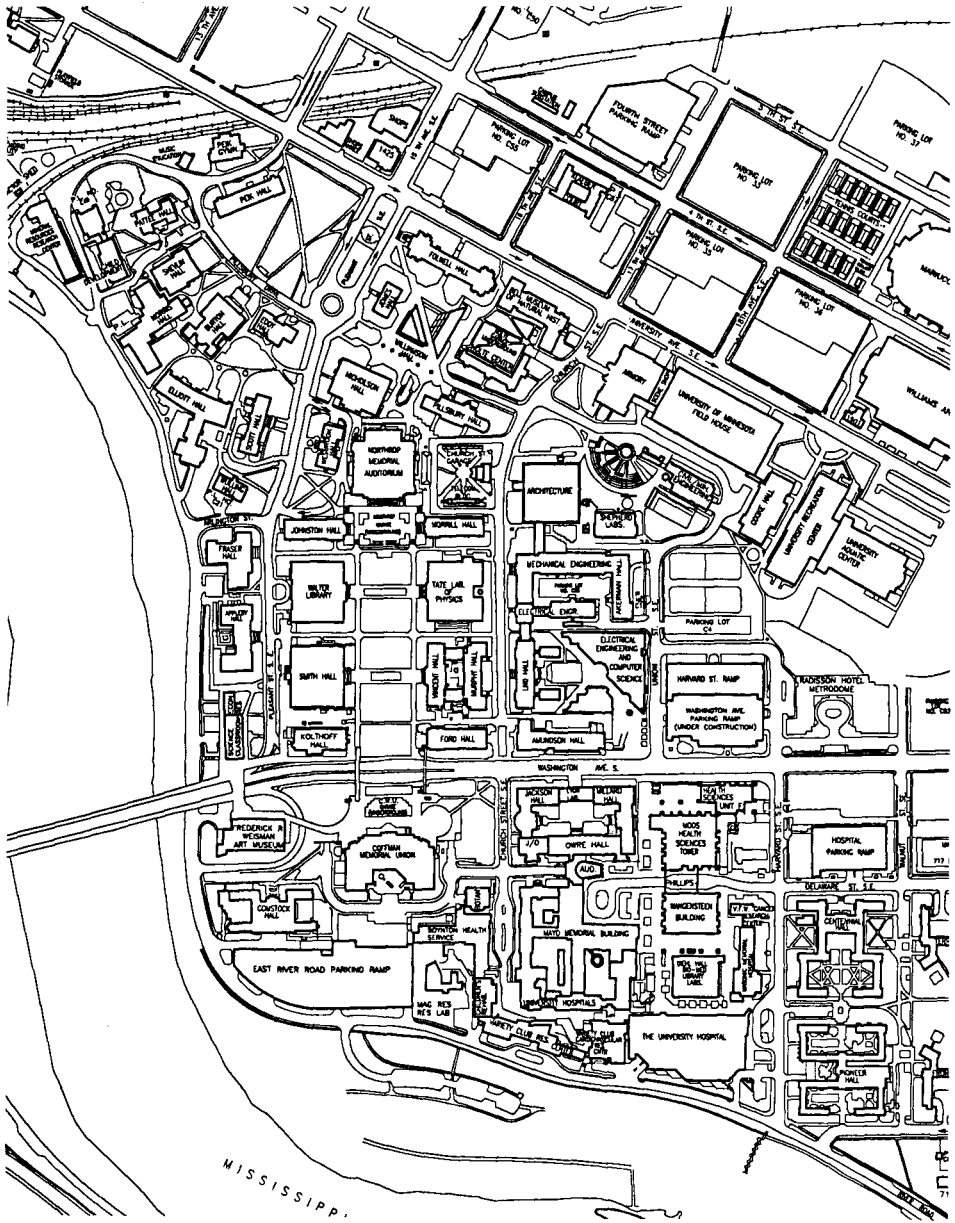
---

NCCE, <i>Nolte Center for Continuing Education</i>	SmithH, <i>Smith Hall</i>
NorrisH, <i>Norris Hall</i>	SnH (StP), <i>Snyder Hall</i>
NichH, <i>Nicholson Hall</i>	Soils (StP), <i>Soils</i>
NMA, <i>Northrop Memorial Auditorium</i>	SocSci, <i>Social Sciences Bldg. (West Bank)</i>
NorH(StP), <i>North Hall</i>	StakH(StP), <i>Stakman Hall of Plant Pathology</i>
NHCC, <i>North Hennepin Community College</i> (7411 85 Ave N, Brooklyn Park)	StCen (StP), <i>Student Center</i>
OMWL, <i>O. Meredith Wilson Library (West Bank)</i>	UAqCtr, <i>University Aquatic Center (1910</i> <i>University Ave S.E.)</i>
OwreH, <i>Owre Hall</i>	URecCtr, <i>University Recreation Center (1906</i> <i>University Ave S.E.)</i>
PeikH, <i>Peik Hall</i>	U-Tech Bldg, <i>University Technology Center</i> (1313 Fifth St S.E.)
PeikG, <i>Peik Gymnasium</i>	VinH, <i>Vincent Hall</i>
PetH (StP), <i>Peters Hall</i>	VoTech (StP), <i>Vocational-Technical Education</i>
Phys, <i>Physics, Tate Laboratory of</i>	WaLib, <i>Walter Library</i>
PillsH, <i>Pillsbury Hall</i>	WeismanArt, <i>Frederick R. Weisman Art Museum</i>
PiH, <i>Pioneer Hall</i>	Wesh, <i>Wesbrook Hall</i>
PtH, <i>Pattee Hall</i>	WilleyH, <i>Willey Hall (West Bank)</i>
PWB, <i>Phillips Wangensteen Bldg.</i>	WmsonH, <i>Williamson Hall</i>
RarigC, <i>Rarig Center (West Bank)</i>	WullH, <i>Wulling Hall</i>
ScottH, <i>Scott Hall</i>	
SciCB, <i>Science Classroom Bldg.</i>	
ShevH, <i>Shevlin Hall</i>	

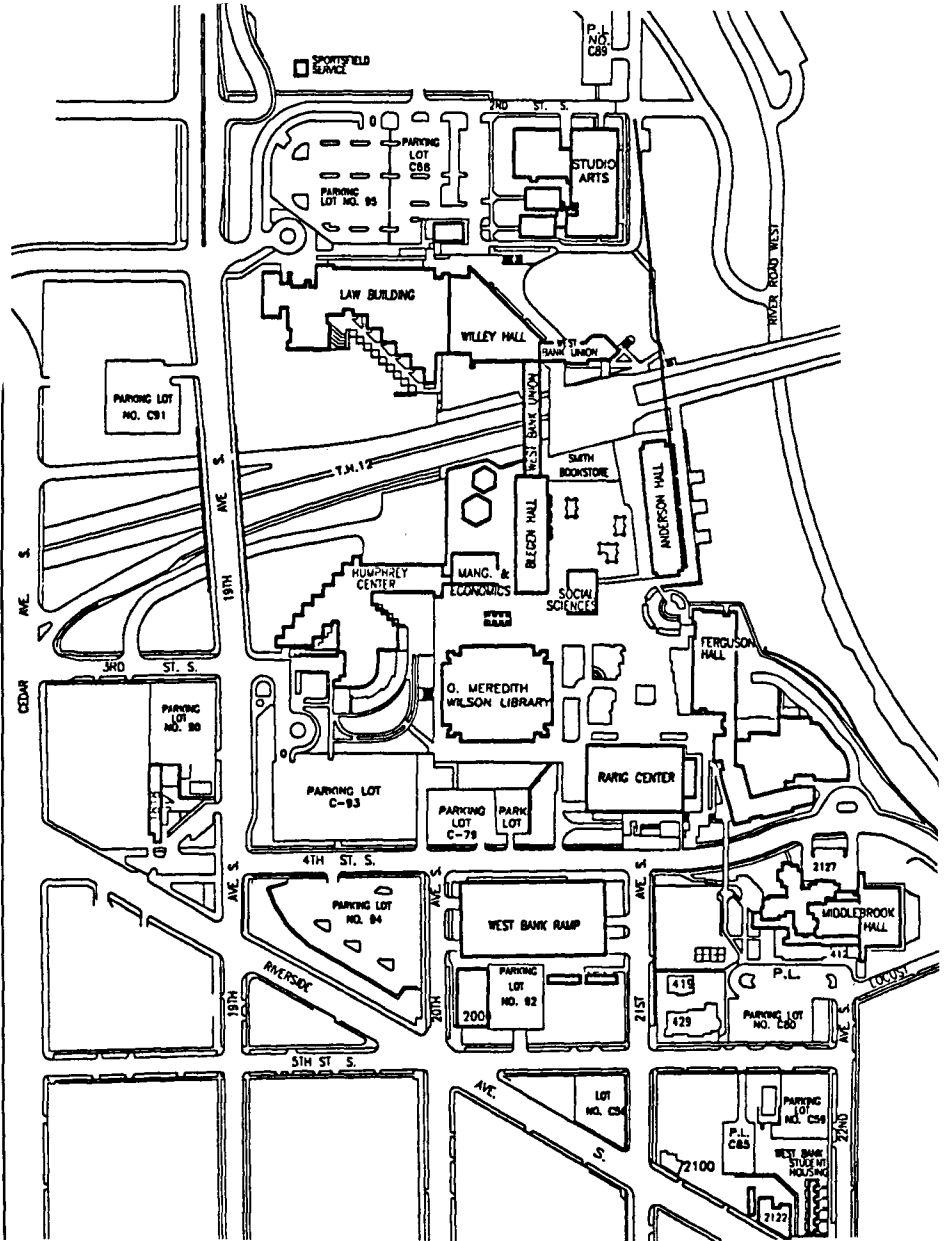
## Abbreviations for off-campus classes

The following abbreviations for off-campus class sites are used throughout this Bulletin:

<b>IHCC</b>	Inver Hills Community College 8445 College Trail, Inver Grove Heights 55076 (telephone 450-8500)
<b>NHCC</b>	North Hennepin Community College 7411 85 Ave N, Brooklyn Park 55445 (telephone 493-0555)
<b>Roseville Area HS</b>	Roseville Area High School—West Campus 1261 W. Highway 36, Roseville 55113
<b>Richfield HS</b>	Richfield Senior High School 7001 Harriet Ave. S., Richfield 55423

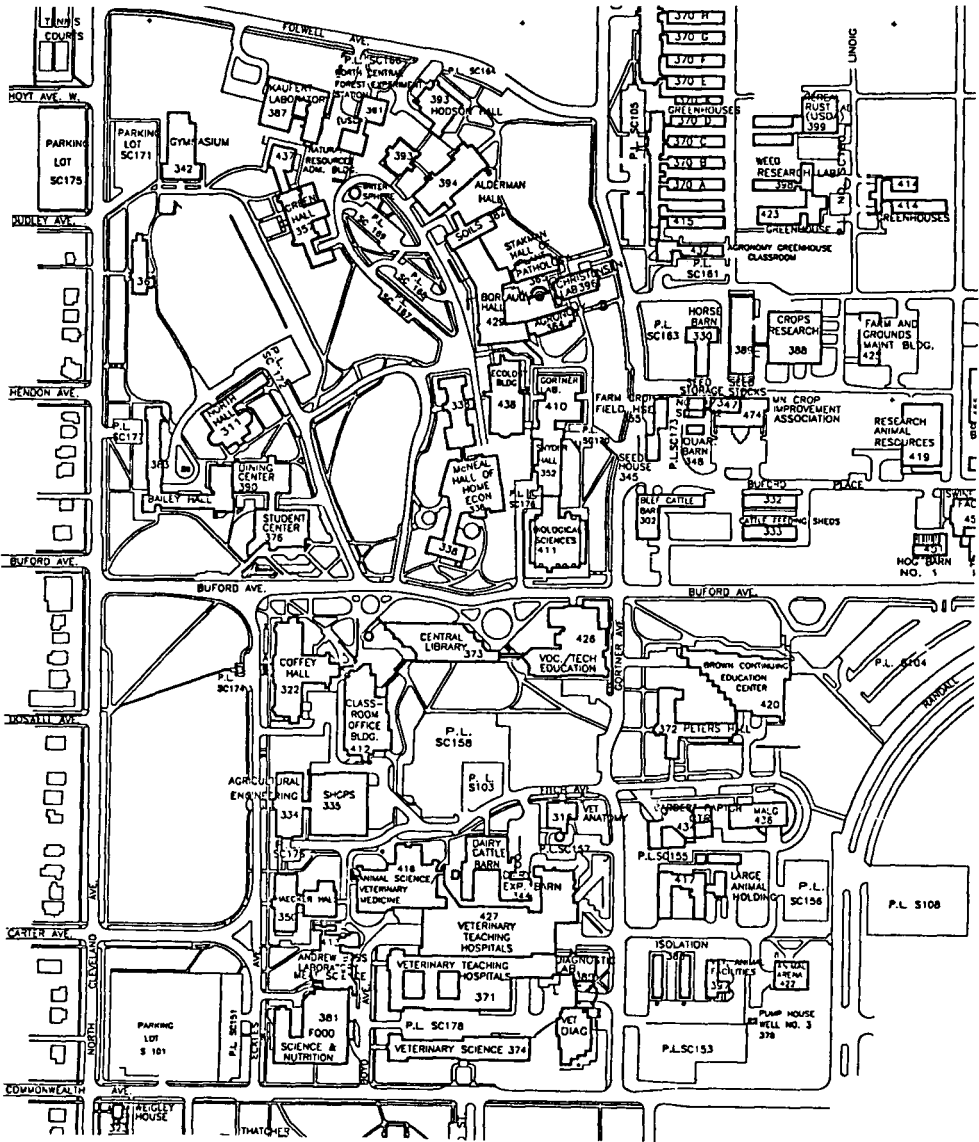


**University of Minnesota  
Twin Cities Campus  
East Bank**



**University of Minnesota  
Twin Cities Campus  
West Bank**

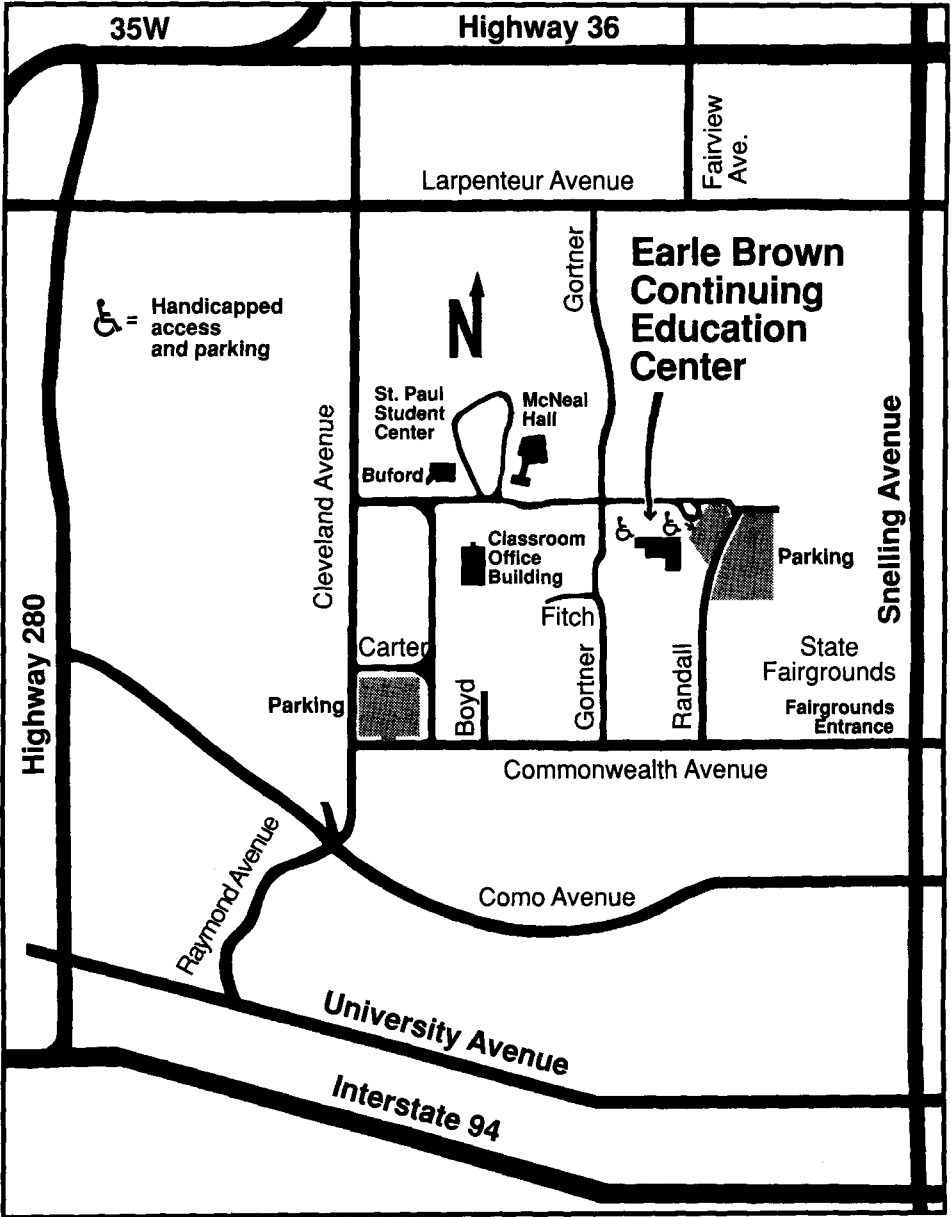




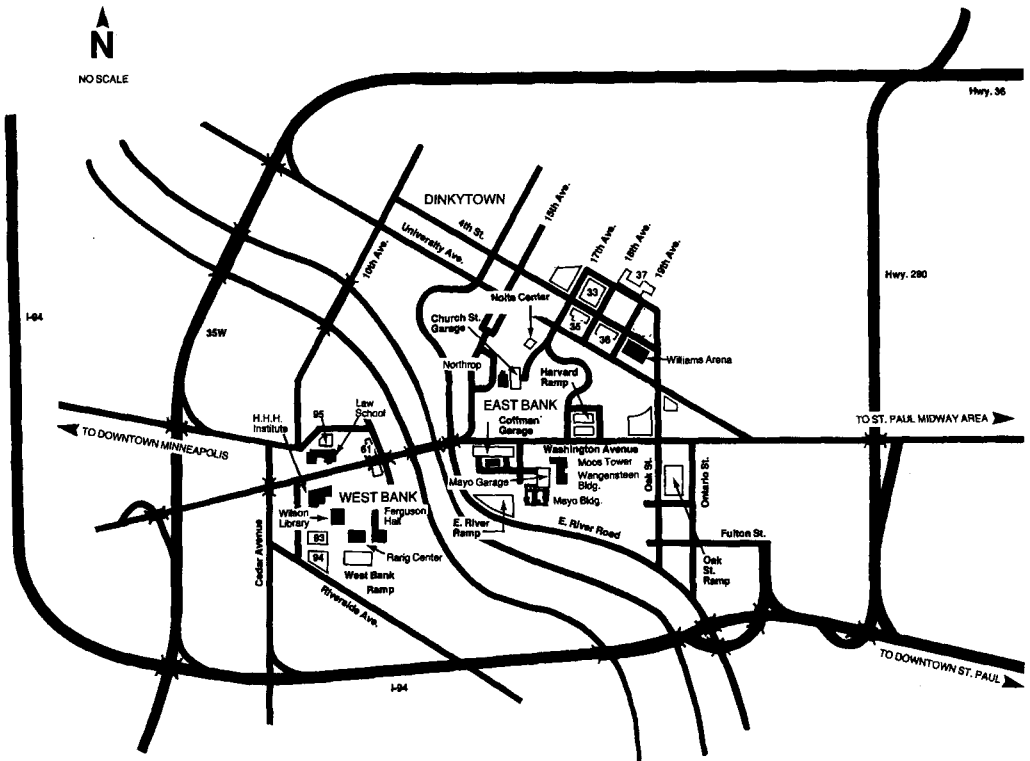
University of Minnesota  
Twin Cities Campus  
St. Paul

# ACCESS ROUTES TO EARLE BROWN CONTINUING EDUCATION CENTER—ST. PAUL CAMPUS

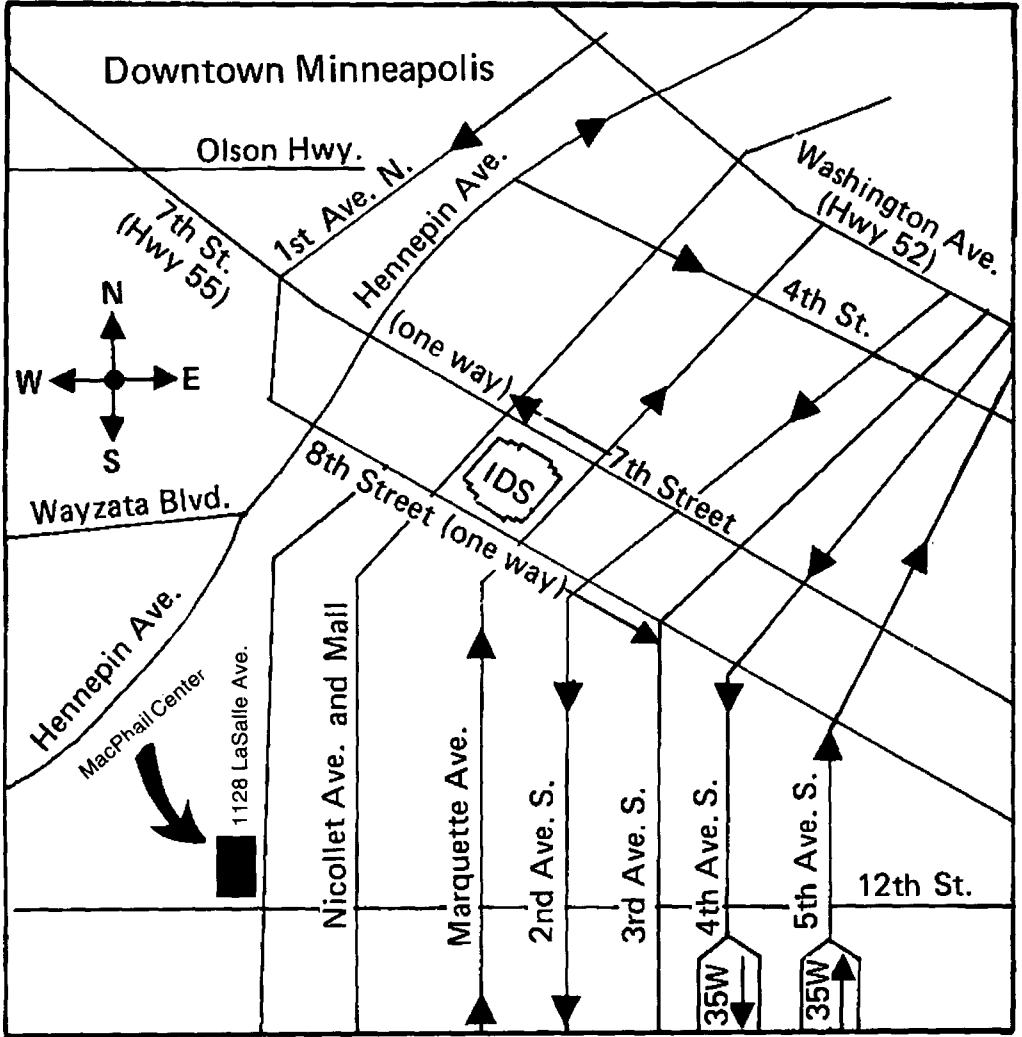
## Parking Map



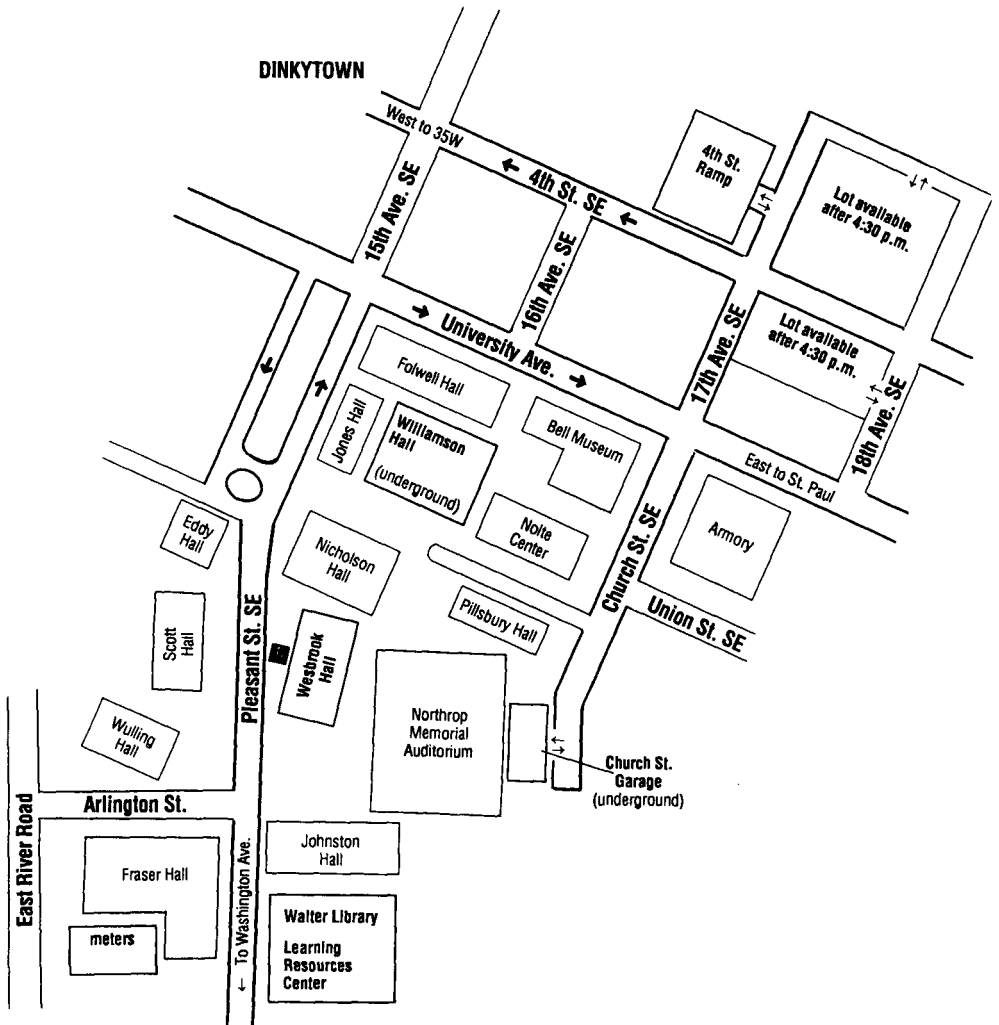
## MAJOR CAMPUS ACCESS ROUTES



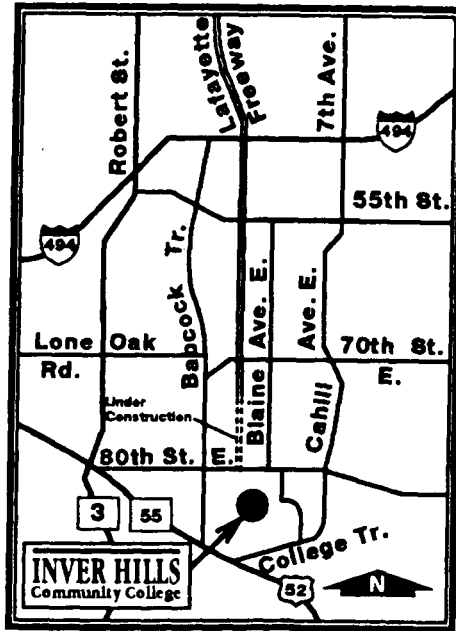
See Parking Facilities on page 457 in this bulletin for information about parking. Highway repairs will limit some access routes to the University during 1994-95.



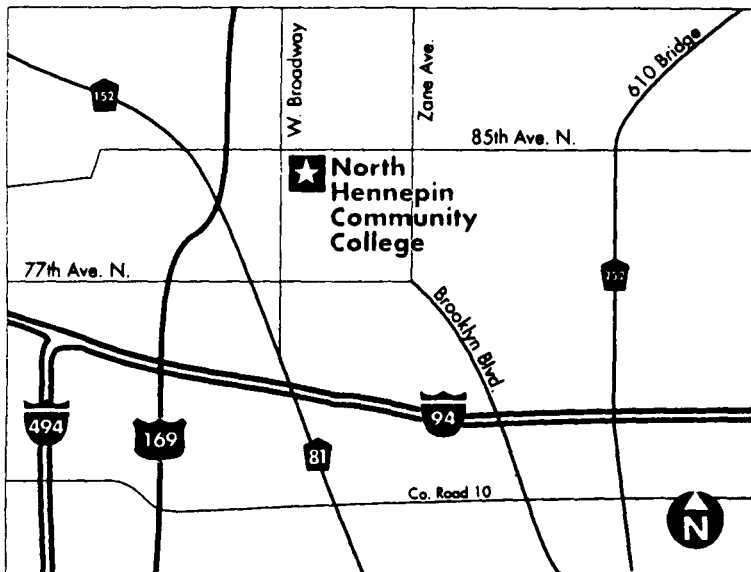
**MacPhail Center**  
1128 LaSalle Ave., Minneapolis



**University of Minnesota  
Twin Cities Campus  
East Bank Campus-  
North End**



**Inver Hills Community College**  
8445 College Trail, Inver Grove Heights



**North Hennepin Community College**  
7411 85th Avenue North, Brooklyn Park

# Off-Campus Classes

## Neighborhood Centers

Courses are listed (by term) below off-campus, neighborhood centers in the Twin Cities area.

Some schools are closed for school functions or holidays; classes will meet on campus when neighborhood centers are closed.

See the maps on page 530.

See the course listings section of this Bulletin (arranged alphabetically by department) for course descriptions. See page 517 for departmental abbreviations.

See page 520 for addresses and abbreviations of neighborhood centers.

See the When and How to Register section of this Bulletin for registration instructions and dates. **In-person registrations are not accepted at the neighborhood centers.** Early registration is recommended.

Books for most classes at neighborhood centers are available from the Minnesota Book Center in Williamson Hall on the east bank campus (625-6000) or at the Smith Bookstore on the west bank campus (625-3000). The notice directly under each department heading in the Course Offerings section lists the bookstore that sells books for classes in that department. Be sure to read the Bookstores section of this Bulletin, page 18, for more information.

**Note**—Courses listed at the locations below were correct at the time material was submitted for publication. Check the course listings section for more complete and accurate information.

The list below is not all inclusive; other classes meet at special off-campus locations and at the MacPhail Center, downtown Minneapolis. They are described in the *Course Offerings* section.

## Roseville Area High School—West Campus

1261 West Highway 36, Roseville (map on page 530)

### Fall Quarter

GC 1111	Weather and Climate
Math 1111	College Algebra and Analytic Geometry
Math 1151	Pre-Calculus II
Psy 3604	Abnormal Psychology

### Fall Semester

Econ 1101	Principles of Economics (Micro)
-----------	---------------------------------

### Winter Quarter

Math 1142	Short Calculus
Math 1251	One-Variable Differential and Integral Calculus I
Psy 1001	Introduction to Psychology

### Spring Semester

Econ 1102	Principles of Economics (Macro)
-----------	---------------------------------

### Spring Quarter

Comp 1011	Writing Practice
EPsy 5651	Managing Problem Behavior in the Classroom
Mktg 3000	Principles of Marketing
Math 1252	One Variable Differential and Integral Calculus II
Psy 3201	Introduction to Social Psychology

## Richfield Senior High School

7001 Harriet Avenue S., Richfield (map on page 530)

Classes meet in the north wing of the high school on the east side of the building across from the athletic field and railroad tracks. Enter the parking lot on the Harriet Avenue side. Entrance doors are by the smoke stack.

### Fall Quarter

Comp 1011	Writing Practice
Mktg 3000	Principles of Marketing
Math 1031	College Algebra and Probability
Math 1251	One Variable and Integral Calculus I
Psy 1001	Introduction to Psychology

### Fall Semester

Econ 1101	Principles of Economics (Micro)
-----------	---------------------------------

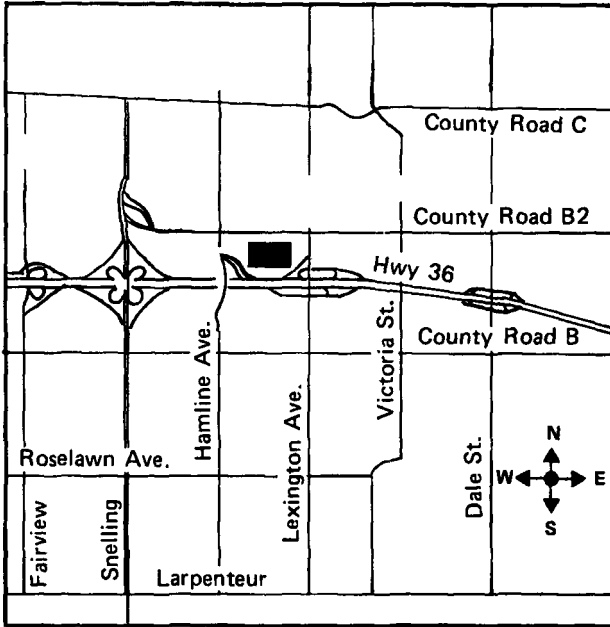
### Winter Quarter

Phil 1001	Logic
-----------	-------

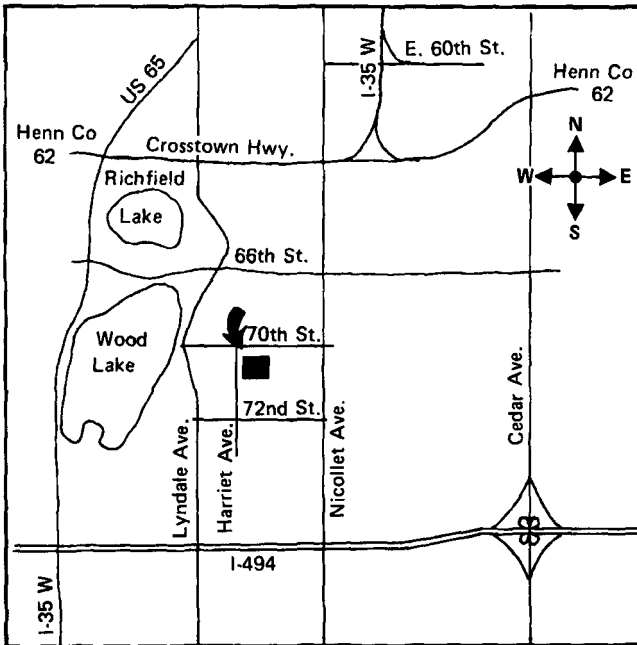
### Spring Quarter

Psy 3604	Abnormal Psychology
----------	---------------------

Off-Campus Classes



**Roseville Area High School**  
**1261 W. Highway 36, Roseville**



**Richfield High School**  
**7001 Harriet Ave. S., Richfield**  
 (Classes meet in north wing, east side of building;  
 enter doors by the smoke stack.)



TO: All Employees and Students of the University of Minnesota  
FROM: President Nils Hasselmo  
RE: **DRUG-FREE CAMPUS AND WORK PLACE COMPLIANCE**

Federal laws<sup>1</sup> require the University of Minnesota to carry out a program to prevent the unlawful possession, use, or distribution of illegal drugs and abuse of alcohol by its students. The University's failure to comply with these laws may make the University and its students ineligible to receive federal funds or any form of financial assistance under any federal program, including student loans.

This memo outlines the University's compliance. All students of the University are expected to abide by the conditions outlined here.

### PROHIBITED ACTIONS

Drug and alcohol abuse affects the health, safety, and well-being of all students and restricts the University's ability to carry out its mission. Therefore, the University of Minnesota:

1. Prohibits the unlawful possession, use, or distribution of alcohol and illicit drugs by students on all campuses and at all facilities of the University or as part of the University's activities; and
2. Prohibits the unlawful manufacture, distribution, dispensation, possession, or use of controlled substances in the work place.

### SANCTIONS

**Students** who violate the prohibition against illicit drugs and alcohol are subject to discipline. Item 11 of the student conduct code states:

When the violation of a federal or state law, including but not limited to those governing alcoholic beverages, drugs, gambling, sex offenses, indecent conduct, or arson, occurs on campus, the offense will also constitute an offense against the University.

Potential sanctions for violation include: (1) warning and admonition; (2) required compliance; (3) confiscation of illicit drugs or alcohol; (4) probation; and (5) suspension or expulsion. Sanctions also may include required completion of an appropriate treatment or rehabilitation program. Sanctions will reflect the particular violation and its severity. Referral for criminal prosecution may occur, where appropriate. More detailed information on procedures and sanctions can be found in *A Statement of Standards of Student Conduct Enforceable by University Agencies*.

In addition, housing handbooks for each campus describe policies and disciplinary procedures for violations that occur in University housing. Residents violating alcohol or drug policies will be referred for disciplinary action. Depending on the circumstances of the violation, disciplinary action may include, but not be limited to: warning, resident hall fine, referral to the University Counseling Center, restriction of privileges, community service, probation, or expulsion.

Students must be aware that there are significant criminal penalties, under state and federal law, for the unlawful possession or distribution of alcohol and illicit drugs. Penalties include prison terms, property forfeiture, and fines.

Details of relevant state and federal laws and their penalties are enclosed with this memo.

### EDUCATIONAL AND TREATMENT PROGRAMS

Services for students include: diagnosis and assessment, short-term counseling, referral, and support groups. Consultation also is available for supervisors whose staff members may have alcohol- and/or drug-related problems.

*Federal law requires that any information obtained from clients or patients by doctors, psychologists, or drug-treatment centers remain confidential. This makes it possible for people to receive help for drug problems without getting into trouble with the law.*

Counseling and assistance for **students** with drug or alcohol problems is available at the following locations:

**Twin Cities:** Boynton Health Service, (612) 624-1940

**Duluth:** Student Health and Counseling Center, (218) 726-8155

**Morris:** Counseling Services, (612) 589-2211 ext. 6060

**Waseca:** Student Development Office, (507) 835-1000 ext. 229

**Crookston:** Residential Life Office, (218) 281-6510 ext. 352

Students who live in residence halls also can contact residence-hall staff for help and information.

Student health insurance covers some types of assistance. Private health insurance may provide similar or additional coverage.

Educational programs for students include: educa-

## Drug-Free Campus

tional fairs, lectures, awareness campaigns, classes for DWI offenders, residence-hall programs, and an alcohol/drug resource center.

**Federal Penalties and Sanctions for Illegal Possession of a Controlled Substance**

*21 U.S.C. 844(a)*

First conviction: Up to one year imprisonment and fined at least \$1,000 but not more than \$100,000 or both.

After one prior drug conviction: At least 15 days in prison, not to exceed 2 years and fined at least \$2,500 but not more than \$250,000 or both.

After 2 or more prior drug convictions: At least 90 days in prison, not to exceed 3 years and fined at least \$5,000 but not more than \$250,000 or both.

Special sentencing provisions for possession of crack cocaine: Mandatory at least five years in prison, not to exceed 20 years and fined up to \$250,000 or both, if:

- (a) First conviction and the amount of crack possessed exceeds five grams
- (b) Second crack conviction and the amount of crack possessed exceeds three grams.
- (c) Third or subsequent crack conviction and the amount of crack possessed exceeds one gram.

*21 U.S.C. 853(a)(2) and 881(a)(7)*

Forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance if that offense is punishable by more than one year imprisonment. (See special sentencing provisions re: crack.)

*21 U.S.C. 881(a)(4)*

Forfeiture of vehicles, boats, aircraft or any other conveyance used to transport or conceal a controlled substance.

*21 U.S.C. 844a*

Civil fine of up to \$10,000 (pending adoption of final regulations).

*21 U.S.C. 853a*

Denial of Federal benefits, such as student loans, grants, contracts, and professional and commercial licenses up to one year for first offense, up to five years for second and subsequent offenses.

*18 U.S.C. 922(g)*

Ineligible to receive or purchase a firearm.

### Miscellaneous

Revocation of certain Federal licenses and benefits, e.g. pilot licenses, public housing tenancy, etc., are vested within the authorities of individual Federal agencies.

### Effects of Alcohol

Alcohol consumption causes a number of marked changes in behavior. Even low doses significantly impair the judgement and coordination required to drive a car safely, increasing the likelihood that the driver will be involved in an accident. Low to moderate doses of alcohol also increase the incidence of a variety of aggressive acts, including spouse and child abuse. Moderate to high doses of alcohol cause marked impairments in higher mental functions, severely altering a

person's ability to learn and remember information. Very high doses cause respiratory depression and death. If combined with other depressants of the central nervous system, much lower doses of alcohol will produce the effects just described.

Repeated use of alcohol can lead to dependence. Sudden cessation of alcohol intake is likely to produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life threatening. Long-term consumption of large quantities of alcohol, particularly when combined with poor nutrition can also lead to permanent damage to vital organs such as the brain and liver.

Mothers who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation. In addition, research indicates that children of alcoholic parents are a greater risk than other youngsters of becoming alcoholics.

Federal Register/Vol. 55, No. 159/Thursday, August 16, 1990/Rules and Regulations, pp. 33588-33591

<sup>1</sup>The Drug-Free Schools and Communities Act Amendments of 1989 and the Drug-Free Work Place Act of 1989.

## Federal Trafficking Penalties

CSA	Penalty			Drug	Quantity
	First Offense	Second Offense			
I and II	Not less than 5 years. Not more than 40 years.	Not less than 10 years. Not more than life.	METHAMPHETAMINE	10-99 gm or 100-999 gm mixture	
			HEROIN	100-999 gm mixture	
			COCAINE	500-4,999 gm mixture	
	If death or serious injury, not less than 20 years. Not more than life.	If death or serious injury, not less than life.	CONCAINE BASE	5-49 gm mixture	
			PCP	10-99 gm or 100-999 gm mixture	
	Fine of not more than \$2 million individual, \$5 million other than individual.	Fine of not more than \$4 million individual, \$10 million other than individual.	LSD	1-10 gm mixture	
			FENTANYL	40-399 gm mixture	
			FENTANYL ANALOGUE	10-99 gm mixture	
	Not less than 10 years. Not more than life.	Not less than 20 years, not more than life.	METHAMPHETAMINE	100 gm or more or 1 kg <sup>1</sup> or more mixture	
			HEROIN	1 kg or more mixture	
			COCAINE	5 kg or more mixture	
	If death or serious injury, not less than 20 years. Not more than life.	If death or serious injury, not less than life.	COCAINE BASE	50 gm or more mixture	
			PCP	100 gm or more or 1 kg or more mixture	
	Fine of not more than \$4 million individual, \$10 million other than individual.	Fine of not more than \$8 million individual, \$20 million other than individual.	LSD	10 gm or more mixture	
FENTANYL			400 gm or more mixture		
FENTANYL ANALOGUE			100 gm or more mixture		
<b>Drug</b>	<b>Quantity</b>	<b>First Offense</b>		<b>Second Offense</b>	
Others <sup>2</sup>	Any	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million not individual.		Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million not individual.	
III	All	Any	Not more than 5 years. Fine not more than \$250,000 individual, \$1 million not individual.	Not more than 10 years. Fine not more than \$500,000 individual, \$2 million not individual.	
IV	All	Any	Not more than 3 years. Fine not more than \$250,000 individual, \$1 million not individual.	Not more than 6 years. Fine not more than \$500,000 individual, \$2 million not individual.	
V	All	Any	Not more than 1 year. Fine not more than \$100,000 individual, \$250,000 not individual.	Not more than 2 years. Fine not more than \$200,000 individual, \$500,000 not individual.	

<sup>1</sup>Law as originally enacted states 100 gm. Congress requested to make technical correction to 1 kg.

<sup>2</sup>Does not include marijuana, hashish, or hash oil. (See separate chart.)

## Federal Trafficking Penalties—Marijuana

As of November 18, 1988

Quantity	Description	First Offense	Second Offense
1,000 kg or more; or 1,000 or more plants	MARIJUANA Mixture containing detectable quantity*	Not less than 10 years, not more than life. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$4 million individual, \$10 million other than individual.	Not less than 20 years, not more than life. If death or serious injury, not less than life. Fine not more than \$8 million individual, \$20 million other than individual.
100 kg to 1,000 kg; or 100-999 plants	MARIJUANA Mixture containing detectable quantity*	Not less than 5 years, not more than 40 years. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$2 million individual, \$5 million other than individual.	Not less than 10 years, not more than life. If death or serious injury, not less than life. Fine not more than \$4 million individual, \$10 million other than individual.
50 to 100 kg or 50-99 plants	MARIJUANA	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life.	Not more than 30 years. If death or serious injury, life.
10-100 kg	HASHISH	Fine \$1 million individual, \$5 million other than individual.	Fine \$2 million individual, \$10 million other than individual.
1 to 100 kg	HASHISH OIL		
Less than 50 kg	MARIJUANA	Not more than 5 years.	Not more than 10 years.
Less than 10 kg	HASHISH	Fine not more than \$250,000 individual, \$1 million other than individual.	Fine \$500,000 individual, \$2 million other than individual.
Less than 1 kg	HASHISH OIL		

\*Includes Hashish and Hashish Oil

(Marijuana is a Schedule I Controlled Substance)

## Controlled Substances—Uses and Effects

Drugs	CSA Schedules	Trade or Other Names	Medical Uses	Dependence		Tolerance	Duration (hours)	Usual Methods of Administration	Possible Effects	Effects of Overdose	Withdrawal Syndrome
				Physical	Psychological						
<b>NARCOTICS</b>											
Opium	II, III, V	Dover's Powder, Paregoric, Parepectolin	Analgesic, antidiarrheal	High	High	Yes	3-6	Oral, smoked	Euphoria, drowsiness, respiratory depression, constricted pupils, nausea	Slow and shallow breathing, clammy skin, convulsions, coma, possible death	Watery eyes, runny nose, yawning, loss of appetite, irritability, tremors, panic cramps, nausea, chills and sweating
Morphine	II, III	Morphine, MS-Contin, Roxanol, Roxanol-SR	Analgesic, antitussive	High	High	Yes	3-6	Oral, smoked, injected			
Codeine	I, II, III, V	Tylenol w/Codeine, Empirin w/Codeine, Robitussin A-C, Fiorinal w/Codeine	Analgesic, antitussive	Moderate	Moderate	Yes	3-6	Oral, injected			
Heroin	I	Diacetylmorphine, Horse, Smack	None	High	High	Yes	3-6	Injected, sniffed, smoked			
Hydromorphone	II	Dialaudid	Analgesic	High	High	Yes	3-6	Oral, injected			
Meperidine (Pethidine)	II	Demerol, Mepergan	Analgesic	High	High	Yes	3-6	Oral, injected			
Methadone	II	Dolophine, Methadone, Methadose	Analgesic	High	High-Low	Yes	12-24	Oral, injected			
Other Narcotics	I, II, III, IV, V	Numorphan, Percodan, Percocet, Tylox, Tussionex, Fentanyl, Darvon, Lomotil, Talwin <sup>2</sup>	Analgesic, antidiarrheal, antitussive	High-Low	High-Low	Yes	Variable	Oral, injected			
<b>DEPRESSANTS</b>											
Chloral Hydrate	IV	Noctec	Hypnotic	Moderate	Moderate	Yes	5-8	Oral	Slurred speech, disorientation, drunken behavior without odor of alcohol	Shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, delirium, convulsions, possible death
Barbiturates	II, III, IV	Amytal, Butisol, Fiorinal, Lotusate, Nembutal, Seconal, Tuinal, Phenobarbital	Anesthetic, hypnotic, anticonvulsant, sedative	High-Mod	High-Mod	Yes	1-16	Oral			
Benzodiazepines	IV	Ativan, Dalmane, Diazepam, Librium, Xanax, Serax, Valium, Tranxexa, Verstran, Versed, Halcion, Paxipam, Flestoril	Antianxiety, sedative, anticonvulsant, hypnotic	Low	Low	Yes	4-8	Oral			
Methaqualone	I	Quaalude	Sedative, hypnotic	High	High	Yes	4-8	Oral			
Glutethimide	III	Doriden	Sedative, hypnotic	High	Moderate	Yes	4-8	Oral			
Other Depressants	III, IV	Equanil, Miltown, Noludar, Placidyl, Vaimid	Antianxiety, sedative, hypnotic	Moderate	Moderate	Yes	4-8	Oral			

<sup>1</sup>Designated a narcotic under the CSA

<sup>2</sup>Not designated a narcotic by the CSA

## Controlled Substances—Uses and Effects

Drugs	CSA Schedules	Trade or Other Names	Medical Uses	Dependence		Tolerance	Duration (hours)	Usual Methods of Administration	Possible Effects	Effects of Overdose	Withdrawal Syndrome
				Physical	Psychological						
<b>STIMULANTS</b>											
Cocaine	II	Coke, Flake, Snow, Crack	Local anesthetic	Possible	High	Yes	1-2	Sniffed, smoked, injected	increases alertness, excitation, euphoria, increased pulse rate and blood pressure, insomnia, loss of appetite	Agitation, Increase in body temperature, hallucinations, convulsions, possible death	Apathy long periods of sleep, irritability, depression, disorientation
Amphetamines	II	Biphetamine, Delcobase, Desoxyn, Dexedrine, Obetrol	Attention deficiency, narcolepsy, weight control	Possible	High	Yes	2-4	Oral, injected			
Phenmetrazine	II	Preludin	Weight control	Possible	High	Yes	2-4	Oral, injected			
Methylphenidate	II	Ritalin	Attention deficiency, narcolepsy	Possible	Moderate	Yes	2-4	Oral, injected			
Other Stimulants	III, IV	Adipex, Cylert, Didrex, fonamin, Moffiat, Plegline, Sancrex, Tenuate, Tepanil, Prelu-2	Weight control	Possible	High	Yes	2-4	Oral, injected			
<b>HALLUCINOGENS</b>											
LSD	I	Acid, Microdot	None	None	Unknown	Yes	8-12	Oral	illusions and hallucinations, poor perception of time and distance	Longer, more intense 'trip' episodes, psychosis, possible death	Withdrawal syndrome not reported
Mescaline and Peyote	I	Mexc, Buttons, Cactus	None	None	Unknown	Yes	8-12	Oral			
Amphetamine Variants	I	2,5-DMA; PMA; STP; MDA; MDMA; TMA; DOM, DOB	None	Unknown	Unknown	Yes	Variable	Oral, injected			
Phencyclidine	II	PCP, Angel Dust, Hog	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Phencyclidine Analogues	I	PCE, PCPy, TCP	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Other Hallucinogens	I	Bufofenine, Ibogaine, DMT, DET, Psilocybin, Psilocin	None	None	Unknown	Possible	Variable	Smoked, oral, injected sniffed			
<b>CANNABIS</b>											
Marijuana	I	Pot, AcapulcoGold, Grass, Reefer, Sinsemilla, Thai Sticks	None	Unknown	Moderate	Yes	2-4	Smoked, oral	Euphoria, relaxed inhibitions, increased appetite, disoriented behavior	Fatigue, paranoia possible psychosis	Occasional insomnia, hyperactivity, decreased appetite
Tetrahydrocannabinol	I, II	THC, Marinol	Cancer chemotherapy antinauseant	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish		Hash	None	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish Oil	I	Hash Oil	None	Unknown	Moderate	Yes	2-4	Smoked, oral			

<sup>1</sup>Designated a narcotic under the CSA

<sup>2</sup>Not designated a narcotic by the CSA

## MINNESOTA CRIMES AND PENALTIES—DRUGS

Sale	Possession	Penalty <sup>1</sup>
10 grams crack, 50 grams/200 doses cocaine/narcotic/heroin/methamphetamine/hallucinogen, 50 kilos marijuana	25 grams crack, 500 grams/500 doses cocaine/heroin/methamphetamine/hallucinogen, 100 kilos marijuana	0-30 years imprisonment, 4 year mandatory minimum if prior drug felony; up to \$1 million fine
3 grams crack, 10 grams/50 doses cocaine/narcotic/heroin/methamphetamine/hallucinogen, 25 kilos marijuana, or sale of any schedule I or II narcotic drug to a minor or in a school or park zone	6 grams crack, 50 grams/100 doses cocaine/heroin/methamphetamine/hallucinogen, 50 kilos marijuana	0-25 years imprisonment, 3 year minimum if prior drug felony; up to \$500,000 fine
crack/cocaine/narcotic/heroin, 5 kilos marijuana, or sale of any schedule I, II, or III drug (except aschedule I or II narcotic drug to a minor or employment of a minor to sell same)	3 grams crack, 10 grams/50 doses cocaine/narcotic/heroin/methamphetamine, 10 kilos marijuana, any amount of a schedule I or II narcotic drug in a school or park zone, or with intent to sell	0-20 years imprisonment, 2 year mandatory minimum if prior drug felony; up to \$250,000 fine
Any schedule I, II, or III drug (except marijuana) or sale of any schedule IV or V drug to a minor	10 doses hallucinogen, schedule I, II, or III (except marijuana with intent to sell)	0-15 years imprisonment, 1 year mandatory minimum if prior drug felony; up to \$100,000 fine
Marijuana, or any schedule IV drug	All schedule I, II, III or IV drugs except 1.5 oz. (42.5 grams) or less of marijuana	0-5 years imprisonment, up to \$10,000 fine; fine or 6 months mandatory minimum if prior drug felony
Drug-related offenses also include failure to purchase drug tax stamps, money laundering and racketeering, with a potential fine of three times gross profits.	Possession of up to 1.5 oz. marijuana	Fine up to \$200 and required attendance at an approved drug education program
	Second conviction of above within 2 years or failure to comply with sanctions above	Misdemeanor—drug treatment may be required
	Possession of more than 1.4 grams of marijuana in automobile	Misdemeanor

<sup>1</sup>Penalties can change with each legislative session.

## MINNESOTA CRIMES AND PENALTIES—ALCOHOL

Crime	Penalty
It is illegal to drive, operate, or be in physical control of a motor vehicle while under the influence of alcohol and/or a controlled or hazardous substance, or with an "alcohol concentration" of 0.10 or more. Motor vehicles include cars, boats, snowmobiles, ATVs, planes, etc. "Operate" or "in physical control" includes starting the motor, steering, or being in position to control a vehicle, including simply sitting or sleeping in a parked vehicle.	First offense (including juvenile convictions): misdemeanor—fine up to \$700, jail up to 90 days, driver's license revocation of at least 30 days. Second offense within 5 years or 2 or more convictions within 10 years: gross misdemeanor—fine up to \$3,000, jail up to 1 year, driver's license revocation of at least 30-90 days and possible chemical dependency treatment. Third or more offenses; longer periods of revocation.
Anyone under 21 years consuming or possessing alcoholic beverages with intent to consume, unless the person is in a parent or guardian's home and drinks with their permission. Possession anywhere other than a parent or guardian's home is prima facie evidence of intent to consume.	Misdemeanor
Selling, bartering, furnishing or giving alcoholic beverages to a person under 21 years old (except parents in their home).	Gross misdemeanor. Possible civil liability for damages caused by the person under 21 while under the influence.
Anyone under 21 years purchasing or attempting to purchase an alcoholic beverage, or claiming to be 21 or older for the purpose of purchasing alcoholic beverages.	Misdemeanor. Driver's license suspension of 90 days if a driver's license, permit, or MN identification is used in making or attempting the purchase.
Inducing a person under 21 years to purchase or procure alcoholic beverages or lending to or permitting use of identification by a person under the age of 21 for the purpose of purchasing or attempting to purchase alcoholic beverages.	Gross misdemeanor. Driver's license suspension of 90 days if a driver's license is lent.



**A**

Abbreviations ..... 517, 519

Academic progress ..... 35

Academic Staff Tuition Benefit ..... 31

Accounting

    Certificates ..... 506

    Courses ..... 55, 213

Acting ..... 351, 352

ADCEP ..... 194

Admission requirements ..... 48, 477

Adolescent Psychiatry ..... 99

Adult and Teacher Education ..... 354

Advertising ..... 255, 257

Advising and counseling ..... 22

Aerospace Engineering/Mechanics ..... 58

A-F grades ..... 36

Afro-American and African Studies ..... 59

Aging courses ..... 61, 222, 223, 288, 289, 294, 299, 331, 397

Agricultural and Applied Economics ..... 61

Agricultural Education ..... 63

Agricultural Engineering and Technology ..... 63

Agriculture, College of ..... 61

Agronomy and Plant Genetics ..... 64

AIDS ..... 72, 223, 250, 315

Alcohol and drug counseling

    Certificate ..... 503

    Courses ..... 194, 222, 223, 315

Alternate choice courses ..... 16

American Indian Studies ..... 64, 325, 407

American Sign Language ..... 162

American Studies ..... 66

Anatomy ..... 96, 209

Ancient Near Eastern Studies ..... 68

Animal Science ..... 69

Animal behavior ..... 353, 421, 422

Anthropology ..... 69, 211

APEX Project ..... 242, 292

Arabic ..... 61

Arboretum, Minnesota Landscape ..... 379

Archaeology ..... 70, 71, 72, 110, 324, 407, 408

Architecture ..... 72, 387, 389

Area Studies Programs ..... 77

**Art**

    for Architects ..... 72

    and Computers ..... 81

    Design ..... 138, 139

    Education ..... 126

    Electronic ..... 82

    General College ..... 211

    History ..... 87

    Museum, Frederick R. Weisman ..... 453

    Noncredit courses ..... 384

    Rentals ..... 453

    Split Rock ..... 473

    Studio arts courses ..... 78

Asian-American courses ..... 394

Assertiveness training ..... 433

Astronomy ..... 89, 210

Athletic facilities ..... 454, 468

Athletic tickets ..... 454

Auditors ..... 44

Austria ..... 228

**B**

**Bachelor of**

    Applied Business (B.A.B.) ..... 93, 487

    Arts (B.A.) ..... 488

    Fine Arts (B.F.A.) ..... 490

    Food Science ..... 497

    Individualized Study (B.I.S.) ..... 491

    Information Networking (B.I.N.) ..... 485

    Music (B.M.) ..... 490

    Science (B.S.) ..... 491

    Science (I.T.) ..... 494

    Science in Business (B.S.B.) ..... 491

Ballet ..... 135

Ballroom dance ..... 136

Banking ..... 199

Basic Educational Opportunity Grant (Pell Grant) ..... 28

Behavior Analyst Certificate ..... 503

Bell Museum courses ..... 379

Bible ..... 68, 110

Biochemistry ..... 90

Biological Sciences ..... 91

Biology ..... 91, 215

Birds ..... 420, 421, 422, 423

Bookstores ..... 18

Books Underground (St. Paul campus) ..... 18

Botany ..... 92

Boynton Health Service ..... 455

Braille ..... 172

Brazil ..... 306

Broadcasting ..... 348

Buddhism ..... 325

Building abbreviations ..... 519

Buses (campus) ..... 458

**Business**

    Accounting ..... 55

    Administration ..... 94

    Certificates ..... 506

    Degrees ..... 491

    Departments ..... 126

    Finance ..... 198

    General College ..... 213

    Government and Society ..... 94

    Industrial Relations ..... 237

    Information and Decision Sciences ..... 239

    Insurance ..... 249

    Law ..... 95

    Logistics Management ..... 266

    Management ..... 267

    Management Advancement Program ..... 306

    Marketing ..... 213

# Index

- and Marketing Education ..... 356  
MBA Program ..... 94  
Operations and Management Sciences . 290  
Taxation, Master of ..... 499  
Writing ..... 117
- C**
- Computer-aided design (CAD) ..... 75  
Calendar (registration dates) ..... 9  
Campus activities ..... 453  
Canada ..... 304  
Cancel/add classes ..... 47  
Cancellation of, or change in,  
    scheduled classes ..... 50  
Cardiovascular Perfusionist Certificate .... 503  
Career planning ..... 265, 308, 431, 445  
Carlson School of Management ..... 491  
CEE Counseling ..... 22, 431, 432, 433, 445  
CEE Scholastic Committee ..... 53  
Cell Biology and Neuroanatomy ..... 96  
Celtic ..... 183  
Ceramics ..... 82  
Certificates, Extension ..... 501  
Certified Employee Benefits Specialist .... 177  
CEU ..... 44  
Changes in course information ..... 47  
Chaucer ..... 185  
Chemical dependency counseling  
    Certificate ..... 503  
    Courses ..... 194  
Chemistry ..... 97, 210  
Chicano Studies ..... 98, 227  
Child abuse ..... 319, 336, 450  
Child Abuse Prevention Studies ..... 338, 504  
Child and Adolescent Psychiatry ..... 99  
Child Psychology ..... 102  
Children's literature ..... 130, 419, 420  
China ..... 227  
Chinese ..... 243  
Civil and Mineral Engineering ..... 105, 494  
Civil Engineering Certificate ..... 512  
Class attendance ..... 47  
Classical and Near Eastern Studies ..... 109  
Classics ..... 109  
CLEP ..... 42  
Clinical Laboratory Science ..... 112  
Closed classes ..... 16  
Clothing and Textiles ..... 138  
Coaching ..... 258, 260  
COBOL ..... 241  
College-Level Exam Program (CLEP) ..... 42  
College of Agriculture ..... 61  
College of Education ..... 153  
College of Human Ecology ..... 233  
College of Liberal Arts ..... 488  
College reading ..... 327  
Communication  
    Composition ..... 114  
    Disorders ..... 112  
    General College ..... 212  
    Journalism ..... 253  
    Skills (Rhetoric) ..... 327  
    Speech ..... 346  
    Noncredit courses ..... 410, 411  
Community health education ..... 315  
Comparative Literature ..... 122  
Comparative Studies in  
    Discourse and Society ..... 122  
Compleat Scholar ..... 384, 472  
Compleat Scholar Weekends ..... 443  
Composition and Communication ..... 114  
Composition requirement ..... 489  
Computer  
    Certificates ..... 510, 511  
    Purchase ..... 455  
    Related courses ..... 86, 114, 214  
    Science ..... 117  
Concerts and Lectures ..... 458  
Conditioning ..... 297, 425  
Conservation ..... 250  
Continuing Education for Women ..... 45, 377  
Continuing Education Unit (CEU) ..... 44  
Correspondence courses ..... 471  
Counseling ..... 22, 195  
Course description sample ..... 14  
Course offerings  
    Credit ..... 55  
    Noncredit ..... 379  
Course numbering ..... 516  
Creative writing ..... 187  
Credit and Financial Management  
    Certificate ..... 508  
Credits ..... 38  
Crime and criminology ..... 340  
Croatian and Serbian language ..... 245, 404  
Cross-country skiing ..... 298  
CSch (Compleat Scholar) ..... 384  
Cultural Studies and  
    Comparative Literature ..... 122  
Curriculum and Instructional Systems ..... 125  
Cycling ..... 297
- D**
- Dance ..... 135, 400  
Danish ..... 329  
Data processing ..... 239  
Day/Extension classes ..... 21  
Day school students ..... 21  
Dean's List (CLA) ..... 491  
Death and dying ..... 224, 315  
Degree programs ..... 477  
Delayed payment ..... 27  
Dentistry ..... 138  
Department abbreviations ..... 517  
Design, Housing, and Apparel ..... 138  
Desktop publishing ..... 416  
Digital imaging ..... 176, 398  
Directed study ..... 42

Disabled students information ...	445, 454, 455
Distribution requirements .....	478
Drafting .....	144
Drama .....	185, 220, 351
Drawing .....	80, 82, 85, 400
Drug abuse counseling	
Certificate .....	503
Courses .....	194
Drug-Free Campus and	
Work Place Program .....	531
Dutch .....	145
<b>E</b>	
Early Childhood Studies .....	146
Early registration permission .....	16
East Asian languages/studies .....	77, 243
East Bank	
Bookstore .....	18
Campus map .....	521
Eating disorders .....	100
Ecology, Evolution, and Behavior	146, 209,
250, 426	
Economics .....	147
Editing .....	189
Education, College of .....	153
Education, Master of .....	125, 500
Educational Policy and Administration .....	155
Educational Psychology .....	162
Efficient reading .....	327, 427
Elderhostel .....	475
Electrical Engineering	
Certificates .....	513
Courses .....	175
Electronic imaging .....	398
Electronic mail .....	455
Elementary Education .....	125
Employee Benefits Specialist .....	177
Employment service (student) .....	458
Engineering	
Departments .....	178
E.I.T. refresher course .....	178, 249
Graphics .....	278
Technical writing .....	116
Engineering and Science Certificates ....	510, 511
English	
Business .....	117
Creative and professional writing .....	187
Composition .....	114
Literature and language .....	181
Major .....	171
Master's degrees .....	497
as a Second Language .....	190
Enrollment information .....	20
Entomology .....	191
Environmental and occupational health ....	316
Environment-related courses .....	92, 147, 209,
250, 265, 316, 317	
Epidemiology .....	315
Equal Opportunity .....	8

Escort service .....	466
Estate planning .....	96
Ethics .....	186, 265, 266, 295, 304, 320
Europe .....	206, 228
Extension Classes Student Board .....	459
Extra credit registration .....	41

**F**

Faculty .....	453
Faculty tuition benefit .....	31
Family Practice and Community Health ....	192
Family Social Science .....	192
Farming .....	447
FAX registration .....	14
Fee, Student services .....	453
Fee statements .....	47
Fees, Tuition and .....	24
Fencing .....	297
Field experience opportunities .....	458
Film courses ...	88, 89, 123, 206, 212, 220, 394
Finance .....	198
Financial aids and loans .....	26
Finnish .....	329
Fisheries and Wildlife .....	199
Floral design .....	232
Food Science and Nutrition	
Courses .....	200
Degree .....	497
Foreign language requirement .....	489
Foreign Studies SPAN .....	203
Forest Products .....	203
Forest Resources .....	204
FORTRAN .....	118
France .....	228, 385
French .....	204, 442
French and Italian .....	206
Fresco .....	386
Freshman English .....	114

**G**

Gardening .....	231, 382, 439, 440, 441
Gender-related courses .....	124, 183, 192,
214, 252, 320, 371	
General College .....	206
General education requirement .....	489
General information .....	453
Genetics and Cell Biology .....	96, 215
Geography .....	215
Geology and Geophysics .....	216, 424
Geriatric Pharmacy Certificate .....	504
German .....	218, 387, 442, 452
Germany .....	228, 386
Gerontology Graduate Minor .....	499
Golf .....	298
Government .....	94, 150, 303
Grade point average .....	37
Grade reports and transcripts .....	37
Grades .....	36
Graduate Assistant Tuition Fellowship .....	31

# Index

Graduate credit transfer rule .....	39
Graduate degrees .....	497
Graduate school admissions tests .....	416, 417
Graduate school credit .....	39
Graduation requirements .....	477
Grammar .....	430
Greek language and culture .....	110
Grievance procedures .....	53
Group distribution requirements .....	489
Group Independent Study .....	43, 471
Guitar .....	282

## H

Handball .....	297
Handicapped students	
Education .....	258, 259
Facilities .....	454
Financial aid .....	29
Parking facilities .....	457
Services .....	29
Health, Public .....	313
Health and fitness .....	436, 437, 438
Health and related occupations .....	222
Health education .....	314
Health Sciences .....	222
Health Sciences Bookstore .....	18
Health Science Units .....	222
Health service .....	455
Health services research and policy .....	318
Hebrew .....	69
High school students .....	44
Hinduism .....	325
History .....	224
History, Art .....	87
History of Medicine .....	230
History of Science and Technology .....	230
Holocaust .....	69, 325, 405
Homosexuality .....	124, 185, 368, 370
Honors, CEE .....	502
Honors Opportunities (CLA) .....	231
Horticultural Science .....	231
Hospital and Health Care Administration ..	233
Hours, Office .....	10
Housing .....	145
How to study .....	264
Human Ecology, College of .....	233
Humanities .....	233

## I

Identification cards .....	38
Incomplete grades .....	36
Independent Study, courses .....	43, 459
Independent Study, Group .....	43
Independent study, "Y" registration .....	41
India .....	247
Indian, American .....	66
Individualized Learning, Program for .....	496
Individual learning opportunities .....	41

Industrial Education .....	353
Industrial Engineering Certificate .....	514
Industrial Engineering/Operations	
Research .....	236
Industrial Relations	
Certificate .....	509
Courses .....	237
Info (Extension newsletter) .....	457
Information and Decision Sciences .....	239
Information Networking .....	485
In-person registration .....	15
Institute of Languages and Literatures .....	242
Institute of Technology .....	248, 494
Insurance and Risk Management .....	249
Inter-College Program .....	496
Interdepartmental Study .....	249
Interior design .....	144
Interdisciplinary Archaeological Studies ..	251
International Relations .....	251, 509
Interpreting .....	247
Interviewing .....	328
Intramural activities .....	454
Inver Hills Community College .....	93, 528
Investing .....	199, 435, 436
Islamic .....	247
Israel .....	405
Italian .....	252, 253, 442

## J

Japan .....	227, 234, 384
Japanese .....	244
Jazz .....	135, 391, 417, 418
Jewish Studies .....	69, 406, 417, 418
Joint Day/Extension classes .....	21, 475
Journalism and Mass Communication .....	253
Jung .....	309, 409

## K

Karate .....	297
Kinesiology .....	257
Korean .....	244

## L

Labor Education .....	262
Labor relations .....	251, 509
Landscape Architecture .....	262
Landscaping .....	232, 262, 439
Language laboratory .....	52
Language requirement (CLA) .....	489
Languages and cultural studies	
Afro-American .....	59
American Indian .....	64, 407
Arabic .....	60, 246
Asian-American .....	394
Chicano .....	98
Chinese .....	243
Croatian and Serbian .....	245, 404
Danish .....	329

Dutch .....	145
East Asian .....	77
English .....	179
Europe .....	226, 228
Finnish .....	329
French .....	442
German .....	442
Greek .....	110, 111, 234
Hebrew .....	69
Islamic .....	324
Israel .....	405
Italian .....	252, 253, 442
Japanese .....	244
Korean .....	244
Latin .....	111
Latin America .....	77, 418
Medieval Studies .....	280
Middle Eastern .....	391
Modern Greek .....	111, 203
Norwegian .....	329
Polish .....	245
Portuguese .....	305
Russian .....	229, 230, 245
Scandinavian .....	330
Serbian .....	245
Slavic .....	246
South Asian .....	246, 324
Spanish .....	343, 442
Swedish .....	330
Language, Teaching, and Technology .....	244
Late registrations and additions .....	17
Latin .....	111
Latin American Studies .....	77
Law .....	107, 210, 213
Law, Business .....	95
Learning and Academic Skills .....	264, 427
Liberal Arts Certificate .....	504
Liberal education requirements .....	478
Liberal Studies .....	265
Libraries .....	456
Limited-enrollment classes .....	13, 16
Linguistics .....	244
Literacy .....	130, 354
Literature .....	179, 211, 416
Loans .....	26
Locker rental .....	456
Logic .....	212, 295, 296
Logistics Management .....	266
Lost and found .....	456

**M**

MacPhail Center .....	526
Mail registration information .....	14
Management	
Advancement Program .....	306, 472
Carlson School of .....	267, 491
Credit courses .....	267
Maps .....	521

Marketing .....	213
Mass Communication .....	254
Master of Business Administration (MBA) .....	94
Master of Business Taxation (MBT) .....	499
Master's degrees .....	497
Materials Science and Engineering .....	270
Maternal and child health .....	317, 319
Mathematics	
Credit courses .....	271
Education .....	275
General College .....	208
Noncredit courses .....	419, 430
Mechanical Engineering	
Certificate .....	514
Courses .....	278
Medical terminology .....	224
Medicine .....	280
Medieval Studies .....	280
Meteorology .....	209
Mexico .....	227
Microbiology .....	281
Middle Eastern languages and	
cultures .....	246, 391
Military information .....	32
Military Science .....	281
Minneapolis Institute of Arts .....	379
Minnesota	
Book Center .....	18
Daily .....	457
Extension Service .....	281
Historical Society .....	379
Horticultural Society .....	379
Landscape Arboretum .....	379
Museum of American Art .....	379
Related courses .....	215, 216, 217, 381,
401, 402, 404, 405, 408,	
422, 423, 424, 426, 439, 440	
Writer Series .....	452
Zoo .....	379
Minority student centers .....	464
Modern Greek .....	111, 203
Museum, Frederick R. Weisman Art ..	379, 453
Music	
Courses .....	282, 390, 391, 392, 393
Degree .....	490
Music Education .....	284
Mythology .....	88, 109

**N**

Natural science .....	92, 146, 203, 204, 382
Naval Science .....	286
Neighborhood Centers .....	529
Newsletters .....	457
No-credit registration .....	44, 45
Nolte Fund .....	476
Noncredit courses .....	379
Nonlimited class registration .....	12
Nonresidents .....	24

# Index

Nordic skiing .....	298
North Hennepin Community College ....	117, 528
Norwegian .....	329
Numbering of courses .....	516
Nursing .....	286
Nutrition .....	200

## O

Off-campus classes .....	529
Office for Special Learning Opportunities (OSLO) .....	458
Office hours .....	10
Opera .....	392, 393
Operations and Management Science .....	290
Ophthalmology Technician Certificate .....	505
Ornithology .....	422

## P

Painting .....	82, 85, 399
Parenting .....	193
Parking facilities .....	457
PASCAL .....	118
Pell Grant .....	28
Perfusionist Technology Certificate .....	503
Pharmacetics .....	293
Pharmacognosy .....	293
Pharmacy Practice .....	293, 294
Pharmacy, Continuing Education in .....	293
Philosophy .....	294
Photography .....	82, 85, 87, 213, 255 395, 396, 397, 398
Physical Education .....	296
Physical Medicine and Rehabilitation .....	298
Physics .....	210, 300
Physiology .....	259
Piano .....	282
Plant Biology .....	301
Plant Pathology .....	301
Plants .....	231, 301, 302
Plato .....	181
Playwriting .....	183, 184
Plus-62 registration .....	45, 380, 475
Poetry .....	187, 220, 414
Police assistance .....	457
Polish .....	245
Political Science .....	302
Portuguese .....	305
Practical Scholar .....	379
Prerequisites .....	35
Printmaking .....	81, 84
Professional development courses .....	306
Program advising .....	22
Program for Individualized Learning .....	496
PSch (Practical Scholar) .....	379, 427
Psychology .....	211, 306
Public Affairs .....	310, 311
Public Health .....	313
Public relations .....	255
Public speaking .....	327, 347

## Q

Quantitative analysis (Chemistry) .....	98
---	----

## R

Racquetball .....	297
Rapid reading .....	327
Reading and writing skills .....	114, 212, 327
Real Estate courses .....	321
Reciprocity .....	31
Records .....	48
Recreation .....	454
Recreation, Park, and Leisure Studies .....	321, 436, 437
Reduced-tuition plans .....	44, 380
Refresher courses Architecture .....	76
Civil Engineering .....	106
Electrical Engineering .....	175
Engineer-in-training exam .....	249
Mathematics .....	208, 430
Mechanical Engineering .....	278
Refunds .....	50, 380
Regents' Scholarships .....	30
Registration dates, hours .....	9-11
Registration procedures .....	12
Rehabilitation services .....	29
Religion .....	110
Religious Studies .....	323
Reports, Grade .....	37
Research Explorations .....	43, 434, 474
Resident .....	24
Résumé writing .....	250, 256
Rhetoric .....	327
Richfield Senior High School .....	529
Roseville Area High School .....	529
Rules and regulations .....	47
Russia .....	216, 229
Russian .....	245

## S

St. Paul campus Approaches to campus .....	524
Bookstore .....	18
Campus map .....	523
Earle Brown Center .....	524
Scandinavian .....	330
Scandinavian Languages and Literature .....	329
Scholarships .....	29
Scholastic committee .....	53
Science and Quantitative Methods Certificate .....	505
Sculpture .....	80
Secondary Education .....	125
Second language requirement .....	489
Self-defense .....	297
Self-esteem .....	433
Semester-basis classes .....	54
Senate representation .....	459

Senior citizens (special rates) ..... 45, 380, 475  
 Serbian ..... 245  
 Severe weather ..... 50  
 Sex and sexuality ..... 192, 214, 223, 320, 410  
 Shakespeare ..... 181, 182, 390  
 Sign Language ..... 162  
 62-plus tuition plan ..... 45, 380, 475  
 Skiing ..... 298  
 Slavic languages and culture ..... 246  
 Small businesses ..... 213  
 S-N grades ..... 36  
 Social and Administrative Pharmacy ..... 330  
 Social Work ..... 331  
 Social Work, Weekend Masters in ..... 335, 500  
 Sociology ..... 339  
 Soil Science ..... 342  
 South Asian languages and cultures ..... 246  
 SPAN ..... 351  
 Spanish ..... 343, 442  
 Spanish and Portuguese ..... 346  
 Speaking ..... 327, 347  
 Special examination ..... 42  
 Speech-Communication ..... 346  
 Split Rock Arts Program ..... 473  
 Sports  
   Athletic facilities ..... 454  
   Athletic tickets ..... 454  
   Management ..... 321  
   Recreation ..... 321, 436, 437  
 Squash ..... 297  
 Statistics ..... 212, 349  
 Storytelling ..... 407  
 Stress management ..... 432, 433  
 Student Board ..... 459, 468  
 Student Employment Center ..... 458  
 Student ID card ..... 38  
 Student Project for Amity Among  
   Nations (SPAN) ..... 351  
 Student services fee ..... 453  
 Studio arts courses ..... 78  
 Study abroad ..... 351  
 Study and travel ..... 351, 443  
 Study skills ..... 264, 327, 427, 464  
 Summer arts study ..... 473  
 Summer Extension Classes ..... Inside Back Cover  
 Suzuki ..... 284  
 Swedish ..... 330  
 Swimming ..... 297  
 Symbols and abbreviations ..... 54, 516

**T**  
 Tap dance ..... 136  
 Taxation ..... 58, 499  
 Tax-deductible educational expenses ..... 52  
 Technical writing ..... 116, 328  
 Telecommunications for the deaf (TDD) ... 454  
 Telephone numbers ..... Inside Front Cover  
 Television-assisted courses ..... 44

Textiles and Clothing .... 139, 140, 141, 142, 143  
 Theatre Arts ..... 351  
 Theatre courses ..... 351, 389, 390  
 Training and Development ..... 362  
 Transcripts (grade reports) ..... 37  
 Transferring classes ..... 47  
 Translation and Interpreting ..... 247  
 Transportation between campuses ..... 458  
 Travel-study opportunities ..... 351, 427  
 Tuition  
   Assistance ..... 28  
   and fees ..... 24  
   Financial aid ..... 26  
   High school students ..... 44  
   Reciprocity ..... 31  
   Scholarships ..... 29  
   62-plus plan ..... 45

**U**

Undergraduate degrees ..... 478  
 Undergraduate development certificates ..... 501  
 Unions, Labor ..... 262  
 University College ..... 42, 496  
 University Senate ..... 459, 468  
 University Theatre ..... 458  
 Urban Studies ..... 311, 352

**V**

Verification of enrollment ..... 26  
 Veterans information ..... 32  
 Veterans vocational rehabilitation ..... 30  
 Veterinary Medicine ..... 353  
 Video courses ..... 81, 401  
 Vocabulary building ..... 429, 430  
 Vocational counseling and tests ..... 22  
 Vocational Education ..... 365  
 Vocational rehabilitation ..... 29  
 Voice ..... 282  
 Volleyball ..... 298

**W-X**

Walker Art Center ..... 379  
 Watercolor painting ..... 83, 86, 399  
 Weather ..... 50, 209  
 Weaving ..... 141, 400  
 Weekend courses ..... 381  
 Weight training ..... 297, 437  
 West Bank campus  
   Bookstore (Harold D. Smith) ..... 18  
   Campus map ..... 522  
 Wills and estates ..... 96  
 Woman's Club of Minneapolis ..... 379  
 Women, Continuing Education for ..... 45  
 Women's athletics tickets ..... 454  
 Women's Studies ..... 83, 86, 211, 252, 287,  
   309, 325, 368, 416,  
   417, 426, 433, 435  
 Wood ..... 203, 204

---

# Index

---

Writing courses .....	115, 187, 212, 411, 412, 413, 414, 415
Writing practice requirement .....	114
"X" registration .....	41

## **Y**

Youth Studies .....	372
"Y" registration .....	41

## **Z**

Zoology .....	92
---------------	----



---

## NOTES

---

---

## NOTES

---

---

## NOTES

---

---

## NOTES

---

# 1994-95 Calendar

## AUGUST 1994

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## SEPTEMBER 1994

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## OCTOBER 1994

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## NOVEMBER 1994

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## DECEMBER 1994

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## JANUARY 1995

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# 1994-95 Calendar

## FEBRUARY 1995

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

## MARCH 1995

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## APRIL 1995

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## MAY 1995

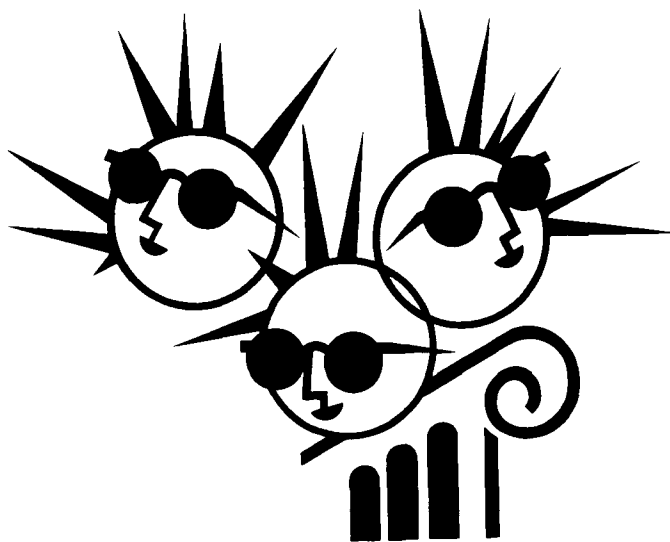
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## JUNE 1995

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## JULY 1995

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



1995

## **Make Summertime a Learning Time**

*Make a few summer evenings a time for learning next year. Sharpen job skills, work toward a degree, or explore a new interest through summer evening Extension classes. More than 200 classes are planned for degree credit or no credit.*

*Call 624-2388 to request a summer evening bulletin if you do not receive one by April 15.*

### **Terms (tentative)**

First 5-week term ..... June 12 to July 18  
Second 5-week term ..... July 20 to August 23  
10-week term ..... June 12 to August 23

### **Registration dates (tentative)**

By mail ..... Beginning May 1  
In person ..... Beginning May 23

**University of Minnesota Bulletin  
Extension Classes**

**University of Minnesota  
101 Wesbrook Hall  
77 Pleasant Street S.E.  
Minneapolis, MN 55455**

**Second Class  
Postage Paid  
at Minneapolis  
Minnesota**

**1994 - 95**

**University of Minnesota Bulletin**

**Fall Quarter:  
September 22 - December 10**

**Fall Semester:  
September 22 - February 4**

**Winter Quarter:  
January 3 - March 20**

**Spring Semester:  
February 13 - June 10**

**Spring Quarter:  
March 27 - June 10**

**To correct your name or  
Extension Classes  
77 Pleasa**