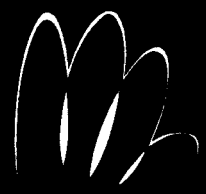


UNIVERSITY OF MINNESOTA



WISE EDUCATION

X T E N S I O N C L A S S E S
O N T I N U I N G E D U C A T I O N
A N D E X T E N S I O N 1 9 9 1 - 9 2

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

625-3333

Counseling and Program Advising
314 Nolte Center
University of Minnesota
315 Pillsbury Drive S.E.
Minneapolis, Minnesota 55455

625-2500

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 **Registration dates**, pages 10-19)

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
HEALTH SERVICE	625-8400
INFO NEWSLETTER	624-2388
INSTRUCTORS' TELEPHONE NUMBERS	625-3333
MacPHAIL CENTER	627-4020
MAPS (CAMPUS OR PARKING)	624-2388
REGISTRATION	625-3333
REGISTRATION FORMS	624-2388
SAMPLER LECTURES	624-1883
STUDENT BOARD	625-1078
TELEVISION CLASSES	624-0000
VETERANS INFORMATION	624-3341

Bookstores phone numbers

BOOKS UNDERGROUND (ST. PAUL)	624-9200
HEALTH SCIENCES	625-8600
MINNESOTA BOOK CENTER (WILLIAMSON HALL, EAST BANK)	625-6000
WEST BANK (SMITH)	625-3000

University phone numbers

RECREATIONAL FACILITIES	625-6800
ATHLETIC TICKET OFFICE	624-8080
CONCERTS AND LECTURES	624-2345
DAY SCHOOL BULLETINS	625-3030
LIBRARIES	624-4552
UNIVERSITY INFORMATION	625-5000
UNIVERSITY POLICE	624-3550
UNIVERSITY THEATRE	625-4001

Bulletin Use

The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

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The **Extension Classes Bulletin** is published yearly and distributed to persons who have registered for Extension Classes within the last two years and to others on request (telephone 624-2388). Unfortunately, some students are mailed duplicate copies. If you have a duplicate or unwanted copy, please return it to 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis 55455. Or, better yet, pass it on to someone you know who may be thinking of continuing his or her education. Watch for **Bulletin** changes in the **INFO Newsletter** which is issued monthly August through April. Telephone 624-3300 with questions concerning **INFO**.

Cover art: The bulletin cover is the creation of Twin Cities artist John Kleber whose colorful, contemporary style is demonstrated in his treatment of the Extension owl in this illustration. Call 624-2388 for a poster after Aug. 15.

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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 any of several convenient locations near you! See page 696.

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 50.

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 487.

4. Credit by Examination

Earn credit by examination in fields in which you have gained knowledge outside the classroom. See page 50.

5. CLEP Program

You may earn credits by taking the College Level Examination Program (CLEP) examinations. See page 50.

6. Studying Independently

You may register for "independent study"—a Y registration—and earn credits without attending class. See page 49.

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 49.

8. University College

You may earn up to 15 credits per quarter for an independent project by registering for University College 3075. See page 50.

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 50.

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 633)
3. I have been attending college elsewhere. How can I continue my educational program through Extension? (See page 57)
4. When does registration for classes begin? End? (See page 9)
5. How do I get the credits I've earned in Extension entered on my college transcript? (See page 46)
6. What do I have to do to use my G.I. benefits to take Extension Classes? (See page 41)
7. Are there admission requirements for Extension Classes? (See page 32)
8. Are there ways to get credits without attending class? (See page 49)
9. Can I get any financial assistance to take Extension Classes? (See page 35)
10. What is the difference between certificate and degree credit? (See page 47)
11. Are classes offered at off-campus locations near my home or work? (See page 696)
12. What are the noncredit "Compleat Scholar" and "Practical Scholar" Programs? (See page 489)
13. Can I take classes during the day or on weekends? (See page 32)

More questions?

Call Extension Classes: 625-3333

Messages

There's a course for nearly everyone in this bulletin. But Extension Classes offers more than just the best selection of University courses for adults in Minnesota. They offer a wide range of degrees and certificates. More than 30 different degree options and majors currently are available through Extension Classes. Besides that, you can complete over twenty different certificates—from Accounting to Geriatric Pharmacy.

So you can take a course because it looks interesting or you can complete a degree. It's all here, waiting for you in the Extension Classes Bulletin.

Harold A. Miller

Dean, Continuing Education and Extension

For over one hundred years the University of Minnesota has offered classes in the evening to the community. The program has grown from a modest beginning, and is now one of the largest and most diversified in the country. Several undergraduate degrees and over two dozen majors may be earned entirely through Extension Classes registration. Those who wish to take only a course or two are welcome to do that. Perhaps your objective is to update your professional knowledge, or maybe you've always wanted to take a history or a studio arts course for your own enjoyment. Whatever the reason, we invite you to try a University of Minnesota course through extension registration.

Thousands of students register for their first extension course every year. Many of them work full-time; many more work part-time. Some are working on degrees; others are not. The great majority take only one course at a time. But most share a common interest in learning, no matter what the subject. With the many courses listed in this bulletin, you're bound to find something that appeals to you. I hope you'll take a few minutes to look through it.

John S. Malmberg

Director, Extension Classes

University of Minnesota

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Counseling, Earl Nolting, 314 Nolte Center for Continuing Education
Duluth Continuing Education Center, Theresa Neil, 403 Darland Administration Building,
Duluth Campus
Extension Classes, John S. Malmberg, 180 Wesbrook Hall
Independent Study, Deborah L. Hillengass, 33 Wesbrook Hall
MacPhail Center for the Arts, Peter H. Mansfeld, 1128 LaSalle Ave., Minneapolis
Morris Continuing Education Center, Roger S. McCannon, 226 Community Services Building,
Morris Campus
Professional Development and Conference Services, Steve Weiland, 215 Nolte Center for
Continuing Education
Rochester Continuing Education Center, Carol Lund, 1200 South Broadway, Rochester
Summer Session, Jack K. Johnson, 135 Johnston Hall
University Film and Video, Judith A. Gaston, 1313 Fifth St. S.E., Suite 108
University Media Resources, Sheldon Goldstein, 540C Rarig Center

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Office of Information Systems,
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Director
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Barb Halvorson, Accounts Supervisor
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Extension Classes Programs—Credit classes, College in the Schools, Continuing Education for Women, Early Childhood Studies, Elderhostel, The Compleat Scholar/Practical Scholar, Neighborhood Programs, Research Explorations, The Global Campus, Split Rock Arts Program—**Program Staff:**

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Gayle Foreman
Luis Ramos—Garcia
Andrea Gilats
Mary Lou Gilstad
Mickey Hanzel
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Sandy Kelley
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Darryl P. Sedio, Director
Susan K. Galler, Adviser

Mary Helbach, Adviser
Khosi Nkosi, 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, religion, color, sex, national origin, handicap, age, 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, 420. S.C. 20000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; 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, 419 Morrill Hall, 100 Church Street S.E., University of Minnesota, Minneapolis, MN 55455 (612/624-9547).

When and How to Register



Fall Quarter

and Fall Special Term



<p>AUGUST 1991</p> <p>S M T W T F S</p> <p> 1 2 3</p> <p>4 5 6 7 8 9 10</p> <p>11 12 13 14 15 16 17</p> <p>18 19 20 21 22 23 24</p> <p>25 26 27 28 29 30 31</p>	<p>NOVEMBER 1991</p> <p>S M T W T F S</p> <p> 1 2</p> <p>3 4 5 6 7 8 9</p> <p>10 11 12 13 14 15 16</p> <p>17 18 19 20 21 22 23</p> <p>24 25 26 27 28 29 30</p>
<p>SEPTEMBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30</p>	<p>DECEMBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>
<p>OCTOBER 1991</p> <p>S M T W T F S</p> <p> 1 2 3 4 5</p> <p>6 7 8 9 10 11 12</p> <p>13 14 15 16 17 18 19</p> <p>20 21 22 23 24 25 26</p> <p>27 28 29 30 31</p>	

Important dates

September 23, Monday
Fall Quarter classes begin

November 1, Friday
Last day for official cancellation of classes with automatic "W"; no cancellations after this date, see page 58. Registration after this date requires scholastic approval.

November 28-29
Thanksgiving holidays; all offices closed and all classes dismissed

December 5-11
Final examination period

December 11, Wednesday
Last day of Fall Quarter

Classes meet the week of September 23 through December 11

Fall Quarter

Registration dates for Fall Quarter and Fall Special Term

Mail registration (all classes)

Campus Office (101 Wesbrook Hall)

August 12-September 11

Registration forms with checks will be accepted for both **limited-** and **nonlimited-enrollment** classes.

In-person registration (all classes)

Campus Office (101 Wesbrook Hall)

September 3-11 (except Friday) 9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

MacPhail Office (1128 LaSalle Ave.)

September 3-11 (except Friday) 9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

St. Paul Registration-Information Booth (Norwest Center, Skyway level, 5th and Minnesota)
for all classes.

September 3-11 9 a.m. to 5 p.m.
(Closed weekends)

St. Paul Campus (130 Coffey Hall)

September 3-11 9 a.m. to 4 p.m.
(Closed weekends)

SEPTEMBER 11, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

Late registration

Campus Office (101 Wesbrook Hall)

September 12-13: Registration and cashier's offices closed to process registrations; late registration accepted by mail only with \$5 late fee.

September 16-19 9 a.m. to 8 p.m.

September 20, Reopening day (closed classes) 9 a.m. to 4:30 p.m.

September 23: Late registration resumes by mail or in person through the first week of classes with a \$5 late fee. For information regarding registration and late fees during or after the second week of class, see page 25. For regular office hours, see page 27.

Fall Semester



Important dates

September 23, Monday
Fall Semester classes begin

November 22, Friday
Last day for official cancellation of classes with automatic "W"; no cancellations after this date, see page 58. Registration after this date requires scholastic approval.

November 28-29
Thanksgiving holidays; all offices closed and all classes dismissed

December 12, Thursday
Holiday recess begins; classes dismissed until Monday, January 6

December 19-20
Registration and cashier's offices closed to process Winter Quarter registrations

December 23-25
Holiday; all offices closed

January 1
New Year's holiday; all offices closed

January 6, Monday
Fall Semester classes resume

January 20, Monday
Martin Luther King, Jr. Birthday holiday; all offices closed and all classes dismissed

February 3-8
Final examination period

February 8, Saturday
Last day of Fall Semester

<p>AUGUST 1991</p> <p>S M T W T F S</p> <p>1 2 3</p> <p>4 5 6 7 8 9 10</p> <p>11 12 13 14 15 16 17</p> <p>18 19 20 21 22 23 24</p> <p>25 26 27 28 29 30 31</p>	<p>NOVEMBER 1991</p> <p>S M T W T F S</p> <p>1 2</p> <p>3 4 5 6 7 8 9</p> <p>10 11 12 13 14 15 16</p> <p>17 18 19 20 21 22 23</p> <p>24 25 26 27 28 29 30</p>
<p>SEPTEMBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30</p>	<p>DECEMBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>
<p>OCTOBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5</p> <p>6 7 8 9 10 11 12</p> <p>13 14 15 16 17 18 19</p> <p>20 21 22 23 24 25 26</p> <p>27 28 29 30 31</p>	<p>JANUARY 1992</p> <p>S M T W T F S</p> <p>1 2 3 4</p> <p>5 6 7 8 9 10 11</p> <p>12 13 14 15 16 17 18</p> <p>19 20 21 22 23 24 25</p> <p>26 27 28 29 30 31</p>

Classes meet the week of September 23 through February 8

Fall Semester

Registration dates

Mail registration (all classes)

Campus Office (101 Wesbrook Hall)

August 12-September 11

Registration forms with checks will be accepted for both **limited- and nonlimited-enrollment** classes.

In-person registration (all classes)

Campus Office (101 Wesbrook Hall)

September 3-11 (except Friday)9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

MacPhail Office (1128 LaSalle Ave.)

September 3-11 (except Friday)9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

St. Paul Registration-Information Booth (Norwest Center, Skyway level, 5th and Minnesota) for all classes.

September 3-119 a.m. to 5 p.m.
(Closed weekends)

St. Paul Campus (130 Coffey Hall)

September 3-119 a.m. to 4 p.m.

SEPTEMBER 11, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

Late registration

Campus Office (101 Wesbrook Hall)

September 12-13: Registration and cashier's offices closed to process registrations; late registration accepted by mail only with \$5 late fee.

September 16-199 a.m. to 8 p.m.

September 20, Reopening day (closed classes)9 a.m. to 4:30 p.m.

September 23: Late registration resumes by mail or in person through the first week of classes with a \$5 late fee. For information regarding registration and late fees during or after the second week of class, see page 25. For regular office hours, see page 27.

Winter Quarter

and Winter Special Term



Important dates

December 19-25

Registration and cashier's offices closed to process Winter Quarter registrations and for holidays.

January 1

New Year's holiday; all offices closed

January 6, Monday

Winter Quarter classes begin

January 20, Monday

Martin Luther King, Jr. Birthday holiday; all offices closed and all classes dismissed.

February 14, Friday

Last day for official cancellation of classes with automatic "W"; no cancellations after this date, see page 58. Registration after this date requires scholastic approval.

February 25, Tuesday

Caucus night. Evening classes dismissed. Late afternoon classes must end at 6 p.m.

March 16-21

Final examination period

March 21, Saturday

Last day of Winter Quarter

<p>NOVEMBER 1991</p> <p>S M T W T F S</p> <p> 1 2</p> <p>3 4 5 6 7 8 9</p> <p>10 11 12 13 14 15 16</p> <p>17 18 19 20 21 22 23</p> <p>24 25 26 27 28 29 30</p>	<p>JANUARY 1992</p> <p>S M T W T F S</p> <p> 1 2 3 4</p> <p>5 6 7 8 9 10 11</p> <p>12 13 14 15 16 17 18</p> <p>19 20 21 22 23 24 25</p> <p>26 27 28 29 30 31</p>
<p>DECEMBER 1991</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>	<p>FEBRUARY 1992</p> <p>S M T W T F S</p> <p> 1</p> <p>2 3 4 5 6 7 8</p> <p>9 10 11 12 13 14 15</p> <p>16 17 18 19 20 21 22</p> <p>23 24 25 26 27 28 29</p>
	<p>MARCH 1992</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>

Classes meet the week of January 6 through March 21

Winter Quarter

Registration dates for Winter Quarter and Winter Special Term

Mail registration (all classes)

Campus Office (101 Wesbrook Hall)

November 18-December 18

Registration forms with checks will be accepted for both **limited- and nonlimited-enrollment** classes.

In-person registration (all classes)

Campus Office (101 Wesbrook Hall)

December 10-18 (except Friday) 9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

MacPhail Office (1128 LaSalle Ave.)

December 10-18 (except Friday) 9 a.m. to 7 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

St. Paul Registration-Information Booth (Norwest Center, Skyway level, 5th and Minnesota)
for all classes.

December 10-18 9 a.m. to 5 p.m.
(Closed weekends)

St. Paul Campus (130 Coffey Hall)

December 10-18 9 a.m. to 4 p.m.

DECEMBER 18, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

Late registration

Campus Office (101 Wesbrook Hall)

December 19-20: Registration and cashier's offices closed to process registrations; late registration accepted *by mail only* with \$5 late fee.

December 23-25 Holiday; all offices closed

December 26-27, 30-31 8 a.m. to 4:30 p.m.

January 1 Holiday; all offices closed

January 2: Late registration resumes by mail or in person with \$5 late fee through the first week of classes. For information regarding registration and late fees during or after the second week of classes, see page 25. For regular office hours, see page 27.

January 3, Reopening day (closed classes) 8 a.m. to 4:30 p.m.

Spring Semester



Important dates

February 17, Monday

Spring Semester classes begin

February 25, Tuesday

Caucus night. Evening classes dismissed. Late afternoon classes must end at 6 p.m.

March 19-20

Registration and cashier's offices closed to process Spring Quarter registrations

March 23, Monday

Spring Semester recess begins; classes dismissed until March 30

March 30, Monday

Spring Semester classes resume

April 24, Friday

Last day for official cancellation of classes with automatic "W"; no cancellations after this date, see page 58. Registration after this date requires scholastic approval.

May 25, Monday

Memorial Day holiday; all offices closed and all classes dismissed

June 8-13

Final examination period

June 13, Saturday

Last day of Spring Semester

<p>JANUARY 1992</p> <p>S M T W T F S</p> <p> 1 2 3 4</p> <p>5 6 7 8 9 10 11</p> <p>12 13 14 15 16 17 18</p> <p>19 20 21 22 23 24 25</p> <p>26 27 28 29 30 31</p>	<p>APRIL 1992</p> <p>S M T W T F S</p> <p> 1 2 3 4</p> <p>5 6 7 8 9 10 11</p> <p>12 13 14 15 16 17 18</p> <p>19 20 21 22 23 24 25</p> <p>26 27 28 29 30</p>
<p>FEBRUARY 1992</p> <p>S M T W T F S</p> <p> 1</p> <p>2 3 4 5 6 7 8</p> <p>9 10 11 12 13 14 15</p> <p>16 17 18 19 20 21 22</p> <p>23 24 25 26 27 28 29</p>	<p>MAY 1992</p> <p>S M T W T F S</p> <p> 1 2</p> <p>3 4 5 6 7 8 9</p> <p>10 11 12 13 14 15 16</p> <p>17 18 19 20 21 22 23</p> <p>24 25 26 27 28 29 30</p> <p>31</p>
<p>MARCH 1992</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>	<p>JUNE 1992</p> <p>S M T W T F S</p> <p> 1 2 3 4 5 6</p> <p>7 8 9 10 11 12 13</p> <p>14 15 16 17 18 19 20</p> <p>21 22 23 24 25 26 27</p> <p>28 29 30</p>

Classes meet the week of February 17 through June 13

Spring Semester

Registration dates

Mail registration (all classes)

Campus Office (101 Wesbrook Hall)

November 18-February 5

Registration forms with checks will be accepted for both **limited- and nonlimited-enrollment** classes.

In-person registration (all classes)

Campus Office (101 Wesbrook Hall)

December 10-18 (except Friday) 9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

MacPhail Office (1128 LaSalle Ave.)

December 10-18 (except Friday) 9 a.m. to 7 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

St. Paul Registration-Information Booth (Norwest Center, Skyway level, 5th and Minnesota) for all classes.

December 10-18 9 a.m. to 5 p.m.
(Closed weekends)

St. Paul Campus (130 Coffey Hall)

December 10-18 9 a.m. to 4 p.m.

December 19-20: Registration and cashier's offices closed to process registrations.

December 26-February 5: Spring semester registration continues in person and by mail on campus only; see office hours on page 27.

FEBRUARY 5, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

Late registration

Campus Office (101 Wesbrook Hall)

February 14, Reopening day (closed classes) 8 a.m. to 4:30 p.m.

February 6-14: Late registration resumes by mail or in person with \$5 late fee through the first week of classes. For information regarding registration and late fees during or after the second week of classes, see page 25. For regular office hours, see page 27.

Spring Quarter

and Spring Special Term



Important dates

March 30, Monday
Spring Quarter classes begin

May 8, Friday
Last day for official cancellation of classes with automatic "W"; no cancellations after this date, see page 58. Registration after this date requires scholastic approval.

May 25, Monday
Memorial Day holiday; all offices closed and all classes dismissed

June 8-13
Final examination period

June 13, Saturday
Last day of Spring Quarter

The summer *Bulletin* will be available early April 1992.
Telephone 624-2388

Tentative dates for summer 1992:

First five-week term:
June 16 to July 21
Ten-week term:
June 16 to August 26
Second five-week term:
July 23 to August 26

<p>FEBRUARY 1992</p> <p>S M T W T F S</p> <p>1</p> <p>2 3 4 5 6 7 8</p> <p>9 10 11 12 13 14 15</p> <p>16 17 18 19 20 21 22</p> <p>23 24 25 26 27 28 29</p>	<p>MAY 1992</p> <p>S M T W T F S</p> <p>1 2</p> <p>3 4 5 6 7 8 9</p> <p>10 11 12 13 14 15 16</p> <p>17 18 19 20 21 22 23</p> <p>24 25 26 27 28 29 30</p> <p>31</p>
<p>MARCH 1992</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30 31</p>	<p>JUNE 1992</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6</p> <p>7 8 9 10 11 12 13</p> <p>14 15 16 17 18 19 20</p> <p>21 22 23 24 25 26 27</p> <p>28 29 30</p>
<p>APRIL 1992</p> <p>S M T W T F S</p> <p>1 2 3 4</p> <p>5 6 7 8 9 10 11</p> <p>12 13 14 15 16 17 18</p> <p>19 20 21 22 23 24 25</p> <p>26 27 28 29 30</p>	

Classes meet the week of March 30 through June 13

Spring Quarter

Registration dates for Spring Quarter and Spring Special Term

Mail registration (all classes)

Campus Office (101 Wesbrook Hall)

February 17-March 18

Registration forms with checks will be accepted for both **limited-** and **nonlimited-enrollment** classes.

In-person registration (all classes)

Campus Office (101 Wesbrook Hall)

March 10-18 (except Friday) 9 a.m. to 8 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

MacPhail Office (1128 LaSalle Ave.)

March 10-18 (except Friday) 9 a.m. to 7 p.m.
(Friday hours 9 a.m. to 4:30 p.m.; closed weekends)

St. Paul Registration-Information Booth (Norwest Center, Skyway level, 5th and Minnesota)
for all classes.

March 10-18 9 a.m. to 5 p.m.
(Closed weekends)

St. Paul Campus (130 Coffey Hall)

March 10-18 9 a.m. to 4 p.m.

MARCH 18, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

Late registration

Campus Office (101 Wesbrook Hall)

March 19-20: Registration and cashier's offices closed to process registrations; late registration accepted by mail only with \$5 late fee.

March 23-27 8 a.m. to 4:30 p.m.

March 27, Reopening day (closed classes) 8 a.m. to 4:30 p.m.

March 30: Late registration resumes by mail or in person with a \$5 late fee through the first week of classes. For information regarding registration and late fees during or after the second week of class, see page 25. For regular office hours, see page 27.

Register by mail or in person

These are registration procedures for limited-enrollment classes and non-limited-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.

Registration procedures differ for limited-enrollment classes and nonlimited-enrollment classes. Limited-enrollment classes have specified limits on the number of students that will be permitted into the class. These courses are starred and the course number and title are printed in red in this bulletin. 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 classes. For complete details see the instructions for **Registration by Mail** below.

Courses without enrollment limits have numbers and titles printed in black ink in this bulletin. Early registration is recommended even for nonlimited-enrollment classes to allow sufficient time for processing and return of fee statements. In rare cases, it may be necessary to place enrollment limits on nonlimited classes.

Fall registration information sessions are offered during August and September 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. Obtain official registration forms at an Extension Classes registration office at any time during office hours; or call 624-2388 to request that registration forms be sent to you.**

Forms for recreational facility use and veterans benefits certification can be requested at this telephone number also (see the index at the end of this bulletin for page numbers where these services are explained).

Regular registration offices are at 101 Wesbrook Hall on the Minneapolis campus (east bank) of the University of Minnesota and at the MacPhail Center in downtown Minneapolis at 1128 LaSalle Avenue. A downtown St. Paul registration booth, open only during in-person registration periods, is located on the Skyway level of the Norwest Center, Fifth and Minnesota streets. Registrations also are accepted at the St. Paul campus Student Support Services office, 130 Coffey Hall, during in-person registration. See maps near the end of this bulletin. Registration forms are also available at certain suburban neighborhood locations; see page 26 for addresses.

- 2. Complete the registration form giving all the requested information.** A sample registration form is shown on the opposite page.

- 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 22.

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

For information about grade base option, see page 45.

Nontranscript registrations are those that apply to noncredit students (other than auditors) and certain noncredit courses; they are explained on page 51.

Be sure to complete the enrollment period section giving the term and year (e.g., Fall Qtr

91 or Winter Qtr 92). If your course is offered on a special term, 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. Although disclosure is voluntary, 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. There is no consequence to you if you fail to identify your sex on the registration form.

- b. **Please type or use ball point pen and press hard so all five copies of the registration form are legible.** If all copies are 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.

Keep the registration form intact. Do not remove carbons or receipts.

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.

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

4. **You may register for classes during the following registration periods.**

	Fall Qtr, Sem, Fall Spec Term	Winter Qtr Wtr Spec Term	Spring Sem	Spring Qtr Spr Spec Term
Registration by mail	Aug 12-Sept 11	Nov 18-Dec 18	Nov 18-Feb 5	Feb 17-Mar 18
In-person registration	Sept 3-11	Dec 10-18	Dec 10-18	Mar 10-18
Last day to register without a late fee	Sept 11, 1991	Dec 18, 1991	Feb 5, 1992	Mar 18, 1992

Enrollment is limited in courses or sections marked with a star (★) and printed in red in this bulletin.

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.

Sample registration form

UNIVERSITY OF MINNESOTA		Department of Extension Classes REGISTRATION FORM	
DEPARTMENT	COURSE NO	SECTION	CREDIT
ArtS	5160	3	4
GRADE BASE	AP	SN	AUD
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GRADUATE CREDIT REQUESTED			SEE BULLETIN FOR EXPLANATIONS
PAGE NO			6
DAY	HOUR	LOCATION	COURSE TITLE AS APPEARS IN BULLETIN
M	6-10	ArtB 141	Watercolor
TUITION		COURSE FEES	SPECIAL FEES
\$248		\$10	\$10
LATE FEE		COURSE TOTAL	
---		\$268	
NAME LAST			FIRST
Klack			Dennis
MIDDLE			INITIALS
M.			
BIRTH DATE (USE NUMERICS)			
MONTH		DAY	YEAR
6		28	52
LOCAL STREET ADDRESS (INCLUDING APT NO IF APPROPRIATE)			
56 Knollways Circle South			
CITY		STATE ABBREV	ZIP CODE
South St. Paul		MN	55000
HOME PHONE		BUSINESS PHONE AND EXT	
829-0880		829-9443 x23	
SOCIAL SECURITY NO			
303-040-0101			
ENROLLMENT PERIOD 1992			
FALL QTR <input type="checkbox"/> (1)		FALL SEM <input type="checkbox"/> (2)	
WIN QTR <input type="checkbox"/> (3)		SPR SEM <input type="checkbox"/> (4)	
SPR QTR <input checked="" type="checkbox"/> (5)			
SUMMER			
1ST SUMMER TERM <input type="checkbox"/> (7)		2ND SUMMER TERM <input type="checkbox"/> (8)	
10 WEEK SUMMER TERM <input type="checkbox"/> (9)			
SPECIAL TERM <input type="checkbox"/> (6)			
MONTH		DAY	YEAR
START DATE		MONTH	DAY
END DATE		MONTH	DAY
95002030			

Sample course description

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

- | | | | | | |
|--|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| ★ Psy 5141 PSYCHOLOGY OF WOMEN. 4 credits, \$248 (◆\$124) | | | | | |
| 7 | 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, Schletzer			
8	9	10	11	12	

1. Star indicates limited-enrollment class (or limited section when preceding a section number)
2. Department designation and course number (a "C" after the number indicates certificate course)
3. Course title (titles in red indicate classes with limited enrollment)
4. Number of credits (if certificate credit, "certificate" will be specified) or "no credit" if applicable
5. Tuition cost
6. Cost for nontranscript, no-credit registrants (not all classes are open to no-credit registration)
7. Course content (including prerequisites, limits, and special information)
8. Term
9. Section number
10. Day and time (times are p.m. unless indicated a.m.)
11. Building and room
12. Instructor's last name (if determined); see faculty list for title

Registration by mail

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.
3. **If there are classes or sections of classes that are acceptable alternatives to your first choice, list those on an alternate choice form (available by calling 624-2388).** If your first choice is closed, the registration office 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 forms (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 Wesbrook Hall
77 Pleasant Street S.E.
Minneapolis, MN 55455

Registrations received in the Extension registration office will be 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.

Registrations received during mail-only registration will receive priority in processing. Once in-person registration begins, space in limited-enrollment classes also will be assigned to students who register in person.

Registrations received in the registration office before the first date of mail registration will be returned to the sender.

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. See page 34.

Students registering with **Regents' Scholarships** should read the section on page 39.

Students registering under the tuition fellowship program for graduate assistants or the academic staff tuition benefit should read the section on page 39.

Persons registering with G. I. Bill assistance must include the G. I. Bill Information Sheet with their registration. See the section on **Veterans**, page 41, for further information and instructions.

Checks or money orders for late registrations (postmarked 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. (Refunds for overpayments will not be made until checks clear banks.)

Students who have not received fee statements three weeks after mailing in registration forms and tuition payment should call 624-4145 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 the calendar pages, 10-19, for hours at all locations.**

Fall Quarter, Semester	September 3-11
Winter Quarter	December 10-18
Spring Semester	December 10-18, December 26-February 5
Spring Quarter	March 10-18

3. **Bring your completed registration form to the tally 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 tally clerk. For non-limited classes, the clerk will check your registration form to make sure it is completed properly.
4. **Pay the Extension cashier for the full amount of tuition and fees. You are not registered until your tuition and fees are paid.** Students are urged to pay tuition with a personal check or money order. The downtown St. Paul registration booth and St. Paul campus office cannot accept cash.
5. **If you reserve space in a limited class, you must pay tuition by the last day of the regular registration period for that term; otherwise, you forfeit your space in class.**
6. **Registration Offices (see campus and parking maps near the end of this bulletin)**

<u>Minneapolis Campus</u>	<u>St. Paul Campus</u>	<u>Minneapolis</u>	<u>St. Paul</u>
Extension Classes	St. Paul Campus Admissions and Records	MacPhail Center	Registration Booth
101 Wesbrook Hall	130 Coffey Hall	1128 LaSalle Ave.	Norwest Center
Minneapolis Campus	St. Paul Campus	Downtown Minneapolis	Skyway Level
			Downtown St. Paul

All registration offices are closed weekends.

See registration hours on the calendar pages, 10-19.

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 forms

Students who are registering by mail are urged to submit an alternate choice form (available by calling 624-2388) or a note listing acceptable alternative sections or courses. If the class the student is trying 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 instructor 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 three 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).

Reopening day (limited classes only)

When a class limit is reached, the class is closed and registrations received after that point are returned to the sender. Sometimes, space becomes available in closed classes because students cancel classes shortly after registering or because they do not pay tuition or complete registration. After registration periods end and registrations are processed, classes that closed will be reopened to registration if space is available. In 1991-92, the reopening day is the last regular working day before classes begin for each quarter and semester. See the calendar pages, 10-19; reopening day is identified for each term. Registration on reopening day is on a first-come, first-served basis in person at 101 Westbrook Hall only.

Late registration and additions

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:

Through the first week of classes	\$ 5 (if accepted)
Through the second week of classes	\$10 (if accepted)
During or after the third week of classes to the end of any term	\$20 (if accepted)

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 1
Fall semester	November 22
Winter quarter	February 14
Spring semester	April 24
Spring quarter	May 8
Special terms	Course midpoint

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 Westbrook Hall (625-3333), or at Extension 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.

No registration allowed after the end of any term.

When scholastic approval is for a past term, tuition and fees will be at rates currently in effect.

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).

Those students registering late for Compleat Scholar/Practical Scholar noncredit courses (see page 489) must pay a \$5 late fee.

There are **no** late fees for persons registering on the **62-Plus Plan** (see pages 53).

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.

Courses at neighborhood centers

For information about classes being held off campus at neighborhood locations, also see the section beginning on page 696.

Students cannot register in person at neighborhood centers. Students should register by mail for classes held at neighborhood centers. Classes with enrollment limits often fill before in-person registration begins. See mail registration instructions, page 22.

Some schools are closed for school functions or holidays; classes will meet on campus when neighborhood centers are closed.

Students may pick up registration materials at these neighborhood center offices:

Richfield Community Education Center, 7001 Elliot Avenue S., Richfield, Minnesota 55423.

Fairview Community School Center, 1910 W. County Road B, Roseville, Minnesota 55113.

Office Hours

Regular office hours, special office hours, and holidays and other days when offices are closed are listed below. Dates and hours for registration periods are given on pages 10-19.

Campus office

(Minneapolis campus, East Bank)
101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E.
Minneapolis, MN 55455 (625-3333)

Summer 1991

Regular hours

June 15-July 30

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

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

August 3-31

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

Holidays

July 4 (Independence Day) closed

September 2 (Labor Day) closed

Closed weekends

Fall 1991

Regular hours

September 23-December 11

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

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

Special hours and closings

September 3-11 (in-person registration)

Monday through Thursday 9 a.m. to 8 p.m.

Friday 9 a.m. to 4:30 p.m.

September 12-13 (registration processing) closed

September 16-19 9 a.m. to 8 p.m.

December 10-18 (winter in-person registration)

Monday through Thursday 9 a.m. to 8 p.m.

Friday 9 a.m. to 4:30 p.m.

December 19-20 (registration processing) closed

December 26-27, 30-31, January 2-3 8 a.m. to 4:30 p.m.

Holidays

November 28-29 (Thanksgiving holidays) closed

December 23-25 closed

January 1 closed

Closed weekends

(continued next page)

Winter 1992

Regular hours

January 6-March 20

Monday through Thursday	8 a.m. to 8 p.m.
Friday	8 a.m. to 4:30 p.m.

Special hours and closings

January 2-3	8 a.m. to 4:30 p.m.
February 25 (caucus night—no classes after 6 p.m.)	8 a.m. to 6 p.m.
March 10-18 (spring in-person registration)	
Monday through Thursday	9 a.m. to 8 p.m.
Friday	9 a.m. to 4:30 p.m.
March 19-20 (registration processing)	closed
March 23-30 (spring semester recess)	8 a.m. to 4:30 p.m.

Holidays

January 1	closed
January 20 (Martin Luther King, Jr. Birthday)	closed

Closed weekends

Spring 1992

Regular hours

March 30-June 12

Monday through Thursday	8 a.m. to 8 p.m.
Friday	8 a.m. to 4:30 p.m.

Holidays

May 25 (Memorial Day)	closed
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Closed weekends

MacPhail Center office

(Downtown Minneapolis)

1128 LaSalle Avenue, Minneapolis, MN 55403 (627-4020)

Registration hours at MacPhail Center are not the same as regular office hours shown below; see pages 10-19 for registration dates and hours.

June 10 to August 31

Monday through Friday	8 a.m. to 4:30 p.m.
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September 3 to June 6

Monday through Thursday	9 a.m. to 6 p.m.
Friday	9 a.m. to 4:30 p.m.
Saturday (registration office closed)	8 a.m. to 2 p.m.

CEE Counseling department

(Minneapolis campus, East Bank)

314 Nolte Center, University of Minnesota, 315 Pillsbury Drive S.E.

Minneapolis, MN 55455 (625-2500)

Monday through Friday	8 a.m. to 4:30 p.m.
(Information by telephone or appointment)	
Evenings (Monday through Thursday)	by appointment

Bookstores

The evening schedule listed on the next page has been established by University bookstores. **Note that bookstores are not open every night. Bookstores do have special hours early in the term. See the pages which follow for information.**

The **Minnesota Book Center**, on the East Bank campus, is located in Williamson Hall between Nolte Center and Jones Hall.

Books Underground is the St. Paul campus bookstore. Enter through the Student Center or Coffey Hall.

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.

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. A picture I.D. is required to obtain the full refund.**

Resale of Books—Since used textbooks offer a distinct savings to students, the University Bookstores attempt to buy as many as they can possibly use. If your textbook is required for the next quarter, and the bookstore does not have enough copies on the shelves, you may sell it during finals week for 60% of the current new price of the book. This price is offered regardless of the number of times the book has changed hands provided it has remained in good condition. These books are then resold at 75% of new book price. If the book is a current edition, but not required for the next quarter, a wholesale book company will buy them for current wholesale value and send them off campus to be resold to another school. Books are purchased throughout the school year. You need a picture I.D. to sell your books.

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

Minnesota Book Center (Williamson Hall, East Bank)

The Minnesota Book Center 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 Harold D. Smith Bookstore**), Education, General College, and the Institute of Technology.

Telephone: 625-6000

Minnesota Book Center hours:

Regular hours: 8:30 a.m.-5:30 p.m., Monday through Friday, Sept. 3-June 12.

First week of quarter: 8 a.m.-7:30 p.m., Monday through Thursday; 8 a.m.-5:30 p.m., Friday. Fall—Sept. 23-27; winter—Jan. 6-10; Spring—Mar. 30-Apr. 3.

Saturdays: Fall quarter, 10 a.m.-2 p.m., Sept. 7 to Dec. 28, except on Sept. 21 (10 a.m.-4 p.m.) and Dec. 7 (9 a.m.-4 p.m.). Winter quarter, 10 a.m.-2 p.m. on Jan. 4, 11, 18, and Mar. 21; 9 a.m.-4 p.m. on Mar. 14. Spring quarter, 10 a.m.-2 p.m. on Mar. 28, Apr. 4, 11; 9 a.m.-4 p.m. on June 13.

Harold D. Smith Bookstore (West Bank)

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.

Telephone: 625-3000

H.D. Smith Bookstore hours:

Regular hours: 8:30 a.m.-5:30 p.m., Monday through Friday, Sept. 3-June 12.

First week of quarter: 8 a.m.-7:30 p.m., Monday through Thursday; 8 a.m.-5:30 p.m., Friday. Fall—Sept. 23-27; Winter—Jan. 6-10; Spring—Mar. 30-Apr. 3.

Saturdays: Fall quarter, 10 a.m.-2 p.m., Sept. 21 and 28, and 9 a.m.-3 p.m. on Dec. 7. Winter quarter, 10 a.m.-2 p.m. on Jan. 4 and 11, and 9 a.m.-3 p.m. on Mar. 14. Spring quarter, 10 a.m.-2 p.m. on Mar. 28 and Apr. 4, and 9 a.m.-4 p.m. on June 13. May be open other Saturdays during the regular academic year. Call for dates and hours.

Books Underground Bookstore (St. Paul campus)

Books Underground sells books for courses taught on the St. Paul campus.

Telephone: 624-9200

Books Underground hours:

Regular hours: 8:30 a.m.-5:30 p.m., Monday through Friday, Sept. 3-June 12.

First week of quarter: 8 a.m.-6:30 p.m., Monday and Tuesday; 8 a.m.-5:30 p.m., Wednesday through Friday. Fall—Sept. 23-27; Winter—Jan. 6-10; Spring—Mar. 30-Apr. 3.

Health Sciences Bookstore (2-554 Malcolm Moos Health Sciences Tower, East Bank)

The Health Sciences Bookstore 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.

Telephone: 625-8600

Health Sciences Bookstore hours:

Regular hours: 8:30 a.m.-5:30 p.m., Monday through Friday, Sept. 3-June 12.

First week of quarter: 8 a.m.-6:30 p.m., Monday through Thursday; 8 a.m.-5:30 p.m., Friday. Fall—Sept. 23-27; Winter—Jan. 6-10; Spring—Mar. 30-Apr. 3.

Enrollment Information

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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. Responses 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 may require prerequisite courses or experience. (See **Prerequisites**, page 44.) 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 47.

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.

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.

Joint day/Extension classes that begin at 3:30 p.m. or later are listed in this bulletin. The symbol **Ⓢ** appears before the course number. For classes before 3:30 p.m., students should consult the daytime *Class Schedule*. Registration is the same as for regular Extension classes (although cancellation and refund deadlines are different). 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 boxed 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 two weeks before 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.

Counseling and academic advising

The Continuing Education and Extension Counseling Office offers both counseling and academic and financial aid advising services, to current and prospective students interested in courses offered through CEE departments such as the Department of Extension Classes, the Department of Independent Study, and Summer Session. The CEE Counseling 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 available by appointment to help students select programs of study (see **Degrees and Certificates**; check the **Index** in the back of this **Bulletin** for page number); 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.

Fall registration information sessions—Information sessions, offered during August and September by CEE Counseling, provide new students with assistance in fall quarter registration. These sessions 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 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** in the **Index** in the back of this **Bulletin**.

Tuition and fees

Tuition and fees are subject to change without notice.

Tuition for each course is listed after the course title. Any course fees or special fees, required in addition to the tuition, are listed, also. The cost per credit varies depending on the level of the course and the tuition rate for the college. 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. For 1990-91, tuition rates follow the range given below.

\$53.25 a credit	For all 1000-level courses, certificate courses, entrance credit courses, noncredit courses (does not necessarily apply to reduced-tuition courses).
\$55.25 to \$100.25 a credit	For 3000-level and 5000-level courses; per credit rate depends on tuition of the college offering the credit.
\$121.75 a credit	For 8000-level courses (open only to students admitted to the University of Minnesota Graduate School).

Tuition and fees are subject to approval by the Board of Regents.

For special tuition rates for students age 62 and older, see page 53.

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.

The full amount of the tuition and other fees is payable 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.

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.

Students registering for graduate credit in 5000-level Extension classes usually pay undergraduate CEE tuition rates. However, when the course work is transferred to a University of Minnesota Graduate School record, the student must pay the difference between CEE and Graduate School tuition for credits accepted on the graduate program. The tuition difference to be charged will be the difference between the rates in effect at the time the credits are transferred (regardless of when the student took the courses or registered for the courses). A hold for tuition due will be placed on the student's Graduate School record until the tuition difference is paid.

Students registering for graduate credit may elect to pay the Graduate School tuition rate **when they register** for credits they intend to apply to a University of Minnesota Graduate School program. Check at the registration office, 101 Wesbrook Hall, for tuition rates and procedures (625-3333).

A \$15 handling fee is charged for all checks returned by a bank. Students should contact the cashier at 138 Wesbrook (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. Students in need of financial assistance should see **financial aids and loans**, below.

Students who are not residents of the state of Minnesota pay the same fees in Extension Classes as do residents of the state.

Students are not registered until their tuition and fees are paid (or until they receive delayed-payment status; see financial aid section below). After fees are paid, retain the pink copy of the registration form. 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. (Present the white copy to the course instructor at the first class meeting.)

For information on tax deductions for Extension Classes tuition, see page 61.

Enrollment verification

Students who need enrollment verification (for bank or business purposes) for the current term should bring the paid fee statements to 101 Wesbrook Hall. Students who need verification for past terms should go to Student Relations, 150 Williamson Hall. Full-time 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.)

Loan deferments must be left at or mailed to 101 Wesbrook Hall, 77 Pleasant St. S.E., University of Minnesota, Minneapolis, MN 55455, and they will be returned by mail.

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 at the Certification and Transcript Service, 155 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. 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.

Registration forms and authorizations must accompany each other. 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.

Registration forms must be filled out completely.

Financial aids and loans

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 year (first summer session through spring quarter) 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:

$$\frac{\text{Total credits graded A, B, C or S}}{\text{Total credits graded A, B, C, D, F, S, N, or I}} = 66\%$$

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.

Delayed payment (tuition deferments)

If you are unable to pay your own tuition and fees when registering, you may request delayed payment. Only students receiving financial aid through the University of Minnesota Office of Student Financial Aid will be considered for delayed payment of tuition. To receive delayed payment, you need to be in good academic standing, your record at the University must be free of major holds, and you must show eligibility for financial aid for the current academic year. In addition, all students except Minnesota State Grant recipients must be admitted to a degree or certificate-granting program.

Students are responsible for completing all necessary financial aid procedures prior to requesting a delayed payment. If you have questions regarding the criteria for granting delayed payment, contact the CEE Counseling Office at 314 Nolte Center (625-4334).

Eligible students request delayed payment at the time of registration at 101 Wesbrook Hall (delayed payments are not issued after the second week of the term).

Students registering by mail should:

1. Follow regular mail registration procedures outlined in this bulletin. To insure accurate record keeping, you are urged to include your social security number and University I.D. number, if you have one, in the space provided on the registration form.
2. In lieu of payment with a check, include a note requesting a delayed payment. Your name will be checked for eligibility.

3. If you have completed all eligibility requirements, expect your delayed-payment approval within two to three weeks. You will also be sent an Extension Bursar Fee Statement, which you will need to pick up your financial aid check.

Students registering in person should:

1. Fill out registration forms following the instructions outlined in this bulletin. You are urged to include your social security number and University I.D. number, if you have one, in the space provided on the registration form.
2. Have your registration forms tallied at the registration desk.
3. Instead of paying at the cashier's office, take your tallied registration forms to the financial aid desk in 101 Wesbrook Hall. Your registration forms will be checked for eligibility.
4. If you have completed all eligibility requirements, your tuition will be delayed and you will be given an Extension Bursar Fee Statement. You will need to show your Extension Bursar Fee Statement in order to pick up your financial aid check.

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

Receiving delayed payment does not guarantee receipt of financial aid. Students who do not receive their expected financial 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 59. 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 total course costs after the fourth week regardless of whether they have been attending class or intended to cancel.

If you pay your own tuition and fees prior to picking up your financial aid check, request an Extension Bursar Fee Statement when you register. You will need to show it in order to pick up your aid. To qualify for aid and to receive an Extension Bursar Fee Statement, you must apply for aid through the Office of Student Financial Aid at the University of Minnesota, be in good academic standing, and your University of Minnesota record must be free of major holds.

Students who drop below 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 should read the listing on pages 41-44.

Students registering under the authority of the Cold War Veterans Bill (Chapter 34, Title 38, U.S. Code), should refer to page 41.

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 Part-Time Student Grant Program—The MPTSGP may change substantially for the 1991-92 academic year due to proposed rule changes. Additional information should be available in early July. The MPTSGP provides funds primarily for students enrolled for five credits or fewer a quarter. (Students registered for 6 to 11 credits may be considered for MPTSGP for one quarter only if they have not been enrolled in post-secondary education for three years prior to applying and have not received Minnesota State Scholarship and Grant funds.) Eligibility requirements are: U.S. citizen or permanent resident of the United States, Minnesota residency, enrollment in undergraduate course work applicable to a degree or certificate program and maintenance of satisfactory academic progress, no prior bachelor's degree, and demonstration of financial need.

Financial need criteria are based on the previous year's income (1990 income for the 1991-92 academic year, or under certain circumstances, on the estimated present year's income). Applicant's total federally adjusted gross income and untaxed income must not exceed the following levels:

One-person family \$12,225	Six-person family \$29,075
Two-person family \$16,350	Seven-person family \$31,300
Three-person family \$20,300	Eight-person family \$33,375
Four-person family \$25,175	Nine-person family \$35,800
Five-person family \$27,050	

Awards can be used for tuition and fees, books and supplies, transportation, and child care costs incurred while students are attending classes. The grant may supplement other aid, including Pell Grants, scholarships, and employer tuition reimbursement. Awards are contingent upon state funding. Awards will be made until all funds for each term have been committed. Information is available at CEE Counseling, 314 Nolte Center (625-4334).

Minnesota State Grant—The MSG is administered by the Minnesota Higher Education Coordinating Board. It 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 six or more credits per term; and demonstration of financial need. 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 ACT application, which is available at Financial Aid, 210 Fraser Hall, or the CEE Counseling Office, 314 Nolte Center. Call CEE Counseling (625-4334) for a set of procedures outlining the steps which must be followed.

Pell Grant—The Pell Grant is a federal aid program 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 at least six credits a quarter. Pell applicants must be U.S. citizens, permanent residents, or eligible noncitizens. Independent Study (correspondence) courses are not covered by Pell funds. **Recipients must be admitted to a 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 (625-4334). Applicants use the ACT application, 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 students admitted to a degree- or certificate-granting program will be considered for Supplemental Educational Opportunity Grant, Perkins Loan, College Work-Study, and University scholarships, grants, and loans. Most campus-based aid is restricted to students who do not already have a bachelor's degree. Since this aid is limited, students are encouraged to apply as early as possible. Applicants use the ACT application, which is available at the CEE Counseling Office, 314 Nolte Center, or the Financial Aid Office, 210 Fraser Hall. Call CEE Counseling (625-4334) for a set of procedures outlining the steps which must be followed.

Tuition Assistance Program/Project HELP—Adults enrolled part-time in Extension classes who do not qualify for any other grant or scholarship aid may be eligible for a TAP or Project HELP grant for one class each quarter. Applicants must reside in Minnesota and be U.S. citizens or permanent residents. In addition to financial need, students must fit into one additional category—minority, high ability, or educationally disadvantaged. Applications will be accepted until all funds for each term have been committed. Information is available at CEE Counseling, 314 Nolte Center (625-4334).

IDS Financial Services Minority Access and Retention Grant—This program is intended for adult part-time students of color from underrepresented populations who are not eligible for other grants, scholarships, or tuition reimbursement. Undergraduate students and students who have completed a degree but need additional prerequisite courses for admission to a graduate program will be considered. Requirements are financial need, U.S. citizenship or permanent residence, Minnesota residence, and maintenance of satisfactory academic progress or probability of academic success. Admission is not required. Applications are accepted quarterly. Awards average \$600 and are applicable to tuition, fees, and books for Continuing Education and Extension credit classes. For additional information or an application, contact CEE Counseling, 314 Nolte Center (625-4334).

Nolte Scholarship Fund—The Nolte Scholarship was established in 1985 for undergraduate part-time adults not served by other grant, scholarship, or tuition reimbursement programs. Students who have earned a prior bachelor's degree and are enrolled in additional undergraduate course work will be considered. Admission is not required. Eligibility is based on financial need, academic ability, and a statement of personal, educational, and career goals.

Applicants must be Minnesota residents and U.S. citizens or permanent residents. Applications will be accepted fall, winter, and spring quarters. Priority deadlines for each quarter are: fall, July 19, 1991; winter, October 18, 1991; spring, January 17, 1992. Provided that ample funds remain, applications will be accepted for three weeks beyond each priority deadline. Additional information and applications are available at CEE Counseling, 314 Nolte Center (625-4334).

Schott Scholarship—These scholarships are intended for part-time students who are not eligible for other grants, scholarships' or tuition reimbursement. Students enrolled in undergraduate course work, including students with prior bachelor's degrees, will be considered. Admission is not required. Priority is given to students in technical fields such as computer science, engineering, math, and science. Eligibility is based on financial need, academic ability, and a statement of personal, educational, and career goals. Applicants must be Minnesota residents and U.S. citizens or permanent residents. Applications will be considered fall, winter, and spring quarters. Priority deadlines for each quarter are: fall, July 19, 1991; winter, October 18, 1991; and spring, January 17, 1992. Provided that ample funds remain, applications will be accepted for three weeks beyond each priority deadline. For additional information or an application, contact CEE Counseling, 314 Nolte Center (625-4334).

Remington Scholarship—The Gilford W. and Esther F. Remington Scholarship Fund was established by Mrs. Remington to provide assistance each year to one or two undergraduate adult part-time students who are not eligible for other financial aid. Students who have earned a prior bachelor's degree and are enrolled in additional undergraduate course work will be considered. Admission is not required. Applicants may be enrolled through Continuing Education and Extension on the Twin Cities campus or through the Duluth Extension Center on the UMD campus. Priority is given to students in the fields of history, education, art, and audio-visual education. Eligibility is based on financial need, academic ability, and a statement of personal, educational, and career goals. Applicants must be Minnesota residents and U.S. citizens or permanent residents. Applications are considered once each year in late July for the academic year. For additional information or an application, contact CEE Counseling, 314 Nolte Center (625-4334).

CEE Anniversary Scholarship—Three scholarships will be awarded to outstanding CEE students for the 1991-92 academic year. Both undergraduate and graduate students will be considered. Awards will be based on academic ability, previous enrollment in CEE, a statement of personal, educational, and career goals, two letters of support, and a final interview. Financial need is not a requirement. The deadline is July 19, 1991. If funds remain, applications will be accepted until August 9, 1991. For additional information or an application, contact CEE Counseling, 314 Nolte Center 625-4334).

Mucke-Roff Scholarship—These scholarships are intended for women taking Compleat Scholar, Practical Scholar, and other courses offered by Continuing Education for Women (see the Course Offerings section of this bulletin for a list of these courses). Students enrolled in Extension classes will also be considered if funds remain available. Financial need is a requirement. For additional information, contact CEE Counseling, 314 Nolte Center (625-4334).

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, Linda Wolford, 16 Johnston Hall (624-4037); or the Division of Rehabilitation Services office in your area can also supply you with information.

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, 1745 University Avenue, St. Paul, MN 55104 (642-0506). Tape and braille materials also are available from the Communication Center of State Services for the Blind, telephone 642-0502. Assistance on campus also is available from the Office for Students with Disabilities, 16 Johnston Hall (624-4037).

Special Funds: Students with disabilities may contact the Office for Students with Disabilities in 16 Johnston Hall (624-4037) to discuss other possible financial aid opportunities and types of assistance. (Special funds are limited.)

Veterans with service-connected disabilities may be eligible for vocational rehabilitation services through the Veterans Administration. Write or call the Veterans Assistance Center, Room 181 Federal Building, Fort Snelling, St. Paul, MN 55111 (726-1454). Call toll free in Minnesota, 1-800-692-2121.

Stafford Loan—Under the Stafford Loan program, an undergraduate student **admitted to a degree- or certificate-granting program** and registered for at least six credits a quarter may borrow from a participating lender. Graduate students (students formally admitted to the Graduate School) must be enrolled for at least three credits a quarter. Borrowers must be U.S. citizens or permanent residents. Loan limits are \$2,625 a year for freshman and sophomores; \$4,000 is the annual limit for juniors and seniors. The graduate student maximum is \$7,500 a year. Interest is subsidized while the recipient is in school. Repayment begins six months after the borrower drops below half-time or graduates. Once repayment starts, interest is 8 percent for the first four years and then increased to 10 percent. All Stafford Loan applicants must complete the 1991-92 ACT application, which is available from CEE Counseling, 314 Nolte Center, or Financial Aid, 210 Fraser Hall. Additional application materials for non-Minnesota affiliated programs (e.g., Wisconsin State Loan Program) may be required. Recommendations for this program, which are based on the cost of attendance, the amount the student is expected to contribute to his or her education, and other financial aid funds received, will be made by the Financial Aid Office.

For further information, telephone 625-4334 or 624-1665.

Other Educational Loans—These loans include Supplemental Loan for Students, Parent Loan for Students, and the Student Education Loan Fund. 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 are not as favorable as Stafford Loan. Students should investigate all other forms of aid before applying. Requirements are **admission to a degree- or certificate-granting program**, maintenance of satisfactory academic progress, and enrollment for a minimum of six undergraduate credits or three graduate credits each quarter. 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—The Regents' Scholarship program provides an opportunity for eligible University of Minnesota Civil Service and union-represented employees to take University classes tuition-free. 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 they apply for a scholarship if on a 9-month or 12-month appointment; laid-off employees and those on maternity or other leaves without pay. Employees on student or academic appointments and family members of University employees are not eligible for Regents' Scholarships.

Tuition is waived. Normally required student services fees do not have to be paid unless you want to purchase and use the service. Regents' Scholarships do not cover retroactive tuition, late fees, course fees, lab fees, books, deposits, records fees for establishing new student files, orientation fees, CEE special fees, or Boynton Health Service fees.

Regents' Scholarships cannot be used for auditing a course.

Students registering for graduate credit should indicate when they register that the Regents' Scholarship is to be applied to graduate-level tuition.

A wide range of courses are approved for Regents' Scholarships, both in day school and Continuing Education and Extension, but **note the following exceptions:** CEE Independent Study, TV and correspondence courses offered by CEE Independent Study, Department of Professional Development and Conference Services seminars and workshops, mini courses offered

at Coffman Union and the St. Paul Campus Student Center, Rec Sports mini courses, CME seminars, courses and workshops offered for Continuing Education Units (CEUs), Study and Travel Adventures, Research Explorations, and MacPhail Center courses. Compleat Scholar and Practical Scholar courses are not covered by Regents' Scholarships but reduced tuition is available to University employees; see information below.

A separate application must be completed for each course. (Employees may take as many classes for credit per term as their department approves.) The applicant's signature, as well as the signatures of both the supervisor and department head are required (both signatory spaces must be completed). Applications should be sent to University Personnel, Room 220, Administrative Services Center, 1919 University Ave., St. Paul, MN 55104.

Applications are processed within 48 hours and returned by campus mail (U.S. mail for out-state campuses). There are no exceptions to the processing time and mailing policies; please plan accordingly to avoid late fees. Check with your supervisor for special departmental policies concerning Regents' Scholarships. If you have questions or need additional application forms, please call University Personnel at (612) 624-7054.

Students registering with Regents' Scholarships for nonlimited-enrollment credit courses may register by mail or in person during regular registration periods. Students registering for limited-enrollment credit classes with Regents' Scholarships may register beginning the second week of mail registration and thereafter. Students may also obtain space in person. See **When and How to Register** for dates and registration hours for each term.

Be sure to include the approved Regents' Scholarship form, completed registration form, and a check made payable to the University of Minnesota for special, course, or late fees (if any) when completing registration by mail. No refunds will be given to students who wish to apply Regents' Scholarships toward limited-enrollment classes for which they already have registered and paid fees.

University employees, employed at least 75-percent time, who wish to take noncredit Compleat Scholar or Practical Scholar classes must pay one-half the regular tuition plus all course fees and special fees given with a course. You must submit a letter from your department 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 Fellowship Program—Graduate students and professional trainees who hold appointments as teaching assistants, research assistants, administrative fellows, and certain other professional school student positions may receive tuition fellowships for credit classes in Extension. For eligibility information, contact the Graduate Assistants Office, 411 Johnston Hall; telephone 626-1310. (Classes must be 5000- or 8000-level and taken for graduate credit.)

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 and eligibility and registration information are available from department heads.

Other Financial Aids—A number of other financial aid options are available. Contact CEE Counseling, 314 Nolte Center (625-4334), for additional information. Extension students who have questions or problems regarding financial aid are encouraged to call CEE Counseling. Financial aid workshops for CEE students will be offered throughout the year. Information about times and locations will appear in *Info* or will be available from CEE Counseling.

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.

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 previously reviewed educational plans and transcripts of all college work with an adviser.** Call 625-2500 to make arrangements to meet with an adviser.

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 (\$140 monthly); three-fourths time (\$105 monthly); and one-half-time (\$70 monthly). For less than one-half time, the monthly benefit is \$35 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 20-26 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 Westbrook Hall 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). Do not complete a separate G.I. information sheet for each class. 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 (registration forms, tuition checks, and one completed information sheet).

Cancellation and transfer—When veterans cancel or transfer classes, they must notify the Extension Veterans Office. This is especially important when it affects the total credit load. Transfers to or from day school must be noted with a form A19a, which is obtained from the unit the veteran is **leaving**. 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 Westbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455, by calling 624-3341, or by filing in person at this office. 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 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 22, 1991
Fall Semester:	August 22, 1991
Winter Quarter:	November 29, 1991
Spring Semester:	November 29, 1991
Spring Quarter:	February 21, 1992

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.

No certification can be sent to the VA earlier than the beginning of each term, regardless of when a veteran registers. The only exception is the veteran eligible to apply for advance pay.

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. Certification:	624-3341
Day School G.I. Certification:	625-8076
Independent Study G.I. Certification:	624-0000
Advising and Counseling:	625-2500
<i>(necessary course work—degree planning)</i>	
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 1-800-692-2121 (Minnesota only).

State of Minnesota—Department of Veterans Affairs—Minnesota law provides that educational assistance will be granted to veterans not to exceed \$350 once, for the payment of tuition of honorably discharged veterans who entered the service from the state of Minnesota. This allowance is made to assist them in completing their educational objective after they have exhausted federal G.I. Bill benefits by actual use. Only Minnesota schools are permitted under this program.

In each instance veterans must show evidence of acceptable passing grades together with the fact that they are pursuing their original educational objective or what may be considered normal progression. The claimant's financial status will be evaluated.

War Orphans Educational Assistance—Minnesota law also provides that the Department of Veterans Affairs may offer \$350 a year to qualified war orphans who are attending institutions of higher learning or trade schools beyond high school and who maintain passing grades. Only Minnesota schools are permitted under this program. To qualify, students must have lost their veteran parent through death because of a service-caused condition. The veteran must have been a resident of the state of Minnesota at the time of entry into service, and the child

must have resided within the borders of the state for two years prior to commencing his or her educational program. Children of veterans eligible for benefits shall be admitted to state institutions of college grade free of tuition (this does not include the University of Minnesota). The \$350 allowance may be used for tuition (where applicable), fees, board, room, books and supplies, and other legitimate expenses.

In addition, it will be necessary to show that reasonable need exists. 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 (minus a \$5 cancellation fee), 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 year (first summer session through spring quarter) 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:

$$\frac{\text{Total credits graded A, B, C, or S}}{\text{Total credits graded A, B, C, D, F, S, Nor I}} = 66\%$$

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.

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.

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) 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 **Satisfactory Academic Progress**, page 43.

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 51).

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 include your full name, 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, 155 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 quick-service window in 155 Williamson Hall. There is no charge for the quick-service request; 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 Extension Classes Registration Office, 101 Wesbrook Hall, or 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. 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 also may obtain an I.D. card (students who register infrequently are less likely to need

the card). Always include the I.D. number when you register or complete other University forms. Students registering for the first time or those who have not registered since 1988 should allow 4 weeks to process their record before requesting a card. A paid fee statement and picture I.D. can be used to request student services instead of the I.D. card.

The I.D. office in 248 Williamson Hall is open 8 a.m. to 4 p.m., Monday through Friday, and has extended hours the first week of every quarter. Call 625-9357 for details. For more information, contact the CEE Counseling Office (625-2500).

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 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 residence requirements of individual colleges of the University. See University Degree Programs, page 633.

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 University Certificate Programs, page 654.
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 description 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 CEE 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 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 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—A student who wishes to receive graduate-level credit for a CEE course which is available for graduate credit must indicate this on the CEE registration form. This notifies the instructor of the course, who indicates on the final grade report whether the work was completed at the graduate level. If the work was completed at the graduate level, the course is entered onto the student's undergraduate transcript with an asterisk (*) printed next to the course listing.

A student who 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 Wesbrook 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. The Graduate School does not permit such change after the last day of instruction.

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.

Students who register for 5000-level course work in CEE usually pay undergraduate CEE tuition rates. If a course is approved for transfer to a University of Minnesota Graduate School transcript, the student must pay the difference between CEE and Graduate School tuition. The tuition differential to be charged will be the difference between the rates in effect at the time the credits are transferred, regardless of when the student registered for or attended the course. If the tuition is not paid, a hold will be placed on the student's Graduate School record by CEE.

Students who register for graduate credit may elect to pay the Graduate School tuition rate when they register for credits that they intend to request be applied toward a University of Minnesota Graduate School degree program. Check with the Extension Classes Registration Office, 101 Wesbrook Hall (625-3333) for procedures and for current Graduate School tuition rates.

Use of Graduate-Level Course Work Elsewhere—Students who intend to apply graduate-level CEE course work to a degree at an institution other than the University of Minnesota must indicate on their CEE registration form that they wish to take the course for graduate credit. The faculty member will indicate on the final grade sheet whether the course was taken for graduate credit; if so, this 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 (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 institution 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 Extension 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 independent study (UC 3075)

University College provides an undergraduate independent 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 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. Further information may be obtained from the Inter-College Program Office of University College, 7 Wulling Hall (624-2004).

CEE Independent Study

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

requirements with college approval. The **Independent Study Bulletin** (listing correspondence, media-assisted, and high school courses) is available from the Department of Independent Study, 45 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455; (612) 624-0000.

You may pay tuition and fees for Independent Study courses by Visa or MasterCard.

Correspondence courses

More than 400 correspondence courses, both college and high school, are available through Independent Study. The correspondence method is uncomplicated, and a comprehensive study guide for each course coordinates your reading and study. You prepare assignments for evaluation at your own pace and have a year to complete the course. With your self-motivation and the guidance of a University faculty member, you can earn University resident credit in your home.

Media-assisted courses

Television and Radio Independent Study bring University of Minnesota credit courses to the community. These media-assisted independent study courses consist of television or radio programs, study guides, and textbooks. Television programs are broadcast on KTCL (Channel 17, Twin Cities) and some other channels, including cable, in Minnesota. Radio programs are broadcast on the University radio station KUOM (770 AM). Study guides for these courses are available for purchase by noncredit viewers and listeners. After broadcast, media-assisted courses continue to be available with programs on video or audio cassette tapes. All course requirements can be completed by mail. For information, contact the Department of Independent Study, 45 Wesbrook Hall, 77 Pleasant Street S.E., University of Minnesota, Minneapolis, MN 55455; telephone (612) 624-9008.

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 Wesbrook 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 **Reduced-Tuition Plans**, below.)

Reduced-tuition plans (no credit)

◆ **Half-price plan**— Regular Extension credit courses marked with a diamond (◆) symbol (listed in parentheses after regular tuition cost) are open for no-credit registration at half tuition (students must pay course fees, special fees, and late fees, however). Joint Day/Extension offerings are **not** available for half-price registration. Any course taken on the half-price plan cannot be used toward a degree or certificate.

Registration dates (pages 10-19) and procedures (pages 20-26) for ♦ courses are no different than for any nonlimited-enrollment credit class.

No-credit participants may keep up with readings and participate in class discussions, but may not submit work for evaluation or take examinations (no transcript record is maintained).

Students may not transfer from half price to full price or full price to half price after the first two weeks of a quarter class or three weeks of a semester class.

Advanced High School Student Services Office—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. Interested students who are juniors or seniors in high school may contact this 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 personal, 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 Abroad (credit)

Global Campus study abroad programs provide students an opportunity to broaden their international and cross-cultural awareness as they earn University of Minnesota credit. Programs are cosponsored by University academic departments, and credits may be used to fulfill distribution requirements, second language requirements, or major requirements for degree programs. Anyone is eligible to apply; participants need not be enrolled in a degree program. University financial aid may apply.

See the Global Campus section of this bulletin, page 475, for a list of study abroad opportunities, program descriptions, and course offerings.

Study and Travel (noncredit)

For information about **Compleat Scholar Weekends**, see the Noncredit section of this Bulletin, page 592.

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 a week during the day at off-campus locations. See the credit course listing on page 487. 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 noncredit 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 for only \$6 a degree, certificate, or entrance credit hour plus any fees. Or these courses may be taken free for no credit (no transcript record is kept). For classes with limited enrollment (those courses with titles printed in red), 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 pages 10-19.

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 discount on tuition of \$50 or more. The tuition cost for persons 62 and older is listed in parentheses after the regular tuition in the course description. For classes with limited enrollment, registrations will be accepted starting the second week of mail registration. For nonlimited-enrollment classes, students may register during the regular registration periods.

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 Policies

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Fee statements

After registration forms are receipted (cashier), the fifth copy (pink) is a student's fee statement. The fourth copy (white) is to be presented to the instructor at the first class session. Students must **not** remove carbons or receipts from the registration form. The Extension office will do this after the form has gone through all necessary processing steps.

Students are urged to save and carry their fee statements which are required as proof of enrollment for a number of University activities and services.

Students must be sure all copies of their registration forms are legible. If the fee statement is not legible, it cannot be returned to students who register by mail. Students who have not received fee statements three weeks after mailing in registration forms and tuition payment should call 624-4145 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).

A duplicate fee 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 49.) A student who cannot attend a class session should arrange with the instructor—in advance, if possible—to make up the work.

Transferring classes

Students who wish to transfer 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 (call 625-3333 for transfer forms). No transfer by mail will be done for reduced-tuition courses. **Students may not transfer between terms** (except for fall quarter and fall semester, through the second week of classes).

Students who wish to transfer after an initial registration will be subject to the transfer fees and conditions listed below:

Prior to and during the first week of classes	None
During the second week of classes	\$ 5 (if accepted)
During or after the third week of classes	\$10 (if accepted)

Students who wish to transfer after the first week of classes must meet the following conditions:

Transfer During the Second Week (Quarter, Semester, Special Term, Special Class)—No transfer will be accepted after the second class meeting without written permission of the instructor of the class the student wishes to enter.

Transfer During the Third Week or After (Quarter, Semester, Special Term, Special Class)—No transfer 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 for information and petition forms.**)

There will be no transfer fee if: (1) University requests transfer be made; (2) transfer is required by an unacceptable grade in prerequisite course (see **Grades**, page 45); (3) transfer is required because of University cancellation of course in which previously registered, provided such transfer is made within one week from date of cancellation of class; or (4) between sections of a course with the same course number.

Students may not transfer from half price to full price or full price to half price after the first two weeks of a quarter class or three weeks of a semester class.

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 unable to pay full tuition for credit courses may be eligible for tuition assistance (see **Financial Aids and Loans**; check the **Index** in the back of this **Bulletin** for page number).

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 transferring classes. This is essential when it changes the credit load.

Transferring colleges within the University

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). Please read the sections on **Day School Students**, **Degree Programs**, and **Graduate Credit** (check the **Index** for page numbers).

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, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors received, and degrees earned—is considered public or directory information. 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 at the Information Center in

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 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 xx), 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.

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).

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

Fall quarter	November 1
Fall semester	November 22
Winter quarter	February 14
Spring semester	April 24
Spring quarter	May 8

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 guide-lines 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 must be received by the Extension Classes registration office **before** the official start of final exam week for that term. Students will be notified by mail of the scholastic committee decision within approximately 10 working days.

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 \$15 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 cashier's 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 Westbrook (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, the University of Minnesota radio station, KUOM (770 AM on the dial), will broadcast an announcement at 4 p.m. on the day in question. Other local radio stations will usually carry the announcement about the same time. Listen for the announcement; it is the quickest and easiest method of obtaining the information.

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 five times in the last decade.

Refunds

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 Extension classes (and joint day/Extension classes listed in this bulletin); 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 a \$5 cancellation fee (and any late fees or transfer 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 percentage schedules given below in items 3 and 4.

Students who wish to cancel a class and add another class should read the section on transferring classes, page 56.

1. Full refund of all tuition and fees will be made when a class is canceled by Extension Classes after a student has registered in it.
2. A refund of all tuition and fees **minus a \$5 cancellation fee** will be made:
 - A. When a student cancels before the first class meeting in any term.
 - B. When a student is ill or hospitalized and, in the opinion of a doctor, is unable to continue for medical reasons. The doctor's signed statement on the doctor's letterhead is required and must be submitted by 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:
1. 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 Westbrook 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.
 2. Present a transcript noting equivalent course(s), along with a fee statement and completed cancellation form, in person at 101 Westbrook Hall or by mail. Documents must be submitted at the same time before the fourth class meeting.
3. For classes that meet once a week, refunds of tuition and fees for cancellation of classes after the first class meeting will be made as follows:

	Quarter	Semester
a. Refund before second class	75%	75%
b. Refund before third class	50%	75%
c. Refund before fourth class	25%	50%
d. Refund before fifth class	none	25%
e. Refund after fifth class	none	none

4. For classes that meet twice a week, refunds of tuition and fees for cancellation of classes after the first class meeting will be made as follows:

	Quarter	Semester
a. Refund before the third class	75%	75%
b. Refund before the fifth class	50%	75%
c. Refund before the seventh class	25%	50%
d. Refund before the ninth class	none	25%
e. Refund after the ninth class	none	none

These refund schedules refer to the number of times the class has met, not the number of times the student has attended.

Refunds for special term courses are based on above percentages in relation to the length of the term.

5. Late fees and transfer fees are not refundable in any case.

Cancellations by mail are effective the date of postmark (or date received if sent by campus mail).

For convenience, this information is also printed on the student's copy of the registration form (pink fee statement).

Refunds are paid by check only and are mailed to the student. A minimum of four weeks is required for processing a refund.

For information about other refunds, see: recreation facilities, page 609; health services fees, page 611; Regents' Scholarships, page 39.

Refunds for day class registrations through Extension

Cancellation and refund policies vary between the Department of Extension Classes and day school. If you register for regular day school classes (those listed in the quarterly class schedule) through the Department of Extension Classes (a joint Day/Extension registration), check at the registration office on refund policies and procedures.

You must cancel classes officially, either in person or by writing to the Department of Extension Classes. Cancellations by mail are effective the date of postmark. Late fees and transfer fees are not refundable.

Refunds are based on the date of cancellation, not the number of times the student has attended class.

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: 8 a.m. to 10 p.m., Monday through Thursday; 8 a.m. to 5 p.m., Friday; 9 a.m. to 3 p.m., Saturday; and 3 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 obtain a one-way educational transportation deduction for travel expenses incurred while driving from work to campus. However, if you go home before going to school, you may deduct the expense of going from home to school only to the extent it is not more than the transportation expense you would have if you had gone from work to school.

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

An established "grievance procedure" exists in the Department of Extension Classes. If students believe they have a justifiable complaint about a grade or about classroom procedures, they should first confer about the problem with the instructor. Most problems can be worked out in this way. If a solution satisfactory to them is not reached, they should state the complaint in writing to the Director of Extension Classes, 170 Wesbrook Hall, who will confer with the appropriate academic department chairperson. If these procedures do not bring about a solution satisfactory to the students, the CEE or the academic department's grievance committee (a student-faculty-civil service group) can be assembled to hear the complaint. Further appeals proceed to the college-level and University-level appeal committees.

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 the CEE Counseling Office, 625-2500, to discuss options.

Course Offerings

Credit Courses begin page 65.

See the list of credit Continuing Education for Women Courses, page 487.

Also be sure to see *Noncredit Courses* beginning on page 489.

Courses printed in **red ink** in this *Bulletin* are limited-enrollment classes. Nonlimited-enrollment classes which have limited-enrollment sections have the limited sections printed in red. See **When and How to Register**, pages 20-26.

See *Symbols*, page 64.

See the sample course description on page 22.

Courses in this section are listed alphabetically by department. See page 681 for a list of **Departments and Department Abbreviations**, and page 683 for **Buildings** and their abbreviations.

Course Numbering is explained on page 680.

See **Index** for page numbers of individual departments.

Maps begin page 685-695.

Abbreviations and addresses for off-campus classes appear on page 684.

A ♦ in the margin indicates course may be taken for half price. See page 51 for details.

Semester courses

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

Chinese
Economics
German

History
Japanese
Physics

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 classes and sections, page 20. Limited-enrollment classes or sections are printed in red in this Bulletin.
- ⓪ A joint Day/Extension class. See page 32.
- † 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 50.
- ◆ Regular credit course open for registration on a reduced, no-credit, tuition plan (see page 51).
- △ Consent of department offering course is required.
- Consent of college offering course is required

cr Credit

Qtr Quarter

Sem Semester

Spec Special Term

S/N Satisfactory/No credit grading system. See page 45.

A/F Letter grading system. See page 45.

Lect Lecture

Rec Recitation

Prereq Prerequisite. See page 44.

Sec Section

Grad Graduate

Abbreviations

Campus building abbreviations are listed on page 683 (maps begin on page 685).

Abbreviations and addresses for off-campus class sites (neighborhood centers) are on page 684 (maps begin on page 695).

Course numbering is explained on page 680.

Credit Courses

A

Accounting (Acct)

(645 Management/Economics: 624-6506)

Carlson School of Management

Textbooks for most courses in Acct are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also General College)

Your attention is called to the Undergraduate Development Certificates in Accounting, page 661; and to General College business studies.

Information regarding names of instructors for Accounting classes is not available from either the Accounting Department or Extension Classes.

If an accounting class closes during registration, students should see page 24 for information regarding reopenings that may occur prior to the start of the term.

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

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 24 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.

Acct 1050 replaces Acct 1024-25

All students must take Accounting courses A-F. Students may not audit accounting courses.

First year accounting courses

The first-year accounting courses are designed to meet the needs of three groups of students: (a) those who plan to use accounting for management purposes; (b) those who intend to be practicing accountants, and will continue with the second-year and advanced accounting courses; (c) those who wish an introduction to the "language of business" as part of a liberal education. These are **not** bookkeeping courses.

★**Acct 1050 INTRODUCTION TO FINANCIAL REPORTING.** 5 credits, \$303.75 plus \$16 special fee. Total \$319.75.

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

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

information are the focal points of the course. Lectures for each quarter meet concurrently. (Prereq 40 credits. Limited to 45)

Fall Qtr	Sec 1	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 115
	Sec 2	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 205
	Sec 3	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 225
	Sec 4	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 420
	Sec 5	Lect, M—5:45-7:45, AndH 270 W—5:45-7:45, AndH 270 Rec, W—7-7:45, AndH 270
Winter Qtr	Sec 6	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 215
	Sec 7	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 225
	Sec 8	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, AndH 270
	Sec 9	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 440
Spring Qtr	Sec 10	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 225
	Sec 11	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, RarigC 616
	Sec 12	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, BlegH 205
	Sec 13	Lect, M—5:45-7:45, AndH 270 W—5:45-6:45, AndH 270 Rec, W—7-7:45, AndH 270
		Rec, W—7-7:45, AndH 270

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.

★**Acct 3001 INTRODUCTION TO MANAGEMENT ACCOUNTING.** 4 credits, \$275 plus \$16 special fee. Total \$291.

A broad overview of management accounting as the main information collection and analysis technology in an organization. Topics include analysis of cost-volume-profit
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

relationships, budgeting, and analysis of variances from budgeted performance, and issues relating to decentralized organizational design. Lectures for each quarter meet concurrently. (Prereq 1025 or 1050 and at least 90 credits completed or in progress. Limited to 45)

Fall Qtr	Sec 1	Lect, M —5:30-7:15, BlegH 10
		W —5:30-6:15, BlegH 10
	Sec 2	Rec, W —6:30-7:15, BlegH 10
		Lect, M —5:30-7:15, BlegH 10
Winter Qtr	Sec 3	W —5:30-6:15, BlegH 10
		Rec, W —6:30-7:15, BlegH 255
	Sec 4	Lect, M —5:30-7:15, BlegH 10
		W —5:30-6:15, BlegH 10
		Rec, W —6:30-7:15, BlegH 255

★**Acct 3101 INTERMEDIATE FINANCIAL REPORTING.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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

Fall Qtr	Sec 1	TTh —6:10-7:40, BlegH 125
Spring Qtr	Sec 2	MW —6:10-7:40, BlegH 145

★**Acct 3201 (replaces 3220-3221) INTERMEDIATE MANAGEMENT ACCOUNTING.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Examines multiproduct, multiperiod decision contents emphasizing net present value including statistical and other data collection and analysis techniques, analysis of performance evaluation stemming from development in the theory of contracting; and richer development of coordination problems in decentralized organizations. **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	TTh —6:10-7:40, BlegH 215
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★**Acct 5102 ADVANCED FINANCIAL REPORTING I.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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. Includes an introduction to business combinations and consolidated financial reporting. (Prereq 3101, 5101). At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 45)

Winter Qtr	Sec 1	Th —5:30-9, BlegH 145
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★**Acct 5125 AUDITING PRINCIPLES AND PROCEDURES.** 4 credits, \$275 plus \$16 special fee. Total \$291.

The auditor's role and function. Includes audit standards, ethics, procedures, and legal responsibilities. **Must be taken A-F.** The prerequisite will be enforced. (Prereq 5102 or 3102). 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	W —5:30-9, BlegH 230
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★Acct 5126 **INTERNAL AUDITING.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Financial and operational auditing. Standards. Management of the function. **Must be taken A-F.** (Prereq 3102 or 5102 and 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 55)

Winter Qtr Sec 1 **TTh**—6:10-7:40, BlegH 230

★Acct 5135 **INCOME TAX ACCOUNTING.** 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

An introduction to principles of Federal income taxation of various taxpaying entities. **Must be taken A-F.** (Prereq 1025. 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**—6:10-7:40, BlegH 220 (Limit 55)

Spring Qtr Sec 2 **M**—5:30-9, BlegH 110

★Acct 5180 **ADVANCED FINANCIAL REPORTING II.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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. (Prereq 3102 or 5102. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 55)

Fall Qtr Sec 1 **TTh**—6:10-7:40, BlegH 110

Spring Qtr Sec 2 **MW**—6:10-7:40, BlegH 220

★Acct 5201 **ADVANCED MANAGEMENT ACCOUNTING.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Design of internal control systems in decentralized organizations, focusing on strategic interactions between the internal control system, market share, and pricing strategies. Highlights performance evaluation, transfer pricing, and cost allocations. **Must be taken A-F.** (Prereq 3201 or MBA 8035. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 45)

Spring Qtr Sec 1 **T**—5:30-9, BlegH 230

new

★Acct 5230 **CORPORATE TAXATION.** 4 credits, \$275 plus special fee required.

The tax consequences of the formation, operation, and liquidation of a corporation. (Prereq Δ , 5135 and at least 90 credits completed or in progress. Offered fall quarter. **For registration and special fee information, call 624-7511.** This course can not be used to meet undergraduate degree requirements. Qualified students will be registered for graduate credit at the University of Minnesota. Limited to 60)

★Acct 5236 **TAXATION II.** 4 credits, \$275 plus special fee required.

Income taxation of corporations. Partnerships. Tax research. Transfer Tax. (Prereq Δ and Acct 5135 and at least 90 credits completed or in progress. Offered spring quarter. **For registration and special fee information, call 624-7511.** This course can not be used to meet undergraduate degree requirements. Qualified students may register for graduate credit at the University of Minnesota. Limited enrollment)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Acct 5340 **PARTNERSHIP TAXATION.** 4 credits, \$275 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 can not be used to meet undergraduate degree requirements. Qualified students will be registered for graduate credit at the University of Minnesota. Limited to 60)

5230, 5236, 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 1991-92, call 624-7511.

Adult and Teacher Education (AdEd)

(125 Peik Hall: 625-6372)

College of Education

(Department of Curriculum and Instruction)

Textbooks for most Educ courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Eugene M. Anderson, Associate Professor

Frank Braun, Associate Professor

Charles R. Bruning, Associate Professor

John J. Cogan, Professor

Richard D. Kimpston, Professor

Rosemarie Park, Associate Professor

R. Michael Paige, Associate Professor

Nancy J. Rhode, Assistant Professor

Howard Y. Williams, Professor

Master's Degree

A **Master of Education** degree with a focus on Leadership will be available through Curriculum and Instruction and Educational Policy and Administration beginning **fall quarter 1991** at Capitol View in **Roseville**, with interactive television sites at **Spring Lake Park High School** and **Stillwater High School**. Degree completion will be possible within three years.

For information on the degree programs, telephone (612) 625-1855.

These courses are subject to frequent changes in time and rooms. Check for correct day, time, and room in a day school class schedule.

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. Check for openings in day school registrations. See page 24 for information regarding reopenings that may occur prior to the start of the term.

★ Δ AdEd 5103 (formerly Educ 5103) **ADULT EDUCATION WORKSHOP.** 1-12 cr (maximum 12 cr). 3 credits each offering, \$Educ 5103, \$219.

Study of topic appropriate to the activities and interests of the participant. **Must be taken A-F.** Focus Sec 1: The Library as an Adult Education Agency. Focus Sec 2: Dis-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

tance Education: From Correspondence to Electronic Delivery. Focus Sec 3: The Media in Adult Education. Focus Sec 4: History and Philosophy of Adult Education (Prereq practicing adult educator 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**—6:30-9, PeikH 33, Rhode
Winter Qtr Sec 2 **W**—4:30-7, PeikH 33, Rhode
Spring Qtr Sec 3 **T**—4:30-7, PeikH 33, Rhode
Sec 4 **Th**—4:30-7, PeikH 25, Williams

★●AdEd 5104 (formerly Educ 5104) **SURVEY OF ADULT EDUCATION.** 3 credits, §Educ 5104, \$219.

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)

Fall Qtr Sec 1 **M**—3:35-6, PeikH 155

★●AdEd 5201 (formerly Educ 5201) **INTRODUCTION TO THE UNDEREDUCATED ADULT.** 3 credits, §Educ 5201, \$219.

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 **M**—3:30-6, PeikH 33, Park

★●AdEd 5202 (formerly Educ 5202) **ADULT LITERACY: DIAGNOSIS AND PRESCRIPTION.** 3 credits, §Educ 5202, \$219.

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 **M**—3:35-6, PeikH 25, Park

★●AdEd 5203 (formerly Educ 5203) **ADULT LITERACY: METHODS AND MATERIALS.** 3 credits, §Educ 5203, \$219.

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**—3:35-6, PeikH 315, Park

★●AdEd 5301 (formerly Educ 5301) **DESIGNING THE ADULT EDUCATION PROGRAM.** 3 credits, §Educ 5301, \$219.

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 **M**—3:30-6, PeikH 25
Spring Qtr Sec 2 **Th**—3:30-6, PeikH 48

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**AdEd 5401 (formerly Educ 5401) ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN.** 3 credits, \$Educ 5401, \$219.

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**—4:40-7, PeikH 225, Williams

Spring Qtr Sec 2 **W**—4:30-7, PeikH 48, Williams

★**AdEd 5411 (formerly Educ 5411) STRATEGIES FOR TEACHING ADULTS.** 3 credits, \$Educ 5411, \$219.

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 **W**—3:35-6, PeikH 225, Willie

Spring Qtr Sec 2 **W**—3:35-6, PeikH 225, Willie

AdEd 5440 (formerly Educ 5440) MULTIDISCIPLINARY PERSPECTIVES ON AGING. 4 credits, \$Educ 5440, \$CPsy 5305, \$HSU 5009, \$PA 5414, \$Phar 5009, \$PubH 5737, \$SAHP 5009, \$Soc 5960, \$SW 5024, \$292.

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, Williams

(Limited to a combined total of 37 Extension students)

Spring Qtr Sec 2 **MW**—4:40-6:25, MoosT 2-690, Williams

★**AdEd 5501 (formerly Educ 5501) CONTINUING EDUCATION AND THE PROFESSIONS.** 3 credits, \$Educ 5501, \$219.

Review of literature; analysis of philosophies, issues, and trends; emphasis on integrating personal growth, professional needs, and statutory requirements in continuing education programs. (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 225, Bruning

★**AdEd 5603 (formerly Educ 5603) INTERNATIONAL EDUCATION AND DEVELOPMENT.** 3 credits, \$Educ 5603, \$219.

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 12 Extension students)

Fall Qtr Sec 1 **T**—4:40-7:10, PeikH 48, Paige

★**AdEd 5605 (formerly Educ 5605) RESEARCH TOPICS: INTERNATIONAL DEVELOPMENT EDUCATION.** 3 credits, \$Educ 5605, \$219.

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 12 Extension students)

Winter Qtr Sec 1 **T**—4:30-7, PeikH 27, Cogan

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**AdEd 5607 (formerly Educ 5607) APPLIED INTERNATIONAL DEVELOPMENT EDUCATION.** 3 credits, §Educ 5607, \$219.

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, 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)

Spring Qtr Sec 1 T—4:30-7, ChDev 216, Braun

★**AdEd 5901 (formerly Educ 5901) INTRODUCTION TO COMMUNITY EDUCATION.** 3 credits, §Educ 5901, \$219.

Exploration and investigation of school, park, and recreation joint and individual programs and relationship to community education; introduction to administration of such 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—3:35-6, PeikH 315, Bruning

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 182 or call 625-6501.

Aerospace Engineering and Mechanics (AEM)

(107Akerman Hall: 625-8000)

Institute of Technology

Textbooks for most AEM courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Stewart E. Almleaf, Pilot, Ground School Director

Nejat Cur, Lecturer in Aerospace Engineering and Mechanics

William L. Garrard, Professor of Aerospace Engineering and Mechanics

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.

Ground school course for private pilots— general information

The University Pilot Ground School course is designed to provide the ground instruction required by the Federal Aviation Administration prior to taking the Private Pilot written test. It will also be of benefit to the student pilot during in-flight instruction and will assist in preparation for the private pilot certificate.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

The Ground School meets all requirements of, and is certified by, the F. A. A. as an Approved Basic and Advanced Ground School, and offers to its students all of the privileges extended by the F. A. A. to such approved schools.

It is to the flight student's advantage to complete the Ground School studies and F. A. A. written examinations as early as possible in his or her flight-training program, as there is a two-year limit, following the completion of an F. A. A. written examination, within which the related flight instruction and flight test must be completed.

★**AEM 3009 GROUND SCHOOL FOR PRIVATE PILOTS.** 5 credits, \$365.

The course covers theory of flight, aircraft performance, aircraft systems and engine operation, flight instruments, and meteorology. In addition, the course deals with Federal Aviation Regulations, cross country navigation, and radio navigation aids. Lectures are beneficial for pilot training and the safe, efficient operation of aircraft.

Open to all pilots and prospective pilots, regardless of their educational or flight-experience background. Designed primarily to prepare the student pilot for the Federal Aviation Administration's Private Pilot written test and the oral questioning used during the Private Pilot practical test. The course is also open to students who have no interest in a private pilot's certificate but do have an interest in aviation. (No prereq. Limited to 50)

Fall Qtr Sec 1 **TTh**—7-9:40, AkerH 209, Almleaf

Winter Qtr Sec 2 **TTh**—7-9:40, AkerH 209, Almleaf

Spring Qtr Sec 3 **TTh**—7-9:40, AkerH 209, Almleaf

★**AEM 1015 STATICS.** 4 credits, \$243.

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 1271, Math 1241. Limited to 75)

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

Winter Qtr Sec 2 **T**—6:10-9:30, AmundH B75

★**AEM 3016 DEFORMABLE BODY MECHANICS.** 4 credits, \$292. (IS)

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 3321. Limited to 75)

Fall Qtr Sec 1 **T**—6:10-9:30, AkerH 225

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

★**AEM 3036 DYNAMICS.** 4 credits, \$292.

Review of particle dynamics. Mechanical systems and the rigid-body model. Kinematics and dynamics of plane systems. (Prereq 1015, Math 3321. 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, \$292.

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 3321, Phys 1271. Limited to 50)

Winter Qtr Sec 1 **T**—6:10-9:30, AkerH 225

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

AEM 5200 KINEMATICS AND DYNAMICS OF FLUID FLOW. 4 credits, \$292.

Kinematics of fluid flow including continuity equation, vorticity, circulation, velocity potential, source, and doublet. Application of Gauss' and Stokes' theorems to fluid flow. Flow about cylinder. Potential flow in two and three dimensions. Dynamics, Euler equation, Bernoulli equation. Aerostatics. (Prereq upper division IT student or grad, 3036, *Math 3331. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:10-9:30, AkerH 225

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 the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also History and Women's Studies)

Teirab AshShareef, Assistant Professor of Afro-American and African Studies

Victoria Coifman, Assistant Professor of Afro-American and African Studies

Charles A. Pike, Assistant Professor of Afro-American and African Studies

John M. Taborn, Associate Professor of Afro-American and African Studies

Nassif Youssif, Assistant Professor of Afro-American and African Studies

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. 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, \$243 (◆ \$121.50).



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

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 115, Coifman

★ **Afro 1025 BLACK AMERICANS: SOCIALIZATION, PERSONALITY, AND BEHAVIOR.** 4 credits, \$243 (◆ \$121.50).



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 135, Taborn

★ **Afro1221 BEGINNING SWAHILI.** 5 credits, \$303.75.

Beginning grammar and vocabulary; conversational drill. (No prereq. Limited to 30)

Fall Qtr Sec 1 **TTh**—6:15-8, BlegH 205, Pike

★ **Afro 3072 RACISM: SOCIAL-PSYCHOLOGICAL CONSEQUENCES FOR BLACK AMERICANS.** 4 credits, \$5072, \$248.

Racism and its effects on black Americans; definitions, determinants, and dynamics. Examined in an experiential context to reflect individual and institutional racism in milieu of student interest. (No prereq. Limited to 35)

Spring Qtr Sec 1 **T**—6:20-8:50, BlegH 225, Taborn

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Afro 3601 INTRODUCTION TO AFRICAN LITERATURE.** 4 credits, \$248. (IS)

Oral and written African literature of the 19th and 20th centuries. All readings in English. (No prereq. Limited to 35)

Winter Qtr Sec 1 T—6:15-8, BlegH 205, Pike

(Afro 3601 is also offered as a winter radio course through CEE Independent Study. See page 51)

★**Afro 5301 AFRICAN LITERATURE: THE NOVEL.** 4 credits, \$248.

Novels of continental Africa in English, French, and African languages. Non-English materials in translation. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr Sec 1 T—6:15-8:50, BlegH 260, Pike

Courses in Kenya, Morocco, and Senegal

Students interested in African Studies will find related study abroad internship opportunities available through Minnesota Studies in International Development (MSID). See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

Arabic (Arab)

★**Arab 1201-1202-1203 COLLOQUIAL ARABIC.** 5 credits each quarter, \$303.75 each quarter.

Introductory course intended primarily for business persons and travelers. Fundamentals of vocabulary and sentence structure, introduction to Arabic script. *1202 and 1203 will be offered only if there is sufficient enrollment in 1201.* (No prereq for 1201; 1201 or # for 1202; 1202 or # for 1203. Limited to 15)

Fall Qtr 1201 Sec 1 T—6:15-9:15, SocSci 815, Youssif

Winter Qtr 1202 Sec 2 T—6:15-9:15, SocSci 815, Youssif

Spring Qtr 1203 Sec 3 T—6:15-9:15, SocSci 815, Youssif

★**Arab 3302 THE ARABIC NOVEL IN TRANSLATION.** 4 credits, \$5502, \$MidE 3302, \$248.

The novel as a new literary genre in Arabic literature. Different trends discussed: Realist, psychological, Existentialist, Feminist, Post-modernist/Fantastic/Experimentalist. Emphasis on major novelists: Mahfouz, Ghanem, Salih, Jabra, Kanafani, El Sa'dawi, al-Shaykh, Munif, Habibi, al-Qa'id, al-Ghitany, and Khouri. Novels discussed in cultural and historical context. Discursive writing, theoretical and critical essays. All readings in English. (No prereq. Meets concurrently with 5502 and MidE 3302, 5502. Limited to a combined total of 30)

Spring Qtr Sec 1 M—4:15-7, BlegH 260, AshShareef

★**Arab 3303 ARABIC DRAMA IN TRANSLATION.** 4 credits, \$5503, \$MidE 3303, 5503, \$248.

Emergence and development of drama as a new genre in Arabic literature under influence of European drama. Different trends studied. "Theater of the Mind," Social Realist, Existentialist, Absurdist, Experimentalist, Epic, and Verse Drama. Emphasis on major playwrights representing each trend: al-Hakim, Abd-al-Sabur, Diyab, Salem, Faraj, Idris, al-Magnut, al-'Ani, Wannus, and al-Madani. Plays discussed in cultural and historical context. Discursive writing, theoretical and critical essays. All readings in English. (No prereq. Meets concurrently with 5503 and MidE 3303, 5503. Limited to a combined total of 30)

Fall Qtr Sec 1 Th—4:15-7, BlegH 245, AshShareef

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Arab 5001 **INTRODUCTION TO RESEARCH IN ARABIC STUDIES.** 4 credits, \$248.

new

Survey of most important research bibliographies in Arabic and Islamic studies. Bibliographic references in English and possibly in Arabic if sufficient interest. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 10)

Fall Qtr Sec 1 **W**—4:15-7, OMWL 5-30, Youssif

★Arab 5502 **THE ARABIC NOVEL IN TRANSLATION.** 4 credits, \$3302, \$MidE 3302, 5502, \$248.

new

See course description for Arab 3302. (No prereq. Meets concurrently with 3302 and MidE 3302, 5502. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 30)

Spring Qtr Sec 1 **M**—4:15-7, BlegH 260, AshShareef

★Arab 5503 **ARABIC DRAMA IN TRANSLATION.** 4 credits, \$3303, \$MidE 3303, 5503, \$248.

new

See course description for Arab 3303. (No prereq. Meets concurrently with 3303 and MidE 3303, 5503. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 30)

Fall Qtr Sec 1 **Th**—4:15-7, BlegH 245, AshShareef

Aging studies

(See graduate program in gerontology, page 653; REX 0302, Senior Treatment and Rehabilitation; and REX 0301, Nutrition and Oral Health of the Elderly)

Agriculture, College of

See course listings for:

AGRICULTURAL AND APPLIED ECONOMICS

AGRICULTURAL EDUCATION

AGRONOMY AND PLANT GENETICS

ANIMAL SCIENCE ENTOMOLOGY

FOOD SCIENCE AND NUTRITION

HORTICULTURAL SCIENCE

SOIL SCIENCE

RHETORIC

Read about the Master of Agriculture degree in Food Science and Technology in the Degrees and Certificates section of this Bulletin.

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 \$276. Students register through any one of the 9 departments of the College of Agriculture. Additional information about PEP is available from the College of Agriculture office, 272 Coffey Hall on the St. Paul campus (624-2710), or from departmental offices and undergraduate advisers of the college.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Agricultural and Applied Economics (AgEc)

(231 Classroom Office Building: 625-1222)

College of Agriculture

Textbooks for most AgEc courses are available at Books Underground on the St. Paul campus (624-9200).

Elaine H. Asp, Associate Professor of Consumer Food Science
 Reynold P. Dahl, Professor of Agricultural and Applied Economics
 K. William Easter, Professor of Agricultural and Applied Economics
 Wilbur R. Maki, Professor of Agricultural and Applied Economics
 Willis Peterson, Professor of Agricultural and Applied Economics
 Ben Senauer, Professor of Agricultural and Applied Economics
 Arley D. Waldo, Professor of Agricultural and Applied Economics

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 5480 FUTURES MARKETS AND PRICES. 4 credits, \$292.

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, R Dahl

⊙AgEc 5550 FOOD MARKETING ECONOMICS. 4 credits, \$FScN 5474, \$292.

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 144, StP Campus, Asp, Senauer

⊙AgEc 5620 REGIONAL ECONOMIC ANALYSIS. 3 credits, \$219.

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 B36, StP Campus, Maki

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

●AgEc 5630 **REGIONAL DEVELOPMENT SYSTEMS.** 3 credits, \$219.

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 B36, StP Campus, Maki

●AgEc 5640 **FINANCING STATE AND LOCAL GOVERNMENTS.** 4 credits, \$292.

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 **TTh**—4:30-6:10, ClaOff B36, StP Campus, Waldo

●AgEc 5650 **ECONOMICS OF NATURAL RESOURCE POLICY.** 4 credits, \$292.

Application of economic analysis, including project evaluation, to current natural resource issues. Emphasis on conservation and resource scarcity, environmental quality, population growth, and resource use issues and their implications for public policy. (Prereq 3001, 3002 or 3101 or Econ 3101 or Econ 5151 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **MWF**—4-5:10, ClaOff B42, StP Campus, Easter

●AgEc 5790 **WORLD FOOD PROBLEMS.** 3 credits, \$Agro 5200, \$PIPa 5220, \$Soc 5675, \$LACS 5280, \$FScN 5643, \$219.

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 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)

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Agricultural Engineering Technology (AgET)

(213 Agricultural Engineering: 625-7733)

College of Agriculture

Textbooks for most AgET courses are available at Books Underground on the St. Paul campus (624-9200).

Philip R. Goodrich, Associate Professor of Agricultural Engineering

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.

★ AgET 5027 APPROPRIATE TECHNOLOGY FOR INTERNATIONAL DEVELOPMENT. 4 credits, \$292.

Definition, history, successes and failures of appropriate technology. Social and technical appropriateness. Water supply, treatment, storage, conveyance. Water pumps, sanitation. Power; pedal, wind, water, solar, methane. Building materials. Agricultural machinery and animal power. Transfer and adoption of technology. Lecture and laboratory. (Prereq Math 1111, Chem 1011 or 1004, Phys 1041. 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 Books Underground on the St. Paul campus (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, \$292.

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

Read about abbreviations, symbols, and mans on page 64

Courses and sections in red have limits on enrollment. See page 20.

● **Agro 5200 WORLD FOOD PROBLEMS.** 3 credits, \$AgEc 5790, \$FScN 5643, \$Soc 5675, \$LACS 5280, \$219.

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 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 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 (Amln)

(102 Scott Hall: 624-1338)

College of Liberal Arts

Textbooks for most Amln courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Carolynn I. Schommer, Assistant Education Specialist, American Indian 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.

Amln 1031 BEGINNING DAKOTA. 5 credits, \$303.75.

new

Acquisition of speaking skills in Dakota. If there is sufficient enrollment in 1031, 1032 and 1033 will be offered winter and spring quarters. (No prereq)

Fall Qtr Sec 1 **TTh**—6:10-8:15, ScottH 4, Schommer

Amln 3026 OJIBWE HISTORY AND CULTURE. 4 credits, \$248. (◆ \$124)

new

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

◆ **Winter Qtr** Sec 1 **W**—6:20-8:50, ScottH 4

(See also CSh 0237, Oral Traditions of North American Indians; and GC 1812, American Indian Literature.)

American Sign Language

See Educational Psychology, page 191.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

American Studies (AmSt)

(104 Scott Hall: 624-4190)

College of Liberal Arts

Textbooks for most AmSt courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

All American Studies courses are open to nonmajors.

(See also Humanities; History; and The Compleat Scholar)

William H. Agee, *Lecturer in American Studies*
 Joe Austin, *Teaching Assistant in American Studies*
 Rachel Buff, *Teaching Assistant in American Studies*
 Karen Nelson Hoyle, *Associate Professor, Library*

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.

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 these classes.

★AmSt 1001 **AMERICAN CULTURE I: ORIGINS THROUGH MID-19TH CENTURY.** 4 credits, \$243.

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:

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

European American, African American, American Indian, Chicano/Latino, and Asian American. *Meets CLA Cultural Pluralism requirement.* (No prereq. Limited to 60)

Fall Qtr Sec 1 T—6:20-8:50, NichH 213, Agee

★**AmSt 1002 AMERICAN CULTURE II: MID-19TH CENTURY TO 1920S.** 4 credits, \$243.

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 60)

Winter Qtr Sec 1 T—6:20-8:50, ScottH 4, Agee

★**AmSt 1003 AMERICAN CULTURE III: 1920S TO THE PRESENT.** 4 credits, \$243.

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 60)

Spring Qtr Sec 1 T—6:20-8:50, ScottH 4, Agee

★**AmSt 3111 CREATIVE AMERICANS AND THEIR WORLDS.** 4 credits, \$248.

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. Limit 60)

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

Winter Qtr Sec 2 Th—6:20-8:50, ScottH 4, Agee

Spring Qtr Sec 3 Th—6:20-8:50, ScottH 4, Agee

AmSt 3112 AMERICAN EVERYDAY LIFE. 4 credits, \$248. (♦ \$124)

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)

CEW

Fall Qtr Sec 1 F—9:30 a.m.-12, MacP, Austin, Buff
Offered through Continuing Education for Women

Winter Qtr ★Sec 2 W—6:20-8:50, NichH 213, Agee (Limit 60)

★**AmSt 3113 AMERICAN CULTURAL DIVERSITY.** 4 credits, \$248.

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

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

modern America. The focus is on the cultural expression, values, and lifestyles of members of minority and majority cultures, with an emphasis on historical and regional factors in cultural differences. *Meets CLA Cultural Pluralism requirement.* (No prereq. Limited to 60)

Spring Qtr Sec 1 **W**—6:20-8:50, ScottH 4, Agee

★**AmSt 3299 AMERICAN STUDIES PROSEMINAR: JUNIOR PROSEMINAR.** 4 credits, \$248.

An exploration of classic works in American Studies. Required of majors in their junior year and minors in American Studies, but open to non-majors. (Prereq junior. Limited to 15)

Fall Qtr Sec 1 **Th**—6:20-8:50, ChDev 105, Agee

AmSt 3920 TOPICS: HISTORY OF CUBA AND PUERTO RICO. 4 credits, §Chic 3427, §Hist 3427, §LAS 3427, \$248. (◆\$124)

◆ Historical development of Cuba and Puerto Rico from Spanish conquest to present. Conquest and colonization, slavery, Hispanic Caribbean society and culture, Operation Bootstrap, Cuban revolution. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with Chic 3427, Hist 3427, LAS 3427)

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

AmSt 3920 TOPICS: THE SPANISH-MEXICAN BORDERLANDS AND THE CHICANO EXPERIENCE TO 1900. 4 credits, §Chic 3441, §Hist 3441, §LAS 3441, \$248. (◆\$124)

◆ The history of Chicanos to 1900. The Spanish conquest and colonization of the borderlands. Mexican society in the early 19th century, the Mexican-American War and aftermath. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with Chic 3441, Hist 3441, LAS 3441)

Winter Qtr Sec 2 **M**—6:20-8:50, ScottH 4

AmSt 3920 TOPICS: SURVEY OF CHICANO HISTORY, 1900 TO PRESENT. 4 credits, §Chic 3442, §Hist 3442, §LAS 3442, \$248. (◆\$124)

◆ Twentieth-century Chicano experience including migration, repatriation, the Bracero program, contemporary Chicano politics, work, society, and culture. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with Chic 3442, Hist 3442, LAS 3442)

Spring Qtr Sec 3 **M**—6:20-8:50, ScottH 4

★**AmSt 5920 TOPICS: HISTORY OF AMERICAN CHILDREN'S LITERATURE.** 4 credits, \$248. (◆\$124)

◆ Prototypes for American children's literature have historical roots from Aesop to 19th-century English and German literature. Authors, illustrators, and translators will be introduced in a survey fashion, and each student will write a paper and give an oral presentation on a particular individual or book. The Kerlan Collection houses facsimiles and editions of most "milestones" in children's literature, while the University libraries provide secondary sources. Class will meet in the Kerlan Collection in Walter Library. (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, WaLib, Hoyle

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Ancient Near Eastern Studies (ANE); Hebrew (Hebr); Jewish Studies (JwSt)

(331 Folwell Hall: 625-5353)

College of Liberal Arts

(Department of Classical and Near Eastern Studies)

Textbooks for most courses in this department are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Classical and Near Eastern Studies; and Religious Studies)

Stephen Feinstein, Visiting Professor

Jonathan Paradise, Associate Professor

Daniel Reisman, Associate 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.

No courses in Hebrew are offered 1991-92.

ANE 1003 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC. 4 credits, §3003, §ReIs 3203, \$243. (◆\$121.50)

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 and ReIs 3203)

◆ **Spring Qtr** Sec 1 **M**—6:20-8:50, NichH 213, Zahavy

JwSt 1034 INTRODUCTION TO JUDAISM. 4 credits, §3034, §ReIs 1034, §3034, \$243. (◆\$121.50)

What are the basic beliefs, practices, and values of the Jews? This course studies the history of Judaism through the principal writings, festivals, and institutions of the Jewish people. Attention given to various movements and ideas of Jewish life from antiquity to the present. (No prereq. Meets concurrently with 3034 and ReIs 1034, 3034)

◆ **Winter Qtr** Sec 1 **M**—6:20-8:50, Arch 50, Zahavy

ANE 3003 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC. 4 credits, §1003, §ReIs 3203, \$248.

See description for 1003. (No prereq. Meets concurrently with 1003 and ReIs 3203)

Spring Qtr Sec 1 **M**—6:20-8:50, NichH 213, Zahavy

JwSt 3034 INTRODUCTION TO JUDAISM. 4 credits, §1034, §ReIs 1034, 3034, \$248. (IS)

See description for 1034. (No prereq. Meets concurrently with 1034 and ReIs 1034, 3034)

◆ **Winter Qtr** Sec 1 **M**—6:20-8:50, Arch 50, Zahavy

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ANE 3117 THE DEAD SEA SCROLLS: THE INTERTESTAMENTAL PERIOD. 4 credits, \$ReIS 3117, \$248. (◆\$124)

new

Jewish sectarianism in the pre-Christian period; position of the Dead Sea sect. Qumran texts in English; communal organization, modes of worship, theology, and Messiah concept as a precursor to later religious developments. Knowledge of Hebrew is not required. (No prereq. Meets concurrently with ReIS 3117)

Fall Qtr Sec 1 **Th**—6:05-8:35, Talmud Torah of Mpls, 8300 W. 33 St., St. Louis Park (free parking), Zahavy

ANE 3251 THE MODERN STUDY OF THE OLD TESTAMENT. 4 credits, \$ReIS 3251, \$248. (◆\$124)

Methods employed in the study of the Old Testament, including textual criticism, the anthropological approach, form criticism, the sociological approach, the history of religion, and the uses of archaeology in interpreting the text. (No prereq. Meets concurrently with ReIS 3251)

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 208, Reisman

ANE 3501, 3502 ANCIENT ISRAEL. 4 credits each quarter, \$248 each quarter.

History of Israel and development of its religion from earliest times through inter-testamental period. **3501:** The foundation of the Hebrew people; patriarchal period; development of Israelite religious and legal institutions; conquest of Canaan; development of the monarchy and the united kingdom. **3502:** The divided kingdom; classical prophecy, destruction, exile, and restoration. (No prereq. Meet concurrently with ReIS 3501, 3502)

Fall Qtr **3501** Sec 1 **W**—6:20-8:50, FolH 138, Reisman

Winter Qtr **3502** Sec 2 **W**—6:20-8:50, FolH 138, Paradise

JwSt 3521 THE HOLOCAUST. 4 credits, \$248. (◆\$124) (IS)

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. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, Arch 60, Feinstein, Zahavy

Ancient Studies (AnSt)

(230 Folwell Hall: 625-2503)

College of Liberal Arts

Textbooks for most AnSt courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

*Ronald Marchese, Professor of Humanities and Classics, University of Minnesota, Duluth
Peter S. Wells, Director of the Center for Ancient Studies*

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Ancient 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)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

AnSt 5100 TOPICS IN ANCIENT STUDIES: THE HISTORICAL ARCHAEOLOGY OF THE ANCIENT NEAR EAST. 4 credits, \$248. (◆\$124)

new

◆ Focuses on the heritage of the Bronze Age in the Near East. Principal topics include the rise of urban society and the development of civilization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 344, Marchese

AnSt 5120 ARCHAEOLOGY OF PREHISTORIC EUROPE. 4 credits, \$248. (◆\$124)

◆ Survey of early development of non-Mediterranean European society from Old Stone Age through Iron Age to the Roman Period based on archaeological evidence. Special attention will be paid to the principal transformations of European culture with the introduction of agriculture, the development of metallurgy and trade, and the emergence of towns and cities. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Anth 5120)

Fall Qtr Sec 1 **Th**—6:20-8:50, FolH 104, Wells

AnSt 5178 ARCHAEOLOGY OF NORTHERN EUROPE. 4 credits, \$Anth 5178, \$248 (◆\$124).

◆ Archaeology of Scandinavia, northern Germany, and neighboring regions in the Bronze and Iron Ages and Roman and Migration Periods (to the time of the Vikings). Students will be introduced to the archaeological material upon which our understanding is based—pottery, bronze ornaments, iron tools and weapons, settlements, cemeteries, and ritual sites. Themes developed include trade, changing social structures, growth of towns, art, and religion. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Anth 5178)

Winter Qtr Sec 1 **Th**—6:20-8:50, FolH 104, Wells

Animal Science (AnSc)

(122 Peters Hall: 624-2722)

College of Agriculture

Textbooks for most AnSc courses are available at Books Underground on the St. Paul campus (624-9200).

(See also College of Veterinary Medicine; and Research Explorations [REX])

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.

Anthropology (Anth)

(215 Ford Hall: 625-3400)

College of Liberal Arts

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most Anth courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Ancient Studies; General College courses in Social Issues; Research Explorations [REX]; and The Compleat Scholar noncredit courses)

Luther Gerlach, *Professor of Anthropology*
 Guy E. Gibbon, *Associate Professor of Anthropology*
 David M. Lipset, *Assistant Professor of Anthropology*
 Frank C. Miller, *Professor of Anthropology*
 Mischa Penn, *Associate Professor of Anthropology*
 William L. Rowe, *Professor of Anthropology*
 Peter S. Wells, *Professor of Anthropology*

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., archaeology 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.

Anth 1101 HUMAN ORIGINS. 5 credits, \$1001, \$303.75. (♦\$152) (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)

Fall Qtr Sec 1 **W**—6:20-9:30, FordH 285, Gibbon

Spring Qtr Sec 2 **W**—6:20-9:30, FordH 349, Gibbon

Anth 1102 INTRODUCTION TO SOCIAL AND CULTURAL ANTHROPOLOGY. 5 credits, \$1002, \$303.75. (♦\$152) (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 per-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

spective: 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 **M**—6:20-9:30, FordH 55

Winter Qtr Sec 2 **T**—6:20-9:30, FordH 55, Rowe

cew Sec 3 **T**—9 a.m.-12, MacP

Offered through Continuing Education for Women

Spring Qtr Sec 4 **Th**—6:20-9:30, FordH 55, Gerlach

Anth 3003 THE RISE OF CIVILIZATION. 4 credits, \$248. (◆\$124)

- ◆ Beginnings of agriculture and emergence of world civilizations. Development of state societies from an archaeological perspective. (No prereq)

Winter Qtr Sec 1 **W**—6:20-8:50, FordH 285, Gibbon

Anth 3111 INTRODUCTION TO ARCHAEOLOGY. 5 credits, \$310. (◆\$155)

new Introduction to the fundamentals of archaeological field and laboratory analysis. (No prereq)

- ◆ **Spring Qtr** Sec 1 **T**—6:20-9:30, FordH 349, Wells

Anth 3201 APPROACHES IN CULTURAL ANTHROPOLOGY. 4 credits, \$248. (◆\$124)

new Humanistic and scientific conceptions of culture. Interpretation and explanation. Theoretical foundations of current anthropological thought. (Prereq 1102 or #)

- ◆ **Winter Qtr** Sec 1 **T**—6:20-8:50, FordH 285, Lipset

Anth 5104 HISTORY OF ANTHROPOLOGY. 4 credits, \$248. (◆\$124)

new 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 and 15 cr in 3xxx and 5xxx courses. Qualified students may register for graduate credit at the University of Minnesota)

- ◆ **Spring Qtr** Sec 1 **M**—6:20-8:50, FordH 285, Penn

Anth 5117 ENERGY, RESOURCES USE, AND SYSTEM CHANGE. 4 credits, \$248.

Social-cultural system factors in the development, production, control, distribution, and use of energy, water, key resources, and food in the United States and other societies. Social-cultural evolution, interaction among different societies; growth and no-growth issues; emerging global interdependence. (No prereq. 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, FordH 130, Gerlach

(See also AgEc 5790, World Food Problems)

Anth 5120 ARCHAEOLOGY OF PREHISTORIC EUROPE. 4 credits, \$248. (◆\$124)

- ◆ Survey of early development of non-Mediterranean European society from Old Stone Age through Iron Age to the Roman Period, based on archaeological evidence. Special attention will be paid to the principal transformations of European culture with the introduction of agriculture, the development of metallurgy and trade, and the emergence of towns and cities. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AnSt 5120)

Fall Qtr Sec 1 **Th**—6:20-8:50, FolH 104, Wells

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Anth 5151 CULTURAL CHANGE AND DEVELOPMENT. 4 credits, \$248. (◆\$124)**new**

Processes of cultural change; invention, diffusion, and acculturation. Effects of colonialism, urbanization, and modernization. Analysis of developing societies. Applied anthropology. (Prereq 1102 or 5102 or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:20-8:50, FordH 285, Miller

Anth 5178 ARCHAEOLOGY OF NORTHERN EUROPE. 4 credits, \$AnSt 5178, \$248 (◆\$124).

Archaeology of Scandinavia, northern Germany, and neighboring regions in the Bronze and Iron Ages and Roman and Migration Periods (to the time of the Vikings). Students will be introduced to the archaeological material upon which our understanding is based—pottery, bronze ornaments, iron tools and weapons, settlements, cemeteries, and ritual sites. Themes developed include trade, changing social structures, growth of towns, art, and religion. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with AnSt 5178)

Winter Qtr Sec 1 **Th**—6:20-8:50, FolH 104, Wells

Anth 5920 TOPICS IN ANTHROPOLOGY: ANTHROPOLOGY OF AIDS. 4 credits, \$248.

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 120, Rowe

(See also PubH 5010, Public Health Approaches to AIDS)

Arabic

(See Afro-American and African Studies)

Archaeology

(See Anthropology; Classical Studies; Research Explorations (REX); and The Compleat Scholar noncredit courses)

Architecture (Arch)

(110 Architecture: 624-7866)

College of Architecture and Landscape Architecture

Textbooks for most Arch courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Landscape Architecture; Art History; and The Compleat Scholar noncredit courses)

Peter Carlsen, Lecturer in Architecture

Robert Dorgan, Lecturer in Architecture

Rodney E. Erickson, CCS, Principal, ATSR Architects

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Daniel Feidt, Lecturer in Architecture
Dennis Grebner, Professor of Architecture
James Hudak, President, Electronic Graphics Systems, Inc.
Douglas Lew, Lecturer in Architecture
Julie G. Luers, Ellerbe Becket
Robert Mack, Lecturer in Architecture
Mike Niemeyer, AIA, HGA Architects
Julia Robinson, Associate Professor of Architecture
Robert Russek, Lecturer in Architecture
Leon Satkowski, Associate Professor of Architecture
Larry Seiberlich, Lecturer in Architecture
David Stovall, AIA, KKE Architects
M. Susan Ubbelohde, Associate Professor of Architecture
J. Stephen Weeks, Associate Professor of Architecture

DEGREE PROGRAMS IN ARCHITECTURE

The study of architecture combines history, science, and the arts as foundations for the pursuit of a career in architecture. At the University of Minnesota, students are admitted to the Architecture major only after having completed a specified amount of course work at the university level. This may be done at the Twin Cities campus; all students are designated as Pre-Architecture majors until they have been accepted by the Department of Architecture as a degree candidate.

The following courses offered in the evening are both preparatory and required courses for either the professional degrees (B.Arch and M.Arch) or the non-professional degree (B.A. in Architecture).

While a degree program in architecture is not offered through Extension, a majority of the preparatory and required coursework for a Bachelor of Arts in Architecture, except for the required studio courses, can be completed in the evening. If you are considering any degree in architecture, you will need to apply to the Department of Architecture for admission.

The Department of Architecture seeks students with demonstrated academic, artistic, and preprofessional skills. Above all, successful applicants must demonstrate a capacity to think for themselves and work independently. Like all professionals in a rapidly changing world, they must have inquiring minds and be receptive to new and different experiences.

For preparatory course work descriptions, see the bulletins for the Institute of Technology, the College of Liberal Arts, and the College of Architecture and Landscape Architecture.

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 1021 HISTORY OF ARCHITECTURE.** 4 credits, SLA 1021, \$243 plus \$5 course fee. Total \$248. (◆ \$121.50 plus \$5 course fee. Total \$126.50)

◆ Introduction to history and theory of architecture. Survey of architecture from ancient through modern periods. (No prereq. Meets concurrently with LA 1021. Limited to a combined total of 100)

Fall Qtr Sec 1 **Th**—5:30-8:40, Arch 50, Satkowski

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Arch 1022 HISTORY OF LANDSCAPE ARCHITECTURE.** 4 credits, §LA 1022, \$243 plus \$5 course fee. Total \$248. (◆\$121.50 plus \$5 course fee. Total \$126.50)

- ◆ Introduction to history and theory of landscape architecture. Survey of landscape architecture from ancient through modern periods. (No prereq. Meets concurrently with LA 1022. A joint Day/Extension class limited to a combined total of 100)
Spring Qtr Sec 1 **TTh**—5:30-7:20, SmithH 100

★**Arch 1023 HISTORY OF CITIES.** 4 credits, §LA 1023, \$243 plus \$5 course fee. Total \$248. (◆\$121.50 plus \$5 course fee. Total \$126.50)

- ◆ Introduction to history and theory of urban design. Survey of urban design from ancient through modern periods. (No prereq. Meets concurrently with LA 1023. Limited to a combined total of 100)
Winter Qtr Sec 1 **Th**—5:30-8:40, Arch 35, Satkowski

★**Arch 1031 VISUAL THINKING.** 4 credits, \$243 plus \$5 course fee. Total \$248.

Conceptual thinking, visual understanding, introduction to "R-mode" (right brain hemisphere) thinking through observation, conception, and drawing, translation from "Verbal/Logical" thinking to the "Creative/Intuitive" mode. (No prereq. Limited to 30)

Fall Qtr Sec 1 **M**—6:10-9:20, Arch 20, Grebner

★**Arch 1032 COLOR THEORY/USE.** 4 credits, \$243 plus \$5 course fee. Total \$248.

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 **M**—6:10-9:20, Arch 10, Grebner

★**Arch 1041-1042-1043 ARCHITECTURAL GRAPHICS.** 2 credits each quarter, \$121.50 each quarter.

The skills, media, and techniques of architectural graphics communication, including perspective systems, shade and shadow, color, freehand drawing, and organizing presentation material. (Prereq student in pre-architecture or architecture . . . others #. Limited to 30)

Fall Qtr **1041** Sec 1 **TTh**—4:15-5:30, Arch 25, Russek

Winter Qtr **1042** Sec 2 **TTh**—4:15-5:30, Arch 25, Russek

Spring Qtr **1043** Sec 3 **TTh**—4:15-5:30, Arch 25, Russek

Arch 1050 ARCHITECTURE FOR NON-ARCHITECTS. 2 credits, \$121.50. (◆\$60.75)

Winston Churchill's famous saying, "First we shape our environment, then it shapes us," points up the importance of knowing how our surroundings came to be, who makes them. How are they made, the process, the participants, what forces act in their decisions? The student is introduced to the history, principles, elements, and styles of architecture. Upon completion of this course, the student will better understand the cause and relationships involved in the development of our Built Environment. **Must be taken S-N.** (No prereq)

Fall Qtr Sec 1 **M**—6:30-8:30, Arch 60, Carlsen

Arch 1071 BASIC DESIGN I. 4 credits, \$243.

Emphasis on the skills and techniques of basic design: perceptual/environmental awareness, verbal/written description; narrative translation and graphic simulation; drawing, visual thinking, descriptive geometry. Can replace required course Arts 1101, or 1404 or 3105. (No prereq)

Fall Qtr Sec 1 **TTh**—5:30-8:30, Arch 15, Grebner

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

Arch 1072 BASIC DESIGN II. 4 credits, \$243.

Emphasis on the knowledge and analysis of design; the formal elements/principles of design, the methods and techniques of analysis/problem solving; freehand and graphics, perspective and systems; including color. Can replace required course ArtS 1101, or 1404 or 3105. (Prereq 1071 or #)

Winter Qtr Sec 1 **TTh**—5:30-8:30, Arch 40, Grebner

Arch 1073 BASIC DESIGN III. 4 credits, \$243.

Emphasis on the Process and Methods of design; the use of metaphor, analogy, reference in synthesis. Design projects related to major area of environmental design; object design, interior design, architecture design, and landscape design. Can replace required course ArtS 1101, or 1404 or 3105. (Prereq 1072 or #)

Spring Qtr Sec 1 **TTh**—5:30-8:30, Arch 15, Grebner

★Arch 3033 VISUAL COMMUNICATION TECHNIQUES IN ARCHITECTURE. 4 credits, \$292 plus \$5 course fee. Total \$297.

Professional delineation, primarily intended for more advanced students in architectural design; exploration and use of variety of presentation and study techniques; methods/media investigation, modern techniques. (Prereq 1043 or #. Limited to 30)

Spring Qtr Sec 1 **M**—6:10-9:20, Arch 55, Grebner

Arch 3110 WATERCOLOR FOR ARCHITECTS. 4 credits, \$292. (◆ \$146)

Intended for advanced design students and professionals who are interested in learning to use watercolor media as a means of communicating in the design process. Deals with the foundation principles of watercolor (the medium, tools, materials, the techniques). Explores composition, color relationships, and mixing. It is expected that students will learn and use this information to improve their design and communication skills. Can replace required course ArtS 1101, or 1404, or 3105. (Prereq color courses or #)

Winter Qtr Sec 1 **W**—6:10-9:20, Arch 10, Lew

Arch 5125 REAL ESTATE DEVELOPMENT. Tentatively scheduled for fall 1992.

Arch 5141 HISTORIC PRESERVATION. 4 credits, \$292.

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 5142 HISTORIC BUILDING CONSERVATION. 4 credits, \$292 plus \$5 course fee. Total \$297.

Historic building systems, materials and methods for their conservation; introduction of contemporary systems in historic buildings. (Prereq 5141 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 5, Mack

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Arch 5143 HISTORIC BUILDING RESEARCH AND DOCUMENTATION. 4 credits, \$292.

Philosophy, theory, and method of historic building research, descriptive analysis of buildings, building documentation, historical archaeology, and architectural taxonomy. (Prereq 5141 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 5, Mack

★Arch 5957 CLIMATE AND ARCHITECTURE. 4 credits, \$292.

The role of climate as a context for architectural form and thought. Issues of thermal comfort, synthesis and energy in architectural design in relation to cycles of temperature, humidity, wind, and solar radiation. Investigation of specific buildings/site designs through graphic analysis, physical modeling, computer simulation, and writings for the architect. **Must be taken A-F.** (Prereq Arch major; Arch 3082, 3064, or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr Sec 1 **Th**—5:15-8:30, Arch 60, Ubbelohde

★Arch 5961 COMPUTER-AIDED ARCHITECTURAL DESIGN. 4 credits, \$292.

An introductory computer-aided architectural design course which includes Pascal programming as an introduction to computing; creating database for 3D modeling; selection and implementation of business microcomputers and CAD systems; hardware and software selection, trends, and anticipated developments. (Prereq Arch major, 3083 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr Sec 1 **W**—6:10-9:20, Arch 30, Dorgan

★Arch 5962 COMPUTER-AIDED ARCHITECTURAL DESIGN. 4 credits, \$292.

Covers implementing a computer-aided design system in a design office with hands-on experience with a microcomputer-based CAD system and a visit to an office using a CAD system. Also covers use of computers in communications, networking, simulations, database systems, PERT, CPM, and land-use analysis. (Prereq 5961. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr Sec 1 **W**—6:10-9:20, Arch 30, Dorgan

Arch 5970 DIRECTED STUDY. Credits arranged. \$73 a credit.

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).

Continuing Professional Education Courses

Arch 0015 MARKETING ARCHITECTURAL SERVICES. No credit, \$150 plus \$10 special fee. Total \$160.

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. (No prereq)

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Winter Spec Term Sec 1 **M**—6:10-9:20, Jan. 6-Mar. 2, 1992
(8 meetings—no class Jan. 20), Arch 35, Luers

Arch 0018 THE ELECTRIC ARCHITECT. No credit, \$150.

A seminar series devoted to improving the use of the personal computer in the architectural environment. This linked five-part seminar is intended to help architects discover how to use the personal computer to its full potential. The series has been structured into parallel sessions to provide equal attention for the two different users groups (IBM and Macintosh), and will demonstrate the optimum use of available software and hardware options in relation to an integrated spectrum of office tasks. Material will be presented on a "task/software" basis, and will involve practical demonstrations with recommendations on the best software and techniques to use, lecture/presentations, output examples, panel and group discussions, and a case study office visit for each user group. (No prereq)

Fall Spec Term Sec 1 **TTh**—6-9, Oct. 8, 10, 15, 17, 22 (5 meetings),
Arch 5, Hudak, Stovall
No late fee through Oct. 1

Architectural Practice Course

This series of three interrelated 8-week sessions is being offered jointly by the MSAIA and the University of Minnesota School of Architecture and Landscape Architecture. **All three courses are taught at International Market Square, conference rooms A, B, C, 275 Market St., Mpls (entrance at parking lot).** The series is designed for those in the Intern Architects Development Program (IDP), practicing architects, and others in related professions who will find this series a useful means to hone their practice skills. IDP interns will gain experience not easily acquired in the office. Sessions are based on the IDP Supplementary Education Guidelines, and speakers will address topics from that outline. 2.4 CEUs are available, through the AIA, for each course. Contact MSAIA at 338-6763 for further information. *Tuition for interns is \$121; for others, \$150. Call MSAIA at (612) 338-6763 for a brochure and tuition information.*

Arch 0001 SERIES I—THE ARCHITECT'S OFFICE AND DELIVERY PROJECTS: PRE-DESIGN. No credit, \$150 (\$110 for interns).

Includes financial aspects, legal and ethical concerns, insurance, and the beginning of project delivery (programming). (No prereq)

Fall Spec Term Sec 1 **M**—6:30-9:30, Oct. 7-Nov. 25, 1991,
Niemeyer
No late fee through Sept. 30

Arch 0002 SERIES II—PROJECT DELIVERY: PREDESIGN (continued) and PROJECT DELIVERY OF DESIGN. No credit, \$150 (\$110 for interns).

Continues with project delivery systems, including site, financing, selecting team members, and budgeting. (No prereq)

Winter Spec Term Sec 1 **M**—6:30-9:30, Jan. 13-Mar. 9, 1992,
Niemeyer
(No meeting Jan. 20)
No late fee through Jan. 6

Arch 0003 SERIES III—PROJECT DELIVERY: CONSTRUCTION. No credit, \$150 (\$110 for interns).

Addresses construction phase issues including site visits, submittals and ap-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

provals, charges, payments, and disputes. (No prereq)

Spring Spec Term Sec 1 **M**—6:30-9:30, Apr. 6-June 1, 1992,
Niemeyer
(8 meetings—no class May 25)
No late fee through Mar. 30

Architectural Registration Exam (A.R.E.) Review Courses

Arch 0009 A.R.E. REVIEW COURSE. No credit, \$150.

Conceptual/intuitive approach to structural systems for those in need of more than a minor review, and exam preparation. (No prereq)

Fall Spec Term Sec 1 **Th**—6:10-9, Sept. 26-Nov. 14, Arch 30,
Seiberlich

Arch 0010 A.R.E. REVIEW COURSE. No credit, \$150.

Preparation for professional registration examinations. Structural design—Sections D, E, F. (No prereq)

Winter Spec Term Sec 1 **Th**—6:10-9, Jan. 16-Mar. 5, Arch 30, Seiberlich
No late fee through Jan. 9

Arch 0011 A.R.E. REVIEW COURSE. No credit, \$150.

Preparation for professional registration examinations. Mechanical, Plumbing, Electrical, Life Safety Systems—Section G. (No prereq)

Spring Spec Term Sec 1 **T**—6:10-9, Mar. 31-May 19, Arch 30, Seiberlich
No late fee through Mar. 24

Arch 0012 A.R.E. REVIEW COURSE. No credit, \$150.

Preparation for professional registration examinations. Site and Building Design—Sections A, B, C. (No prereq)

Spring Spec Term Sec 1 **Th**—6:10-9, Apr. 2-May 21, Arch 30, Seiberlich
No late fee through Mar. 26

Art Education (ArEd)

(135 Wulling Hall: 625-8021)

College of Education

(Department of Curriculum and Instruction)

Textbooks for most ArEd courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(Also see the listing for MacPhail Center for the Arts)

Margaret DiBlasio, Associate Professor

Kerry Freedman-Norberg, Assistant Professor

RESTRICTION IN ART EDUCATION 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

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

★**ArEd 5302 CURRICULUM INNOVATIONS IN ART EDUCATION.** 4 credits, \$292.

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 **MW**—4:40-6:25, WullH 240, DiBlasio

★**ArEd 5310 HISTORY OF AMERICAN ART EDUCATION.** 3 credits, \$219.

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)

Spring Qtr Sec 1 **T**—4:40-7:20, WullH 240, Freedman-Norberg

★**ArEd 5386 IMPROVING ART PROGRAMS IN THE SCHOOLS.** 4 credits, \$292.

Critical examination of present art programs in the schools. **Must be taken A-F.** (Pre-req 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 **T**—4:40-7:20, WullH 240, Freedman-Norberg

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 182 or call 625-6501.

Art History (ArH)

(107 Jones Hall: 624-4500)

College of Liberal Arts

Textbooks for most ArH courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Architecture; Classics and Near Eastern Studies; General College; The Compleat Scholar noncredit courses; REX 0229, Prehistoric Ceramics in Minnesota; and REX 0802, Artistic Discovery in 17th-Century Naples)

Frederick Cooper, Professor of Classical Studies

Jane Hancock, Lecturer in Art History

Bruce Jenkins, Lecturer in Art History

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Sheila McNally, Professor of Classical Studies
 Robert Poor, Professor of Art History
 Robert Silberman, Associate Professor of Art History
 Michael Stoughton, Associate Professor of Art History

A MAJOR IN ART HISTORY CAN BE COMPLETED IN THE EVENING.

Those courses required in the major are usually offered each year. Interested students should discuss plans with an adviser (625-2500).

B.A. Major Sequence

Required Preparatory Courses

4 cr art practice (consult undergraduate studies director); 5 qtrs or equiv in a second language (Route II does not satisfy this requirement)

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 ArH 3930 (jr-sr seminar) or any 5xxx course (by agreement with the instructor); b) ArH 3971, Major Project Research Paper. The major project course must be selected in consultation with the director of undergraduate studies.

(Consult ArH department regarding major project.)

A minor in Art History is also available. Interested students should contact CEE Counseling, 625-2500.

You need not be majoring in Art History 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 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.

ArH 1001 INTRODUCTION TO THE VISUAL ARTS. 4 credits, \$3001, \$243 plus \$4 course fee. Total \$247. (♦ \$121.50 plus \$4 course fee. Total \$125.50)

Basic problems of art. Major visual arts examples as a basis for study of the nature of art, problems of design, materials, and techniques, presented topically rather than chronologically. (No prereq)



CEW

Fall Qtr Sec 1 **W**—1:30-4, Mpls Institute of Arts, Aud.,
2400 S. 3 Ave., McNally

Offered through Continuing Education for Women

ArH 1002 INTRODUCTION TO THE HISTORY OF ART. 4 credits, \$243 plus \$4 course fee. Total \$247. (♦ \$121.50 plus \$4 course fee. Total \$125.50).

The history of art, examined through selected monuments from the major periods of art from The Paleolithic to modern times, covering both Western and non-Western cultures. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, AndH 310, Cooper

Winter Qtr Sec 2 **W**—6:20-8:50, AndH 310, Cooper

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

ArH 1921 INTRODUCTION TO FILM STUDY. 4 credits, §CLit 1921, \$243 plus \$15 course fee. Total \$258. (◆\$121.50 plus \$15 course fee. Total \$136.50)

- ◆ Fundamentals of film language and major theories of film, presented through detailed analysis of several films. (No prereq. Meets concurrently with CLit 1921)

Winter Qtr Sec 1 **M**—6-9, AndH 310, Jenkins

★**ArH 3008 CONCEPTS IN ANCIENT ART.** 4 credits, §1008, §Clas 3008, \$248 plus \$4 course fee. Total \$252.

The architecture, sculpture, and painting of selected early cultures, with particular stress on those contributing to the development of Western art. (No prereq. Meets concurrently with Clas 3008. Limited to a combined total of 50)

Spring Qtr Sec 1 **Th**—6:20-8:50, AndH 310, Cooper

★**ArH 3011 HISTORY OF RENAISSANCE AND BAROQUE ART.** 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

- ◆ Major monuments in architecture, sculpture, and painting from the early 14th century through the baroque period. (No prereq. Limited to 55)

Spring Qtr Sec 1 **Th**—6:20-8:50, JonesH 207B, Stoughton

ArH 3012 HISTORY OF 19TH- AND 20TH-CENTURY ART. 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

new Major monuments and concepts of the modern period: sculpture, architecture, painting, and prints. (No prereq)

- ◆

Winter Qtr Sec 1 **T**—6:20-8:50, AndH 310, Hancock

★**ArH 3013 INTRODUCTION TO FAR EASTERN ART.** 4 credits, §EAS 3013, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128).

- ◆ 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 200)

Fall Qtr Sec 1 **Th**—6:20-8:50, AndH 310, Poor

ArH 3162 ROMAN ART AND ARCHAEOLOGY. 5 credits, §Clas 3162, \$310 plus \$4 course fee. Total \$314. (◆\$155 plus \$4 course fee. Total \$159)

- ◆ Roman art and material culture: origins, change, continuity, "progress" or "decay" in the later empire. (No prereq. Meets concurrently with Clas 3162)

cew **Winter Qtr** Sec 1 **W**—1:30-4, Mpls Institute of Arts, Aud.,
2400 S. 3 Ave., McNally

Offered through Continuing Education for Women

★**ArH 3303 BAROQUE AND ROCOCO PAINTING IN FRANCE.** 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

- ◆ French painting of the 17th and first half of the 18th centuries. (No prereq. Limited to 55)

Fall Qtr Sec 1 **M**—6:20-8:50, JonesH 207B, Stoughton

ArH 3466 THE ORIGINS OF MODERN ART. 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

new The sources of modernism: impressionism, postimpressionism, symbolism, arts and crafts movement, aestheticism, art nouveau. (No prereq)

- ◆

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 306, Hancock

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ArtH 3940 TOPICS: THE AMERICAN MUSICAL MOVIE. 4 credits, \$5940, §CLit 3910, \$248 plus \$15 course fee. Total \$263. (◆\$124 plus \$15 course fee. Total \$139)

The evolution of the American movie musical from the early revue film to the development of uniquely cinematic forms. Through screenings, readings, and discussion, the course will focus on innovations in choreographic style and musical performance in the work of directors Busby Berkeley, Ernst Lubitsch, Stanley Donen, and Vincente Minnelli. (No prereq. Meets concurrently with ArtH 5940, sec 1, CLit 3910, sec 1)

Fall Qtr Sec 1 T—6-9, AndH 310, Jenkins

ArtH 3940 THE CINEMA OF ORSON WELLES. 4 credits, \$5940, sec 2, \$248 plus \$15 course fee. Total \$263. (◆\$124 plus \$15 course fee. Total \$139)

A survey of Welles' entire career as a filmmaker, including the astonishing debut with *Citizen Kane*, his literary adaptations from Booth Tarkington (*The Magnificent Ambersons*), Kafka (*The Trial*), and Shakespeare (*Chimes at Midnight*), and his remarkable excursion into film noir, *Touch of Evil*. The course will explore Welles the autobiographical artist, the man of the theater, and the social and political critic. (No prereq. Meets concurrently with ArtH 5940, sec 2)

Spring Qtr Sec 2 T—6-9, AndH 310, Silberman

new

ArtH 5725 CERAMICS IN THE FAR EAST. 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

Ceramic art in the Far East: China, Korea, and Japan, from Neolithic times to the present. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6:20-8:50, JonesH 207A

ArtH 5940 TOPICS: THE AMERICAN MUSICAL MOVIE. 4 credits, \$3940, \$248 plus \$15 course fee. Total \$263. (◆\$124 plus \$15 course fee. Total \$139)

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, sec 1 and CLit 3910, sec 1)

Fall Qtr Sec 1 T—6-9, AndH 310, Jenkins

ArtH 5940 TOPICS: THE CINEMA OF ORSON WELLES. 4 credits, \$3940, sec 2, \$248 plus \$15 course fee. Total \$263. (◆\$124 plus \$15 course fee. Total \$139)

See course description for ArtH 3940, sec 2. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with ArtH 3940, sec 2)

Spring Qtr Sec 2 T—6-9, AndH 310, Silberman

new

ArtH 5950 TOPICS: TEMPLES AND GARDENS. 4 credits, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128)

A survey of Chinese and Japanese garden design and its relation to temple architecture. In addition, there will be field trips to local Japanese gardens. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-8:50, JonesH 207A, Poor

new

Arts, Studio (ArtS)

(208 Art Building: 625-8096)

College of Liberal Arts

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most ArtS courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also General College courses in artistic expression; and The Compleat Scholar noncredit courses)

Guy Baldwin, Associate Professor of Art
Karl Bethke, Professor of Art
Victor Caglioti, Associate Professor of Art
Thomas Cowette, Associate Professor of Art
David L. Feinberg, Associate Professor of Art
Gary Hallman, Associate Professor of Art
James Henkel, Associate Professor of Art
Curtis Hoard, Professor of Art
David Husom, Lecturer in Art
Diane Katsiaficas, Professor of Art
Jerald Krepps, Associate Professor of Art
Thomas Lane, Associate Professor of Art
Susan Lucey, Associate Professor of Art
Malcolm Myers, Professor Emeritus of Art
Mark Pharis, Associate Professor of Art
Wayne Potratz, Professor of Art
William Roode, Associate Professor of Art
Herman Rowan, Professor of Art
Marcia Soderman-Olson, Lecturer

CHANGE IN CREDIT HOURS

The actual classroom time in Extension Classes and day school Studio Arts courses have been adjusted to be equal. Therefore, all Studio Arts classes are four credits.

A MAJOR IN STUDIO 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 studio arts to take some classes during the day in order to graduate.

Students considering a major in studio arts should discuss plans with the Studio Arts Coordinator of Advising, 625-1848.

Students majoring in studio arts 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 1000 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 1000-level studio arts courses.

Major Requirements

At least 28 cr in studio arts courses at 3000-5000 levels

8 cr in 3000-5000 level art history courses

ArtS 3444, Senior Project, 2 cr, taken the final senior quarter

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

B.F.A. MAJOR SEQUENCE

The B.F.A. is a 4-year degree program offering a high concentration of Studio Arts coursework. It is oriented toward professional work or admission to a Master of Fine Arts program. College of Liberal Arts Studio Arts majors may apply for the B.F.A. degree after completing the five Studio Arts preparatory courses (see below). To apply, students must submit the B.F.A. application form (available in the Studio Arts 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 Studio Arts courses; candidacy is subject to review and dismissal. Upon acceptance, students must discuss and file major programs with the Studio Arts 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/Glass)

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 or 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 Studio Arts 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 studio arts to register for studio arts courses.

RESTRICTIONS IN STUDIO ARTS CLASSES

1. Registration in any studio 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 625-1848 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 Wesbrook Hall by the end of the second week of the term.

Most studio arts courses require the student to spend a minimum of one hour per week in the studio for each hour spent in class.

Because Extension funds its own classes, and since the subject matter of studio arts courses requires that enrollments be limited to small numbers of students, it has become necessary for Extension Classes to add a \$5 special fee to most classes in order for the classes to be held.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Some studio arts courses require additional fees which cover part of the cost of expendable materials, models, breakage, and special facilities. Sculpture and ceramics classes require the rental of a locker for the quarter. A \$15 fee is charged for this: \$6 for the rental; and \$9 for a deposit, refundable after the return of the lock. Students may pay this fee at the Extension Classes Cashier's Office, 138 Westbrook Hall; or at the Bursar's Office on the West Bank campus. 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.

3. Studio Arts Labs. Each Studio Arts course on the 1xxx and 3xxx level has an open lab scheduled for two hours each week; the lab is staffed with a teaching assistant who can answer both aesthetic and technical questions about the course as well as help students with the work in the course. Students may choose to attend any lab scheduled in a course's medium (drawing/painting, ceramics, glass, photography, printmaking, or sculpture) or the lab specifically scheduled for their course (consult the department's lab schedule which accompanies the Studio Arts Student Fact Sheet for days and times). Attendance at more than one lab is also possible. **Attendance at lab strongly encouraged to achieve a passing grade.**

4. Students who wish to audit Studio 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.

Arts 1401 INTRODUCTION TO STUDIO ART. See page 103.

★Arts 1101 BASIC DRAWING. 4 credits, \$243 plus \$5 course fee and \$10 special fee. Total \$258.

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 101. Limited to 20)

Fall Qtr	Sec 1	M —6-10, ArtB 160
	Sec 2	M —6-10, ArtB 150
	Sec 3	T —6-10, ArtB 140, Cowette
	Sec 4	W —6-10, ArtB 160
	Sec 5	W —6-10, ArtB 140, Caglioti
	Sec 6	Th —6-10, ArtB 150
	Sec 7	Sa —8:30 a.m.-12:30, ArtB 140, Cowette
Winter Qtr	Sec 8	M —6-10, ArtB 150
	Sec 9	M —6-10, ArtB 140
	Sec 10	T —6-10, ArtB 141, Caglioti
	Sec 11	W —6-10, ArtB 141
	Sec 12	Th —6-10, ArtB 150
	Sec 13	Sa —8:30 a.m.-12:30, ArtB 140, Cowette
Spring Qtr	Sec 14	M —6-10, ArtB 150
	Sec 15	T —6-10, ArtB 140, Cowette
	Sec 16	W —6-10, ArtB 140, Caglioti
	Sec 17	W —6-10, ArtB 141
	Sec 18	Th —6-10, ArtB 150
	Sec 19	Sa —8:30 a.m.-12:30, ArtB 140, Cowette

(See also CSch 0166, Creative Drawing)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**ArtS 1102 DRAWING.** 4 credits, \$243 plus \$5 course fee and \$5 special fee. Total \$253.

Work from life and nature. Introduction to color and pictorial structure. (Prereq 1101. See **Restrictions**, page 101. Limited to 20)

Fall Qtr Sec 1 **M**—6-10, ArtB 140, Rowan

Winter Qtr Sec 2 **W**—6-10, ArtB 150

Sec 3 **Th**—6-10, ArtB 141, Roode

Spring Qtr Sec 4 **T**—6-10, ArtB 160

Sec 5 **Th**—6-10, ArtB 141, Feinberg

(See also CSch 0166, Creative Drawing; CSch 0523 Nature in Pen and Ink: Techniques in Natural History Drawing)

★**ArtS 1301 BASIC SCULPTURE.** 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

Beginning course in metal construction; intensive study of structure with emphasis on form and space. Construction in metal. (No prereq. See **Restrictions**, page 101. Limited to 20)

Fall Qtr Sec 1 **M**—6-10, ArtB 65

Winter Qtr Sec 2 **M**—6-10, ArtB 65, Lucey

★**ArtS 1302 BASIC SCULPTURE.** 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

Natural form is studied. Imaginative approaches are encouraged. Construction in clay, plaster, wood. Mold-making and casting. (No prereq. See **Restrictions**, page 101. Limited to 20)

Fall Qtr Sec 1 **T**—6-10, ArtB 50, Baldwin

Winter Qtr Sec 2 **T**—6-10, ArtB 50, Baldwin

ArtS 1401 INTRODUCTION TO STUDIO ART. 4 credits, \$243 plus \$10 special fee. Total \$253. (♦ \$121.50 plus \$10 special fee. Total \$131.50)

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. Lectures, demonstrations, 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 101)

Winter Qtr Sec 1 **Th**—6-10, BlegH 10

Spring Qtr Sec 2 **Th**—6-10, BlegH 10

★**ArtS 1404 COLOR.** 4 credits, \$243 plus \$5 course fee and \$10 special fee. Total \$258.

Introduction to color and pictorial organization. This will provide students with intensive investigation of color and its visual implications. (Prereq 1101. See **Restrictions**, page 101. Limited to 20)

Fall Qtr Sec 1 **T**—6-10, ArtB 160

Sec 2 **Sa**—8:30 a.m.-12:30, ArtB 141, Feinberg

Sec 3 **Sa**—8:30 a.m.-12:30, ArtB 160

Winter Qtr Sec 4 **M**—6-10, ArtB 160

Sec 5 **Th**—6-10, ArtB 160

Sec 6 **Sa**—8:30 a.m.-12:30, ArtB 160

Spring Qtr Sec 7 **M**—6-10, ArtB 160

Sec 8 **Sa**—8:30 a.m.-12:30, ArtB 160

Sec 9 **Sa**—8:30 a.m.-12:30, ArtB 141, Rowan

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**ArtS 1510 PRINTMAKING: INTAGLIO.** 4 credits each quarter (maximum 6 cr). \$243 plus \$35 course fee and \$10 special fee. Total \$288 each quarter.

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 101. Limited to a combined total of 20)

Winter Qtr Sec 1 T—6-10, ArtB 170, Bethke

(See also CSch 0165, Introduction to Printmaking)

- ★**ArtS 1520 PRINTMAKING: LITHOGRAPHY.** 4 credits each quarter (maximum 6 cr). \$243 plus \$35 course fee and \$10 special fee. Total \$288 each quarter.

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 101. Limited to a combined total of 20)

Fall Qtr Sec 1 M—6-10, ArtB 176

- ★**ArtS 1530 PRINTMAKING: RELIEF.** 4 credits, \$243 plus \$35 course fee and \$10 special fee. Total \$288.

Traditional and contemporary relief printing media. Lino, woodcut, cardboard, metal, and letterpress techniques and their aesthetic applications. (No prereq. Meets concurrently with 3530 and 5530. Limited to a combined total of 20)

Spring Qtr Sec 1 T—6-10, ArtB 175, Bethke

- ★**ArtS 1601 VIDEO ARTS PRODUCTION I.** 4 credits, \$243 plus \$160 course fee and \$5 special fee. Total \$408.

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 17)

Fall Qtr Sec 1 T—1-5, Intermedia Arts, 425 Ontario
Sec 2 W—6-10, Intermedia Arts, 425 Ontario

Winter Qtr Sec 3 M—6-10, Intermedia Arts, 425 Ontario
Sec 4 Th—1-5, Intermedia Arts, 425 Ontario

Spring Qtr Sec 5 M—6-10, Intermedia Arts, 425 Ontario
Sec 6 T—6-10, Intermedia Arts, 425 Ontario

- ★**ArtS 1602 ART AND COMPUTERS I.** 4 credits, \$243 plus \$160 course fee and \$5 special fee. Total \$408.

A combination lecture and studio course focusing on the creative use of the Amiga and various other microcomputers. This computer graphics 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 17)

Fall Qtr Sec 1 M—1-5, Intermedia Arts, 425 Ontario
Sec 2 M—6-10, Intermedia Arts, 425 Ontario
Sec 3 Th—6-10, Intermedia Arts, 425 Ontario

Winter Qtr Sec 4 T—1-5, Intermedia Arts, 425 Ontario
Sec 5 T—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 6 M—6-10, Intermedia Arts, 425 Ontario
Sec 7 W—1-5, Intermedia Arts, 425 Ontario

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**ArtS 1603 PAINT SYSTEM VIDEO.** 4 credits, \$243 plus \$160 course fee and \$5 special fee. Total \$408.

Introduces basic computer painting skills as well as 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 17)

Fall Qtr Sec 1 **T**—6-10, Intermedia Arts, 425 Ontario
Winter Qtr Sec 2 **Th**—6-10, Intermedia Arts, 425 Ontario
Spring Qtr Sec 3 **W**—6-10, Intermedia Arts, 425 Ontario

- ★**ArtS 1606 INTRODUCTION TO SOUND.** 4 credits, \$243 plus \$120 course fee and \$5 special fee. Total \$368.

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 17)

Fall Qtr Sec 1 **T**—6-10, Intermedia Arts, 425 Ontario
Winter Qtr Sec 2 **M**—6-10, Intermedia Arts, 425 Ontario
Spring Qtr Sec 3 **Th**—1-5, Intermedia Arts, 425 Ontario

- ★**ArtS 1611 INTRODUCTION TO ELECTRONIC ARTS.** 4 credits, \$243 plus \$20 course fee and \$5 special fee. Total \$268.

An introductory-level course in the theory, esthetics, 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)

Fall Qtr Sec 1 **Th**—6-10, Intermedia Arts, 425 Ontario
Spring Qtr Sec 2 **W**—1-5, Intermedia Arts, 425 Ontario

- ★**ArtS 1701 INTRODUCTION TO PHOTO MEDIUM.** 4 credits, \$243 plus \$25 course fee and \$10 special fee. Total \$278.

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 101. Limited to 20).

Fall Qtr Sec 1 **M**—9 a.m.-1, MacP Bsmt, Husom (Limit 24)
 Sec 2 **M**—6-10, ArtB 120
 Sec 3 **T**—1:00-5, MacP Bsmt, Husom (Limit 24)
 Sec 4 **T**—6-10, ArtB 120
Winter Qtr Sec 5 **M**—6-10, ArtB 120
 Sec 6 **M**—1-5, MacP Bsmt, Husom (Limit 24)
 Sec 7 **M**—6-9:45, MacP Bsmt, Husom (Limit 24)
 Sec 8 **T**—6-10, ArtB 120
 Sec 9 **W**—6-10, MacP Bsmt, (Limit 24)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

- Spring Qtr** Sec 10 **M**—9 a.m.-1, MacP Bsmnt, Husom (Limit 24)
 Sec 11 **M**—6-10, ArtB 120
 Sec 12 **T**—1-5, MacP Bsmnt, (Limit 24)
 Sec 13 **T**—6-10, ArtB 120

(See also photography courses in General College; and The Compleat Scholar noncredit courses on page 507)

- ★**ArtS 1811 CERAMICS.** 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

Introduction to handbuilding techniques in clay for individual creative expression. (No prereq. See **Restrictions**, page 101. Limited to 20)

- Fall Qtr** Sec 1 **T**—6-10, ArtB 10, Lane
 Sec 2 **Sa**—8:30 a.m.-12:30, ArtB 10
Winter Qtr Sec 3 **M**—6-10, ArtB 10, Hoard
Spring Qtr Sec 4 **Th**—6-10, ArtB 10, Pharis

- ★**ArtS 1812 CERAMICS.** 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

Introduction to wheel throwing techniques. (No prereq. See **Restrictions**, page 101. Limited to 20)

- Fall Qtr** Sec 1 **Th**—6-10, ArtB 10, Pharis
Winter Qtr Sec 2 **T**—6-10, ArtB 10, Lane
Spring Qtr Sec 3 **M**—6-10, ArtB 10, Hoard

- ★**ArtS 3105 (formerly 1105) PAINTING.** 4 credits, \$248 plus \$10 special fee. Total \$258.

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, 1404 or #. Limited to 20)

- Fall Qtr** Sec 1 **Th**—6-10, ArtB 151, Feinberg
Winter Qtr Sec 2 **W**—6-10, ArtB 151, Caglioti
Spring Qtr Sec 3 **M**—6-10, ArtB 151, Rowan

- ★**ArtS 3110 DRAWING.** 4 credits each quarter (maximum 12 cr), \$248 plus \$10 special fee. Total \$258 each quarter.

Portraiture and life drawing from the model, still life, and nature. (Prereq 1401, 1102. See **Restrictions**, page 101. Meets concurrently with 5110. Limited to a combined total of 20)

- Fall Qtr** Sec 1 **Th**—6-10, ArtB 141, Roode
Winter Qtr Sec 2 **Sa**—8:30 a.m.-12:30, ArtB 141, Rowan
Spring Qtr Sec 3 **T**—6-10, ArtB 141, Caglioti

- ★**ArtS 3120 PAINTING.** 4 credits each quarter (maximum 12 cr), \$248 plus \$10 special fee. Total \$258.

Continuation of media development and individual problems. (Prereq 1404, 3105, and 3 cr of 3110, 1401 or #. See **Restrictions**, page 101. Meets concurrently with 5120. Limited to a combined total of 20)

- Fall Qtr** Sec 1 **T**—6-10, ArtB 151, Caglioti
Winter Qtr Sec 2 **T**—6-10, ArtB 151, Feinberg
Spring Qtr Sec 3 **Th**—6-10, ArtB 151, Roode

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

★**Arts 3131 NATURE OF ABSTRACTION.** 4 credits, \$248 plus \$10 special fee. Total \$258.

Two-dimensional projects in various media in which representational images from nature are transposed toward abstract syntheses through specific attention to visual detail. (Prereq 1101, 1102, 1401, 1404 or #. Limited to 20)

Fall Qtr Sec 1 **Sa**—8:30 a.m.-12:30, ArtB 151, Rowan

★**Arts 3160 WATERCOLOR.** 4 credits each quarter (maximum 12 cr), \$248 plus \$10 special fee. Total \$258 each quarter.

Introduction to transparent watercolor, gouache, casein, and tempera. Figure, still life, landscape, and individual directions. (Prereq 1101, 1102, 1404, 1401 or #. Meets concurrently with 5160. See **Restrictions**, page 101. 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, \$248 plus \$60 course fee and \$10 special fee. Total \$318.

Lost wax and sand casting in bronze, aluminum, iron. (Prereq 1301, 1302, 1401. Meets concurrently with 5330. See **Restrictions**, page 101. Limited to a combined total of 20)

Fall Qtr Sec 1 **T**—6-10, ArtB 185

Spring Qtr Sec 2 **T**—6-10, ArtB 185

★**Arts 3306 PERFORMANCE ART.** 4 credits, \$248 plus \$45 course fee and \$10 special fee. Total \$303.

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: TRADITIONAL CHINESE CALLIGRAPHY.** 4 credits, \$248 plus \$25 course fee and \$10 special fee. Total \$283

A course in traditional Chinese calligraphy taught by exchange faculty from Zhejiang Academy of Fine Arts, Hangzhou, P.R.C. Traditional calligraphy materials, techniques, and styles will be explored. Knowledge of Chinese not required. (No prereq. Meets concurrently with 5420, sec 1. Limited to a combined total of 15)

Fall Qtr Sec 1 **W**—6-10, ArtB 141

★**Arts 3420 WOMEN'S IMAGES AND IMAGES OF WOMEN: WOMEN ARTISTS, 1650-1965.** 4 credits, \$248.

Explores women's place in art from several perspectives: women as artists and the imagery they have created, and women as the subject of imagery and the attitudes that imagery conveys. The works of women masters throughout history such as Artemisia Gentileschi and Elisabeth Vigee-Le Brun, as well as more recent women artists such as Mary Cassatt, Georgia O'Keeffe, and Helen Frankenthaler will be presented. Examines and discusses how women have been portrayed as the subject of imagery. The concepts of the temptress and the "Fallen Woman" implicit in much 19th-century art is explored. From this perspective, the course re-examines works by famous artists including Ingres's harem scenes, Corbet's nudes, and Manet's *Luncheon on the Grass* and *Olympia*. (No prereq. Meets concurrently with 5420 sec 3. Limited to a combined total of 40)

Winter Qtr Sec 2 **M**—6-10, JonesH 207, Katsiaticas

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★ArtS 3420 WOMEN'S IMAGES AND IMAGES OF WOMEN: CONTEMPORARY WOMEN ARTISTS FROM THE 1960s TO THE PRESENT. 4 credits, \$248.

Presents women artists' work from the early Feminist era of the late 1960s, such as that of Eva Hesse, Judy Chicago, and Ree Morton, to the work of current artists such as Jenny Holzer, Barbara Kruger, and Laurie Anderson. This course explores contemporary issues related to art work by women including the engagement of personal identity and experiences, the questioning, confrontation, and re-presentation of economic, social, and cultural codes, the development of collective political activism, and the use of alternative media and techniques. (No prereq. Meets concurrently with 5420 sec 4. Limited to a combined total of 40)

Spring Qtr Sec 3 **M**—6-10, JonesH 207, Katsiaficas

★ArtS 3420 WORKSHOP: PAINTED SCULPTURE. 4 credits, \$248 plus \$10 special fee. Total \$258.

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 4. Limited to a combined total of 20)

Spring Qtr Sec 4 **Sa**—8:30 a.m.-12:30, ArtB 161, Feinberg

★ArtS 3430 PAPER: PULP TO PLASTIC EXPRESSION. 4 credits (maximum 12 cr), \$248 plus \$30 course fee and \$10 special fee. Total \$288.

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 Studio Arts course. Meets concurrently with 5430. See **Restrictions**, page 101. 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), \$248 plus \$40 course fee and \$10 special fee. Total \$298 each quarter.

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, 3 cr of 1510 or #. Meets concurrently with 1510, 5510. See **Restrictions**, page 101. Limited to a combined total of 20)

Winter Qtr Sec 1 **T**—6-10, ArtB 170, Bethke

★ArtS 3520 PRINTMAKING: INTERMEDIATE LITHOGRAPHY. 4 credits each quarter (maximum 12 cr), \$248 plus \$40 course fee and \$10 special fee. Total \$298 a quarter.

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, 3 cr of 1520 or #. Meets concurrently with 1520, 5520. See **Restrictions**, page 101. Limited to a combined total of 20)

Fall Qtr Sec 1 **M**—6-10, ArtB 176

★ArtS 3530 PRINTMAKING: RELIEF. 4 credits (maximum 12 cr), \$248 plus \$40 course fee and \$10 special fee. Total \$298.

Relief printing techniques. Emphasis on color process. (Prereq 1401, 3 cr of 1530 or #. Meets concurrently with 1530 and 5530. Limited to a combined total of 20)

Spring Qt: Sec 1 **T**—6-10, ArtB 175, Bethke

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**ArtS 3601 VIDEO ARTS PRODUCTION II.** 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

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. Meets concurrently with 5601. Limited to a combined total of 17)

Fall Qtr Sec 1 **M**—6-10, Intermedia Arts, 425 Ontario

Winter Qtr Sec 2 **Th**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 3 **T**—1-5, Intermedia Arts, 425 Ontario

★**ArtS 3602 ART AND COMPUTERS II.** 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

Continuation and development of methods and concepts introduced in ArtS 1602. Using the Amiga and other microcomputers. Techniques will be refined with an emphasis on producing a final project with computer graphics and animation. (Prereq 1602. Limited to 17)

Winter Qtr Sec 1 **W**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 2 **T**—6-10, Intermedia Arts, 425 Ontario

★**ArtS 3604 INTER-DISCIPLINARY PROJECTS.** 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

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 3603, or #. Meets concurrently with 5640. Limited to a combined total of 17)

Spring Qtr Sec 1 **Th**—6-10, Intermedia Arts, 425 Ontario

★**ArtS 3606 SOUND FOR MEDIA ARTS.** 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

An introduction to MIDI technology as well as advanced principles of sound recording, mixing, and digital and analog synthesis. Review and analyze numerous film and video soundtracks from a technical and aesthetic perspective. This knowledge will be directly applied to the creation of independent sound pieces as well as video soundtracks. (Prereq 1606 or #. Limited to 17)

Winter Qtr Sec 1 **T**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 2 **T**—6-10, Intermedia Arts, 425 Ontario

★**ArtS 3615 VIDEO EDITING.** 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

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 17)

Winter Qtr Sec 1 **T**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 2 **W**—6-10, Intermedia Arts, 425 Ontario

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**ArtS 3655 VIDEO AS AN ART FORM.** 4 credits, \$248 plus \$35 course fee and \$5 special fee. Total \$288.

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. Limited to 20)

Winter Qtr Sec 1 **T**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 2 **W**—6-10, Intermedia Arts, 425 Ontario

- ★**ArtS 3710 INTERMEDIATE PHOTOGRAPHY.** 4 credits each quarter (maximum 12 cr), \$248 plus \$25 course fee and \$10 special fee. Total \$283 each quarter.

Continued work in photographic controls and processes. Introduction to related phot-sensitive media. Emphasis on creative process with attention to individual interests and requirements. *Emphasis Sec 1: The fine print. Emphasis Sec 2: The extended image. Emphasis Sec 3: Contemporary topics in photography.* **Additional materials for the course may cost \$75- \$125.** (Prereq 1401, 1701 or #. See **Restrictions**, page 101. Limited to 20)

Fall Qtr Sec 1 **M**—6-10, MacP Bsmt, Husom (Limit 24)

Sec 2 **W**—6-10, ArtB 120

Winter Qtr Sec 3 **T**—9 a.m.-1, MacP Bsmt, Husom (Limit 24)

Sec 4 **W**—6-10, ArtB 120

Spring Qtr Sec 5 **M**—6-10, MacP Bsmt, Husom (Limit 24)

Sec 6 **W**—6-10, ArtB 120

(See also photography courses in General College; and The Compleat Scholar noncredit courses on page 507)

- ★**ArtS 3810 CERAMIC DESIGN.** 4 credits each quarter (maximum 12 cr), \$248 plus \$70 course fee and \$10 special fee. Total \$328 each quarter.

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 101. Meets concurrently with 5810. Limited to a combined total of 20)

Fall Qtr Sec 1 **M**—6-10, ArtB 10, Hoard

Winter Qtr Sec 2 **Th**—6-10, ArtB 10, Pharis

Spring Qtr Sec 3 **T**—6-10, ArtB 10, Lane

- ★**ArtS 5110 ADVANCED DRAWING.** 4 credits each quarter (maximum 15 cr), \$248 plus \$10 special fee. Total \$258 each quarter.

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 101. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr Sec 1 **Th**—6-10, ArtB 141, Roode

Winter Qtr Sec 2 **Sa**—8:30 a.m.-12:30, ArtB 141, Rowan

Spring Qtr Sec 3 **T**—6-10, ArtB 141, Caglioti

- ★**ArtS 5120 PROBLEMS IN PAINTING.** 4 credits each quarter (maximum 15 cr), \$248 plus \$10 special fee. Total \$258.

An advanced course in acrylic and oil painting with emphasis on individual directions
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

as they reflect current and traditional trends in art. (Prereq 12 cr of 3120 or #. See **Restrictions**, page 101. Meets concurrently with 3120. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr Sec 1 **T**—6-10, ArtB 151, Caglioti

Winter Qtr Sec 2 **T**—6-10, ArtB 151, Feinberg

Spring Qtr Sec 3 **Th**—6-10, ArtB 151, Roode

- ★**ArtS 5160 WATERCOLOR.** 4 credits each quarter (maximum 15 cr), \$248 plus \$10 special fee. Total \$258 each quarter.

Advanced watercolor techniques, aesthetic direction. Continued development of concepts and individual direction. (Prereq 12 cr of 3160 or #. Meets concurrently with 3160. See **Restrictions**, page 101. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 25)

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 15 cr), \$248 plus \$60 course fee and \$10 special fee. Total \$318 each quarter.

See description for 3303. (Prereq 3303. Meets concurrently with 3303. See **Restrictions**, page 101. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Fall Qtr Sec 1 **T**—6-10, ArtB 185

Spring Qtr Sec 2 **T**—6-10, ArtB 185

- ★**ArtS 5360 PERFORMANCE ART.** 4 credits, \$248 plus \$45 course fee and \$10 special fee. Total \$303.

See course description for ArtS 3306. (No prereq. 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 5400 CONCEPTS IN CONTEMPORARY ARTS.** 4 credits, \$248 plus \$10 special fee. Total \$258.

Discussion of contemporary art trends and theories and their historical precedents. Emphasis on helping students understand their own work and ideas in relation to the larger context of the art world. May not be taken for graduate credit. (Prereq senior and Studio Arts major. Limited to 15)

Winter Qtr Sec 1 **Th**—5-9, Law 3, Feinberg

- ★**ArtS 5420 WORKSHOP: TRADITIONAL CHINESE CALLIGRAPHY.** 4 credits, \$248 plus \$25 course fee and \$10 special fee. Total \$283.

A course in traditional Chinese calligraphy taught by exchange faculty from Zhejiang Academy of Fine Arts, Hangzhou, P.R.C. Traditional calligraphy materials, techniques, and styles will be explored. Knowledge of Chinese not required. (Prereq 3420 or previous experience. May not be taken for graduate credit. Meets concurrently with 3420, sec 2. Limited to a combined total of 15)

Fall Qtr Sec 1 **W**—6-10, ArtB 141

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**ArtS 5420 WOMEN'S IMAGES AND IMAGES OF WOMEN: WOMEN ARTISTS, 1650-1965.** 4 credits, \$248.

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 3. Limited to a combined total of 40)

Winter Qtr Sec 2 **M**—6-10, JonesH 207, Katsiaficas

★**ArtS 5420 WOMEN'S IMAGES AND IMAGES OF WOMEN: CONTEMPORARY WOMEN ARTISTS FROM THE 1960s TO THE PRESENT.** 4 credits, \$248.

See course description for 3420 sec 4. (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)

Spring Qtr Sec 3 **M**—6-10, JonesH 207, Katsiaficas

★**ArtS 5420 WORKSHOP: PAINTED SCULPTURE.** 4 credits, \$248 plus \$10 special fee. Total \$258.

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 4. Limited to a combined total of 20)

Spring Qtr Sec 4 **Sa**—8:30 a.m.-12:30, ArtB 161, Feinberg

★**ArtS 5430 PAPER: PULP TO PLASTIC EXPRESSION.** 4 credits each quarter (maximum 15 cr), \$248 plus \$30 course fee and \$10 special fee. Total \$288 each quarter.

See course description for ArtS 3430. (Prereq 12 cr of 3430 or #. Meets concurrently with 3430. See **Restrictions**, page 101. 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

★**ArtS 5510 PRINTMAKING: ADVANCED INTAGLIO.** 4 credits each quarter (maximum 15 cr), \$248 plus \$40 course fee and \$10 special fee. Total \$298 each quarter.

An advanced course in etching, aquatint, mezzatint, 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 101. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Winter Qtr Sec 1 **T**—6-10, ArtB 170, Bethke

★**ArtS 5520 PRINTMAKING: ADVANCED LITHOGRAPHY.** 4 credits each quarter (maximum 15 cr), \$248 plus \$40 course fee and \$10 special fee. Total \$298.

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 101. 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 176

★**ArtS 5530 PRINTMAKING: RELIEF.** 4 credits (maximum 15 cr), \$248 plus \$40 course fee and \$10 special fee. Total \$298.

Relief processes. Letterpress and combined techniques. (Prereq 12 cr of 3530 or #. Meets concurrently with 1530, 3530. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Spring Qtr Sec 1 **T**—6-10, ArtB 175, Bethke

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**Arts 5601 VIDEO ARTS PRODUCTION III.** 4 credits (maximum 12 cr), \$248 plus \$160 course fee and \$15 special fee. Total \$423.

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. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3601. Limited to a combined total of 17)

Winter Qtr Sec 1 **Th**—6-10, Intermedia Arts, 425 Ontario

Spring Qtr Sec 2 **T**—1-5, Intermedia Arts, 425 Ontario

- ★**Arts 5640 INTER-DISCIPLINARY ELECTRONICS PROJECTS.** 4 credits (maximum 12 credits), \$248 plus \$160 course fee and \$5 special fee. Total \$413.

This advanced-level course is open to students who have completed course work in video, computer graphics, and sound and want to pursue further study through individually designed projects. Projects will be designed in consultation with the faculty member and completed by quarter's end. Aesthetic and technical assistance will be provided during the class period through weekly project reports and critique sessions. (Prereq 3604 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3604. Limited to a combined total of 17)

Spring Qtr Sec 1 **Th**—6-10, Intermedia Arts, 425 Ontario

- ★**Arts 5810 CERAMICS.** 4 credits each quarter (maximum 15 cr), \$248 plus \$80 course fee and \$10 special fee. Total \$338 each quarter.

Advanced techniques and materials. (Prereq 12 cr of 3810 or #. See **Restrictions**, page 101. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3810. Limited to a combined total of 20)

Fall Qtr Sec 1 **M**—6-10, ArtB 10, Hoard

Winter Qtr Sec 2 **Th**—6-10, ArtB 10, Pharis

Spring Qtr Sec 3 **T**—6-10, ArtB 10, Lane

Astronomy (Ast)

(356 Physics: 624-0211)

Institute of Technology

Textbooks for most Ast courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also General College courses in natural science; and CSch 0565, Visits to Small Planets and Large: The View From the Other End of the Telescope)

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. \$243.

The sun, the moon, the planets, and their relationships; stars, galaxies, cosmology, (continued next page)

Read about abbreviations, symbols, and maps on page 64.

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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 150

Spring Qtr Sec 3 **MW**—6:30-8:10, Phys 150

★**Ast 1015 DESCRIPTIVE ASTRONOMY LABORATORY.** 1 credit, \$1025H, \$60.75.

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. **Labs begin Fall: Sept. 30; Winter: Jan. 13; and Spring: Apr. 6.** (Prereq high school algebra; high school trigonometry recommended. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr Sec 1 **M**—6:15-8, Phys 450

Sec 2 **M**—8:15-10, Phys 450

Sec 3 **T**—6:15-8, Phys 450

Sec 4 **W**—5:15-7, Phys 450

Sec 5 **W**—8:15-10, Phys 450

Sec 6 **Th**—5:15-7, Phys 450

Winter Qtr Sec 7 **M**—6:15-8, Phys 450

Sec 8 **M**—8:15-10, Phys 450

Sec 9 **T**—6:15-8, Phys 450

Sec 10 **W**—5:15-7, Phys 450

Sec 11 **W**—8:15-10, Phys 450

Sec 12 **Th**—5:15-7, Phys 450

Spring Qtr Sec 13 **M**—5:15-7, Phys 450

Sec 14 **M**—8:15-10, Phys 450

Sec 15 **T**—6:15-8, Phys 450

Sec 16 **W**—5:15-7, Phys 450

Sec 17 **W**—8:15-10, Phys 450

Sec 18 **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.

B

Biochemistry (BioC)

(140 Gortner Laboratory: 624-7755)

College of Biological Sciences

Textbooks for most BioC courses are available at Books Underground on the St. Paul campus (624-9200).

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Courses and sections in red have limits on enrollment. See page 20.

(See also Biology)

Gary Nelsestuen, *Professor of Biochemistry*
William Sharrock, *Assistant Professor of Biochemistry*
Tian Y. Tsong, *Professor of Biochemistry*

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.

⊙**Biol 5001 BIOCHEMISTRY.** 4 credits. See listing under **Biology**.

★⊙**BioC 5025 LABORATORY IN BIOCHEMISTRY.** 2 credits, \$146.

Discussions of techniques and problem-solving approaches illustrated with laboratory experiments and demonstrations. (Prereq Biol 5001 or ⊕Biol 5001 or BioC 3031 with grade of B or better. 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—5:30-10, SnH 122, StP Campus, Tsong

Biological Sciences

Please see the following alphabetical listings for departments and related course offerings:

ANIMAL SCIENCE	GENETICS AND CELL
BIOCHEMISTRY	BIOLOGY
BIOLOGY	HEALTH SCIENCES
CELL BIOLOGY AND	HISTORY OF SCIENCE AND
NEUROANATOMY CHEMISTRY	TECHNOLOGY
CLINICAL LABORATORY	INTERDEPARTMENTAL STUDY
SCIENCE	MICROBIOLOGY
ECOLOGY, EVOLUTION, AND	NURSING
BEHAVIOR	PHARMACY
GENERAL COLLEGE	PLANT BIOLOGY
	PUBLIC HEALTH

Biology (Biol)

(223 Snyder Hall: 624-9717)

College of Biological Sciences

Textbooks for Biol courses are available at the Minnesota Book Center in Williamson Hall for Minneapolis campus classes (625-6000) and at Books Underground for St. Paul campus classes (624-9200).

(See also General College courses in natural science; Biochemistry; Ecology, Evolution, and Behavior; Genetics and Cell Biology; Microbiology; Plant Biology; Interdepartmental Study; Complete Scholar courses in natural and physical sciences; and WoSt 3202, Biology of Women)

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David Biesboer, Associate Professor of Plant Biology
William Cunningham, Professor of Genetics and Cell Biology
James A. Fuchs, Professor of Biochemistry and Biology
Norman S. Kerr, Professor of Genetics and Cell Biology
Robert G. McKinnell, Professor of Genetics and Cell Biology
Michael A. Raftery, Professor of Biology

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, \$303.75 plus \$10 course fee. Total \$313.75. (IS)

An introduction to the principles of biology. The cell, metabolism, heredity, reproduction, ecology and evolution. (No prereq. A joint Day/Extension class. Each section limited to 96 Extension students)

Fall Qtr	Sec 1	Lect TTh —6-7:15, MoosT 2-650 Lab TTh —7:30-9:15, KoltH S170
Winter Qtr	Sec 2	Lect TTh —6-7:15, MoosT 2-650 Lab TTh —7:30-9:15, KoltH S167
Spring Qtr	Sec 3	Lect TTh —6-7:15, MoosT 2-650 Lab TTh —7:30-9:15, KoltH S167

★Biol 1103 GENERAL BOTANY. 5 credits, \$3012, \$303.75.

Levels of organization of plants, plant function, plant growth and development, plant reproduction. (Prereq 1009. Limited to 20)

Winter Qtr	Sec 1	Lect TTh —6-7:10, BioSci 6, StP Campus, Biesboer Lab TTh —7:30-9:30, BioSci 182, StP Campus, Biesboer
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●Biol 1301 HUMAN REPRODUCTION AND DEVELOPMENT. 4 credits, \$243.

Human development from gametogenesis to senescence. Ovulation, sperm release, fertilization, transit of the early embryo to the uterus, implantation, fetal membranes, cellular differentiation, organogenesis, birth, adolescence, puberty, and senescence. Congenital defects, birth control, multiple births, and human cytogenetics in relation to development. *In vitro* fertilization. (Prereq 1009 or equivalent. A joint Day/Extension class)

Winter Qtr	Sec 1	TTh —4-5:40, Phys 166, McKinnell
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**Biol 3011 ANIMAL BIOLOGY.** 5 credits, \$Biol 1106, \$365.

Comparison of ways different phyla have solved similar physiological problems. Laboratory includes survey of major animal groups and physiological experiments. (Prereq Biol 1009, Chem 1005. Lectures meet concurrently and with 3111. A joint Day/Extension class. Each laboratory section limited to 4 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 (Limit 2)
	Sec 2	TTh—Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr TTh—Lab, 3-4:40, BioSci 107, StP Campus (Limit 8)
	Sec 3	TTh—Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr TTh—Lab, 7-8:40, BioSci 107, StP Campus (Limit 10)
	Sec 4	TTh—Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr TTh—Lab, 7-8:40, BioSci 182, StP Campus (Limit 8)
	Sec 5	TTh—Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr WF—Lab, 10:40 a.m.-12:20, BioSci 107, StP Campus (Limit 2)
	Sec 6	TTh—Lect, 5:30-6:45, ClaOff B45, StP Campus, Kerr WF—Lab, 12:50-2:30, BioSci 107, StP Campus (Limit 2)

★**Biol 3051 BIOLOGY AND THE FUTURE OF THE EARTH.** 4 credits, \$292.

Nontechnical discussion of biological principles in environmental and social systems, e.g., air and water pollution, energy policy, population growth, resource management, food supplies, wilderness values, waste disposal, environmental health, toxicology, biodiversity, war, bioethics, and ecophilosophy. (No prereq. Designed primarily for non-majors. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr Sec 1 **MW—**4-5:40, Arch 60, Cunningham

(See also AgEc 5790 World Food Problems; Anth 5117 Energy, Resources Use, and System Change; and ID 5525-5526 Garbage, Government, and the Globe)

Biol 3111 ANIMAL BIOLOGY. 4 credits, \$Biol 3011, \$292.

Comparative physiology of various animal groups; coordination, movement, support, excretion, reproduction. (Prereq 1009, 1106, Chem 1005. 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 5001 BIOCHEMISTRY. 4 credits, \$292.

Biochemistry and biophysics of cells; emphasis on enzyme catalysis, cellular energetics, biosynthesis of cellular constituents and cellular regulatory mechanisms. (Prereq 1009, 12 cr organic chemistry, or #. A joint Day/Extension class. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **MW—**5:30-7:10, GrnH 110, StP Campus, Raftery

Biol 5003 GENETICS. 4 credits, \$GCB 3022, \$GCB 5022, \$292.

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. 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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Biol 5004 CELL BIOLOGY. 3 credits, \$219.

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. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **TTh**—6-7:15, GrnH 110, StP Campus, Cunningham

BioC 5025 LABORATORY IN BIOCHEMISTRY. See listing under **Biochemistry.**

Biol 5125 RECOMBINANT DNA LABORATORY. See **MicB 5125.**

Botany (Bot)

(See Plant Biology, page 379.)

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

MANAGEMENT

MARKETING

OPERATIONS AND MANAGEMENT SCIENCES

(See also Economics; Comp 3032, Pre-Professional Writing for Business; Rhetoric; Certified Employee Benefits Specialist [in Industrial Relations]; General College; and The Practical Scholar noncredit courses)

For noncredit conferences or seminars in business and management, write or call Continuing Management Education, 338 Nolte Center, 625-2561; Executive Development Center, 324 Management/Economics Building, 624-2545; and Employer Education Service, 417 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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Business and Marketing Education

(See 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 the Harold D. Smith Bookstore on the West Bank campus (625-3000).

John Hasselberg, Lecturer in Strategic Management

William Seeley, Lecturer in Strategic Management

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 3002 BUSINESS AND SOCIETY.** 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

Examines the strategic and dynamic relations of business and society in a goal-oriented and problem-solving context. Focuses on the interfaces of business institutions with the physical environment, the social milieu, the political process and economic activity. Gives specific attention to the on-going debate regarding national priorities and the respective roles of the private and public sectors concerning the challenges confronting U.S. society. Includes assessment of the concept, determinants, and indicators of the "quality of life" and the social responsibilities of business. (Prereq at least 90 credits completed or in progress. **May not be taken S-N.** Limited to 40)

Fall Qtr Sec 1 **T**—6-8:45, FordH 349

Spring Qtr Sec 2 **W**—6-8:45, BlegH 135

★**BGS 3003 BUSINESS AND THE NATURAL ENVIRONMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 junior or senior and at least 90 credits completed or in progress. Limited to 35)

Winter Qtr Sec 1 **W**—6-8:45, BlegH 235

★**BGS 3004 INTERNATIONAL BUSINESS.** 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

World business with emphasis on the global economy, international concepts, global business structures, comparative cultures and environments, global business strate-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

gies, 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 **T**—6-8:45, AndH 230

Winter Qtr Sec 2 **W**—6-8:45, BlegH 205

Spring Qtr Sec 3 **Th**—6-8:45, BlegH 150

★BGS 3019 JAPANESE MANAGEMENT SYSTEMS. 4 credits, \$275 plus \$16 special fee. Total \$291.

The uniqueness of Japanese management and selected functions of Japanese management are examined in some detail. Topics: organization, trade, management characteristics, and business-government relations. **May not be taken S-N.** (Prereq completion of business core courses or #. Limited to 35)

Spring Qtr Sec 1 **M**—6-8:45, BlegH 245

Business Finance

(See Finance)

Business Law (BLaw)

(675 Management/Economics: 624-9358)

Carlson School of Management

Textbooks for most BLaw courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also General College)

Albert O. Andrews, Jr., Lecturer and Coordinator of Business Law

Daniel Blomquist, Lecturer in Business Law

Donald Campbell, Lecturer in Business Law

Warren E. Eastlund, Lecturer in Business Law

Thomas Lovett, Lecturer in Business Law

Richard A. Peterson, Lecturer in Business Law

Thomas Thorfinnson, Lecturer in Business Law

James Van Valkenburg, Lecturer in Business Law

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, \$182.25 plus \$16 special fee. Total \$198.25.

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

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, T Thorfinnson

★BLaw 0098C BUSINESS LAW—LAW OF REAL PROPERTY. 3 certificate credits, \$182.25 plus \$16 special fee. Total \$198.25.

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 3

★BLaw 3058 INTRODUCTION TO LAW, THE LAW OF CONTRACTS AND SALES CONTRACTS. 4 credits, \$275 plus \$16 special fee. Total \$291. (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 155, Lovett

Sec 2 **T**—6-9, BlegH 220, Campbell

Winter Qtr Sec 3 **M**—6-9, BlegH 235, Andrews

Sec 4 **T**—6-9, BlegH 125, Campbell

Sec 5 **Th**—6-9, Richfield HS 145, Campbell (Limit 35)

Spring Qtr Sec 6 **M**—6-9, AndH 310, Andrews

Sec 7 **Th**—6-9, AndH 230, Campbell

Note: Students for whom BLaw 3078 and 3088 are required for a degree or certificate should complete these courses during 1991-92. These courses are currently under review for continuance.

★BLaw 3078 LAW: AGENCY, PARTNERSHIPS, CORPORATIONS, AND COMMERCIAL PAPER. 4 credits, \$275 plus \$16 special fee. Total \$291. (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, Eastlund

★BLaw 3088 LAW OF PERSONAL PROPERTY, REAL PROPERTY, AND WILLS AND ESTATES. 4 credits, \$275 plus \$16 special fee. Total \$291. (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 en-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

cumbering 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 225, Eastlund

C

Cell Biology and Neuroanatomy (CBN)

(4-135 Jackson Hall: 624-1123)

Medical School

Textbooks for most CBN courses are available at the Health Sciences Bookstore (625-8600).

(See also Biology; Physical Medicine and Rehabilitation; and GC 1134, Cardiovascular Anatomy and Physiology)

Donald W. Robertson, Associate Professor of Cell Biology and Neuroanatomy

★**CBN 0058 (formerly Anat 0058) ANATOMY OF THE EXTREMITIES.** No credit. Tentatively scheduled for Fall 1992.

★**CBN 3001 (formerly Anat 3001) ELEMENTARY ANATOMY.** 5 credits, \$562.50.

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, JacH 5-137, Robertson

W—6-9:40, JacH 5-137, Robertson

Chemical Dependency Counseling

(See Family Social Science)

Chemistry (Chem)

(139 Smith Hall: 624-6000)

Institute of Technology

Textbooks for most Chem courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also GC 1166, Physical Science: Principles of Chemistry)

A \$30 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 \$30 deposit card. The balance will be returned to the student at the end of the semester.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Chem 1004-1005† GENERAL PRINCIPLES OF CHEMISTRY.** 5 credits each quarter, \$303.75 plus \$5 special fee. Total \$308.75 each quarter.

An introduction to chemistry from the standpoint of atomic structure; periodic properties of the elements and compounds derivable from structural considerations; a study of the laws governing the behavior of matter, theories of solutions, acids, bases, and equilibrium; introduction to chemistry of carbon compounds. (Prereq elementary algebra, higher algebra, trigonometry, H.S. chemistry required. H.S. physics strongly recommended for 1004; 1004 for 1005. Limited to 100)

Fall Qtr 1004 Sec 1 **Lab T**—6:10-9:40, SmithH 210

Lect Th—6-9:30, SciCB 375

Winter Qtr 1005 Sec 2 **Lab T**—6:10-9:40, SmithH 210

Lect Th—6-9:30, SciCB 375

*The first class meeting is always a lecture in SciCB 375, whether it is listed as a lecture or laboratory. All students *must attend* the first class meeting or risk losing their place in class.

Chem 1014 CONCEPTS OF CHEMISTRY. 4 credits, \$243.

Fundamental principles of chemistry. A terminal course. (Prereq Phys 1105 or 1281 or 1311 or 1421 or #)

Winter Qtr Sec 1 **T**—6-9, SciCB 325

★**Chem 3100 QUANTITATIVE ANALYSIS.** 3 credits, 3100-3101†, \$219.

A survey of quantitative methods of analysis. Lecture. Not for chemistry majors. (Prereq 1005. Limited to 50 students)

Spring Qtr Sec 1 **M**—6:30-8:45, SciCB 375

Students interested in taking Quantitative Analysis Laboratory (Chem 3101†) should be aware that the course is not available through Extension. However, Extension students are able to register for the regular day school sections through the Extension Division for fall quarter, winter quarter, and first summer session. Extension students interested in taking this course would have to accommodate themselves to the regularly scheduled laboratory periods during these quarters. Laboratory sessions are usually 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, \$3331 for 3301, \$292 each quarter.

Important classes of organic compounds, both aliphatic and aromatic, together with some heterocyclic compounds. (Prereq 1005 or 1032 or equivalent for 3301; 3301 for 3302. Limited to 100)

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, \$146 plus \$5 special fee. Total \$151 each quarter.

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 2 **Lect, Th**—5:30-6:15, SmithH 331

Lab, Th—6:15-10, SmithH 349

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Chicano Studies (Chic)

(102 Scott Hall: 624-6309)

College of Liberal Arts

Textbooks for most Chic courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also History)

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 3330 TOPICS: CONTEMPORARY LATINA ISSUES. 4 credits, \$248. (◆\$124)

- ◆ Chicanas in the labor market: education, family, and work. (No prereq)
Fall Qtr Sec 1 **T**—6:20-8:50, NichH 201

Chic 3330 TOPICS: CONTEMPORARY LEGAL ISSUES AND THE HISPANIC. 4 credits, \$248. (◆\$124)

- ◆ Examination of legal issues affecting Hispanics in areas of housing, education, employment, and immigration. Basic discussion of current laws will be relied upon to identify and treat discrimination practices in U.S. society. (No prereq)
Fall Qtr Sec 2 **W**—6:20-8:50, NichH 201

Chic 3330 TOPICS: U.S.-MEXICAN DIPLOMATIC HISTORY IN THE 19TH CENTURY. 4 credits, \$248. (◆\$124)

- ◆ Historical and diplomatic examination of interaction of these neighboring countries with a focus on their divergent economic and political developments prior to 20th century. Provides a basic understanding of early relations between the two countries to better understand present day relations. (No prereq)
Winter Qtr Sec 3 **T**—6:20-8:30, NichH 109

Chic 3330 TOPICS: U.S.-MEXICAN DIPLOMATIC HISTORY IN THE 20TH CENTURY. 4 credits, \$248. (◆\$124)

- ◆ Current perspectives on relations between Mexico and the United States with an emphasis on bilateral social, political, and economic problems. (No prereq)
Spring Qtr Sec 4 **W**—6:20-8:50, NichH 201

Chic 3427 TOPICS: HISTORY OF CUBA AND PUERTO RICO. 4 credits, \$AmSt 3920, \$Hist 3427, \$LAS 3427, \$248. (◆\$124)

- ◆ Historical development of Cuba and Puerto Rico from Spanish conquest to present. Conquest and colonization, slavery, Hispanic Caribbean society and culture, Operation Bootstrap, Cuban revolution. *Meets CLA World Studies requirement.* (No prereq. Meets concurrently with AmSt 3920 sec 1, Hist 3427, LAS 3427)
Fall Qtr Sec 1 **M**—6:20-8:50, ScottH 4

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Chic 3441 THE SPANISH-MEXICAN BORDERLANDS AND THE CHICANO EXPERIENCE TO 1900. 4 credits, §AmSt 3920, §Hist 3441, §LAS 3441, \$248. (◆\$124)

- ◆ The history of Chicanos to 1900. The Spanish conquest and colonization of the borderlands. Mexican society in the early 19th century, the Mexican-American War and aftermath. Meets *CLA Cultural Pluralism requirement*. (No prereq. Meets concurrently with AmSt 3920 sec 2, Hist 3441, LAS 3441)

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

Chic 3442 SURVEY OF CHICANO HISTORY, 1900 TO PRESENT. 4 credits, §AmSt 3920, §Hist 3442, §LAS 3442, \$248. (◆\$124)

- ◆ Twentieth-century Chicano experience including migration, repatriation, the Bracero program, contemporary Chicano politics, work, society, and culture. Meets *CLA Cultural Pluralism requirement*. (No prereq. Meets concurrently with AmSt 3920 sec 3, Hist 3442, LAS 3442)

Spring Qtr Sec 1 **M**—6:20-8:50, ScottH 4

Child and Adolescent Psychiatry (CAPy)

(D-697 Mayo: 626-6577)

Medical School

Class Materials are provided.

Gerald J. August, Ph.D., Assistant Professor, Child and Adolescent Psychiatry

Michael Bloomquist, Ph.D., Staff Psychologist, Child and Adolescent Psychiatry

Barry D. Garfinkel, M.D., Associate Professor and Director of Child and Adolescent Psychiatry

Harry M. Hoberman, Ph.D., Assistant Professor, Adolescent Health

Rick Ostrander, Ed.D., Staff Psychologist, Child and Adolescent Psychiatry

The following series of workshops is intended to offer in-depth information on assessment and treatment strategies in child and adolescent psychiatry. A relevant paper is required for graduate credit. 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.

○CAPy 5623 **AFFECTIVE DISORDERS AND SUICIDE IN CHILDREN AND ADOLESCENTS: PERSPECTIVES ON PREVALENCE, ETIOLOGY, AND PREVENTION.** 1 credit, \$112.50 (◆\$56.25).

- ◆ 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—Nov. 9, 1991.** 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 Nov. 1

○CAPy 5624 **EATING DISORDERS IN CHILDREN AND ADOLESCENTS: MEDICAL AND PSYCHOLOGICAL PERSPECTIVES.** 1 credit, \$112.50 (◆\$56.25).

- ◆ Clinical characteristics of obesity, anorexia, and bulimia nervosa in children and adolescents are described. Etiological factors are considered and multidimensional treatment (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ment 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—Feb. 1, 1992.** 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 Jan. 31

OCAPy 5630 PSYCHOTHERAPY IN CHILDREN AND ADOLESCENTS. 1 credit, \$112.50 (◆\$56.25)

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)

Fall Spec Term Sec 1 **Sa—Oct. 26, 1991.** 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. 18

OCAPy 5635 COGNITIVE-BEHAVIORAL THERAPY FOR CHILDREN AND ADOLESCENTS. 1 credit, \$112.50 (◆\$56.25).

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)

Winter Spec Term Sec 1 **Sa—Feb. 29, 1992.** 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 Feb. 21

Child Psychology (CPsy)

(104 Child Development: 624-2396)

College of Education

(Institute of Child Development)

Textbooks for most CPsy courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

(See also GC 1284, Behavior Problems of Children; Youth Studies; The Practical Scholar courses in human development)

Bruce L. Bobbitt, *Psychologist, Wilder Foundation, St. Paul*

Judith L. Brown, *Psychologist, Minneapolis Public Schools*

Gina Dow, *Lecturer in Child Psychology*

Ann M. Ellis, *Lecturer in Child Psychology*

Seymour Z. Gross, *Clinical Associate Professor, Department of Health Care Psychology and Director of Mental Health Services, Pilot City Health Center*

Marian R. Heinrichs, *Lecturer in Child Psychology*

Marian K. Hiester, *Lecturer in Child Psychology*

Joyce C. Moon, *Lecturer in Child Psychology*

Ann Mooney-McLoone, *Lecturer in Child Psychology*

Jennifer D. Neeman, *Lecturer in Child Psychology*

Sharon K. Ostwald, *Assistant Professor, Public Health*

Eric L. Reitinger, *Lecturer in Child Psychology*

Lisa L. Travis, *Lecturer in Child Psychology*

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.

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:

Psy 3801; CPsy 3308 or Psy 1004 and 1005; 3331 or 5331; 3343, 5329; Senior Project (3960); one course from 5332, 5336; one course from 5341, 5343, 5345; one course from 5311, 5319, 5334; a minimum of 12 additional credits, from 5302, 5303, 5304, 5322, 5349, 3330/5330, 3980, 5970, 5990, or courses listed above, beyond minimum requirements.

B.S. Major Sequence

Required Preparatory Courses:

Psy 1001; CPsy 1301

Major Requirements:

Psy 3801; CPsy 3308 or Psy 1004 and 1005; Soc 3811 or EPsy 5281; Soc 5821 or EPsy 5240; 3331; 3343; 5329; one course from 5332, 5336; one course from 5341, 5343, 5345; two courses from 5311, 5315, 5319; 8 cr from 3330, 5330, 5334; Senior Project (3960); 12 additional cr from 5302, 5303, 5304, 5322, 5349, 3980, 5970, or 5990; and 22-24 cr in supportive 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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Child Psychology courses not used toward a major may be taken A-F or S-N in CLA.

OCPsy 1301 INTRODUCTORY CHILD PSYCHOLOGY. 4 credits, \$3309, \$5301, \$243. (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 **T**—6:20-8:50, AndH 210, Hiester

Winter Qtr Sec 2 **W**—6:20-8:50, NichH 211, Ellis

Spring Qtr Sec 3 **Th**—6:20-8:50, Botany B6, Dow

OCPsy 3303 ADOLESCENT PSYCHOLOGY. 4 credits, \$5303, \$292.

Physical, cognitive, and social development during adolescence. (Prereq 5 cr introductory psychology. Meets concurrently with 5303. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—6:20-8:50, NichH 211

Spring Qtr Sec 2 **Th**—6:20-8:50, Arch 55

★OCPsy 3308 RESEARCH METHODS IN CHILD PSYCHOLOGY. 4 credits, \$292.

Techniques used in study of child development; emphasis on collection, organization, and analysis of data. (Prereq 1301, Psy 1004. A joint Day/Extension class limited to 8 Extension students)

Fall Qtr Sec 1 **T**—6:20-8:50, ChDev 105

Winter Qtr Sec 2 **T**—6:20-8:50, JonesH 11, Travis
(Limited to 10 extension students)

OCPsy 3309 INTRODUCTORY CHILD PSYCHOLOGY FOR THE SOCIAL SCIENCES. 4 credits, \$1301, \$5301, \$292.

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 **T**—6:20-8:50, AndH 210, Hiester

Winter Qtr Sec 2 **W**—6:20-8:50, NichH 211, Ellis

Spring Qtr Sec 3 **Th**—6:20-8:50, Botany B6, Dow

★OCPsy 3313 PSYCHOLOGY OF ATYPICAL CHILDREN. 4 credits, \$5313, \$292.

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. Meets concurrently with 5313. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr Sec 1 **M**—6:20-8:50, WullH 230, Brown

(See also REX 0328, Treatment Information for Mental Health and Behavior Problems in Persons with Mental Retardation)

★OCPsy 3330 DIRECTED EXPERIENCES. 1-4 credits. 4 credits this offering, \$5330, \$292.

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. **Focus this offering:** early childhood education. (Prereq 1301 or equivalent. A joint Day/Extension class limited to 10 Extension students)

Winter Qtr Sec 1 **W**—4:15-6:45, (plus 4 addn daytime hrs/wk required),
ChDev 216, Mooney-McLoone

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OCPSy 3331 INTRODUCTION TO SOCIAL DEVELOPMENT. 4 credits, \$5331, \$292.

Development of social relations and personality: research, methodology, and contrasting theoretical perspectives. Survey of findings on interpersonal relationships, the concept of self, prosocial and antisocial behavior, and acquisitions of social roles. (Prereq 1301 or equivalent. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—6:20-8:50, Arch 25, Moon

OCPSy 3343 INTRODUCTION TO COGNITIVE DEVELOPMENT. 4 credits, \$292.

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. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—6:20-8:50, ChDev 218, Heinrichs

OCPSy 3960 SENIOR PROJECT IN CHILD PSYCHOLOGY. 1-4 credits, \$73 a credit.

A review of the literature in a current topic area of child psychology. Must be taken A-F. (Prereq senior status, #. A joint Day/Extension class)

Fall Qtr Sec 1 **Th**—6:20-7:10, ChDev 172

Winter Qtr Sec 2 **Th**—6:20-7:10, ChDev 218

OCPSy 5301 ADVANCED CHILD DEVELOPMENT. 4 credits, \$1301, \$3309, \$292.

Theory and research in child development with emphasis on perception, language, learning, cognition, personality, and social development. (Prereq 5 cr introductory psychology; primarily for nonmajors. 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, ChDev 218, Reitinger

OCPSy 5302 INFANCY. 4 credits, \$3302, \$292.

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)

Fall Qtr Sec 1 **M**—6:20-8:50, ChDev 216, Yonas

OCPSy 5303 ADOLESCENT PSYCHOLOGY. 4 credits, \$3303, \$292. (IS)

See 3303 for description. (Prereq 5 cr introductory psychology. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3303. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—6:20-8:50, NichH 211

Spring Qtr Sec 2 **Th**—6:20-8:50, Arch 55

OCPSy 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, \$292. (IS)

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 3009, PubH 5737, SW 5024, Soc 5960. A joint Day/Extension class)

Fall Qtr ★ Sec 1 **MW**—4:40-6:25, MoosT 2-690, Ostwald
(Limited to 37)

Spring Qtr Sec 2 **MW**—4:40-6:25, MoosT 2-690

(See also GC 1136, Biological Aspects of Aging)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OCPsy 5311 INTRODUCTION TO DEVELOPMENTAL PSYCHOPATHOLOGY. 4 credits, \$292.

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, WullH 230, Neeman

★OCPsy 5313 PSYCHOLOGY OF ATYPICAL CHILDREN. 4 credits, \$3313, \$292.

See 3313 for description. (Prereq 1301 or equivalent. Meets concurrently with 3313. 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**—6:20-8:50, WullH 230, Brown

★OCPsy 5315 INTRODUCTION TO MENTAL RETARDATION. 4 credits, \$EPsy 5620, \$PsyS 5120, \$292.

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. A joint Day/Extension class limited to 25 Extension students)

Winter Qtr Sec 1 **T**—4:40-8:30, BuH 123, Turnure

OCPsy 5319 INTRODUCTION TO CLINICAL CHILD PSYCHOLOGY. 4 credits, \$292.

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.-11:30, BuH 120, S Gross

OCPsy 5330 DIRECTED EXPERIENCES WITH CHILDREN. 1-4 credits. 4 credits this offering, \$3330, \$292.

See 3330 for description. (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)

Fall Qtr Sec 1 **W**—6:15-8:45 (plus 4 additional daytime hours/week required), ChDev 216, Mooney-McLoone

OCPsy 5336 DEVELOPMENT AND INTERPERSONAL RELATIONS. 4 credits, \$292.

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. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **T**—6:20-8:50, WullH 230, Bobbitt

Chinese

(See East Asian Studies)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Civil Engineering (CE)

(122 Civil and Mineral Engineering: 625-5522)

Institute of Technology

Textbooks for most CE courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Roko Andricevic, Research Associate in Civil and Mineral Engineering
Patrick L. Brezonik, Professor of Civil and Mineral Engineering
Paul D. Capel, Adjunct Assistant Professor of Civil and Mineral Engineering
Ladislav Cerny, Associate Professor of Civil and Mineral Engineering
John J. Connors, Adjunct Professor of Civil and Mineral Engineering
Gary A. Davis, Assistant Professor of Civil and Mineral Engineering
Catherine E. French, Associate Professor of Civil and Mineral Engineering
John S. Gulliver, Associate Professor of Civil and Mineral Engineering
Matthew J. Huber, Associate Professor Emeritus of Civil and Mineral Engineering
Gerald W. Johnson, Associate Professor of Civil and Mineral Engineering
Walter Johnson, Lecturer in Civil and Mineral Engineering
Theodor Krauthammer, Associate Professor of Civil and Mineral Engineering
Roberto Leon, Associate Professor of Civil and Mineral Engineering
Walter J. Maier, Professor of Civil and Mineral Engineering, and CEE Coordinator
David Newcomb, Assistant Professor of Civil and Mineral Engineering
Gary N. Parker, Professor of Civil and Mineral Engineering
Richard A. Person, Lecturer, Continuing Education and Extension
Nadim A. Shamat, Adjunct Associate Professor of Civil and Mineral Engineering
Eugene Skok, Lecturer in Civil and Mineral Engineering
Karl Smith, Associate Professor of Civil and Mineral Engineering
Charles Song, Professor of Civil and Mineral Engineering
Heinz C. Stefan, Professor of Civil and Mineral Engineering
Yorgos J. Stephanedes, Associate Professor of Civil and Mineral Engineering
Ray Sterling, Associate Professor, Underground Space Center
Otto D. L. Strack, Professor of Civil and Mineral Engineering

Your attention is called to the Undergraduate Development Certificate in Civil Engineering—90 credits, page 673.

Through registration in Extension, students may earn the majority of Civil Engineering credits required for a B.S. in Civil Engineering. See page 646. 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

You may register through Extension for all day school classes scheduled before 4 p.m. 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, \$243.

This course is for practicing engineers and consists of lectures and problem sessions relating to highways, soils, sanitary, 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 212, Cerny, French, Huber, G Johnson, W Johnson, Leon, Skok, Song, Sterling

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

CE 3050 ENGINEERING INTERN WORK ASSIGNMENT. 4 credits each quarter, \$292 each quarter.

Grades based on formal written report by the student covering his or her work during the professional assignment. **Must be taken S-N.** (Prereq registration in intern program)

Arr—CivMinE 234, Cerny

★CE 3400 FLUID MECHANICS. 4 credits, \$AEM 3200, \$292.

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 3221, AEM 1015 or 3016. Limited to 40)

Winter Qtr Sec 1 **W**—6-10, CivMinE 210, Stefan

CE 5005 PUBLIC WORKS INFORMATION SYSTEMS. 4 credits, \$292.

Development, purpose, and components of management information systems. Geographic database and geocoding. Public works facility inventory, management of maintenance operations, and computer-aided mapping and design. Capital budgeting and financing for public works. (Prereq IT upper division or grad student, 3020 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:40-10, CivMinE 210, Person

★CE 5098 ADVANCED DESIGN, ANALYSIS, RESEARCH OR TUTORIAL: TRANSPORTATION PLANNING AND SYSTEMS COMPUTER LABORATORY. 4 credits, \$292.

Application of transportation analysis and planning techniques; evaluation of alternatives using state-of-the-art microcomputer package; solution of real-world transportation problems with emphasis on route assignment; software capabilities and limitations. **Must be taken A-F.** (Prereq CE 3200 or CE 5210 and/or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with PA 5292. Limited to a combined total of 15 Extension students)

Winter Qtr Sec 1 **T**—6:40-10, CivMinE 210, Stephanedes

○CE 5099 ADVANCED DESIGN, ANALYSIS, RESEARCH OR TUTORIAL: TRAFFIC PLANNING AND IMPORT ANALYSIS. 4 credits, \$292.

Review of the current state of the art in forecasting the traffic impact of a proposed development, intended to give students knowledge needed to conduct or evaluate Traffic Impact Analyses; both computerized and manual methods considered with students using these methods to initiate and complete realistic impact analysis projects. (Prereq CE 3200 or CE 5201 or CE 5210 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **TTh**—4:40-6:30, CivMinE 213, Davis

CE 5104 PHOTOGRAMMETRY. 4 credits, \$292.

Stereoscopy and parallax; geometry of single and overlapping photographs; stereoscopic plotting instruments; flight planning; aerial cameras and calibration; mosaics; terrestrial photogrammetry; principles of photo interpretation; elements of remote sensing; and applications to resource evaluation. (Prereq IT or grad student, Math 1211. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:40-10, CivMinE 210, Johnson
Sa—4 morning sessions (to be arranged)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

CEE 5201 HIGHWAY TRAFFIC CHARACTERISTICS AND OPERATIONS. 4 credits, \$292.

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, 3200. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **TTh**—4:40-6:35, CivMinE 213, Davis

CEE 5304 DESIGN OF HIGHWAY AND AIRPORT PAVEMENTS. 4 credits, \$292.

Theories of pavement design, flexible and rigid; equivalent wheel loads. Strength tests on frost action. Design procedures for flexible and rigid pavements. (Prereq IT or grad student, 3300, 5603. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **TTh**—4:40-6:35, CivMinE 205, Newcomb

CE 5506 ENVIRONMENTAL WATER CHEMISTRY. 4 credits, \$292.

Composition of natural waters and wastewater, chemical processes affecting distribution of pollutants and 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)

Spring Qtr Sec 1 **MW**—4:40-6:35, CivMinE 210, Capel

CE 5510 SOLID AND HAZARDOUS WASTE MANAGEMENT. 4 credits, \$292.

Analysis and design of engineered systems for collection, transportation, processing, and disposal of solid and hazardous waste materials. Waste characteristics affecting management options, discussion of relevant regulatory legislation. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—6:40-10, CivMinE 210

CEE 5613 INTERMEDIATE REINFORCED CONCRETE DESIGN. 4 credits, \$292.

Eccentrically loaded columns. Shear-friction, design of brackets, deep beam design. Continuous beams and frames. Combined and continuous footings. Retaining walls. Combination of shear and torsion. Two-way slabs. (Prereq 5611. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **MW**—4:40-6:35, CivMinE 205, Cerny

CEE 5615 PRESTRESSED CONCRETE. 4 credits, \$292.

Types and properties of high-strength concretes and steels for prestressed concretes. Design of pretensioned and post-tensioned members. Post-tensioning systems. Precast, prestressed building systems, floors, roofs, bridges. Continuity in precast, prestressed systems. Design of connections. (Prereq IT or grad student, 5611, 5612, 5613 recommended. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **TTh**—4:40-6:35, CivMinE 205, Krauthammer

CEE 5617 DESIGN OF MASONRY STRUCTURES. 4 credits, \$292.

Masonry materials and their production, mortars and grouts, design of nonreinforced and reinforced masonry structural systems, walls, columns, lintels, arches. Codes and specifications, testing, and inspection. (Prereq IT or grad student, 5600 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **MW**—4:40-6:35, CivMinE 212, Cerny

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

CE 5701 CEMENTED MATERIAL PROPERTIES: EVALUATION AND MIXTURE DESIGN.
4 credits, \$292.

Characteristics and performance evaluation concept of construction materials, properties, and design of cemented mixtures such as concrete, bituminous mixtures, stabilized soils, and rocks. (Prereq 3700. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr Sec 1 **MW**—4:40-6:35, CivMinE 212, Newcomb

CE 5703 PROJECT MANAGEMENT. 4 credits, \$292.

A broad practical understanding of design and construction project management—including project planning, scheduling, budgeting, staffing, task and cost control, and communicating with/motivating/managing team members. (Prereq at least senior standing. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Spring Qtr Sec 1 **M**—6:40-10, CivMinE 210, Smith

Classical and Near Eastern Studies

(331 Folwell Hall: 625-5353)

College of Liberal Arts

Textbooks for most Classical Studies courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Art History; Foreign Study; History; Humanities; Religious Studies; and The Compleat Scholar noncredit courses)

Thomas Clayton, Professor
Frederick Cooper, Professor
Gerald Erickson, Professor
Jackson Hershbell, Professor
Sheila McNally, Professor
Oliver Nicholson, Assistant Professor
Jonathan Paradise, Associate Professor
Daniel Reisman, Associate Professor
Philip Sellev, Associate Professor
George Sheets, Associate Professor
Robert P. Sonkowsky, Professor
Soterios Stavrou, Adjunct Instructor
Theofanis Stavrou, Professor
Tzvee Zahavy, Professor

NOTE—Classics (Clas) courses require no knowledge of Latin or Greek.

See also Ancient Near Eastern Studies, Hebrew, and Jewish Studies on page 84.

Read about language laboratories on page 61.

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Classical 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.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Classics (Clas)

You need not be majoring in Classical Civilization to register for these classes.

Clas 1001 AGE OF HOMER. 4 credits, \$243. (◆ \$121.50)

- ◆ Study of Homer and his epics; Trojan War. Other early Greek epics and the archaic period of tyrants and lyric poets; rise of greek philosophy. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, JonesH 2, Hershbell

Clas 1006 AGE OF NERO. 4 credits, \$243. (◆ \$121.50)

- ◆ The Roman Empire; "silver age" of Latin literature and rise of Christianity; art and architecture. (No prereq)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 246, Hershbell

Clas 1025 AGE OF JUSTINIAN AND MUHAMMAD. 4 credits, \$3025, \$243. (◆ \$121.50)

new

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 invasions. (No prereq. Meets concurrently with 3025)

Winter Qtr Sec 1 **M**—6:20-8:50, FolH 134, Nicholson.

Clas 1042 GREEK AND ROMAN MYTHOLOGY. 4 credits, \$243. (◆ \$121.50).

- ◆ The heroes, gods, and goddesses of ancient Greece and Rome. The stories of the myths and the stories behind the myths. (No prereq)

Winter Qtr Sec 1 **M**—6:20-8:50, NichH 211, Hershbell

cew

Sec 2 **Th**—1:30-4, MacP, Erickson

Offered through Continuing Education for Women

Spring Qtr Sec 3 **M**—6:20-8:50, NichH 211, Erickson

(A joint Day/Extension class)

★**Clas 3008 HISTORY OF ANCIENT ART.** 4 credits, \$ArH 3008, \$248 plus \$4 course fee. Total \$252.

Architecture, sculpture, and painting of early cultures; influences contributing to the development of Western art. (No prereq. Meets concurrently with ArH 3008. Limited to a combined total of 50)

Spring Qtr Sec 1 **Th**—6:20-8:50, AndH 310, Cooper

Clas 3025 AGE OF JUSTINIAN AND MUHAMMAD. 4 credits, \$1025, \$248. (◆ \$124)

new

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 invasions. (No prereq. Meets concurrently with 1025)

Winter Qtr Sec 1 **M**—6:20-8:50, FolH 134, Nicholson

Clas 3072 THE NEW TESTAMENT. 4 credits, \$5072, \$ReIS 3072, 5072, \$248. (◆ \$124)

- ◆ First-century Israel under Roman rule. Jesus of Nazareth. Earliest Christian communities. Jewish Christianity. Mission to gentiles. Paul the apostle. Beginnings of New Testament. (Prereq junior standing. Meets concurrently with 5072, ReIS 3072, 5072)

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 208, Sellev

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OClas 3081 CLASSICAL EPIC IN TRANSLATION. 4 credits, \$5081, \$248.

new

Homer's *Iliad* and *Odyssey*, Virgil's *Aeneid*; cultural context of epic, the heroic character, epic formulas, poetic techniques. (No prereq. Meets concurrently with 5081. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—6:20-8:50, FolH 50, Clayton

Clas 3162 ROMAN ART AND ARCHAEOLOGY. 5 credits, \$ArH 3162, \$310. (◆\$155)



Roman art and material culture: origins, change, continuity, "progress" or "decay" in the later empire. (No prereq. Meets concurrently with ArH 3162)

cew

Winter Qtr Sec 1 **W**—1:30-4, Mpls Institute of Arts, Aud.,
2400 S. 3 Ave., McNally

Offered through Continuing Education for Women

Clas 5072 THE NEW TESTAMENT. 4 credits, \$3072, \$RelS 3072, 5072, \$248.

See course description for Clas 3072. (Prereq junior standing. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3072, RelS 3072, 5072)

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 208, Sellew

OClas 5081 CLASSICAL EPIC IN TRANSLATION. 4 credits, \$3081, \$248.

new

See course description for Clas 3081. Advanced independent work required. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3081. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—6:20-8:50, FolH 50, Clayton

Clas 5089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY. 4 credits, \$RelS 5089, \$248.

new

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. Requires additional work for graduate credit. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with RelS 5089)

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 148, Sellew

Greek (Grk)

Grk 1101-1102+-1103-1104 BEGINNING CLASSICAL GREEK: INDIVIDUALLY PACED.

5 credits each quarter, \$3051-3052+, \$303.75 each quarter. (IS 1101).

The emphasis is 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; 1103 or equiv for 1104)

Fall Qtr Sec 1 **W**—6:20-8:50, FolH 214, Sheets

Winter Qtr Sec 2 **W**—6:20-8:50, FolH 214, Sheets

Spring Qtr Sec 3 **W**—6:20-8:50, FolH 214, Sheets

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Greek, Modern (MdGk)

MdGk 1101-1102-1103 BEGINNING MODERN GREEK. 5 credits each quarter, \$FSSP 3001-3002-3003, \$303.75 each quarter.

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 255, T Stavrou

Winter Qtr 1102 Sec 2 **Th**—6:20-8:50, BlegH 225, T Stavrou

Spring Qtr 1103 Sec 3 **Th**—6:20-8:50, BlegH 225, T Stavrou

MdGk 1104-1105-1106 INTERMEDIATE MODERN GREEK. 5 credits each quarter, \$FSSP 3004-3005-3006, \$303.75 each quarter.

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. (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 2 **M**—6:20-8:50, SocSci 1383, S Stavrou

Spring Qtr 1106 Sec 3 **M**—6:20-8:50, SocSci 1383, S Stavrou

Latin (Lat)

NOTE—Lat 1101 requires no previous knowledge of Latin.

Lat 1101-1102-1103 LATIN. 5 credits each quarter, \$303.75 each quarter. (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 educational dimensions of Classical Latin traditions. Courses meet concurrently each term and with 1104. Students are divided into study groups, which meet one hour each week; the hour is arranged between 6:10 and 9:10 p.m. Tuesdays. The entire class will meet from 6:10 to 7:10 p.m. the first class each term. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr 1101 Sec 1 **T**—FolH 312, 326, 334, Sonkowsky

1102 Sec 2 **T**—FolH 312, 326, 334, Sonkowsky

1103 Sec 3 **T**—FolH 312, 326, 334, Sonkowsky

Winter Qtr 1101 Sec 4 **T**—FolH 312, 326, 334, Sonkowsky

1102 Sec 5 **T**—FolH 312, 326, 334, Sonkowsky

1103 Sec 6 **T**—FolH 312, 326, 334, Sonkowsky

Spring Qtr 1101 Sec 7 **T**—FolH 312, 326, 334, Sonkowsky

1102 Sec 8 **T**—FolH 312, 326, 334, Sonkowsky

1103 Sec 9 **T**—FolH 312, 326, 334, Sonkowsky

Lat 1104 LATIN READINGS: CAESAR. 5 credits, \$303.75. (IS)

Reading in Book I of Julius Caesar's masterpiece *The Gallic Wars*. Weekly one-hour (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

study groups on Tuesdays arranged between 6:10 and 9:10 p.m. The entire class will meet from 6:10 to 7:10 p.m. the first class each term. Meets concurrently with 1101-1102-1103. (Prereq 1103 or #)

Fall Qtr Sec 1 T—FolH 312, 326, 334, Sonkowsky

Winter Qtr Sec 2 T—FolH 312, 326, 334, Sonkowsky

Spring Qtr Sec 3 T—FolH 312, 326, 334, Sonkowsky

Clinical Laboratory Science (CLS)

(D-242 Mayo: 625-9171)

Medical School

(See also Public Health)

Textbooks for most CLS courses are available in the Health Sciences Bookstore (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.

Communication Disorders (CDis)

(115 Shevlin Hall: 624-3322)

College of Liberal Arts

Textbooks for most CDIs courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Robert H. Brookshire, Professor of Communication Disorders

Jane E. Carlstrom, Associate Clinical Specialist in Communication Disorders

Linda R. Hinderscheit, Associate Clinical Specialist in Communication Disorders

Julie M. Liss, Assistant Professor of Communication Disorders

Karlind T. Moller, Professor of Human and Oral Genetics and Communication Disorders

Joe E. Reichle, Professor of Communication Disorders

Clark D. Starr, Professor of Communication Disorders

Diana J. van Deusen, Assistant Clinical Specialist in Communication Disorders

CDis 5507 CLEFT PALATE, ORAL-FACIAL ANOMALIES AND SPEECH. 4 credits, \$248.

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. (No prereq. 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 5606 LANGUAGE ASSESSMENT, INTERVENTION—EARLY STAGES. 4 credits, \$248.

Analysis of the communication disorders in preschool age children with special emphasis on the assessment and management of language disorders observed in chil-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

dren 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 **Th**—4:30-7:30 (plus 1 hour/week arranged),
BuH 120, Reichle

OCDis 5608 LANGUAGE ASSESSMENT, INTERVENTION—ADULTS. 4 credits, \$248.

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

OCDis 5611 AUGMENTATIVE SYSTEMS OF COMMUNICATION. 4 credits, \$248.

A review of equipment and instructional procedures used to establish communication board and signing skills in severely handicapped populations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **Th**—4:30-7:30 (plus 1 hour/week arranged),
BuH 120, Reichle

OCDis 5900 TOPICS IN COMMUNICATION DISORDERS: CLINICAL ISSUES AND PROCEDURES. 2 credits, \$124.

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 1 **TTh**—3:35-4:25, FolH 340, Hinderscheit

★OCDis 5900 TOPICS IN COMMUNICATION DISORDERS: CONVERSATIONAL SIGNED ENGLISH. 2 credits, \$124.

This course will involve activities designed to teach students a repertoire of 300 signed words. Additionally, students will learn standard morphological, syntactic, and prosodic markers used in signed English. A second component of the course will involve the presentation of lecture material defining manual communication systems, describing characteristics of a variety of formal sign systems, and describing the use of signing as an alternative or augmentative communication 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 2 **Lect, Th**—4:30-5:30, FolH 340, Carlstrom, van Deusen
Lab, T—4:30-6:30, FolH 340, Carlstrom, van Deusen

OCDis 5900 TOPICS IN COMMUNICATION DISORDERS: MOTOR SPEECH DISORDERS. 4 credits, \$248.

The nature, diagnosis, 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 3 **M**—4:40-7:40 (plus 1 hr/wk arr), FolH 340, Liss

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Comparative Literature (CLit)

(301 Folwell Hall: 624-8099)

College of Liberal Arts

Textbooks for most CLit courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Art History; English; General College; Philosophy; The Compleat Scholar noncredit courses; and individual foreign language departments for other literature courses)

Kate Brady, Lecturer in Comparative Literature

Claudia Crawford, Adjunct Assistant Professor of Comparative Literature

Haynes Horne, Lecturer in Comparative Literature

Bruce Jenkins, Lecturer in Art History

Elizabeth Murrell, Lecturer in Comparative Literature

Angelica Rauch, Lecturer in Comparative Literature

Joint Day/Extension Classes

You may register through Extension for most day school classes scheduled before 4 p.m. in 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.

CLit 1921 INTRODUCTION TO FILM STUDY. 4 credits, §ArH 1921, \$243 plus \$15 course fee. Total \$258. (◆\$121.50 plus \$15 course fee. Total \$136.50)

- ◆ Fundamentals of film language and major theories of film, presented through detailed analysis of several films. (No prereq. Meets concurrently with ArH 1921)

Winter Qtr Sec 1 **M**—6:20-8:50, AndH 310, Jenkins

(See also CSch 0147, *Inside Movies: Understanding Cinema*)

CLit 3910 TOPICS IN COMPARATIVE LITERATURE: THE AMERICAN MUSICAL MOVIE. 4 credits, §ArH 3940, 5940, \$248 plus \$15 course fee. Total \$263. (◆\$124 plus \$15 course fee. Total \$139)

new

- ◆ See ArH 3940, sec 1, entry for additional information. (Prereq jr or sr or #. Meets concurrently with ArH 3940, sec 1, 5940, sec 1)

Fall Qtr Sec 1 **T**—6-9, AndH 310, Jenkins

CLit 3910 TOPICS IN COMPARATIVE LITERATURE: NARRATING CULTURE: Women Underground. 4 credits, \$248. (◆\$124)

new

- ◆ Discussion and paper topics will center around novels by contemporary women authors from France, the Caribbean, England, and North Africa. The young female protagonists in these novels are marginalized by a "failed" educational system, chaotic family life, as well as in their contact with the world of petty crime and pseudo-terrorism, by their own bourgeois sense of right and wrong. Authors include but are not limited to Leila Sebbar, Doris Lessing, Maryse Condé, Albertine Sarrazin, and Hanan al-Shaykh. (Prereq jr or sr or #)

Winter Qtr Sec 2 **M**—6:20-8:50, FolH 334, Murrell

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

CLit 3910 TOPICS IN COMPARATIVE LITERATURE: MODERN REFORMIST LITERATURES. 4 credits, \$248. (◆\$124)

Explores European and American fictional texts that were conceived as interventions into social and political crises of the 1920s and '30s. Bolshevik, Nazi, and anti-fascist texts form the core of readings. Of central interest are the specific literary techniques by which the texts attempt to influence public opinion. What are these techniques? Do they differ according to political orientation? Are they effective, and if so, how? (Prereq jr or sr or #)

Winter Qtr Sec 3 **M**—6:20-8:50, FolH 246, Horne

new

**CLit 3912 PSYCHOANALYSIS AND LITERATURE PART I: THE ESSENTIAL FREUD.** 4 credits, \$248. (◆\$124)

Provides an understanding of Freudian concepts such as desire, transference, affect, repetition compulsion, etc., and their effects on the interpretation of an event or a text. (Prereq jr or sr or #)

Spring Qtr Sec 1 **W**—6:20-8:50, FolH 318, Rauch

new

**CLit 5910 BENJAMIN'S THEORIES OF HISTORY AND LANGUAGE.** 4 credits, \$248. (◆\$124)

Explores the relationships between the concepts of meaning, experience, and history. Benjamin's theological position on language as well as the psychoanalytic nature of tradition will be discussed. (Prereq reading knowledge of French or German or Spanish or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6:20-8:50, FolH 340, Rauch

new

**CLit 5910 CONTEMPORARY EAST EUROPEAN CULTURE AND SOCIETY.** 4 credits, \$248. (◆\$124)

Thanks to recent developments in Eastern Europe, the Western media is now "rediscovering" the people and political aspirations of Central Europeans. While American journalists report on mass movements and bureaucratic reshuffling from a Western perspective, they often fail to give their readers a sense of how East Europeans view themselves and the world around them. This course uses contemporary films, novels, essays, and short stories by East European writers to examine the everyday cultural and political climate of the societies involved in this struggle for social change. (Prereq reading knowledge of French or German or Spanish or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 2 **T**—6:20-8:50, FolH 148, Brady

new

**CLit 5910 TOPICS IN COMPARATIVE LITERATURE: NIETZSCHE: What is Literature?** 4 credits, \$248. (◆\$124)

An introduction to major aspects of Nietzsche's philosophy and theory of language and how they have been incorporated into the discourse of modern criticism. Nietzsche in relation to Saussure, Derrida, Foucault, psychoanalysis, and ideology. (Prereq reading knowledge of French or German or Spanish or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 3 **Th**—6:20-8:50, FordH 150, Crawford

new



Compleat Scholar

(See page 489)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Composition and Communication (Comp)

(209 Lind Hall: 625-2888)

College of Liberal Arts

Textbooks for most Comp courses are available at the Minnesota Book Center in Williamson Hall (625-6000). See textbook note below.

(See also English; General College; Rhetoric; and The Compleat Scholar noncredit courses)

M. J. Abhishaker, Lecturer in Composition

Ray Anschel, Lecturer in Composition

Chris Anson, Associate Professor of Composition and English

Lillian Bridwell-Bowles, Associate Professor of Composition and English

Pat Darling, Lecturer in Composition

Brian Donovan, Lecturer in Composition

Moira Erickson, Lecturer in Composition

Linda Faust, Lecturer in Composition

Gayle Gaskill, Lecturer in Composition

Keith Gildersleeve, Lecturer in Composition

Patrick Lally, Lecturer in Composition

Ruth Lysne, Lecturer in Composition

Catherine McIntire, Lecturer in Composition

Dorothy Morrison, Lecturer in Composition

Justin O'Connell, Lecturer in Composition

Donald Ross, Professor of Composition and English

Margaret Tripp, Lecturer in Composition

Michael Wenzek, Lecturer in Composition

Susan Williams, Lecturer in Composition

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 (30xx) course to complete their requirement.

International students. Students whose native language is not English should take a section of Comp 1011 designated for non-native speakers of English (sections 26, 27, 28) on page 145. To qualify, an 80 on the MBATT/MELAB, a 525 on the TOEFL, or the equivalent, is required. For additional information, contact the ESL Composition Coordinator (624-4524) in 175 Klæber Court.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

For information about a free course on how to use University libraries, students should check page 591 in this Bulletin.

ATTENDANCE: Students absent from the first day of classes in any Composition course may lose their place in the course unless they contact their instructor prior to the first class meeting.

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 253.

COMPUTER-ASSISTED COMPOSITION COURSES

The following Composition courses involve computer-assisted writing instruction. Students are charged a \$20 course fee for these sections for the use of computer laboratories. Other sections of these courses (except for 3012) are offered without Computer Assistance. See these sections beginning page 145.

★**Comp 1011 WRITING PRACTICE I.** 5 credits, \$303.75 plus \$20 course fee. Total \$323.75 (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.

Fall Qtr	Sec 1	M —6:20-9:10, FordH 60
	Sec 2	T —6:20-9:10, FordH 50
	Sec 3	T —6:20-9:10, FordH 60
	Sec 4	Th —6:20-9:10, LindH 320
Winter Qtr	Sec 5	T —6:20-9:10, FordH 60
Spring Qtr	Sec 6	M —6:20-9:10, MurH 311

★**Comp 1027 INTERMEDIATE EXPOSITORY WRITING.** 4 credits, \$243 plus \$20 course fee. Total \$263.

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, **(continued next page)**)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

or Comp 1001 or Comm 1001; sophomore standing is recommended. Limited to 25)

Fall Qtr Sec 1 **M**—6:20-8:50, FordH 70

Winter Qtr Sec 2 **W**—6:20-8:50, LindH 340

★**Comp 3012 WRITING IN THE HUMANITIES.** 4 credits, \$248 plus \$20 course fee. Total \$268. (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 104

★**Comp 3014 WRITING IN THE SOCIAL SCIENCES.** 4 credits, \$248 plus \$20 course fee. Total \$268. (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)

Spring Qtr Sec 1 **W**—6:20-8:50, LindH 315

★**Comp 3027 ADVANCED EXPOSITORY WRITING.** 4 credits, \$248 plus \$20 course fee. Total \$268.

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 **W**—6:20-8:50, FordH 50

Winter Qtr Sec 2 **M**—6:20-8:50, LindH 320

Spring Qtr Sec 3 **W**—6:20-8:50, LindH 303

★**Comp 3031 TECHNICAL WRITING FOR ENGINEERS.** 4 credits, \$248 plus \$20 course fee. Total \$268. (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)

Winter Qtr Sec 1 **T**—6:20-8:50, LindH 320

Spring Qtr Sec 2 **Th**—6:20-8:50, FordH 50

★**Comp 3032 PRE-PROFESSIONAL WRITING FOR BUSINESS.** 4 credits, \$248 plus \$20 course fee. Total \$268. (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. Limited to 20)

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	Sec 1	W—6:20-8:50, FordH 40
Winter Qtr	Sec 2	M—6:20-8:50, LindH 340
	Sec 3	W—6:20-8:50, LindH 315
Spring Qtr	Sec 4	M—6:20-8:50, LindH 315
	Sec 5	Th—6:20-8:50, FordH 170

★**Comp 1011 WRITING PRACTICE I.** 5 credits, \$303.75. (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

Fall Qtr	Sec 7	M—6:20-9:10, LindH 229
	Sec 8	W—1-3:50, MacP (1128 LaSalle, downtown Mpls) <i>Offered through Continuing Education for Women</i>
	Sec 9	W—6:20-9:10, KoltH S137
	Sec 10	W—6:20-9:10, AmundH 116
	Sec 11	Th—6:20-9:10, LindH 315
Winter Qtr	Sec 12	M—6:20-9:10, LindH 302
	Sec 13	M—6:20-9:10, FordH 285
	Sec 14	T—6:20-9:10, LindH 229
	Sec 15	W—6:20-9:10, KoltH S138
	Sec 16	Th—6:20-9:10, LindH 340
Spring Qtr	Sec 17	M—6:20-9:10, LindH 303
	Sec 18	T—6:20-9:10, KoltH S138
	Sec 19	W—6:20-9:10, KoltH S138
	Sec 20	W—6:20-9:10, FordH 40
	Sec 21	Th—6:20-9:10, AmundH 120

ROSEVILLE AREA HIGH SCHOOL

Fall Qtr	Sec 22	T—6:20-9:10, room 253
Spring Qtr	Sec 23	W—6:20-9:10, room 250

RICHFIELD HIGH SCHOOL

Fall Qtr	Sec 24	W—6:20-9:10, room 141
Spring Qtr	Sec 25	T—6:20-9:10, room 145

★**Comp 1011 WRITING PRACTICE I. (Open only to Non-Native Speakers of English).** 5 credits, \$303.75. (IS)

See description for Comp 1011 above. After first day of class, consent of instructor is required. **Students must have a TOEFL score of at least 525 or a MELAB/MinnBatt Test score of 80. Please go to class the first day with proof of score. For questions, go to Klaeber Court 175, or call (612) 624-4524.** (Pre-req non-native speaker of English. Limited to 20)

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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.

Fall Qtr Sec 26 **TTh**—4-5:40, KoltH S136

Winter Qtr Sec 27 **W**—6:20-9:10, KoltH S137

Spring Qtr Sec 28 **MTWTh**—3:35-4:25, KoltH S134

★ **Comp 1013 WRITING PRACTICE II.** 4 credits, \$243.

Intensive work on individual writing problems. Highly individualized workshops and conferences. Students who need this course must contact the Composition office (625-2888) before the first day of classes. (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, \$243.

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 3 **T**—6:20-8:50, KoltH S140

Sec 4 **W**—6:20-8:50, KoltH S136

Winter Qtr Sec 5 **T**—6:20-8:50, KoltH S138

Sec 6 **Th**—6:20-8:50, LindH 303

Spring Qtr Sec 7 **T**—6:20-8:50, FordH 120

Sec 8 **W**—6:20-8:50, LindH 340

Sec 9 **Th**—6:20-8:50, SmithH 121

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, \$248. (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 HUMANIT** . . .ing page 144.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Comp 3013 WRITING FOR THE ARTS.** 4 credits, \$248. (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 315

Spring Qtr Sec 2 **Th**—6:20-8:50, LindH 315

★**Comp 3014 WRITING IN THE SOCIAL SCIENCES.** 4 credits, \$248. (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 2 **M**—6:20-8:50, LindH 320

Winter Qtr Sec 3 **T**—6:20-8:50, LindH 303

Sec 4 **T**—6:20-8:50, LindH 315

Spring Qtr Sec 5 **Th**—6:20-8:50, LindH 340

★**Comp 3015 WRITING ABOUT SCIENCE.** 4 credits, \$248. (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 340

★**Comp 3022 CRITICAL READING AND WRITING FOR MANAGEMENT.** 4 credits, \$248.

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 303

Winter Qtr Sec 2 **W**—6:20-8:50, LindH 303

Spring Qtr Sec 3 **Th**—6:20-8:50, LindH 303

★**Comp 3027 ADVANCED EXPOSITORY WRITING.** 4 credits, \$248.

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 4 **T**—6:20-8:50, LindH 325

Sec 5 **T**—6:20-8:50, LindH 315

Sec 6 **W**—6:20-8:50, LindH 303

Winter Qtr Sec 7 **M**—6:20-8:50, LindH 303

Sec 8 **T**—6:20-8:50, LindH 340

Sec 9 **T**—6:20-8:50, LindH 325

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Spring Qtr Sec 10 **M**—6:20-8:50, LindH 325
Sec 11 **T**—6:20-8:50, LindH 320
Sec 12 **W**—6:20-8:50, LindH 325

★Comp 3031 TECHNICAL WRITING FOR ENGINEERS. 4 credits, \$248. (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 3 **M**—6:20-8:50, LindH 315
Sec 4 **T**—6:20-8:50, FordH 170

Winter Qtr Sec 5 **W**—6:20-8:50, LindH 325

Spring Qtr Sec 6 **T**—6:20-8:50, LindH 315

Sec 7 **T**—6:20-8:50, LindH 340

★Comp 3032 PRE-PROFESSIONAL WRITING FOR BUSINESS. 4 credits, \$248. (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. Limited to 20)

Winter Qtr Sec 6 **M**—6:20-8:50, LindH 325

(See related courses in General College; and Rhetoric)

★Comp 3033 WRITING FOR THE HEALTH SCIENCES. 4 credits, \$248.

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)

Spring Qtr Sec 1 **T**—6:20-8:50, VinH 213

★Comp 3050 TOPICS IN ADVANCED COMPOSITION: EDITORIAL PRACTICE. 4 credits, (maximum 12 cr, no topic can be repeated), \$248.

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)

Fall Qtr Sec 1 **Th**—6:20-8:50, LindH 303

Spring Qtr Sec 2 **T**—6:20-8:50, LindH 303

(See also CSch 0356, Introduction to Copy Editing)

Comp 3085 CONFERENCE COURSE IN ADVANCED COMPOSITION. 1-4 credits, \$62 per credit plus \$40 special fee.

Individual writing conferences scheduled at student's and instructor's convenience. Interested students should contact the Composition Office (209 Lind Hall, 625-2888), and submit a brief written outline of the project before registering. **This course may not fulfill the upper-division composition requirement as defined by some majors;**

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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 the Minnesota Book Center 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 670; and Computer Science degree, below.

Daniel Boley, Associate Professor of Computer Science

David Du, Professor of Computer Science

Yoon Hwa Choi, Assistant Professor of Computer Science

David Fox, Professor of Computer Science

Maria Gini, Associate Professor of Computer Science

Ravi Janardan, Assistant Professor of Computer Science

Stanley Krolikoski, Adjunct Professor of Computer Science

Vipin Kumar, Associate Professor of Computer Science

Shashi Shekhar, Assistant Professor of Computer Science

Jaideep Srivastava, Assistant Professor of Computer Science

Marvin L. Stein, Professor of Computer Science

Anand Tripathi, Associate Professor of Computer Science

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.

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 1211-1221-1241, and Math 3211, 3142 or 3221; Stat 3091 or 5121 for students intending to take additional work in statistics

Major Requirements

CSci 3311, 3316, 3321, 3322, 3327, 5102, 5106, 5121, 5201, 5301, 5400

Substitutes

Students may use the following approved substitutes for their computer science degree or certificate programs: CSci 3311 for CSci 3400, CSci 3316 for CSci 3106, CSci 3321 for CSci 3105, CSci 3327 for CSci 3107 or 5101, CSci 3322 for CSci 5121

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 1311 or 1211 is 4 years of high school mathematics including solid geometry and trigonometry. Any student who meets this requirement is eligible to register for Math 1311 or 1211. 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 GC0631. 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.

(See also business and mathematics under General College; and Operations and Management Science)

Computer Cards

Students will be expected to pay a user fee of \$30 a quarter for courses that have a formal or an informal laboratory. Computer cards are not available until the second week of in-person registration. Payment must be made with a separate check (do not add the computer charge to your tuition check). For information, call the cashier's office, 138 Wesbrook Hall, at 624-6354.

★CSci 3101 A FORTRAN INTRODUCTION TO COMPUTER PROGRAMMING. 4 credits, \$1100-1101, \$292 plus \$6 special fee. Total \$298.

FORTRAN computer language; extensions; applications; programming techniques. Brings students to advanced level competence in FORTRAN programming. Integral nonscheduled laboratory. (Prereq Math 1111 or 1201 or equivalent or #. Limited to 50)

Fall Qtr Sec 1 **M**—6:10-8:40, EE/CSci 3230

Sec 2 **M**—6:10-8:40, EE/CSci 3230

Spring Qtr Sec 3 **M**—6:10-8:40, EE/CSci 3230

Sec 4 **M**—6:10-8:40, EE/CSci 3230

★CSci 3102 INTRODUCTION TO PASCAL PROGRAMMING. 4 credits, \$292.

PASCAL computer language, applications, programming techniques. Designed to bring students to advanced level competence in PASCAL programming. Integral nonscheduled laboratory. (Prereq non-CSci major, Math 1111 or equivalent or 1201 or #. Limited to 50)

Winter Qtr Sec 1 **M**—6:10-8:40, AmundH 116

★CSci 3113 INTRODUCTION TO PROGRAMMING IN C. 4 credits, \$292.

Intensive introduction to syntax and semantics of the C language, with introduction to UNIX tools for implementing C programs. Students will write programs, use debugging aids, and build libraries. (Prereq 3101 or 3102 or any programming experience and precalculus or #. Limited to 50)

Spring Qtr Sec 1 **W**—6:10-8:40, EE/CSci 3210

★CSci 3121 SURVEY OF DATA STRUCTURES AND ALGORITHMS. 4 credits, \$3105, 3321, \$292.

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 #. Limited to 50)

Winter Qtr Sec 1 **Th**—6:10-8:40, EE/CSci 3210

★CSci 3311 DISCRETE STRUCTURES OF COMPUTER SCIENCE. 5 credits, \$3400, \$365.

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 50)

Fall Qtr Sec 1 **Lect, T**—6:10-8:40, EE/CSci 3230, Tripathi

Lab, Th—6:10-7:30, EE/CSci 3230

Spring Qtr Sec 2 **Lect, T**—6:10-8:40, MechE 108, Stein

Lab, Th—6:10-7:30, MechE 108

★CSci 3316 INTRODUCTION TO THE SCIENCE OF COMPUTER PROGRAMMING. 5 credits, \$3106, \$365.

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 50)

Fall Qtr Sec 1 **Lect, M**—6:10-8:40, MechE 108, Boley

Lab, W—6:10-7:30, MechE 108

Winter Qtr Sec 2 **Lect, M**—6:10-8:40, EE/CSci 3111

Lab, W—6:10-7:40, EE/CSci 3111

★CSci 3321 ALGORITHMS AND DATA STRUCTURES I. 5 credits, \$3105, 3121, \$365.

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 #. Limited to 50)

Winter Qtr Sec 1 **Lect, T**—6:10-8:40, MechE 108

Lab, Th—6:10-7:30, MechE 108

★CSci 3322 ALGORITHMS AND DATA STRUCTURES II. 5 credits, \$5121, \$365.

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. Limited to 50)

Spring Qtr Sec 1 **Lect, M**—6:10-8:40, MechE 108

Lab, W—6:10-7:30, MechE 108

★CSci 3327 INTRODUCTION TO THE ORGANIZATION OF COMPUTER SYSTEMS. 5 credits, \$3107, 5101, \$365.

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, T**—6:10-8:40, EE/CSci 3210, Stein

Lab, Th—6:10-7:30, EE/CSci 3210

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★CSci 5101 **STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS I.** 4 credits, \$3107, 3327, \$292 plus \$6 special fee. Total \$298.

See course description for CSci 3327. Informal laboratory. (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 **T**—6:10-8:40, EE/CSci 3210, Stein

- ★CSci 5102 **STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS II.** 4 credits, \$292 plus \$6 special fee. Total \$298.

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 50)

Winter Qtr Sec 1 **M**—6:10-8:40, EE/CSci 3230, Stein

- ★CSci 5106 **STRUCTURE OF HIGHER LEVEL LANGUAGES.** 4 credits, \$292 plus \$6 special fee. Total \$298.

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 instantiations in a selected group of languages. Program description at compile time and execution time. (Prereq 5102 and 3322 or 5121 or #. Qualified students who are **nonmajors** may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr Sec 1 **Th**—6:10-8:40, EE/CSci 3115, Shekhar

- ★CSci 5121 **ALGORITHMS AND DATA STRUCTURE II.** 4 credits, \$3322, \$292 plus \$6 special fee. Total \$298.

See course description for CSci 3322. (Prereq non-CSci majors only, 3106 or 3321 or #. Open for graduate credit only to **nonmajors**. Limited to 50)

Winter Qtr Sec 1 **Th**—6:10-8:40, EE/CSci 3230, Krolikoski

- ★CSci 5122 **ADVANCED DATA STRUCTURES.** 4 credits, \$292 plus \$6 special fee. Total \$298.

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 50)

Spring Qtr Sec 1 **Th**—6:10-8:40, EE/CSci 3111, Krolikoski

- ★CSci 5201 **COMPUTER ARCHITECTURE.** 4 credits, \$292 plus \$6 special fee. Total \$298.

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 50)

Spring Qtr Sec 1 **T**—6:10-8:40, EE/CSci 3230, Choi

- ★CSci 5211 **DATA COMMUNICATIONS AND COMPUTER NETWORKS.** 4 credits, \$292.

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 50)

Winter Qtr Sec 1 **M**—6:10-8:40, EE/CSci 3115, Du

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**CSci 5301 NUMERICAL ANALYSIS.** 4 credits, \$292 plus \$6 special fee. Total \$298.

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 3321 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 50)

Fall Qtr Sec 1 **W**—6:10-8:40, EE/CSci 3115, Fox

★**CSci 5400 INTRODUCTION TO AUTOMATA THEORY.** 4 credits, \$292.

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 3105 or 3322 and 3400 or 3311 or #. Open for graduate credit only to **nonmajors**. Limited to 50)

Spring Qtr Sec 1 **M**—6:10-8:40, EE/CSci 3111

★**CSci 5502 INTRODUCTION TO OPERATING SYSTEMS.** 4 credits, \$292.

Definition and historical development of 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 5121 or 3322 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Spring Qtr Sec 1 **W**—6:10-8:40, EE/CSci 3111, Srivastava

★**CSci 5511 (formerly 5501) ARTIFICIAL INTELLIGENCE.** 4 credits, \$292 plus \$6 special fee. Total \$298.

Introduction to the ideas and issues of artificial intelligence. Knowledge representation, problem solving, search, inference techniques, theorem proving. Expert systems. Introduction to applications of artificial intelligence. Artificial intelligence programming languages. Informal lab. (Prereq 5121 or 3322 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr Sec 1 **M**—6:10-8:40, EE/CSci 3115, Gini

★**CSci 5702 THE PRINCIPLES OF DATABASE SYSTEMS.** 4 credits, \$292 plus \$6 special fee. Total \$298.

Fundamental concepts. Conceptual data organization. Data Models. Data manipulation languages. Database design. Security and integrity. Performance evaluation. Query optimization. Distributed database systems. Informal lab. (Prereq 5122 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Fall Qtr Sec 1 **W**—6:10-8:40, EE/CSci 3230, Srivastava

Continuing Education for Women

(See credit courses list on page 487. See *The Compleat Scholar* and *Practical Scholar* in non-credit courses beginning page 489.)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Counseling, Chemical Dependency

(See Family Social Science)

Curriculum and Instructional Systems (CISy)

(125 Peik Hall: 625-6372)

College of Education

(Department of Curriculum and Instruction)

Textbooks for most CISy courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

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 day school openings.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

Eugene M. Anderson, Associate Professor

Michael F. Graves, Professor

Simon R. Hooper, Assistant Professor

Michael Johnston, Lecturer

Richard D. Kimpston, Professor

Gregory C. Sales, Associate Professor

James 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.

★OCISy 5003 INTRODUCTION TO COMPUTERS AND THEIR USES. 1 credit, \$73.

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

Winter Qtr Sec 2 **T**—7:15-8:05, PeikH 355

Spring Qtr Sec 3 **M**—3:35-4:15, PeikH 355

★OCISy 5004 INTRODUCTION TO INTERACTIVE VIDEO INSTRUCTION. 1 credit, \$73.

Introduction to the use of videodiscs and related 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

Winter Qtr Sec 2 **W**—7:15-8:05, PeikH 335

Spring Qtr Sec 3 **W**—7:15-8:05, PeikH 335

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★OCISy 5006 **INTRODUCTION TO INSTRUCTIONAL COMPUTER PROGRAMMING.** 3 credits, \$219.

Introduction to designing computer-based instructional programs through programming. Students need not have a mathematics or science background. **Must be taken A-F.** (Prereq 5003 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**—4:15-7, PeikH 355, Johnston

Winter Qtr Sec 2 **W**—4:30-7:15, ApH 219, Hooper

★OCISy 5100 **CURRICULUM AND INSTRUCTIONAL SYSTEMS WORKSHOP.** 1-3 credits, (maximum 9 cr). 3 credits sec 1, \$219. 2 credits sec 2, \$146.

Special topics courses in the design, development, implementation, and evaluation of curricular and 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**—4:30-7:15, PeikH 31, Hooper

Spring Qtr Sec 2 **W**—4:15-7, ApH 219, Hooper

★OCISy 5201 **SYSTEMS APPROACH TO DESIGN OF INSTRUCTION.** 3 credits, \$SeEd 5201, \$219.

Instructional materials design in accordance with systems principles, including design of a specific unit of courseware. **Must be taken A-F.** (Prereq 5000 or SeEd 5000 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5013. A joint Day/Extension class limited to a combined total of 25 Extension students)

Fall Qtr Sec 1 **Th**—4:15-7, PeikH 335, Sales

Spring Qtr Sec 2 **M**—4:30-7:15, PeikH 335, Sales

★OCISy 5205 **COMPUTER-BASED INSTRUCTION: INTRODUCTION TO DESIGN.** 3 credits, \$219.

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 5006 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 **Th**—4:30-7:15, PeikH 355, Johnston

Spring Qtr Sec 2 **W**—4:30-7:15, PeikH 335, Johnston

★OCISy 5206 **MICROCOMPUTER USES IN ELEMENTARY CLASSROOMS.** 3 credits, \$Elem 5140, \$219.

Use of microcomputers to enhance instruction, applications in language arts, mathematics, science, social studies; evaluation of available programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Elem 5140. A joint Day/Extension class limited to a combined total of 4 Extension students)

Fall Qtr Sec 1 **Th**—4:30-7:15, PeikH 355, Stochl

★OCISy 5207 **INTERACTIVE VIDEO INSTRUCTION.** 4 credits, \$292.

Videodiscs and related technologies; design and development of interactive instruction. **Must be taken A-F.** (Prereq 5004 and 5201 or 5205 or 5209 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**—4:30-8:15, PeikH 335, Sales

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★OCISy 5208 **COMPUTER-BASED TOOLS FOR TEACHERS.** 3 credits, \$219.

The use of microcomputers for instructional materials generation, record keeping and classroom management tasks in K-12 classrooms. **Must be taken S-N.** (Prereq 5003 or 5206 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, PeikH 355, Johnston

Spring Qtr Sec 2 **T**—4:15-7, PeikH 335, Johnston

★OCISy 5209 **PRINCIPLES AND PROCEDURES IN DESIGNING INSTRUCTION.** 4 credits, \$292.

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**—4:30-7:15, PeikH 225, Sales

★OCISy 5212 **COMPUTER-BASED INSTRUCTION: DESIGN AND DEVELOPMENT.** 3 credits, \$219.

Design and development of a computer-based instruction package, including documentation and support materials. **Must be taken A-F.** (Prereq 5205 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**—4:30-7:15, ApH 219, Hooper

★OCISy 5216 **COMPUTER-BASED INSTRUCTIONAL SIMULATIONS.** 3 credits, \$219.

Design implementation, and evaluation of instructional computer-based simulations. **Must be taken A-F.** (Prereq 5212 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 335, Johnston

★OCISy 5600 **INTRODUCTION TO CURRICULUM SYSTEMS.** 3 credits, \$219.

Exploration of principles of curriculum design, forces influencing goals and curriculum planning, curricular trends and issues, traditional and emergent curricular designs, current proposals for change; and a model for curriculum 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 12 Extension students)

Fall Qtr Sec 1 **W**—4:30-7:15, PeikH 315, Kimpston

Spring Qtr Sec 2 **M**—4:30-7:15, JonesH 2, Carlson

★OCISy 5605 **PRINCIPLES AND PROCEDURES IN DESIGNING CURRICULUM.** 3 credits, \$219.

Systematic curriculum planning; development of models for planning, formulation of plans, and outlining a curriculum design for an educational setting. **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 **W**—4:30-7:15, PeikH 315, Kimpston

★OCISy 5700 **CURRICULUM PLANNING PROCESSES.** 4 credits, \$292.

Analyzing models for planning; designing a curriculum system; employing the system to produce plans to develop curriculum. **Must be taken A-F.** (Prereq 5600 or 5605

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

or Elem 5100. 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**—4:30-7:15, PeikH 325, Kimpston

★OCISy 5800 **SUPERVISION OF SECONDARY INSTRUCTION.** 3 credits, \$219.

Achievement of appropriate teaching expectations focusing on problems of personnel responsible for their improvement. **Must be taken A-F.** (Prereq 5600 or SeEd 5113. 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, EdHAN 64, Anderson

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 Curriculum and Instruction courses, see page 182 or call 625-6372.

D

Dance (Dnce)

(106 Norris Hall: 624-5060)

Department of Theatre Arts and Dance

College of Liberal Arts

Textbooks for most Dnce courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Diane Aldis, Teaching Specialist

Joe Chvala, Teaching Specialist

Michael Ellison, Teaching Assistant

Mary Harding, Teaching Specialist

Mary B. Lampe, Associate Professor

Dong Il Lee, Teaching Specialist

Bonnie Mathis, Teaching Specialist

Linda Stoen, Teaching Specialist

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.

Dance (Dnce) courses (numbered through 1499) may be taken S-N.

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dnce 1001 **FUNDAMENTALS OF MODERN DANCE I.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Introduction to fundamentals of modern dance technique. (No prereq. Limited to 20)

Fall Qtr Sec 1 **MW**—5-6:30, NorrisH 67, Aldis

★Dnce 1002 **FUNDAMENTALS OF MODERN DANCE II.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

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**—5-6:30, NorrisH 67, Aldis

★Dnce 1003 **FUNDAMENTALS OF MODERN DANCE III.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Introduction to the fundamentals of modern dance III. Emphasis on exploring movement qualities. (Prereq 1002 or equivalent. Limited to 20)

Spring Qtr Sec 1 **MW**—5-6:30, NorrisH 67, Aldis

★Dnce 1004 **FUNDAMENTALS OF BALLET I.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Introduction to the fundamentals of classical ballet techniques including barre and center work. (No prereq. Limited to 20)

Fall Qtr Sec 1 **TTh**—6-7:30, NorrisH 67, Harding

★Dnce 1005 **FUNDAMENTALS OF BALLET II.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Fundamentals of classical ballet including barre, center work, and combinations; level two. (Prereq 1004 or equivalent. Limited to 20)

Winter Qtr Sec 1 **TTh**—6-7:30, NorrisH 67, Harding

★Dnce 1006 **FUNDAMENTALS OF BALLET III.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Fundamentals of classical ballet including barre, center work, and combinations, adagio and allegro movements; level three. (Prereq 1005 or equivalent. Limited to 20)

Spring Qtr Sec 1 **TTh**—6-7:30, NorrisH 67, Harding

★Dnce 1007 **FUNDAMENTALS OF JAZZ.** 1 credit, \$60.75.

Basic skills of jazz dance. (No prereq. Limited to 20)

Fall Qtr Sec 1 **TTh**—5:30-7, RarigC 10, Ellison

★Dnce 1008 **FUNDAMENTALS OF JAZZ II.** 1 credit, \$60.75.

Stylistic range of jazz dance and the differences in the resistance and the attack of movement, level two. (Prereq 1007 or equivalent. Limited to 20)

Winter Qtr Sec 1 **TTh**—5:30-7, RarigC 10, Ellison

★Dnce 1009 **FUNDAMENTALS OF JAZZ III.** 1 credit, \$60.75.

Fundamentals of jazz. Stylistic range of jazz dance and the differences in the resistance and the attack of movement; level three. (Prereq 1008 or equivalent. Limited to 20)

Spring Qtr Sec 1 **TTh**—5:30-7, RarigC 10, Ellison

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

- ★Dnce 1031 **BALLROOM DANCE I.** 1 credit, \$60.75 plus \$3 course fee. Total \$63.75.
Elementary steps and variations of the foxtrot, lindy, waltz, tango, cha-cha, rumba, and samba. (No prereq. Sec 1 and 2 meet concurrently; sec 3 and 4 meet concurrently. Limited to 25 each section)
- Fall Qtr** Sec 1 **M**—7-9, PeikG 100, Lampe (men only)
Sec 2 **M**—7-9, PeikG 100, Lampe (women only)
- Spring Qtr** Sec 3 **M**—7-9, PeikG 100, Lampe (men only)
Sec 4 **M**—7-9, PeikG 100, Lampe (women only)
- ★Dnce 1032 **BALLROOM DANCE II.** 1 credit, \$60.75 plus \$3 course fee. Total \$63.75.
Second level of the foxtrot, lindy, waltz, tango, cha-cha, rumba, 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, PeikH Gym 100, Lampe (men only)
Sec 2 **M**—7-9, PeikH Gym 100, Lampe (women only)
- ★Dnce 1033 **BALLROOM DANCE III.** 1 credit, \$60.75 plus \$3 course fee. Total \$63.75.
English quickstep, waltz, bolero, mambo; advanced routines for tango, cha-cha. (Prereq 1032 or equivalent. Sec 1 and 2 meet concurrently. Limited to 25 each section)
- Spring Qtr** Sec 1 **W**—7-9, Norris Gym 153, Lampe (men only)
Sec 2 **W**—7-9, Norris Gym 153, Lampe (women only)
- ★Dnce 1040 **BEGINNING BALLET TECHNIQUE I.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.
Develops awareness of classical ballet as an art form; develops acut awareness of line, design, balance, body positions, and footwork in classical expression; teaches the fundamental technique of classical ballet. (Prereq audition and #. Limited to 20)
- Fall Qtr** Sec 1 **TTh**—7:30-9, NorrisH 67, Harding
- ★Dnce 1050 **BEGINNING BALLET TECHNIQUE II.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.
Basic ballet technique, level two. (Prereq 1040, #. Limited to 20)
- Winter Qtr** Sec 1 **TTh**—7:30-9, NorrisH 67, Harding
- ★Dnce 1060 **BEGINNING BALLET TECHNIQUE III.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.
Basic ballet technique, level three. (Prereq 1050, #. Limited to 20)
- Spring Qtr** Sec 1 **TTh**—7:30-9, NorrisH 67, Harding
- ★Dnce 1070 **BEGINNING JAZZ.** 1 credit, \$60.75.
Basic jazz dance technique, exploring the stylistic range of jazz dance and its origins. (Prereq 1003 or 1006. Limited to 18)
- Fall Qtr** Sec 1 **MW**—6-7:30, PeikG 65, Stoen
- ★Dnce 1077 **BEGINNING TAP I.** 1 credit, \$60.75.
The basics of tap; working on fundamental syncopation and various rhythms. (No prereq. Limited to 20)
- Fall Qtr** Sec 1 **TTh**—12-1, PeikG 65, Chvala
Sec 2 **TTh**—5-6, PeikG 65, Chvala

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★Dnce 1078 **BEGINNING TAP II.** 1 credit, \$60.75.

The basics of tap. Basic time steps. (Prereq 1077 or equivalent. Limited to 20)

Winter Qtr Sec 1 **TTh**—12-1, PeikG 65, Chvala

Sec 2 **TTh**—5-6, PeikG 65, Chvala

★Dnce 1079 **BEGINNING TAP III.** 1 credit, \$60.75.

The basics of tap, various time steps, riffs. (Prereq 1078 or equivalent. Limited to 20)

Spring Qtr Sec 1 **TTh**—12-1, PeikG 65, Chvala

Sec 2 **TTh**—5-6, PeikG 65, Chvala

★Dnce 1080 **BEGINNING JAZZ II.** 1 credit, \$60.75.

Basic jazz dance technique. Stylistic range of jazz dance and the difference in the resistance and attack of movement. (Prereq 1070 or equivalent. Limited to 18)

Winter Qtr Sec 1 **MW**—6-7:30, PeikG 65, Stoen

★Dnce 1090 **BEGINNING JAZZ III.** 1 credit, \$60.75.

Basic jazz technique. Dynamic range and extension. (Prereq 1080 or equivalent. Limited to 20)

Spring Qtr Sec 1 **MW**—6-7:30, PeikG 65, Stoen

★Dnce 1110 **DANCE TOPICS: BASIC MUSICAL THEATRE SKILLS.** 1 credit, \$60.75 plus \$7 course fee. Total \$67.75.

Basic musical skills and auditioning techniques for singers, dancers, or actors. (No prereq. Limited to 20)

Winter Qtr Sec 1 **TTh**—7-8:30, RarigC 10, Ellison

Spring Qtr Sec 2 **TTh**—7-8:30, RarigC 10, Ellison

★Dnce 1110 **DANCE TOPICS: AEROBICS FOR THE DANCER.** 1 credit, \$60.75.

Low-impact aerobic workout using techniques of modern and jazz. (No prereq. Limited to 18)

Fall Qtr Sec 3 **MW**—5-6, PeikG 65, Stoen

Winter Qtr Sec 4 **MW**—5-6, PeikG 65, Stoen

Spring Qtr Sec 5 **MW**—5-6, PeikG 65, Stoen

★Dnce 1110 **TOPICS: BEGINNING MODERN I.** 1 credit, \$60.75.

new The practical application of principles of alignment, placement coordination, control, stretch, strength, and balance. (Prereq 1003 or equivalent. Limited to 20)

Fall Qtr Sec 6 **MW**—6:30-8, NorrisH 67, Aldis

★Dnce 1110 **TOPICS: BEGINNING MODERN II.** 1 credit, \$60.75.

The practical application of principles of alignment, placement coordination, control, stretch, strength, and balance. (Prereq fall qtr 1110, sec 6. Limited to 20 students)

Winter Qtr Sec 7 **MW**—6:30-8, NorrisH 67, Aldis

★Dnce 3040 **INTERMEDIATE BALLET I.** 2 credits, \$124 plus \$7 course fee. Total \$131.

Intermediate ballet technique. (Prereq 1060 or equivalent. Limited to 40)

Fall Qtr Sec 1 **MWF**—11:45-1:15, NorrisH 67, Mathis

★Dnce 3050 **INTERMEDIATE BALLET II.** 2 credits, \$124 plus \$7 course fee. Total \$131.

Intermediate ballet technique. (Prereq 3040 or equivalent. Limited to 40)

Winter Qtr **MWF**—11:45-1:15, NorrisH 67, Mathis

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dnce 3060 **INTERMEDIATE BALLET III.** 2 credits, \$124 plus \$7 course fee. Total \$131.
Intermediate ballet technique. (Prereq 3050 or equivalent. Limited to 40)
Spring Qtr Sec 1 **MWF**—11:45-1:15, NorrisH 67, Mathis

★Dnce 3077 **INTERMEDIATE TAP I.** 1 credit, \$62.
Intermediate tap techniques and creative development through improvisational studies. (Prereq 1079 or equivalent. Limited to 20)

new

Fall Qtr Sec 1 **TTh**—6-7, PeikG 65, Chvala

★Dnce 3078 **INTERMEDIATE TAP II.** 1 credit, \$62.
Intermediate tap techniques and creative development through improvisational studies. (Prereq 3077 or equivalent. Limited to 20)

new

Winter Qtr Sec 1 **TTh**—6-7, PeikG 65, Chvala

★Dnce 3079 **INTERMEDIATE TAP III.** 1 credit, \$62.
Intermediate tap techniques and creative development through improvisational studies. (Prereq 3078 or equivalent. Limited to 20)

new

Spring Qtr Sec 1 **TTh**—6-7, PeikG 65, Chvala

★Dnce 3330 **TOPICS: DANCE FOR THE ATHLETE.** 2 credits, \$124 plus \$7 course fee. Total \$131.

Dance skills for athletes which develop flexibility, strength, speed, and balance. Barre and floor work will be included. (No prereq. Limited to 20)

Fall Qtr Sec 1 **TTh**—7-9, PeikG 65, Stoen

Winter Qtr Sec 2 **TTh**—7-9, PeikG 65, Stoen

Spring Qtr Sec 3 **TTh**—7-9, PeikG 65, Stoen

★Dnce 3330 **TOPICS: MASK DANCE DRAMA OF KOREA—BASIC MOVEMENT (PONGSAN TAL-CHUM).** 3 credits, \$186 plus \$7 course fee. Total \$193.

Designed to give you an understanding of traditional Korean culture and performing arts in many of its unique movements, and expression in traditional Korean dance traditions, especially Pongsan Tal-Chum, through lectures, dancing, mask-making crafts, traditional music instrument playing, classical poetry readings, and seeing video resources. Experiencing a unique form of expression and becoming aware of your own perception as well as the philosophy behind dance are at the core of this class.

new

Fall Qtr Sec 4 **MW**—7-9, NorrisH 201, Lee

★Dnce 3330 **TOPICS: MASK DANCE DRAMA OF KOREA—EIGHT MONK DANCE (PAL MOKJUNG AND MUT DONG CHUM).** 3 credits, \$186 plus \$7 course fee. Total \$193.

Begins with a deep bowing of respect to create a ritualistic mood of space inside and outside of yourself. The purpose of Zen sessions are to control your mind first by rules of breathing and to enter the empty space in your soul to enjoy the freedom of imagination. The crane dance will follow to control your body after completing a control of your mind with fresh concentration. After dancing different patterns of movements together, finish the meeting with deep bowing. Every class will be a creative journey to discover the hidden side of yourself and a sharing of the deep sense of communal experience out of different patterns of symbolic expressions. Students will be divided into two groups (beginner and intermediate).

new

Winter Qtr Sec 5 **MW**—7-9, NorrisH 201, Lee

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dnce 3330 **TOPICS: TRADITIONAL PERFORMING ARTS OF KOREA—PERFORMANCE WORKSHOP.** 3 credits, \$186 plus \$7 course fee. Total \$193.

new

A survey of traditional Korean performing arts with supporting lectures on Korean culture. Performance/workshop will be the focus and can culminate in a final performance. Students will be divided into three troupes (beginner, intermediate, advanced).

Spring Qtr Sec 6 **MW**—7-9, NorrisH 201, Lee

★Dnce 3343 **DANCE TOPICS: BODYWORK (MOVEMENT AS COMMUNICATION).** 2 credits, \$124.

new

Principles of techniques of bodywork including applications within wellness/stress management fields. (No prereq. Limited to 20)

Spring Qtr Sec 1 **MW**—6:30-8, NorrisH 67, Aldis

★Dnce 5040 **ADVANCED BALLET I.** 1 credit, \$62.

new

Advanced ballet technique, working on long continuities or phrases of movement. (Prereq 3060 or equivalent. May not be taken for graduate credit. Limited to 20)

Fall Qtr Sec 1 **TTh**—11:45-1:15, NorrisH 67

★Dnce 5050 **ADVANCED BALLET II.** 1 credit, \$62.

new

Advanced ballet technique, working on long continuities or phrases of movement. (Prereq 5040 or equivalent. May not be taken for graduate credit. Limited to 20)

Winter Qtr Sec 1 **TTh**—11:45-1:15, NorrisH 67

★Dnce 5060 **ADVANCED BALLET III.** 1 credit, \$62.

new

Advanced ballet technique, working on long continuities or phrases of movement. (Prereq 5050 or equivalent. May not be taken for graduate credit. Limited to 20)

Spring Qtr Sec 1 **TTh**—11:45-1:15, NorrisH 67

Danish

(See Scandinavian Languages)

Decision Sciences (DSci)

See Information and Decision Sciences, page 304; and Operations and Management Science, page 364.

Dentistry

For information on noncredit conferences or workshops in dentistry, please contact the director, Lynda J. Young, Continuing Dental Education, Room 6-406 Moos Health Science Tower, 515 Delaware Street S.E., University of Minnesota, Minneapolis 55455; telephone 625-1418.

Design (Dsgn)

(240 McNeal Hall: 624-9700)

College of Human Ecology

(Department of Design, Housing, and Apparel)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most Dsgn courses are available at Books Underground (624-9200).

RESTRICTIONS IN DESIGN CLASSES

1. Registration in any Design 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 write or call the instructor in advance or call 624-9700 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 Wesbrook Hall by the end of the second week of term.
3. Most Design courses require the student to spend a minimum of two hours per week in the studio for each hour spent in class.
4. Some Design 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 Wesbrook 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.

Only courses which have 5 as the second digit may be used in a degree program. If you are in a degree program, check with your adviser to determine which of the courses having "2" as the second digit can be used in a degree program. Students interested in a degree should obtain a copy of the College of Human Ecology bulletin.

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 Studio Arts and The Compleat Scholar noncredit courses.)

Richard Abell, Associate Professor of Design, Housing, and Apparel

Mark Feyereisen, Teaching Specialist in Design, Housing, and Apparel

Delores A. Ginthner, Assistant Professor of Design, Housing, and Apparel

Harold Hussung, Teaching Specialist in Design, Housing, and Apparel

Frederick Klein, Lecturer in Design, Housing, and Apparel

Lydia Kulesov, Teaching Assistant

Vern Lovstad, Teaching Specialist in Design, Housing, and Apparel

Stephen Manlove, Teaching Specialist in Design, Housing, and Apparel

Greg Wright, Teaching Specialist in Design, Housing, and Apparel

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 between 6 p.m. and 1 a.m.

You must attend the entire first Dsgn class session or your space in that class will be forfeited.

Applied Design and Interior Design courses

Courses in Europe

Students interested in Interior Design will find a study abroad program designed especially for them offered by the Global Campus. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dsgn 1201 **INTRODUCTION TO VISUAL COMMUNICATION AND GRAPHIC DESIGN.** 4 credits, \$243.

Overview of advertising communications process and creative procedure, terminology, and technology. Explores copywriting, design, typography, production, color separating, printing, photography, and television. Emphasis on commercial artist's relationship with the other specialists. (No prereq. Limited to 28)

Fall Qtr Sec 1 **M**—6-8, RarigC 610, Feyereisen

Sec 2 **T**—6-8, RarigC 610, Klein

Winter Qtr Sec 3 **T**—6-8, RarigC 610, Klein

Sec 4 **W**—6-8, RarigC 610, Klein

Spring Qtr Sec 5 **M**—6-8, RarigC 610, Feyereisen

Sec 6 **W**—6-8, RarigC 610, Klein

★Dsgn 1206 **SPATIAL LOGIC FOR DESIGNERS.** 4 credits, \$243 plus \$7.50 course fee. Total \$250.50.

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 Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

Fall Qtr Sec 1 **W**—6:10-9:55, McNH 333, StP Campus, Hussung

Winter Qtr Sec 2 **M**—6:10-9:55, McNH 333, StP Campus, Hussung

★Dsgn 1220 **COMMERCIAL ART MEDIA AND STUDIO TECHNIQUES.** 4 credits, \$243.

Commercial art media and techniques; color separations, lettering and calligraphy, commercial art tools and terms. Practice and principles; supplemented by field trip. (Prereq 1204 or #. Limited to 24)

Winter Qtr Sec 1 **T**—6:10-9:55, McNH 333, StP Campus, Ikola

Spring Qtr Sec 2 **Th**—6:10-9:55, McNH 480, StP Campus, Ikola

★Dsgn 3251 **GRAPHIC DESIGN I.** 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Layout techniques, materials, and structure, color theory. Applications of type style and copyfitting. (Prereq 1220 or #. Limited to 24)

Fall Qtr Sec 1 **T**—6:10-9:55, McNH 333, StP Campus

Winter Qtr Sec 2 **W**—6:10-9:55, McNH 333, StP Campus

(See also PSch 0780, Layout and Pasteup for Beginners)

★Dsgn 3252 **GRAPHIC DESIGN II.** 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

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 3251 or #. Limited to 24)

Winter Qtr Sec 1 **Th**—6:10-9:55, McNH 333, StP Campus

Spring Qtr Sec 2 **T**—6:10-9:55, McNH 333, StP Campus

★Dsgn 3253 **GRAPHIC DESIGN III.** 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Continued development of layout skills. Exposure to actual working conditions. Advertising psychology, consumer relations, and business management. Printing papers. Orientation in agency, studio, and corporate procedures. (Prereq 3252. Limited to 24)

Fall Qtr Sec 1 **Th**—6:10-9:55, McNH 333, StP Campus

Spring Qtr Sec 2 **M**—6:10-9:55, McNH 333, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★Dsgn 3255 **TYPOGRAPHIC DESIGN**. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Theory and application of principles of typographic composition. Emphasis on typography history, type faces and letter forms, typesetting methods, terminology, type specification and copyfitting. (Prereq 1220 for graphic design certificate or pass portfolio review for degree program. Limited to 24)

Spring Qtr Sec 1 **Th**—6:10-9:55, McNH 333, StP Campus

- ★Dsgn 3256 **PRODUCTION FOR THE GRAPHIC DESIGNER**. 4 credits, \$292 plus \$7.50 Special fee. Total \$299.50.

Investigation of processes and techniques for production of print communication. Fundamentals of keyline, mechanical art production, specification for printing industry. (Prereq 1220 for graphic design certificate or pass portfolio review for degree program. Limited to 24)

Winter Qtr Sec 1 **Th**—6:10-9:55, McNH 480, StP Campus, Feyereisen

Spring Qtr Sec 2 **W**—6:10-9:55, McNH 333, StP Campus, Feyereisen

- ★Dsgn 3280 **DESIGN PORTFOLIO**. 4 credits, \$292.

Compilation of individual portfolios; individual and group critiques. Preparation of slides. **Should be taken as final course in program.** (Prereq 24 cr of 3200 courses for graphic design certificate or 20 cr of 32xx and/or 35xx courses and pass portfolio review for degree program. Limited to 24)

Fall Qtr Sec 1 **M**—6:10-9:10, McNH 333, StP Campus

Spring Qtr Sec 2 **TTh**—4-5:30, McNH 333, StP Campus

- Dsgn 1501 **INTRODUCTION TO DESIGN**. 3 credits, \$182.25.

Study of basic design processes, the elements, principles, evaluation, and history of design in global perspective. (No prereq)

Fall Qtr Sec 1 **T**—6:10-8:55, McNH 33, StP Campus

Spring Qtr Sec 2 **T**—6:10-8:55, McNH 33, StP Campus

- ★Dsgn 1523 **DESIGN PROCESS: DRAWING I**. 4 credits, \$243.

Problem solving in drawing with application of design elements and principles. Assignments done both in and out of design studio. (Prereq Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

Fall Qtr Sec 1 **MW**—6:10-9:10, McNH 258, StP Campus

Winter Qtr Sec 2 **MWF**—3:45-5:45, McNH 333, StP Campus

Spring Qtr Sec 3 **TTh**—6:10-9:10, McNH 258, StP Campus

- ★Dsgn 1525 **DESIGN PROCESS: TWO DIMENSIONAL DESIGN I**. 4 credits, \$243.

Experiments with principles of two-dimensional design. (Prereq Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

Fall Qtr Sec 1 **MWF**—3:45-5:45, McNH 333, StP Campus

Winter Qtr Sec 2 **TTh**—6:10-9:10, McNH 258, StP Campus

Spring Qtr Sec 3 **TTh**—3-6, McNH 258, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dsgn 1528 (formerly 1521) **DESIGN PROCESS: COLOR.** 4 credits, \$243 plus \$7.50 special fee. Total \$250.50.

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, 1523 or 1525, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

Fall Qtr Sec 1 **TTh**—4-7, McNH 262, StP Campus

Winter Qtr Sec 2 **MWF**—3:45-5:45, McNH 262, StP Campus

Spring Qtr Sec 3 **TTh**—6:10-9:10, McNH 262, StP Campus

★Dsgn 1531 **SURFACE-FABRIC DESIGN I.** 4 credits, \$243 plus \$35 course fee. Total \$278.

Exploration of surface pattern and composition with varied media and materials: dyeing, resist, batik, stencil, block printing and other. (Prereq 1521 or 1528, 1523, 1525, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 18)

Winter Qtr Sec 1 **Sa**—9:30 a.m.-3:30 and Arr., McNH B9, StP Campus, Abell

★Dsgn 1543 **FASHION ILLUSTRATION.** 4 credits, \$243 plus \$7.50 course fee. Total \$250.50.

Human figure sketches and fashion illustration as a form of communication. Emphasis on color, proportion, cut, and fabric detail. (No prereq. Limited to 24)

Spring Qtr Sec 1 **MWF**—3:45-5:45, McNH 262, StP Campus

★Dsgn 1550 **INTERMEDIATE DRAFTING.** 4 credits, \$243 plus \$10 course fee. Total \$253.

Intermediate-level drafting instruction in parallel drawing, perspective drawing, and architectural dimensioning. (Prereq demonstrated proficiency in basic drafting techniques. Limited to 24)

Fall Qtr Sec 1 **TTh**—5:30-8:30, McNH 475, StP Campus

Winter Qtr Sec 2 **MW**—5:30-8:30, McNH 475, StP Campus

Spring Qtr Sec 3 **TTh**—5:30-8:30, McNH 475, StP Campus

★Dsgn 1554 **INTERIOR DESIGN I: SPATIAL DESIGN EXPERIENCES.** 4 credits, \$243 plus \$10 course fee. Total \$253.

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 1501, 1523, 1528, proficiency in drafting techniques. Limited to 20)

Winter Qtr Sec 1 **MWF**—3:45-5:45, McNH 480, StP Campus

Spring Qtr Sec 2 **MWF**—3:30-5:25, McNH 475, StP Campus

★Dsgn 1555 **INTERIOR DESIGN II: INTERIOR DESIGN PROBLEMS.** 4 credits, \$243 plus \$10 course fee. Total \$253.

Problems in designing for living space needs with emphasis on behavioral concerns related to interiors. (Prereq 1550, 1554. Limited to 24)

Fall Qtr Sec 1 **MW**—4-7, McNH 475, StP Campus

Winter Qtr Sec 2 **TTh**—6:10-9:10, McNH 475, StP Campus

Dsgn 3517 **HISTORY OF COSTUME: PRIMITIVE THROUGH 18TH CENTURY.** 3 credits, \$219 (◆\$109.50).

◆ Emphasis on European costume. (Prereq general art history course)

Fall Qtr Sec 1 **T**—6:10-8:55, McNH 180, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dsgn 3523 **DESIGN PROCESS: DRAWING II.** 4 credits, \$292.

Advanced problem solving in drawing with application of design elements and principles. Assignments done both in and out of studio. (Prereq 1523, 1525, 1528, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing, pass portfolio review. Limited to 24)

Fall Qtr	Sec 1	TTh —6:10-9:10, McNH 258, StP Campus
	Sec 2	Sa —9:30 a.m.-3:30, Como Park Conservatory, St Paul, Abell
Winter Qtr	Sec 3	MW —6:10-9:10, McNH 258, StP Campus
Spring Qtr	Sec 4	MWF —4-5:55, McNH 258, StP Campus

★Dsgn 3525 **DESIGN PROCESS: TWO-DIMENSIONAL DESIGN.** 4 credits, \$292.

Experiments with principles of two-dimensional design. (Prereq 1525 or equivalent, Applied Design, Costume Design, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing student, pass portfolio review. Limited to 24)

Fall Qtr	Sec 1	MWF —4-5:55, McNH 258, StP Campus
Winter Qtr	Sec 2	MWF —4-5:55, McNH 258, StP Campus
Spring Qtr	Sec 3	MW —6:10-9:10, McNH 258, StP Campus

★Dsgn 3527 **DESIGN PROCESS: THREE-DIMENSIONAL DESIGN.** 4 credits, \$292 plus \$10 course fee. Total \$302.

Study and application of principles of three-dimensional design. (Prereq 1523, 1525, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing, pass portfolio review. Limited to 24)

Fall Qtr	Sec 1	MW —6:10-9:10, VoTech 120, StP Campus, Kulesov
Winter Qtr	Sec 2	MW —6:10-9:10, VoTech 120, StP Campus, Kulesov
Spring Qtr	Sec 3	TTh —6:10-9:10, VoTech 120, StP Campus

★Dsgn 3528 (formerly 3521) **DESIGN PROCESS: COLOR II.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

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, 1528, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing, pass portfolio review. Limited to 20)

Fall Qtr	Sec 1	MW —6:10-9:10, McNH 262, StP Campus
Winter Qtr	Sec 2	MW —6:10-9:10, McNH 262, StP Campus
Spring Qtr	Sec 3	MW —6:10-9:10, McNH 262, StP Campus

★Dsgn 3531 **SURFACE-FABRIC DESIGN II.** 4 credits, \$292.

Selection from printed, dyed, woven, or non-woven textiles. (Prereq 1531, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing, pass portfolio review. Limited to 18)

Spring Qtr	Sec 1	Sa —9:30 a.m.-3:30 plus arr, McNH B9, StP Campus, Abell
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★Dsgn 3532 **FIBER STRUCTURE: WEAVING.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

Beginning loom techniques. Studio problems. (Prereq 1521 or 1528, 1525, or #. Limited to 16)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	Sec 1	TTh —4-7 and Arr., McNH 16, StP Campus, Kulesov
Winter Qtr	Sec 2	TTh —4-7 and Arr., McNH 16, StP Campus, Kulesov
Spring Qtr	Sec 3	TTh —3:30-6:30 and Arr., McNH 16, StP Campus, Kulesov

(See also CSch 0183, The Art of Weaving)

★Dsgn 3534 **COMPUTER APPLICATIONS TO DESIGN PROBLEMS.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

Focuses on solutions to the design process using the Macintosh. Students will gain experience in microcomputers, peripherals, and software. (Prereq 1523, 1525, 1528, or #. Limited to 20)

Fall Qtr	Sec 1	TTh —6:10-8:30, McNH 305 (Mac Lab), StP Campus
	Sec 2	MW —3:30-5:45, McNH 305 (Mac Lab), StP Campus
Winter Qtr	Sec 3	TTh —6:10-8:30, McNH 305 (Mac Lab), StP Campus
	Sec 4	MW —3:30-5:45, McNH 305 (Mac Lab), StP Campus
Spring Qtr	Sec 5	TTh —6:10-8:30, McNH 305 (Mac Lab), StP Campus
	Sec 6	MW —3:30-5:45, McNH 305 (Mac Lab), StP Campus

★Dsgn 3537 (formerly 1532) **FIBER STRUCTURE DESIGN I.** 4 credits, \$292.

Individual designing with two- and three-dimensional forms non-loomed techniques. (Prereq pass portfolio review, TexC 1601 or demonstrated proficiency in sewing. Limited to 20)

Fall Qtr	Sec 1	MW —4-7, McNH 16, StP Campus
Spring Qtr	Sec 2	MW —6:10-9:10, McNH 16, StP Campus

★Dsgn 3548 **LIGHTING DESIGN FOR ENVIRONMENTAL SPACES.** 3 credits, \$219.

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. (Prereq Phys 1001. A joint Day/Extension class limited to 60 Extension students)

Spring Qtr	Sec 1	TTh —3:30-5:15, McNH 33, StP Campus, Ginthner
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★Dsgn 3550 **INTERIOR DESIGN PRESENTATION.** 3 credits, \$219 plus \$7.50 course fee. Total \$226.50.

Methods of rapid rendering for interiors in various media. Presentation techniques for traditional and modern interior details. (Prereq pass portfolio review, written Δ. Limited to 24)

Fall Qtr	Sec 1	MW —6:10-8:45, McNH 480, StP Campus
Spring Qtr	Sec 2	MW —6:10-8:45, McNH 480, StP Campus

★Dsgn 3552 **COMPUTER-AIDED DESIGN, DRAFTING SYSTEM I.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

Using a computer-aided design drafting system. Includes drawing capabilities and dimensioning for drafting floor plans and three-dimensional views. (Prereq 1550 or equivalent. Limited to 19)

Fall Qtr	Sec 1	MW —6:15-8:30, McNH 305 (IBM Lab), StP Campus, Manlove
Winter Qtr	Sec 2	MW —6:15-8:30, McNH 305 (IBM Lab), StP Campus, Manlove

★Dsgn 3554 **INTERIOR BUILDING TECHNOLOGY.** 4 credits, \$292.

Methods of building construction and principles of structure theory. Emphasis on interior architectural components and systems. (Prereq 1550, Hsg 1801 or Δ. Limited to 60)

Winter Qtr	Sec 1	TTh —3:45-6:15, McNH B3, StP Campus
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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Dsgn 3556 **SPECIAL TOPICS: COMPUTER-AIDED DESIGN DRAFTING SYSTEMS II.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

Focusing basic CAD skills for interior designers; course includes 3-D projection, generation of specifications, and development and use of multiple command sequences (macros)—using Autocad release 3.0/ IBM PS-2. (Prereq 3552. Limited to 19)

Spring Qtr Sec 1 **TTh**—6:10-8:30, McNH 305 (IBM Lab), StP Campus, Manlove

Dsgn 3571 **PROFESSIONAL ISSUES IN APPLIED DESIGN/VISUAL COMMUNICATIONS.** 2 credits, \$146.

Discussion of issues in the field, goals, and professionalism. **Must be taken S-N.** (Pre-req completion of 60 credits in Category E. To be taken prior to or concurrently with 3584, #)

Winter Qtr Sec 1 **W**—4-5, McNH 316, StP Campus

Dsgn 3572 **SPECIAL TOPICS: IMPACT OF CODES ON DESIGN PROFESSIONALS.** 3 credits. **Tentatively scheduled for 1992-93.**

Study of the principles of the Uniform Building Code and related codes and their impact on the interior design practice. (Prereq Δ, #)

★Dsgn 5554 **INTERIOR DESIGN VI: CONTRACT DESIGN.** 4 credits, \$292 plus \$10 course fee. Total \$302.

Design problems related to commercial interiors. (Prereq 3553, 3557, TexC 3621 or #: Δ; Dsgn 3554 and TexC 3622 recommended. Qualified students may register for graduate credit at the University of Minnesota. Limited to 24)

Fall Qtr Sec 1 **MWF**—3:45-5:45, McNH 480, StP Campus

Dutch (Dtch)

(231 Folwell Hall: 625-2080)

College of Liberal Arts

Textbooks for most Dtch courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Stephan Sanders, Dutch Writer-in-Residence

Nicolaas van der Sanden, Lecturer in Dutch

A MINOR IN DUTCH CAN BE COMPLETED IN THE EVENING.

Required Preparatory Courses: 1101-1102-1103 or 1110; 1104-1105-1106.

Minor Requirements: 3011, 8 cr of 3310, 3510, two courses to be chosen with the help of an adviser.

Read about language laboratories on page 61.

★**ODtch 1101-1102-1103. BEGINNING DUTCH.** 5 credits each quarter, \$303.75 each quarter.

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 5 cr of 1110 for 1102; 1102 or 10 cr of 1110 for 1103. A joint Day/Extension class limited to 15 Extension students)

Fall Qtr 1101 Sec 1 **MWTh**—4-5:30, FolH 234, Van der Sanden

Winter Qtr 1102 Sec 2 **MWTh**—4-5:30, FolH 234, Van der Sanden

Spring Qtr 1103 Sec 3 **MWTh**—4-5:30, FolH 234, Van der Sanden

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ODtch 1104-1105-1106. INTERMEDIATE DUTCH. 5 credits each quarter, \$303.75 each quarter.

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 234, Van der Sanden

Winter Qtr 1105 Sec 2 **MW**—5:50-8, FolH 234, Van der Sanden

Spring Qtr 1106 Sec 3 **MW**—5:50-8, FolH 234, Van der Sanden

ODtch 3011-3012 CONVERSATION AND COMPOSITION. 4 credits each quarter, \$248 each quarter.

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, JonesH 9, Van der Sanden

Fall Qtr 3012 Sec 2 **TTh**—5:45-7, JonesH 9, Van der Sanden

ODtch 3310 STUDIES IN DUTCH AUTHORS. 4 credits, \$248.

One author studied in depth. (Prereq 1103 or 15 cr of 1110 or #. May be repeated for credit. Meets concurrently with 3610. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—3:35-5:30, FolH 234, Sanders

Spring Qtr Sec 2 **T**—3:35-5:30, FolH 234, Sanders

ODtch 3510 TOPICS IN DUTCH CULTURE. 4 credits, \$248.

A single topic of Dutch culture explored in depth. Topics vary. **Requires no knowledge of Dutch.** (No prereq. May be repeated for credit. A joint Day/Extension class)

Fall Qtr Sec 1 **T**—3:35-5:30, FolH 234, Sanders

ODtch 3610 DUTCH AUTHORS IN TRANSLATION. 4 credits, \$248.

One author studied in depth. **Requires no knowledge of Dutch.** (No prereq. May be repeated for credit. Meets concurrently with 3310. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—3:35-5:30, FolH 234, Sanders

Spring Qtr Sec 2 **T**—3:35-5:30, FolH 234, Sanders

E

Early Childhood Studies Program

(Department of Extension Classes. 201 Westbrook Hall: 625-1088)

Program Director: Mary Lou Gilstad

Foster Care Program Associate: Valerie Nygaard

Senior Secretary: Fred Keller

Instructors: Beth Koskie, Sandy Heidemann, Leslie Yunker, Martha Erickson, Jane Gilgun, Lane Fischer, Joyce Flournoy, Gerald Huber, Clayton Pharr, Mary Payne

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

An interdisciplinary program within Extension Classes which administers the Child Abuse Prevention Specialization (CAPS) Program, 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 Extension 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

(105 Folwell Hall: 624-0007)

College of Liberal Arts

Textbooks available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also History; CSch 0105, Imperial Silks of the Ch'ing Dynasty; Dnce 3330, Topics: Mask Dance Drama of Korea.)

Edward M. Copeland, Professor of Japanese

Edward Farmer, Professor of History

Wesley M. Jacobsen, Associate Professor of Japanese

Byron K. Marshall, Professor of History

Robert J. Poor, Professor of Art History

Dong-ling Wang, Visiting Associate Professor in East Asian Studies

Read about language laboratories on page 61.

Joint Day/Extension Classes

You may register through Extension for most day school classes scheduled before 4 p.m. in East Asian 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.

Chinese (Chn)

Semester-Length Courses

All credits listed in the class description are QUARTER credits even though some 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 47 of this bulletin.

★Chn 1005-1006 ELEMENTARY CHINESE I. 4 credits each semester, \$243 each semester. Introduction to modern Chinese conversation and writing covering basic sentence patterns and vocabulary. (No prereq for 1005; 1005 or 1011 or # for 1006. Limited to 30)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Fall Sem	1005	Sec 1	M —6:20-8:50, FolH 214, 218
		Sec 2	M —6:20-8:50, JonesH 4, 11
Spring Sem	1006	Sec 3	M —6:20-8:50, FolH 214, 218
		Sec 4	M —6:20-8:50, JonesH 4, 11

★**Chn 1011-1012-1013 BEGINNING CHINESE.** 5 credits each quarter, \$303.75 each quarter.

Reading, writing, and speaking Chinese. Completion of 1013 prepares students for 3021. (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, AmundH 104, 120
Winter Qtr	1012	Sec 2	MW —6:20-8:50, AmundH 104, 120
Spring Qtr	1013	Sec 3	MW —6:20-8:50, AmundH 104, 120

★**Chn 3021-3022-3023 INTERMEDIATE MODERN CHINESE.** 5 credits each quarter, \$310 each quarter.

Modern standard Chinese, expanded through conversation and reading. 3022 and 3023 will be offered only if there is sufficient enrollment in 3021. (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 50
Winter Qtr	3022	Sec 2	MW —6:20-8:50, FolH 50
Spring Qtr	3023	Sec 3	MW —6:20-8:50, FolH 50

Chn 3052 ADVANCED CHINESE CONVERSATION AND COMPOSITION. 4 credits, \$5051, 5052, \$248.

Conversation and pronunciation. Exercises in composition and translation. English into Chinese (Prereq 3023 or #)

Spring Qtr	Sec 1	T —6:20-8:50, FolH 240
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Chn 3161 CHINESE POETRY IN ENGLISH TRANSLATION. 4 credits, \$248. (◆\$124)

- ◆ Major poets examined in context of their intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. (No prereq)

Winter Qtr	Sec 1	T —6:20-8:50, FolH 240
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Chn 3162 CHINESE FICTION IN ENGLISH TRANSLATION. 4 credits, \$248 (◆\$124).

- ◆ Chinese narrative prose, 1200 to 1900. Intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. (No prereq)

Fall Qtr	Sec 1	T —6:20-8:50, FolH 114
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Chn 3163 20TH-CENTURY CHINESE LITERATURE IN ENGLISH. 4 credits, \$248 (◆\$124).

- ◆ Main trends in Chinese literature from May 4th period (circa 1919) to present. Knowledge of Chinese not required. (No prereq)

Winter Qtr	Sec 1	T —6:20-8:50, FolH 344
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Chn 3165 INTRODUCTION TO CHINESE LITERATURE. 4 credits, \$5165, \$248. (◆\$124)

- ◆ Survey of major Chinese literary movements from the emergence of the early Confucian canon to the May 4th movement in 1919. (No prereq)

Fall Qtr	Sec 1	T —6:20-8:50, FolH 240
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Japanese (Jpn)

Semester-Length Courses

All credits listed in the class description are QUARTER credits even though some 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 47 of this bulletin.

Jpn 1007-1008 ELEMENTARY JAPANESE II. 4 credits each semester, \$243 each semester.

A continuation of 1006 intended to expand basic skills in speaking, listening, and reading. Completion of 1008 prepares students for 3021. (Prereq 1006 or 1012 or # for 1007; 1007 or # for 1008)

Fall Sem 1007 Sec 1 T—6:20-8:50, FolH 50

Spring Sem 1008 Sec 2 T—6:20-8:50, FolH 50, Jacobsen

Jpn 1011-1012-1013 BEGINNING JAPANESE. 5 credits each quarter, \$303.75 each quarter.

Reading, writing, and speaking Japanese. Completion of 1013 prepares students for 3021. (No prereq for 1011; 1011 or 1006 or # for 1012; 1012 or 1007 or # for 1013)

Fall Qtr 1011 Sec 1 MW—6:20-8:50, KoltH S134, S135

Winter Qtr 1012 Sec 2 MW—6:20-8:50, KoltH S132, S133

Spring Qtr 1013 Sec 3 MW—6:20-8:50, KoltH S132, S133

Jpn 3021-3022-3023 INTERMEDIATE JAPANESE. 5 credits each quarter, \$310 each quarter.

Foundation for reading knowledge of Japanese. Review and pattern drill. 3022 and 3023 will be offered only if there is sufficient enrollment in 3021. (Prereq 1013 or 1008 or # for 3021; 3021 or # for 3022; 3022 or # for 3023)

Fall Qtr 3021 Sec 1 MW—6:20-8:50, SmithH 111

Winter Qtr 3022 Sec 2 MW—6:20-8:50, SmithH 111

Spring Qtr 3023 Sec 3 MW—6:20-8:50, SmithH 111

Jpn 3031-3032-3033 THIRD-YEAR JAPANESE. 5 credits each quarter, \$310 each quarter.

Hearing, speaking, and writing Japanese. Development of reading proficiency in modern Japanese prose and poetry. Formal written Japanese. (Prereq 3023)

Fall Qtr 3031 Sec 1 TTh—6:20-8:50, FolH 234

Winter Qtr 3032 Sec 2 TTh—6:20-8:50, FolH 234

Spring Qtr 3033 Sec 3 TTh—6:20-8:50, FolH 234

Jpn 3161 MODERN JAPANESE LITERATURE AND WESTERN CULTURE. 4 credits, \$248. (◆\$124)

Reading of modern Japanese novels in translation by authors significantly influenced by the impact of Western culture since 1900; how these writers reacted and the consequences on the development of modern Japanese fiction. Knowledge of Japanese not required. (No prereq)

Fall Qtr Sec 1 M—6:20-8:50, FolH 312, Copeland

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Korean (Kor)

★**Kor 1011-1012-1013 BEGINNING KOREAN.** 5 credits each quarter, \$303.75 each quarter.

Reading, writing, and speaking Korean. 1012 and 1013 will be offered only if there is sufficient enrollment continued from 1011. (No prereq for 1011; 1011 or # for 1012; 1012 or # for 1013. Limited to 20)

Fall Qtr 1011 Sec 1 **TTh**—6:20-8:50, KoltH S134, S135

Winter Qtr 1012 Sec 2 **TTh**—6:20-8:50, KoltH S134, S135

Spring Qtr 1013 Sec 3 **TTh**—6:20-8:50, KoltH S134, S135

Kor 3021-3022-3023 INTERMEDIATE KOREAN. 5 credits each quarter, \$310 each quarter.

Expanded experiences in speaking, comprehension, reading, and writing modern standard Korean.

Fall Qtr 3021 Sec 1 **TTh**—6:20-8:50, FolH 214

Winter Qtr 3022 Sec 2 **TTh**—6:20-8:50, FolH 214

Spring Qtr 3023 Sec 3 **TTh**—6:20-8:50, FolH 214

East Asian Studies (EAS)

EAS 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$Hist 1463, \$Hist 3463, \$243. (◆\$121.50)

◆ Decline of Asian empires; rise of 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)

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 120

★**EAS 3001 CHINESE-JAPANESE CALLIGRAPHY.** 4 credits, \$248 plus \$25 special fee. Total \$273.

Chinese calligraphic styles, aesthetic analysis, demonstration and practice of techniques. (No prereq. Limited to 25)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 340, Wang

★**EAS 3002 CHINESE-JAPANESE CALLIGRAPHY.** 4 credits, \$248 plus \$25 special fee. Total \$273.

Appreciation of Chinese/Japanese masterpieces of calligraphy; demonstration and practices of techniques; guided individual project in calligraphy. (Prereq EAS 3001. Limited to 25)

Fall Qtr Sec 1 **T**—6:20-8:50, KoltH S133, Wang

★**EAS 3013 INTRODUCTION TO FAR EASTERN ART.** 4 credits, \$ArH 1016, \$ArH 3013, \$248 plus \$4 course fee. Total \$252. (◆\$124 plus \$4 course fee. Total \$128).

◆ Major themes of Far Eastern art. Arts of China and Japan. (No prereq. Meets concurrently with ArH 3013. Limited to a combined total of 200)

Fall Qtr Sec 1 **Th**—6:20-8:50, AndH 310, Poor

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

EAS 3465 CHINA'S RESPONSE TO THE WEST, 1750-1911. 4 credits, §Hist 3465, 5465, \$248 (◆\$124)

- ◆ 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)

Winter Qtr Sec 1 **W**—6:20-8:50, SocSci 101, Farmer

EAS 3467 THE NATIONALIST REVOLUTION IN CHINA: 1900 TO PRESENT. 4 credits, §Hist 3467, 5467, \$248 (◆\$124)

- ◆ Failure of the early republic, warlordism, the new culture movement, and the development of Chinese nationalism. The rise of the Nationalist Party and intervention of the Soviet Union, Japan, and the United States, Taiwan, and the People's Republic of China. (No prereq. Meets concurrently with Hist 3467)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 350, Farmer

EAS 3468 PEOPLE'S REPUBLIC OF CHINA: THE COMMUNIST REVOLUTION, 1900 TO PRESENT. 4 credits, §Hist 3468, §5468, \$248. (◆\$124)

- ◆ 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)

Fall Qtr Sec 1 **W**—6:20-8:50, AndH 230, Farmer

EAS 3471 20TH-CENTURY JAPAN. 4 credits, §Hist 3471, 5471, \$248. (◆\$124)

- ◆ 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)

Spring Qtr Sec 1 **M**—6:20-8:50, BlegH 135, Marshall

(See also BGS 3019, Japanese Management Systems)

EAS 3474 RISE OF MODERN JAPAN, 1853-1914. 4 credits, §Hist 3474, \$248. (◆\$124)

- ◆ The Meiji Revolution from Commodore Perry to the eve of World War I: the origins of constitutional monarchy, an industrial economy, Western influence, and modern cultural change. (No prereq. Meets concurrently with Hist 3474)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 210, Marshall

Ecology, Evolution, and Behavior (EEB)

(109 Zoology: 625-4466)

College of Biological Sciences

Textbooks for most EEB courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Biology; BGS 3003, Business and the Natural Environment; General College; ID 5525-5526, Garbage, Government, and the Globe; The Compleat Scholar noncredit courses; 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 and Behavioral 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.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

EEB 3001 INTRODUCTION TO ECOLOGY. 4 credits, \$292. (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, Zoology 102

Economics (Econ)

(1035 Management/Economics: 625-6353)

College of Liberal Arts

Textbooks for most Econ courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also Public Affairs)

Harlan M. Smith, Professor Emeritus of Economics

Arley D. Waldo, Professor of Agricultural and Applied Economics

Additional staff to be assigned

You need not be majoring in Economics to register for any economics classes, but you need to have completed prerequisite courses.

For a degree in economics, see the requirements listed in the College of Liberal Arts Bulletin. A minor in economics is also available. Interested students should contact the Extension Counseling Office, 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 47 of this bulletin.

★Econ 1101 (formerly 1002)-1102 (formerly 1001) PRINCIPLES OF ECONOMICS. 4 credits each semester, if no credit received for any equivalent course. \$243 each semester. (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, VinH 313
Sec 2 M—6:10-7:50, VinH 314

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

	Sec 3	M—8:05-9:45, VinH 313
	Sec 4	T—6:10-7:50, ClaOff B30, StP Campus
	Sec 5	T—6:10-7:50, VinH 313
	Sec 6	T—8:05-9:45, VinH 313
	Sec 7	W—6:10-7:50, VinH 313
	Sec 8	W—6:10-7:50, VinH 314
	Sec 9	W—8:05-9:45, VinH 314
	Sec 10	Th—6:10-7:50, VinH 313
	Sec 11	Th—6:10-7:50, VinH 314
1102	Sec 12	M—6:10-7:50, Phys 143
	Sec 13	T—6:10-7:50, VinH 314
	Sec 14	W—6:10-7:50, Phys 143
	Sec 15	W—8:05-9:45, VinH 313
	Sec 16	Th—8:05-9:45, VinH 313
Spring Sem 1101	Sec 17	M—6:10-7:50, VinH 313
	Sec 18	T—6:10-7:50, VinH 313
	Sec 19	Th—6:10-7:50, VinH 313
1102	Sec 20	M—6:10-7:50, Phys 143
	Sec 21	M—8:05-9:45, VinH 313
	Sec 22	T—6:10-7:50, ClaOff B30, StP Campus
	Sec 23	T—8:05-9:45, VinH 313
	Sec 24	W—6:10-7:50, VinH 313
	Sec 25	Th—6:10-7:50, Phys 143

ROSEVILLE AREA HIGH SCHOOL

Fall Sem 1101	Sec 26	M—6-7:40, room 255 (Limit 30)
Spring Sem 1102	Sec 27	M—6-7:40, room 255 (Limit 30)

RICHFIELD SENIOR HIGH SCHOOL

Fall Sem 1101	Sec 28	W—6:20-8, room 144
Spring Sem 1102	Sec 29	W—6:20-8, room 144

New 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, \$243.

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 4. Meets concurrently with Pol 1001, sec 4. Limited to a combined total of 28)

Spring Qtr Sec 30 **TTh**—6:20-9:20, HHHctr 20, Dalgaard, Freeman, Green

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**Pol 1001 AMERICAN GOVERNMENT AND POLITICS.** 5 credits, \$303.75.

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 30. Meets concurrently with Econ 1102, sec 30. Limited to a combined total of 28)

Spring Qtr Sec 4 **TTh**—6:20-9:20, HHCtr 20, Dalgaard, Freeman, Green

(About the instructors: Bruce R. Dalgaard is Professor and Director, Center for Economic Education; 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 will now offer 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 courses are **open to economics majors and nonmajors** alike (only prerequisite is Principles of Economics, Econ 1101-1102 or equivalent):

Econ 3021 SURVEY OF ECONOMIC IDEAS

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)
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 SURVEY OF ECONOMIC IDEAS. 3-5 credits, \$62 a credit. (◆ \$31 a credit)

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 #. Student may register for 3, 4 or 5 credits; assignments and examinations will vary accordingly. Term paper required only for 5 credits)

Fall Sem Sec 1 **Th**—6:10-7:50, BlegH 120, Smith

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Econ 3031 and 5031 AMERICAN ECONOMIC PROBLEMS. 4 credits. **Not offered 1991-92.**

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. **Not offered 1991-92.**

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)

Econ 3041 and 5041 THE PROSPECTIVE WORLD ECONOMY. 4 credits. **Not offered 1991-92.**

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, \$62 a credit.

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

Economic theory

★Econ 3101 MICROECONOMIC THEORY. 4 credits, \$3105 or BGS 3001, \$248.

Behavior of households, firms and industries under competitive and monopolistic conditions. Factors influencing production, price and advertising decisions. 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, BlegH 105

Sec 2 **Th**—6:10-7:50, MechE 102

Spring Sem Sec 3 **M**—6:10-7:50, BlegH 105

★Econ 3102 MACROECONOMIC THEORY. 4 credits, \$248. (IS)

Factors determining the price level, the amount of employment, and unemployment, total spending by consumers, business investment, total savings, GNP and net national income. The effects of taxes and government spending on these. (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, EE/CSci 3125

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Econ 3103 WELFARE ECONOMICS. 4 credits, \$248.

Economics majors are required to take this course to graduate. For others, it is an elective. Economic efficiency and the conditions necessary to sustain it. Conflicts between efficiency and income distribution goals. How market structures and public policies increase or decrease efficiency. (Prereq 3101 or #)

Spring Sem Sec 1 T—6:10-7:50, Law 3

★**Econ 3105 MANAGERIAL ECONOMICS.** 4 credits, \$3101, \$BGS 3001, \$248.

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, BlegH 105

Spring Sem Sec 2 M—6:10-7:50, BlegH 115

Development and area studies

Econ 5301 and 5331 ECONOMIC DEVELOPMENT. 4 credits. **Not offered 1991-92.**

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)

Econ 5307 and 5337 COMPARATIVE ECONOMIC SYSTEMS. 4 credits. **Not offered 1991-92.**

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, \$432, \$248. (♦ \$124)

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)

Spring Sem Sec 1 Th—8:05-9:45, BlegH 120, Smith

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Labor economics

Econ 3501 and 5531 LABOR ECONOMICS. 4 credits, \$248. (◆\$124)

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 250

(See also IR 3007, Collective Bargaining and Labor Relations)

Industrial organization

Econ 3601 and 5631 INDUSTRIAL ORGANIZATION AND ANTI-TRUST POLICY. 4 credits, \$248. (◆\$124)

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)

Fall Sem Sec 1 **T**—6:10-7:50, Law 3

Money and banking

Econ 5721 MONEY AND BANKING. 4 credits, \$3701, 5701. (IS) **Not offered 1991-92**

Historical development, present pattern, and economic role of financial institutions, with main emphasis on commercial banks, the money supply, and the Federal Reserve System. (Prereq 3101, 3102 or #. Qualified students may register for graduate credit at the University of Minnesota)

Econ 3701 and 5701 MONEY, BANKING, AND MONETARY POLICY. 4 credits, \$5721, \$248. (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, which is also offered alternate years. The courses meet concurrently 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 FINANCE. 4 credits, \$248. (◆\$124)

Government spending and taxation—federal, state and local. Principles of taxation, the government budget, fiscal policies and the public debt. Economic impacts of various policies. (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 can 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, BlegH 115, Waldo

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Education

Persons interested in admission to an Education program should discuss plans with an Extension pre-education counselor (625-2500). Students close to or ready to apply to the College of Education may be referred to the College of Education Student Affairs Office, 1425 University Ave. S.E., Minneapolis 55414 (625-1550), for further information, or directly to the Admissions Office, 240 Williamson Hall, (625-2008), for 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 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, 1425 University Ave. S.E., University of Minnesota, Minneapolis, Minnesota 55414 (625-2342).

Study Abroad

For information about the Quincentennial Summer Program for Spanish Teachers and other study abroad opportunities, see the Global Campus section of this bulletin, page 475.

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, 1425 University Avenue S.E. (2) Secure admission approval from a Student Progress Subcouncil representative in the Education Student Affairs Office. (3) For registration, secure department approval stamp or return forms to the Education Student Affairs Office for College of Education approval. (4) 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, 1425 University Ave. S.E.

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)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Please see the following listings for all College of Education course offerings:

- AdEd**, *Adult and Teacher Education* (Department of Curriculum and Instruction)
AgEd, *Agricultural Education*; see Vocational and Technical Education (Department of Vocational and Technical Education)
ArEd, *Art Education* (Department of Curriculum and Instruction)
BME, *Business and Marketing Education*; see Vocational and Technical Education (Department of Vocational and Technical Education)
CPsy, *Child Psychology* (Institute of Child Development)
CISy, *Curriculum and Instructional Systems* (Department of Curriculum and Instruction)
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)
Elem, *Elementary Education* (Department of Curriculum and Instruction)
HEEd, *Home Economics Education*; see Vocational and Technical Education (Department of Vocational and Technical Education)
HiEd, *Higher Education* (Department of Educational Policy and Administration)
Ind, *Industrial Education*; see Vocational and Technical Education (Department of 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)
SeEd, *Secondary Education* (Department of Curriculum and Instruction; includes courses in specific academic fields)
SPFE, *Social and Philosophical Foundations of Education* (Department of Educational Policy and Administration)
VoEd, *Vocational Education*; see Vocational and Technical Education (Department of Vocational and Technical Education)

(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 170.

Study Abroad for Teachers

Teachers of Spanish will find a study abroad program designed especially for them offered by the Global Campus. See page 475 for further information on study abroad opportunities.

Educational Policy and Administration (EdPA)

(275 Peik Hall: 624-1006)

College of Education

(Department of Educational Policy and Administration)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most EdPA courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

G. F. Alkire, Associate Professor
W. M. Ammentorp, Professor
A. L. Bagley, Professor
J. J. Cogan, Professor
A. M. Harkins, Associate Professor
V. L. Hendrix, Professor
J. R. Johnson, Senior Fellow
J. A. King, Associate Professor

K. S. Louis, Professor
V. D. Mueller, Professor
N. C. Nickerson, Professor
J. R. Rest, Professor
C. H. Sederberg, Professor
C.S. Turner, Assistant Professor
R. F. Weatherman, Professor

Master's Degree

A **Master of Education** degree with a focus on **Leadership** will be available through Educational Policy and Administration and through Curriculum and Instruction beginning **fall quarter 1991** at Capitol View in **Roseville**, with interactive television sites at **Spring Lake Park High School** and **Stillwater High School**. Degree completion will be possible within three years.

For information on the degree programs, telephone (612) 625-1855.

★**EdPA 5101 (formerly SPFE 5101) HISTORICAL FOUNDATIONS OF MODERN EDUCATION.** 3 credits, \$SPFE 5101, \$219.

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 5 Extension students)

Winter Qtr Sec 1 **M**—4:30-6:30, PeikH, Bagley

★**EdPA 5102 (formerly SPFE 5102) EDUCATION IMAGERY IN EUROPE AND AMERICA.** 3 credits, \$SPFE 5102, \$219.

Images and ideas of education expressed in the visual arts of western civilization (antiquity to 20th century) in relation to concurrent educational thought 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 5 Extension students)

Winter Qtr Sec 1 **T**—4:30-6:30, PeikH, Bagley

★**EdPA 5103 (formerly EdAd 5103) SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, \$EPsy 5660 or PsyS 5160, \$EdAd 5103, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **M**—7-9 (plus 1 hr arr), PeikH 155, Weatherman

★**EdPA 5120 (formerly SPFE 5120) HISTORY OF CHILDHOOD EDUCATION.** 3 credits, \$SPFE 5120, \$219.

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 5 Extension students)

Spring Qtr Sec 1 **M**—4:30-6:30, PeikH, Bagley

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EdPA 5127 (formerly EdAd 5127) WORKSHOP: POLICY DEVELOPMENT FOR SCHOOL MANAGERS.** 3 credits, \$EdAd 5127, \$219.

Elements of feedback control applied to policy development and implementation in education; policies for instructional management, personnel administration, and fiscal control; implementation plans and procedures for analysis of policy impact. (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**—7-9, PeikH 25, Hendrix

★**EdPA 5128 (formerly EdAd 5128) WORKSHOP: EDUCATIONAL ADMINISTRATION.** 1-6 credits, \$EdAd 5128. 3 credits each offering. \$219 each offering.

Laboratory approach provides opportunities for experienced administrators to concentrate on common administrative and supervisory problems. *Focus Sec 1:* A survey of ethical issues that arise for professional educators, especially school administrators; cases of ethical conflict in schools will be analyzed as the basis for decision-making strategies and conflict resolution. *Focus Sec 2:* A survey and analysis of how sharing decision-making authority and power at the school site with teachers, parents, citizens, students, and administrators affects the output of the school; focus is on research, literature, and actual examples where this "school-based management" has impacted the quality of education for students. *Focus Sec 3:* A review of the policy-making processes used in contemporary societies to adapt their educational systems to the needs of different cultural, ethnic, and linguistic groups; special attention will be given to trends in school organization in multicultural societies. *Focus Sec 4:* An introduction to research in educational policy and administration; both quantitative and qualitative approaches, designs, and techniques will be considered. (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 **W**—7-9, PeikH 46

Winter Qtr Sec 2 **Th**—7-9, PeikH, Nickerson

Sec 3 **Sa**—10:30 a.m.-12:30, PeikH, Johnson

Spring Qtr Sec 4 **W**—4:30-6:30, PeikH, Hendrix, King

★**EdPA 5131 (formerly SPFE 5131) COMPARATIVE EDUCATION.** 3 credits, \$SPFE 5131, \$219.

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 5 Extension students)

Fall Qtr Sec 1 **Th**—4:30-6:30, PeikH 155, Cogan

★**EdPA 5141 (formerly SPFE 5141) CRITICAL ISSUES IN CONTEMPORARY EDUCATION.** 3 credits, \$SPFE 5141, \$219.

Introduces graduate students to ideas involved in current theory and practice. (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**—7-9, PeikH

★**EdPA 5155 (formerly SPFE 5155) HISTORY OF WESTERN EDUCATIONAL THOUGHT.** 3 credits, \$SPFE 5155, \$219.

Examination of the 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 5 Extension students)

Spring Qtr Sec 1 **T**—4:30-6:30, PeikH, Bagley

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**EdPA 5156 (formerly SPFE 5156) HISTORY OF IDEAS IN AMERICAN EDUCATION.** 3 credits, \$SPFE 5156, \$219.

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 5 Extension students)

Fall Qtr Sec 1 **W**—4:30-6:30, PeikH, Bagley

- ★**EdPA 5167 (formerly EdAd 5167) THE AMERICAN MIDDLE SCHOOL.** 3 credits, \$EdAd 5167, \$219.

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 5 Extension students)

Winter Qtr Sec 1 **Sa**—8-10 a.m., PeikH, Nickerson

- ★**EdPA 5173 CASE STUDIES FOR POLICY RESEARCH.** 3 credits, \$219.

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 5 Extension Students)

Winter Qtr Sec 1 **T**—4:30-6:30, PeikH, Turner

- ★**EdPA 5175 (formerly SPFE 5175) INTRODUCTION TO SYSTEMS THEORY IN SOCIAL SCIENCE AND EDUCATION.** 3 credits, \$SPFE 5175, \$219.

Fundamental aspects of general systems theory; readings, basic modeling techniques. (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**—4:30-6:30, PeikH 25, Harkins

- ★**EdPA 5180 (formerly EdAd 5180) SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, \$EdAd 5180, \$EPsy 8760, \$219.

Problems of administration and organization of special education programs. (Prereq EdPA 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 10 Extension students)

Winter Qtr Sec 1 **M**—7-9, (plus 1 hr arr), PeikH, Weatherman

- ★**EdPA 5181 (formerly EdAd 5181) SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, \$EdAd 5181, \$EPsy 8761, \$219.

Problems of administration and organization of special education programs. (Prereq EdPA 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 10 Extension students)

Spring Qtr Sec 1 **M**—4:30-6:30 (plus 1 hr arr), PeikH, Weatherman

- ★**EdPA 5182 (formerly SPFE 5182) COMPARATIVE PHILOSOPHIES OF EDUCATION.** 3 credits, \$SPFE 5182, \$219.

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 5 Extension students)

Winter Qtr Sec 1 **Th**—4:30-6:30, PeikH

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EdPA 5200 (formerly EdAd 5200) DESIGN AND MANAGEMENT OF EDUCATION SERVICES.** 3 credits, \$EdAd 5200, \$219.

Educational services offered by schools, hospitals, industries, government agencies; contemporary technology, roles, authority systems, communication networks; resource policy relationships, evaluation and management of activities of clients and staff members. (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 **T**—4:30-6:30, EdHAN 64, Ammentorp

★**EdPA 5201 FORMAL ORGANIZATIONS IN EDUCATION.** 3 credits, \$EdAd 8201, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **T**—4:30-6:30, PeikH 46, Louis

Spring Qtr Sec 2 **W**—4:30-6:30, PeikH, Turner

★**EdPA 5202 (formerly EdAd 5202/SPFE 5202) POLITICS OF EDUCATION.** 3 credits, \$EdAd 5202, \$EdAd 8202, \$SPFE 5202, \$SPFE 8202, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **Sa**—10:30 a.m.-12:30, PeikH 155

Winter Qtr Sec 2 **T**—7-9, PeikH,

★**EdPA 5204 (formerly EdAd 5210) FINANCING ELEMENTARY AND SECONDARY SCHOOLS.** 3 credits, \$EdAd 5210, \$8210, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **Sa**—8-10 a.m., PeikH 165, Mueller

Spring Qtr Sec 2 **M**—4:30-6:30, PeikH, Mueller

★**EdPA 5209 (formerly SPFE 5209) EDUCATION IN FUTURE SOCIAL SYSTEMS.** 3 credits, \$SPFE 5209, \$SPFE 5212, \$219.

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 5 Extension students)

Fall Qtr Sec 1 **M**—4:30-6:30, PeikH 25, Harkins

★**EdPA 5210 (formerly SPFE 5210) SOCIAL FORECASTING AND EDUCATIONAL FUTURES.** 3 credits, \$SPFE 5210, \$219.

Application of social science in the academic and applied dimensions to formal edu-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

cation, 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 5 Extension students)

Winter Qtr Sec 1 M—4:30-6:30, PeikH, Harkins

★**EdPA 5211 (formerly SPFE 5211) SOCIAL DESIGN AND EDUCATIONAL FUTURES.** 3 credits, \$SPFE 5211, \$219.

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 5 Extension students)

Spring Qtr Sec 1 M—4:30-6:30, PeikH, Harkins

★**EdPA 5212 (formerly EdAd 5212) SCHOOL BUDGETING.** 3 credits, \$EdAd 5212, \$EdAd 8212, \$219.

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 10 Extension students)

Fall Qtr Sec 1 W—4:30-6:30, PeikH 46, Sederberg

★**EdPA 5213 (formerly EdAd 5213) FINANCIAL RESOURCE MANAGEMENT.** 3 credits, \$EdAd 8213, \$EdAd 5213, \$219.

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 5 Extension students)

Winter Qtr Sec 1 W—4:30-6:30, PeikH, Sederberg

★**EdPA 5214 (formerly EdAd 5214) SCHOOL MANAGEMENT INFORMATION SYSTEMS.** 3 credits, \$EdAd 5214, \$EdAd 8214, \$219.

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 10 Extension students)

Spring Qtr Sec 1 W—7-9, PeikH, Sederberg

★**EdPA 5215 (formerly EdAd 5215) THE ELEMENTARY SCHOOL PRINCIPALSHIP.** 3 credits, \$EdAd 5215, \$EdAd 8215, \$219.

Problems in elementary school administration and the principal's role of leadership. (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 T—7-9, PeikH 25, Alkire

★**EdPA 5216 (formerly EdAd 5216) RECENT RESEARCH IN ELEMENTARY SCHOOL ADMINISTRATION.** 3 credits, \$EdAd 5216, \$EdAd 8216, \$219.

Pertinent research literature. (Prereq EdPA 5215 or EdAd 5215. 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—4:30-6:30, PeikH, Alkire

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EdPA 5218 (formerly EdAd 8218) THE SOCIAL ORGANIZATION OF SCHOOLS.** 3 credits, §EdAd 8218, \$219.

The structure and culture of schools are examined within the framework of social system theory; an emphasis will be placed on using empirical data about schools to develop an inventory of key system characteristics. (Prereq EdPA 5201 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 **W**—4:30-6:30, PeikH, Louis

★**EdPA 5223 LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION.** 2-4 credits, §EPsy 5605, §PsyS 5105, \$73 a credit.

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 10 Extension students)

Spring Qtr Sec 1 **Sa**—10:30 a.m.-12:30(addn hrs arr), BlegH 225

★**EdPA 5224 (formerly EdAd 5224) LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS.** 3 credits, §EdAd 5224, §EdAd 8224, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **M**—4:30-6:30, BlegH 225

★**EdPA 5225 (formerly EdAd 5225) EDUCATIONAL POLICY AND THE LAW.** 3 credits, §EdAd 5225, §EdAd 8225, \$219.

Analysis of court decisions, statutes, and administrative regulations related to equality of education opportunity and equal protection under the law. **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**—4:30-6:30, BlegH 225

★**EdPA 5226 (formerly EdAd 5226) EDUCATIONAL FACILITIES PLANNING.** 3 credits, §EdAd 5226, §EdAd 8226, \$219.

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 10 Extension students)

Spring Qtr Sec 1 **W**—4:30-6:30, PeikH, Alkire

★**EdPA 5227 (formerly EdAd 5227) PUBLIC SCHOOL PERSONNEL PROGRAMS.** 3 credits, §EdAd 5227, §EdAd 8227, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **W**—4:30-6:30, PeikH 31, Alkire

Spring Qtr Sec 2 **Th**—4:30-6:30, PeikH, Alkire

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EdPA 5230 (formerly EdAd 5230) PUBLIC RELATIONS FOR SCHOOL ORGANIZATIONS.** 3 credits, §EdAd 5230, §EdAd 8230, \$219.

Concepts central to public relations programs in education studied in selective theoretical contexts relevant to administrative leadership. (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**—4:30-6:30, PeikH

★**EdPA 5250 (formerly EdAd 5250/HiEd 5250) AMERICAN HIGHER EDUCATION.** 4 credits, §Educ 5250, §EdAd 5250, §HiEd 5250, \$292.

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 5 Extension students)

Fall Qtr Sec 1 **W**—4:30-7, PeikH 33

★**EdPA 5260 INTRODUCTION TO EDUCATIONAL PLANNING.** 3 credits, \$219.

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 10 Extension students)

Winter Qtr Sec 1 **T**—4:30-6:30, PeikH, Ammentorp

★**EdPA 5264 (formerly EdAd 5264) THE SECONDARY SCHOOL PRINCIPALSHIP.** 3 credits, §EdAd 5264, §EdAd 8264, \$219.

The role of the principal: qualifications, duties, and problems, including current issues, and factors of staff and student relationships. (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 **T**—7-9, PeikH 46, Nickerson

Spring Qtr Sec 2 **Sa**—8-10 a.m., PeikH, Nickerson

★**EdPA 5265 (formerly EdAd 5265) ADMINISTERING THE HIGH SCHOOL PROGRAM.** 3 credits, §EdAd 8265, §EdAd 5265, \$219.

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 10 Extension students)

Fall Qtr Sec 1 **W**—7-9, PeikH 25, Nickerson

★**EdPA 5266 (formerly EdAd 5125) PRINCIPAL-CONSTITUENT DECISION MAKING.** 3 credits, §EdAd 5125, \$219.

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 10 Extension students)

Spring Qtr Sec 1 **Th**—7-9, PeikH, Nickerson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EdPA 5540 (formerly HiEd 5540) SEMINAR: THE COLLEGE STUDENT.** 3 credits, \$HiEd 5540, \$PsyS 5540, \$EPsy 5451, \$219.

Psychology and sociology of college students; research concerning diversity of populations, vocational development of students; student society, culture, mental health, underachievement, dropouts, values, and attitudes; relevant research methods. (Pre-req 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 10 Extension students)

Spring Qtr Sec 1 Th—4:30-7:15, BuH 125, Rest

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 182 or call 625-6501.

Educational Psychology (EPsy)

(204 Burton Hall: 624-3543)

College of Education

Textbooks for most EPsy courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Psychology)

William Bart, Professor
Sheldon Braaten, Lecturer
Robert Bruininks, Professor
Sandra Christenson, Assistant Professor
Ernest C. Davenport, Assistant Professor
Mark Davison, Professor
Stanley Deno, Professor
Lynne K. Edwards, Associate Professor
V. Lois Erickson, Associate Professor
Christine Espin, Assistant Professor
L. Sunny Hansen, Professor
C. P. Hooker, Professor
Susan Hupp, Associate Professor
David Johnson, Professor
Gary Joselyn, Adjunct Associate Professor
Marie Knowlton, Associate Professor
Valerie Klansky Kylo, Lecturer
Geoffrey Maruyama, Professor
Scott McConnell, Associate Professor

Mary McEvoy, Assistant Professor
Sallye McKee, Assistant Professor
Jack C. Merwin, Professor
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
Frank B. Wilderson, Jr., Professor
Frank Wood, Professor
Gloria Wood, Adjunct Assistant Professor
Jennifer York, Assistant Professor

Note: American Sign Language courses can be used to complete a second language requirement. Contact CEE Counseling (625-2500) with questions.

★**EPsy 1601 AMERICAN SIGN LANGUAGE I.** 5 credits, \$303.75.

Introduces fundamentals of American Sign Language as a second language. Emphasis is placed on varieties of sign language and sign language practices, questions, com-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

mands, and simple sentences. Receptive and Expressive sign vocabulary building are featured. **May be taken S-N.** (No prereq. Limited to 30)

Fall Qtr	Sec 1	M —4:40-9, PeikH 315
	Sec 2	M —4:40-9, PeikH 215
	Sec 3	MWF —12:20-1:50
	Sec 4	MW —3:35-5:45
	Sec 5	MW —5-7:10, JonesH 10
	Sec 6	TTh —8-10 a.m.
Winter Qtr	Sec 7	M —4:40-9, ChDev 105
	Sec 8	M —4:40-9, BuH 120
	Sec 9	MWF —11:15 a.m.-12:45

★**EPsy 1602 AMERICAN SIGN LANGUAGE II.** 5 credits, \$303.75.

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 30)

Fall Qtr	Sec 1	MW —3:35-5:45, JonesH 4
	Sec 2	T —4:40-9, ChDev 216
Winter Qtr	Sec 3	MWF —11:15 a.m.-12:45
	Sec 4	MW —3:35-5:45
	Sec 5	T —4:40-9
Spring Qtr	Sec 6	T —4:40-9
	Sec 7	T —4:40-9
	Sec 8	T —4:40-9
	Sec 9	TTh —12:20-2:30
	Sec 10	TTh —3:35-5:45

★**EPsy 1603 AMERICAN SIGN LANGUAGE III.** 5 credits, \$303.75.

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 30)

Fall Qtr	Sec 1	MW —3:35-5:45, JonesH 11
	Sec 2	MWF —9:05-10:30 a.m., ChDev 218
	Sec 3	Th —4:40-9, ChDev 218
	Sec 4	Th —4:40-9, BuH 125
Winter Qtr	Sec 5	T —4:40-9, PeikH 225
Spring Qtr	Sec 6	MW —3:35-5:45
	Sec 7	MWF —11:15 a.m.-12:45
	Sec 8	Th —4:40-9, BuH 120

●**EPsy 1604 WORKSHOP: DEVELOPING EDUCATIONAL AND HUMAN SERVICE PROGRAMS.** Credits arr, \$60.75 a credit.

Concepts, issues, practices; development of educational and psychological support services in school and human service settings. For persons in paraprofessional positions. **Must be taken S-N.** (No prereq. A joint Day/Extension class)

Fall Qtr	Sec 1	Arr
Winter Qtr	Sec 2	Arr
Spring Qtr	Sec 3	Arr

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★EPsy 3601 **AMERICAN SIGN LANGUAGE IV.** 5 credits, \$365.

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 30)

Fall Qtr Sec 1 **MWF**—11:15 a.m.-12:45, ChDev 105

Sec 2 **W**—4:40-9, PeikH 155

Winter Qtr Sec 3 **MW**—5-7:15

Sec 4 **MWF**—11:15 a.m.-12:45

Sec 5 **T**—4:40-9, PeikH 215

Spring Qtr Sec 6 **T**—4:40-9, ChDev 105

Sec 7 **TTh**—12:20-2:30

★EPsy 3602 **AMERICAN SIGN LANGUAGE V.** 5 credits, \$365.

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 30)

Fall Qtr Sec 1 **TTh**—12:20-2:35

Sec 2 **W**—4:40-9, PeikH 215

Winter Qtr Sec 3 **MW**—3:35-5:45, BuH 123

Sec 4 **TTh**—12:20-2:30

Sec 5 **W**—4:40-9

Sec 6 **W**—4:40-9, BuH 125

Spring Qtr Sec 7 **W**—4:40-9

Sec 8 **W**—4:40-9

EPsy 3603 **CULTURAL PERSPECTIVES OF DEAFNESS.** 3 credits, \$219.

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 3602.)

Fall Qtr Sec 1 **M**—1:25-4:05

Winter Qtr Sec 2 **W**—4:40-7:20

Spring Qtr Sec 3 **M**—4:40-7:20, ChDev 105

Sec 4 **Th**—4:40-7:20, ChDev 216

OEPsy 3606 **EXCEPTIONAL STUDENTS IN REGULAR CLASSES.** 2 credits, \$5606, \$PsyS 3106, \$PsyS 5106, \$146.

Policies and procedures for teaching handicapped and gifted students in regular school settings; exposure to special curriculum adaptations; collaborative roles of regular and special education teachers, parents, pupil personnel workers, and other educators. **Must be taken A-F.** (No prereq. Meets concurrently with 5606. A joint Day/Extension class)

Fall Qtr Sec 1 **M**—4:40-6:30, BuH 123, McEvoy, Rynders

Winter Qtr★ Sec 2 **T**—4:40-6:30, NichH 207, York (Limited to 5 Extension students)

Spring Qtr Sec 3 **W**—4:40-6:30, NichH 213, McKee

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★OEPsy 5110 INTELLIGENCE. 3 credits, \$PsyF 5147, \$219.

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—4:30-6:30, ChDev 216, Bart

★OEPsy 5112 KNOWING, LEARNING, AND THINKING. 4 credits, \$PsyF 5152, \$292.

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, EltH N647, Samuels

OEPsy 5113 INTRODUCTION TO THE PSYCHOLOGY OF INSTRUCTION. 3 credits, \$PsyF 5153, \$219.

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—4:15-6:15, EltH N647, R Tennyson

★OEPsy 5114 PSYCHOLOGY OF STUDENT LEARNING. 3 credits, \$PsyF 5182, \$219.

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—4:30-6:30, BuH 120

Winter Qtr Sec 2 W—4:30-6:30, BuH 120, Van den Broek

Spring Qtr Sec 3 W—4:30-6:30, BuH 120, Van den Broek

★OEPsy 5115 PSYCHOLOGY OF ADULT LEARNING. 4 credits, \$PsyF 5183, \$292.

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—4:15-7:15, JonesH 10, R Tennyson

Spring Qtr Sec 2 T—4:15-7:15, EltH N647, R Tennyson

OEPsy 5116 BEHAVIOR ANALYSIS IN EDUCATION. 4 credits, \$PsyF 5149, \$292.

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)

Fall Qtr Sec 1 M—4:40-8:30, EltH N119

Spring Qtr Sec 2 W—4:40-8:30, BuH 123

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EPsy 5260 INTRODUCTORY STATISTICAL METHODS.** 4 credits, \$PsyF 5110, \$292.

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—6:20-8:50, Arch 55
	● Sec 2	MW—4:15-6, ChDev 216, Hummel (A joint Day/Extension class limited to 10 Extension students)
Winter Qtr	● Sec 3	MW—4:15-6, WullH 230, (A joint Day/Extension class limited to 5 Extension students)
	● Sec 4	W—6:20-8:50, Arch 55
Spring Qtr	● Sec 5	MW—4:15-6, WullH 130, (A joint Day/Extension class limited to 10 Extension students)
	Sec 6	W—6:20-8:50, Arch 50

★**OEpsy 5401 COUNSELING PROCEDURES.** 3 credits, \$PsyS 5110, \$219.

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 123, G Wood

(See also Family Social Science)

★**OEpsy 5430 FOUNDATIONS OF CAREER DEVELOPMENT.** 3 credits, \$PsyS 5210, \$219.

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)

Fall Qtr	Sec 1	T—4:15-6:30, BuH 125, Hansen
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★**OEpsy 5431 CAREER DEVELOPMENT: THEORY AND COUNSELING APPLICATIONS.** 3 credits, \$PsyS 5331, \$219.

Provides students in counseling and allied fields with background; emphasis on counseling skills; work and other life values, the counseling process, planning and decision making, information and employment trends, sex equity in career options, needs of specific 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 limited to 15 Extension students)

Winter Qtr	Sec 1	T—4:15-6:30, BuH 120, Hansen
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★**OEpsy 5432 CAREER DEVELOPMENT PROGRAMS AND ORGANIZATIONAL CHANGE.** 3 credits, \$PsyS 5332, \$219.

Provides knowledge and skills to create and implement career programs for a variety of populations and settings; a life-roles concept of career integrated with a systematic model of program development; the consultation process, organizational intervention, and race, age, and gender issues. **Must be taken A-F.** (Prereq EPsy 5431 or 5430)

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**EPsy 5130 PERSONALITY AND SOCIAL DEVELOPMENT.** 3 credits, \$PsyF 5162, \$219.

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, ChDev 218, Rest

Spring Qtr Sec 2 **W**—4:30-7, BuH 125

●**EPsy 5135 WORKSHOP IN HUMAN RELATIONS.** 6 credits, \$PsyF 5305, \$438.

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**—4:40-9:40, BuH 120

Spring Qtr Sec 2 **M**—4:40-9:40, BuH 120

★**EPsy 5150 SOCIAL PSYCHOLOGY OF EDUCATION.** 4 credits, \$PsyF 5170, \$292.

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**—4:15-7, ChDev 218, D Johnson

★**EPsy 5220 EDUCATIONAL MEASUREMENT IN THE CLASSROOM.** 4 credits, \$PsyF 5120, \$292.

Principles and methods for construction, evaluation, and improvement of classroom measures; techniques for describing results statistically; use of measurement in evaluating instruction and student performance; assignment of grades. **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 10 Extension students)

Winter Qtr Sec 1 **MW**—4:30-6:30, MechE 102, Joselyn

★**EPsy 5221 BASIC PRINCIPLES OF MEASUREMENT.** 3 credits, \$PsyF 5121, \$219.

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, ChDev 218, Davenport

★**EPsy 5240 PRINCIPLES AND METHODS OF EVALUATION.** 3 credits, \$PsyF 5125, \$219.

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)

Winter Qtr Sec 1 **MW**—4:15-5:30, FolH 218

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

or PsyS 5210 or PsyS 5331 or equivalent 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**—4:15-6:30, BuH 125, Hansen

★**EPsy 5433 DEVELOPMENTAL CAREER COUNSELING OF WOMEN.** 3 credits, \$PsyS 5310, \$219.

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. Limited to 35)

Spring Qtr Sec 1 **W**—4:15-6:30, ChDev 218

(See also Compleat Scholar noncredit courses in business and professional development)

★**EPsy 5434 COUNSELING ADULTS IN TRANSITION.** 3 credits, \$219.

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 15 Extension students)

Fall Qtr Sec 1 **W**—4:15-6:30, BuH 123, Romano

★**EPsy 5451 SEMINAR: THE COLLEGE STUDENT.** 3 credits, \$PsyS 5540, \$HiEd 5540, \$219.

Psychology and sociology of college students; research concerning diversity of populations, vocational development of students, student society, culture, mental health, underachievement, dropouts, values and attitudes; relevant research methods. **Must be taken A-F.** (Prereq 6 credits psych or ed psych. 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 125, Rest

★**EPsy 5461 CROSS-CULTURAL COUNSELING.** 3 credits, \$PsyS 5505, \$219.

Effect of cross-cultural and cross-national differences in counseling processes. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 35)

Fall Qtr Sec 1 **M**—6-8:30, Arch 35, Thomas

EPsy 5600 CHILDHOOD LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS. 3 credits, \$PsyS 5100, \$219.

Recent trends and findings in the study of language acquisition; classroom implications for the 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, BuH 120, Turnure

Spring Qtr Sec 2 **Th**—4:40-7:30, WullH 130, Turnure

EPsy 5601 EDUCATION OF EXCEPTIONAL CHILDREN. 4 credits, \$PsyS 5101, \$292.

Introduction to field of special education for classroom teachers and other school per-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

sonnel. **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, ChDev 105, Knowlton

Spring Qtr Sec 2 **W**—4:40-8:30, NichH 207, McEvoy, Rynders

OEPsy 5602 APPLICATION OF COMPUTER TECHNOLOGY TO SPECIAL EDUCATION. 3 credits, \$219.

Current and past research into the application of computer technology to special education will be studied in light of learning theory, principles of effective instruction, and the instructional needs of special education populations. The course emphasis is on applying technology to most effectively meet the needs of special education populations. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **M**—4:40-7:30, ChDev 216, Rose

★OEPsy 5604 TRANSITION FROM SCHOOL TO WORK AND COMMUNITY LIVING FOR PERSONS WITH SPECIAL NEEDS. 4 credits, \$PsyS 5104, \$292.

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

★OEPsy 5605 LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION. 2-4 credits, \$EdPA 5223, \$PsyS 5105, \$73 each credit.

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 **Sa**—10:30 a.m.-12:30, (addn hrs arr), BlegH 225

OEPsy 5606 EXCEPTIONAL STUDENTS IN REGULAR CLASSES. 2 credits, \$3606, \$PsyS 3106, \$PsyS 5106, \$146.

See course description for EPsy 3606. **Must be taken A-F.** (No prereq. Meets concurrently with 3606. 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, BuH 123, McEvoy, Rynders

Winter Qtr★ Sec 2 **T**—4:40-6:30, NichH 207, York
(Limited to 5 Extension students)

Spring Qtr Sec 3 **M**—4:40-6:30, NichH 213, McKee

OEPsy 5608 PARENT AND PROFESSIONAL PLANNING FOR HANDICAPPED STUDENTS. 3 credits, \$PsyS 5108, \$219.

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, PeikH 315, Wilderson

Spring Qtr Sec 2 **Th**—4:40-7:30, PeikH 225

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OEpsy 5609 FAMILY-PROFESSIONAL PLANNING FOR PERSONS WITH SEVERE HANDICAPS.** 3 credits, \$219.

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, WullH 130, McEvoy

★**OEpsy 5612 EDUCATION OF LEARNING-DISABLED CHILDREN.** 3 credits, \$PsyS 5112, \$219.

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 30 Extension students)

Fall Qtr Sec 1 **T**—4:40-7:30, EltH N119, Espin

Winter Qtr Sec 2 **T**—4:40-7:30, PeikH 155, Deno

★**OEpsy 5615 EDUCATIONAL INTERVENTIONS FOR LEARNING DISABILITIES.** 3 credits, \$219.

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 30 Extension students)

Winter Qtr Sec 1 **Th**—4:40-7:30, ChDev 216, Espin

Spring Qtr Sec 2 **T**—4:40-7:30, BuH 120, Espin

OEpsy 5620 INTRODUCTION TO MENTAL RETARDATION. 4 credits, \$CPsy 5315, \$PsyS 5120, \$292.

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. 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, BuH 123, Turnure

OEpsy 5622 PROGRAMS AND CURRICULA FOR LEARNERS WITH SEVERE HANDICAPS. 4 credits, \$292.

Elementary/secondary program design and curricula for learners with severe handicaps. 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 handicaps 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 **T**—4:10-7:30, ChDev 218, Hupp

OEpsy 5624 BIOMEDICAL ASPECTS OF PHYSICAL IMPAIRMENTS. 3 credits, \$PsyS 5124, \$219.

Selected information in genetics; anatomy, physiology, and kinesiology; central and peripheral nervous system; prenatal, perinatal, and postnatal development; physi-

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

cally disabling conditions; and management and 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 123, York

OEpsy 5625 EDUCATION OF HANDICAPPED INFANTS AND PRESCHOOL CHILDREN. 4 credits, \$PsyS 5125, \$292.

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, NichH 109, Rynders, McEvoy

OEpsy 5626 INSTRUCTION FOR LEARNERS WITH SEVERE HANDICAPS. 4 credits, \$292.

Data-based strategies for school and nonschool 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 5622, and 5116. 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, ChDev 216, Hupp

OEpsy 5636 EDUCATION OF MULTIHANDICAPPED LEARNERS WITH SENSORY IMPAIRMENTS. 3 credits, \$219.

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, PeikH 225, Hupp

OEpsy 5640 PSYCHOSOCIAL AND EDUCATIONAL ASPECTS OF DEAFNESS. 3 credits, \$PsyS 5140, \$219.

Historical and current societal perceptions of the deaf; analysis of effects and patterns of auditory impairment 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, EltH N119, Kyllo

OEpsy 5641 MODELS OF SERVICE DELIVERY TO STUDENTS WITH HEARING IMPAIRMENTS. 3 credits, \$PsyS 5141, \$219.

Programmatic and systems of support for infants, children, and youth with hearing impairments; educational delivery system models, curriculum and material adaptation, and consultation 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)

Spring Qtr Sec 1 **T**—4:40-7:30, Arch 20, Kyllo

OEpsy 5643 LANGUAGE FOR HEARING IMPAIRED CHILDREN. 4 credits, \$PsyS 5143, \$292.

Study of functional language development in communicatively handicapped persons; overview of language curricula and programming strategies, pertinent research (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

and models of instruction for use in the educational environment. **Must be taken A-F.** (Prereq 5640 or PsyS 5140. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **T**—4:40-8:30, WullH 130, Rose

OEpsy 5644 LANGUAGE PROGRAMMING FOR CHILDREN WITH HEARING IMPAIRMENTS. 3 credits, \$PsyS 5144, \$219.

Programs and practices focusing on the development of language in infants, children, and youth with hearing impairments; comparative study of language development of hearing impaired and hearing persons. **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**—4:40-7:30, ChDev 216, Rose

OEpsy 5646 READING AND INSTRUCTIONAL PRACTICES WITH HEARING-IMPAIRED STUDENTS. 4 credits, \$292.

Focuses on the knowledge and skills required to assess, plan, and implement instruction for individuals with hearing impairments. Emphasis is placed on the theoretical and pragmatic 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.** (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, PtH 204, Schultz

OEpsy 5647 AURAL AND SPEECH PROGRAMMING FOR CHILDREN WITH HEARING IMPAIRMENTS. 4 credits, \$PsyS 5147, \$292.

Fundamentals of the speech and hearing mechanisms; survey of instructional practices, technology-based assistive devices to develop auditory and speech skills. Strategies to adapt to the classroom acoustic 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 **W**—4:40-8:30, PeikH 155 Rose

OEpsy 5648 MODES OF COMMUNICATION FOR THE HANDICAPPED. 3 credits, \$PsyS 5148, \$219.

Theoretical and applied study of selection and application of alternative communication modalities; assessment and development of modes including gestures, speech reading, cued speech, sign systems, form boards, and Bliss- symbolics. **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, WullH 130, Rose

EPsy 5651 MANAGING PROBLEM BEHAVIOR IN THE CLASSROOM. 3 credits, \$PsyS 5151, \$219.

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)

Fall Qtr Sec 1 **M**—5:30-8, Roseville Area HS 257

Spring Qtr Sec 2 **M**—5:30-8, Richfield HS 141

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★EPsy 5656 **EDUCATIONAL NEEDS OF STUDENTS WITH EMOTIONAL DISTURBANCE OR BEHAVIORAL DISORDERS.** 3 credits, \$219.

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. Limited to 25)

Fall Qtr ● Sec 1 **W**—4:40-7:30, ChDev 105, F Wood (Joint Day/Extension)

Winter Qtr ● Sec 2 **M**—4:40-7:30, BuH 125, F Wood (Joint Day/Extension)

Sec 3 **Th**—4:30-7:30, Harrison School,
1500 Glenwood Ave. N., Braaten

★EPsy 5657 **EDUCATIONAL INTERVENTIONS FOR STUDENTS WITH EMOTIONAL DISTURBANCE OR BEHAVIORAL DISORDERS.** 3 credits, \$219.

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. Limited to 25)

Winter Qtr ● Sec 1 **W**—4:40-7:30, NichH 209, Wilderson (Joint Day/Extension)

Spring Qtr ● Sec 2 **T**—4:40-7:30, PeikH 215, F Wood (Joint Day/Extension)

Sec 3 **Th**—4:30-7:30, Harrison School,
1500 Glenwood Ave. N., Braaten

★OEpsy 5658 **CRISIS INTERVENTION IN SCHOOL PROGRAMS FOR EMOTIONALLY DISTURBED AND BEHAVIOR-DISORDERED STUDENTS.** 3 credits, \$219.

Concentrates on children and youth at the point of crisis in their ability to manage their own school behavior and in their ability to use the ordinary support of teachers and other support personnel. Intended to help school-based personnel work with children and youth who may be experiencing internal and/or external conditions which place them at risk for self-destructive and/or acting-out verbal-physical behavior in school settings and at home. **Must be taken A-F.** (Prereq 5656, 5657, or #. 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**—4:40-7:30, ChDev 216, Wilderson

★OEpsy 5660 **SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** 3 credits, \$PsyS 5160, \$EdPA 5103, \$219.

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**—7-9, (plus 1 hr arr), PeikH 155, Weatherman

●EPsy 5671 **LITERARY BRAILLE.** 3 credits, \$PsyS 5171, \$219.

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 123, Knowlton

●EPsy 5672 **ADVANCED BRAILLE.** 3 credits, \$PsyS 5172, \$219.

Mastery of Nemeth Code of mathematics, introduction to foreign languages, com-
(continued next page)

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puter 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 123, Knowlton

★**OEpsy 5680 EDUCATION OF THE DISADVANTAGED.** 3 credits, \$PsyS 5180, \$219.

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 **Th**—4:40-7:30, PeikH 155, McKee

OEpsy 5681 METHODS AND MATERIALS FOR HANDICAPPED INFANTS AND PRESCHOOL CHILDREN. 3 credits, \$PsyS 5181, \$219.

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**—4:40-7:30, PeikH 215, Rynders, McEvoy

EPsy 5690 EDUCATION OF THE GIFTED AND TALENTED.

A fall television course offered through CEE Independent Study. See page 51.

OEpsy 5700 ASSESSMENT AND DECISION MAKING IN SPECIAL EDUCATION. 3 credits, \$PsyS 5200, \$219.

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)

Winter Qtr Sec 1 **W**—4:40-7:30, PeikH 155

OEpsy 5701 PRACTICUM: SPECIAL EDUCATION. Credits arr, \$73 a credit.

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 **Arr**

Winter Qtr Sec 2 **Arr**

Spring Qtr Sec 3 **Arr**

OEpsy 5703 PRACTICUM EXPERIENCE: SPECIAL EDUCATION. Credits arr, \$73 a credit.

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**

Winter Qtr Sec 2 **Arr**

Spring Qtr Sec 3 **Arr**

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●EPsy 5704 WORKSHOP: INTERVENTIONS AND PRACTICES IN EDUCATIONAL AND HUMAN SERVICE PROGRAMS. Credits arr, \$73 a credit.

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**

Winter Qtr Sec 2 **Arr**

Spring Qtr Sec 3 **Arr**

★EPsy 5704 SEMINAR: SPECIAL TOPICS—CASE MANAGEMENT: Trends and Practices in Serving Persons with Developmental Disabilities. 3 credits, \$219.

Current case management policies and practices designed to support children and adults with exceptional needs in home and community life. Generic and population-specific strategies. Course is designed for both pre-service and practicing professionals. Practical applications are emphasized in class discussions and assignments. The question, "Can a caring and committed professional find happiness as a case manager?" will be addressed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with SW 5010, sec 6. Limited to a combined total of 30)

Spring Qtr Sec 4 **Th—4:15-7, FordH 349**

★●EPsy 5710 CONTEMPORARY SERVICES FOR PERSONS WITH DEVELOPMENTAL DISABILITIES. 3 credits, \$219.

Survey course focusing on the characteristics and service needs of persons with substantial developmental disabilities using multidisciplinary approaches. Addresses changing concepts, models of services, issues related to promoting the independence, productivity, and integration of persons with developmental disabilities 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 PRESCHOOL CHILD. 3 credits, \$PsyS 5549, \$219.

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—4:15-7, EltH N508, McConnell**

Electrical Engineering (EE)

(4-174 EE/CSci: 625-3300)

Institute of Technology

Textbooks for most EE courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

*Dave Lo, Adjunct Professor of Electrical Engineering
Robert Oswald, Unisys Corporation*

Read about abbreviations, symbols, and maps on page 64.
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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 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

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)

EE 0001 REFRESHER COURSE FOR ELECTRICAL ENGINEERS. No credit. **Tentatively scheduled for 1992-93.**

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. **Offered alternate years.** (Prereq B.S. in electrical engineering, passing the E.I.T. examination, and four years of electrical engineering experience)

★EE 1400 CIRCUITS LABORATORY. 1 credit, \$60.75

Laboratory to accompany 3009 and 3010. (Prereq IT student, 3009 or 3009. Each section limited to 14)

Spring Qtr Sec 1 **M**—8:10-9:55, EE/CSci 3170

Sec 2 **W**—8:10-9:55, EE/CSci 3170

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★EE 3009 LINEAR CIRCUITS I. 4 credits, \$292.

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. (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, \$292.

Energy and power in AC circuits. Transformers. Laplace transform techniques of circuit analysis. Frequency response. Two ports. (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, MechE 212

★EE 3011 SIGNAL ANALYSIS. 4 credits, \$292.

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, MechE 212

★EE 3012 SYSTEM DESIGN. 4 credits, \$292.

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, MechE 212

★EE 3060 SEMICONDUCTOR DEVICES. 4 credits, \$292.

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 3210

★EE 3061 ANALOG ELECTRONICS. 4 credits, \$292.

Small signal models for the BJT and FET. Elementary amplifiers. Differential and operational amplifiers; applications. (Prereq upper division EE or CSci or ME major, 3010, 3060. Limited to 75)

Winter Qtr Sec 1 **MW—6**:10-8:10, AmundH 240

★EE 3062 DIGITAL ELECTRONICS. 4 credits, \$292.

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. (Prereq upper division EE or CSci or ME major, 3061, 3351. Limited to 75)

Spring Qtr Sec 1 **MW—6**:10-8:10, EE/CSci 3115

★EE 3110 ELECTRIC AND MAGNETIC FIELDS. 4 credits, \$292.

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, MechE 212

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★EE 3111 **ELECTROMAGNETIC WAVES.** 4 credits, \$292.

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, MechE 212

★EE 3351 **INTRODUCTION TO LOGIC DESIGN.** 4 credits, \$292. (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, 2 and 3 lectures meet concurrently. Each section limited to 24)

Winter Qtr Sec 1 **M**—Lect, 6:10-8:40, EE/CSci 3210

T—Lab, 6:10-8:10, EE/CSci 2178

Sec 2 **M**—Lect, 6:10-8:40, EE/CSci 3210

W—Lab, 6:10-8:10, EE/CSci 2178

Sec 3 **M**—Lect, 6:10-8:40, EE/CSci 3210

Th—Lab, 6:10-8:10, EE/CSci 2178

★EE 3352 **INTRODUCTION TO MICROPROCESSORS.** 4 credits, \$292. (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, 2 and 3 lectures meet concurrently. Each section limited to 16)

Spring Qtr Sec 1 **M**—Lect, 6:10-8:40, EE/CSci 3210

T—Lab, 6:10-8:10, EE/CSci 3130

Sec 2 **M**—Lect, 6:10-8:40, EE/CSci 3210

W—Lab, 6:10-8:10, EE/CSci 3130

Sec 3 **M**—Lect, 6:10-8:40, EE/CSci 3210

Th—Lab, 6:10-8:10, EE/CSci 3130

★EE 3400-3401-3402 **JUNIOR ELECTRICAL ENGINEERING LABORATORY.** 2 credits each quarter, \$146 each quarter.

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 #. Each section limited to 14)

Fall Qtr **3400** Sec 1 **Th**—6:10-9:10, EE/CSci 3166

Winter Qtr **3401** Sec 2 **Th**—6:10-9:10, EE/CSci 3166

Spring Qtr **3402** Sec 3 **Th**—6:10-9:10, EE/CSci 3166

★EE 5002 **DIGITAL SIGNAL PROCESSING.** 3 credits, \$219.

General concepts of signal processing; discrete-time systems and digital filters. (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 **TTh**—6:10-7:50, EE/CSci 3111

★EE 5053 **DESIGN OF DIGITAL CIRCUITS.** 3 credits, \$219.

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. (Prereq upper division EE major or grad IT major, 3062 or #. May not be taken for graduate credit. Limited to 65)

Spring Qtr Sec 1 **T**—6:10-8:40, EE/CSci 3111

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★EE 5090 **DIGITAL CIRCUIT DESIGN LABORATORY.** 1 credit, \$73.

(Prereq ¶5062. May not be taken for graduate credit. Limited to 65)

Spring Qtr Sec 1 **W**—6:10-8:40, EE/CSci 3144

Sec 2 **Th**—6:10-8:40, EE/CSci 3144

★EE 5300 **ELECTROMECHANICS.** 4 credits, \$292.

Principles of electromechanical energy conversion with applications to actuators, transducers, and rotating machines. Performance characteristics derived from analytical models of ac and dc machines. (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

Elementary Education (Elem)

(125 Peik Hall; 625-6372)

College of Education

(Department of Curriculum and Instruction)

Textbooks for most Elem courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

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.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

Patricia G. Avery, Assistant Professor
L. JoAnne Buggie, Lecturer
Robert Dykstra, Professor
Donald Fondrick, Teaching Specialist
Harlan S. Hansen, Professor
Patricia A. Heller, Assistant Professor
Karen N. Hoyle, Professor
Roger T. Johnson, Professor

Helen L. Jorstad, Associate Professor
John C. Manning, Professor
Rosemarie J. Park, Associate Professor
Margaret Y. Phinney, Assistant Professor
James Stochl, Professor
Barbara M. Taylor, Professor
Susan M. Watts, Assistant 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.

★OElem 5100 **ELEMENTARY SCHOOL CURRICULUM.** 3 credits, \$219.

Selection and organization of subject matter for courses; methods, problems, and finding of research by subjects. **Must be taken A-F.** (Prereq 3101. 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**—4:30-7:15, PeikH 40, Buggie

Spring Qtr Sec 2 **T**—4:30-7:15, PeikH 40, Buggie

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Elem 5107 DIAGNOSIS AND TREATMENT OF LEARNING DIFFICULTIES.** 3 credits, \$219.

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)

Fall Qtr Sec 1 **Th**—4:30-7:15, PeikH 40, Park

★**Elem 5140 MICROCOMPUTER USES IN ELEMENTARY CLASSROOMS.** 3 credits, \$CISy 5206, \$219.

Use of microcomputers to enhance instruction; applications in language arts, mathematics, science, social studies; evaluation of available programs. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with CISy 5206. A joint Day/Extension class limited to a combined total of 12 Extension students)

Fall Qtr Sec 1 **Th**—4:30-7:15, PeikH 355, Stochl

★**Elem 5141 USING LOGO IN THE CLASSROOM.** 3 credits, \$219.

Using LOGO in the elementary and middle grades to develop skills in thinking, planning, and logic; applying fundamental mechanics and philosophy of LOGO using turtle graphics; developing classroom materials. **Must be taken A-F.** (Prereq CISy 5003 or equivalent. 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**—4:30-7:15, PeikH 355, Stochl

★**Elem 5145 CLASSROOM MANAGEMENT.** 3 credits, \$SeEd 5145, \$219.

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**—4:30-7:15, PeikH 40, H Hansen

★**Elem 5300 LITERATURE FOR THE ELEMENTARY SCHOOL.** 3 credits, \$219.

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)

Fall Qtr Sec 1 **T**—4:30-7, PeikH 215

Spring Qtr Sec 2 **T**—4:30-7, PeikH 315

★**Elem 5305 SURVEY OF SPECIAL COLLECTIONS IN CHILDREN'S LITERATURE.** 3 credits, \$219.

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 5300 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 **Th**—6:30-9, BuH 125, Hoyle

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★◉Elem 5315 **TEACHING COMPOSITION IN THE ELEMENTARY SCHOOL.** 3 credits, \$219.

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)

Fall Qtr Sec 1 **W**—4:30-7, PeikH 48, Phinney

Spring Qtr Sec 2 **M**—4:30-7, PeikH 46

★◉Elem 5316 **TEACHING AND SUPERVISION OF ENGLISH IN THE ELEMENTARY SCHOOL.** 3 credits, \$219.

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)

Fall Qtr Sec 1 **M**—4:30-7, PeikH 48, Dykstra

Winter Qtr Sec 2 **W**—4:30-7, PeikH 40, Dykstra

Spring Qtr Sec 3 **M**—4:30-7, PeikH 40, Dykstra

★◉Elem 5319 **TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** 3 credits, \$219.

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 12 Extension students)

Fall Qtr Sec 1 **Sa**—9-11:30 a.m., PeikH 46, Jorstad

★◉Elem 5320 **PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** 3 credits, \$219.

Minimum of three hours weekly of supervised teaching and observation in elementary schools. **Must be taken S-N.** (Prereq 5319 or 15319, #. 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

Elem 5321 **SECOND LANGUAGE PROGRAMS FOR YOUNG CHILDREN: LIKE CHILD'S PLAY.**

A winter and a spring television course offered through CEE Independent Study. See page 51.

★◉Elem 5331 **TEACHING AND SUPERVISION OF READING IN THE ELEMENTARY SCHOOL.** 3 credits, \$219.

Objectives, materials, and teaching procedures; current practices and curricula; class and individual projects. **Must be taken A-F.** (Prereq 9 cr 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 **M**—4:30-7, PeikH 40, Manning

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★◉Elem 5334 **READING DIFFICULTIES.** 3 credits, \$219.

Causes, prevention, and correction; remedial practices useful to the classroom teacher, school counselor, and reading specialist. **Must be taken A-F.** (Prereq 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 **T—4:30-7**, PeikH 46, Taylor

★◉Elem 5337 **BEGINNING READING INSTRUCTION.** 3 credits, \$219.

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 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)

Winter Qtr Sec 1 **M—4:30-7**, PeikH 48, Manning

Spring Qtr Sec 2 **M—4:30-7**, PeikH 48, Manning

★◉Elem 5338 **TEACHING READING IN THE INTERMEDIATE GRADES.** 3 credits, \$219.

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. **Must be taken A-F.** (Prereq 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)

Winter Qtr Sec 1 **W—4:30-7**, PeikH 48, Watts

Spring Qtr Sec 2 **W—4:30-7**, PeikH 48, Watts

★◉Elem 5347 **WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL SCIENCE: Topic to be Announced.** 3 credits, \$219.

(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—4:30-7:30**, PeikH 365, Heller

★◉Elem 5348 **WORKSHOP: OUTDOOR SCIENCE EDUCATION.** 3 credits, \$219.

(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 Spec Term Sec 1 **F—6-9**, Jan. 24, Woodlake Nature Center,

Richfield, Johnson, Fondrick

SaSu—8:30 a.m.-4:30, Jan. 25, 26, Woodlake

Nature Center, Richfield

F—6-9, Feb. 28, Woodlake Nature Center, Richfield

SaSu—8:30 a.m.-4:30, Feb. 29, Mar. 1, Long Lake

Conservation Center, Aitkin, Minn.

M—6-9, Mar. 9, PeikH 385

No late fee through Jan. 17

★◉Elem 5350 **ELEMENTARY SCHOOL SCIENCE: MATERIALS AND RESOURCES.** 3 credits, \$219.

Experiences in the use of educational materials and media common to the teaching of modern elementary school science. **Must be taken A-F.** (Prereq 5349. 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—4:30-7:15**, PeikH 385, Johnson

Spring Qtr Sec 2 **T—4:30-7:15**, PeikH 385, Johnson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★●Elem 5361 **TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** 3 credits, \$219.

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 3101 or equivalent. 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 165, Cogan

Spring Qtr Sec 2 **W**—4:30-7, ChDev 105, Cogan

★●Elem 5376 **CURRENT TRENDS IN EARLY CHILDHOOD EDUCATION.** 3 credits, \$219.

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 12 Extension students)

Fall Qtr Sec 1 **M**—4:30-7, PeikH 28, H Hansen

★●Elem 5377 **EARLY CHILDHOOD EDUCATION: MATERIALS AND RESOURCES.** 3 credits, \$219.

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 3377 or 5376 and 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 **T**—4:30-7, PeikH 28, H Hansen

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 182 or call 625-6501.

A variety of courses and workshops in elementary 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: Associate Department Chair, Department of Curriculum and Instruction, University of Minnesota, 125 Peik Hall, 159 Pillsbury Drive S.E., Minneapolis, MN 55455. Telephone: 625-3098.

Employee Benefits Specialist

(See Industrial Relations, page 299)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 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 672. 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)
GEO-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)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

College of Liberal Arts

Textbooks for most Engl and EngW courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also Composition and Communication)

Your attention is called to the Master of Arts in English. See the Degrees and Certificates section of this Bulletin.

Paulette Bates Alden, Lecturer in English
Chester Anderson, Professor of English
Christopher Anson, Associate Professor of English
Stephanie Athey, Lecturer in English
Tonya Bailey, Lecturer in English
Michael Bibby, Lecturer in English
Carol Bly, Lecturer in English
Robert Brown, Associate Professor of English
Michael Dennis Browne, Professor of English
Alan Burns, Professor of English
Colleen Curran, Lecturer in English
John M. Dolan, Associate Professor of Philosophy
Lonnie Durham, Assistant Professor Emeritus of English
Margery Durham, Associate Professor Emeritus of English
Michael Eldridge, Lecturer in English
John Engman, Lecturer in English
Brian Felland, Lecturer in English
Anna Fellegy, Lecturer in English
Barbara Field, Lecturer in English
Elizabeth Kilde Fischer, Lecturer in English
Norman Fruman, Professor of English
Philip Furia, Professor of English
Barton Calle, Lecturer in English
Arthur Geffen, Associate Professor of English
Christine Mack Gordon, Lecturer in English
Kate Green, Lecturer in English
Maureen Heacock, Lecturer in English
Karen Hoyle, Associate Professor, Library
Dennis Hurrell, Professor Emeritus of English
Peg Kerr Ihinger, Lecturer in English
Ruth Jeffries, Lecturer in English
Elizabeth Mische John, Lecturer in English
Elizabeth Johnson, Lecturer in English
Mikhail Iossel, Lecturer in English
Susan Kollin, Lecturer in English
Gretchen Legler, Lecturer in English
Archibald I. Leyasmeyer, Associate Professor of English
David Luke, Assistant Professor of English
Andrew MacLeish, Professor of English
Doris Marquit, Lecturer in English
Charles Nolte, Professor of Theatre Arts
Ellen Nugent, Lecturer in English
Joseph Paddock, Lecturer in English
Patricia Price, Lecturer in English
Paula Rabinowitz, Assistant Professor of English
Dolores Ready, Lecturer in English
William Rosendahl, Professor Emeritus of English

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Donald Ross, Professor of English
 Edward Savage, Professor Emeritus of English
 Larry Shillock, Lecturer in English
 Robert Solotaroff, Professor of English
 Madelon Sprengnether, Professor of English
 Nancy Stenson, Assistant Professor of Linguistics
 Charles Sugnet, Associate Professor of English
 Joel Weinsheimer, Professor of English
 Yun Zhang, Lecturer in English

A MAJOR IN ENGLISH CAN BE COMPLETED IN THE EVENING.

Interested students should discuss plans with an adviser (625-2480). (See the Degrees and Certificates section of this Bulletin for information on a master's degree in English.)

B.A. Major Sequence

Required Preparatory Courses—To be accepted into the major, all students must present the following: a minimum of 60 degree credits; a minimum of 16 credits in English course work (not including required composition courses); and an English GPA of 2.5248.

Students who declare English as their major objective will be classified as "pre-Engl" until the above prerequisites are met and they formally apply for major status following written procedures available in the English Undergraduate Studies Office, 224 Lind Hall.

Upon admission, students will plan their programs in conference with a departmental major adviser.

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 (1 cr), including eight 3xxx or 5xxx courses and three 5xxx courses. (Three courses may be graded "S".) Beyond the common requirements to be taken by all majors, there are four concentrations, each with specific requirements. For more information about each concentration, inquire in 224 Lind Hall.

Independent Study credits are limited to 12 and no more than 4 Extension Independent Study credits may be at the 3xxx or 5xxx level.

Common Requirements: 3008; one course in Shakespeare (3241 or 3242 or 3243); major paper through Engl 3961 (1 cr) registration, written in conjunction with 3960 or 3931-3932, according to guidelines in the *English Major Handbook*.

Requirements for Concentrations:

General Literary Studies—

- Two 3xxx or 5xxx courses in British literature before 1900
- One 3xxx or 5xxx course in British or American literature after 1900
- One 3xxx or 5xxx course in the study of language or literary theory
- Engl 3960 Junior-Senior Seminar or 3931-3932 English Quarter
- Engl 3961 (1 cr) Senior Paper or Engl 3963H (4 cr) Honors Thesis for *summa cum laude* candidates
- Five elective courses, four of which must be at least 3xxx level
- Students will complete three 5xxx-level courses
- Students are strongly encouraged to take a course in literature of American minorities as one of their electives

Writing—

- One other 3xxx or 5xxx course in British literature before 1800
- One 3xxx or 5xxx course in British or American literature after 1800

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

One 3xxx or 5xxx course in the study of language or literary theory
One 1xxx-level creative writing course
One 3xxx-level creative writing course
Engl 3960 Junior-Senior Seminar or English Writing 3960 Writing Workshop for Majors
or Engl 3931-3932 English Quarter or 3970
Engl 3961 (1 cr) Senior Paper or Engl 3963H (4 cr) Honors Thesis for *summa cum laude*
candidates
Four elective courses, three of which must be at the 3xxx level
Students will complete three 5xxx-level courses
Students are strongly encouraged to take a course in literature of American minorities as
one of their electives. They are also encouraged to take at least one genre course and
one course in writing techniques

Pre-Secondary Education—

Two 3xxx or 5xxx courses in British literature before 1900
Two 3xxx or 5xxx courses in American literature. Students are strongly encouraged to
take a course in literature of American minorities as one of these courses
Two 3xxx or 5xxx courses in the study of the English language
One 3xxx-level course in composition (in addition to the CLA requirement)
Engl 3960 Junior-Senior Seminar or 3931-3932 English Quarter
Engl 3961 (1 cr) Senior Paper or Engl 3963H (4 cr) Honors Thesis for *summa cum laude*
candidates
Two 3xxx or 5xxx elective courses
Students will complete three 5xxx-level courses
Recommended nonmajor electives: Continental, Classic, and/or Western literature;
Spch 3411 or 5411

Graduate/Pre-Professional—

3004
Two "age" courses in British literature before 1900: 3115, 3116, 3117, 3118, 3119
Chaucer (5221) or Milton (5261)
One 3xxx or 5xxx courses in American Literature
One 3xxx or 5xxx course in the study of the English language
One 3xxx or 5xxx course in literary theory
Engl 3960 Junior-Senior Seminar or 3931-3932 English Quarter
Engl 3961 (1 cr) Senior Paper or Engl 3963H (4 cr) Honors Thesis for *summa cum laude*
candidates
Two 3xxx-level or 5xxx-level elective courses
Students will complete three 5xxx-level courses
Students are strongly encouraged to take a course in literature of American minorities as
one of their electives. They also are encouraged to take a second Shakespeare course
and The King James Bible as Literature
The Senior Project may be written in conjunction with a Junior-Senior Seminar, an
English Quarter, or as an independent study project under the supervision of a faculty
member

All majors will find additional suggestions and guidelines applicable to specific concentra-
tions in the *English Major Handbook* and in individual handouts obtainable in the Under-
graduate Studies Office, 224 Lind Hall.

Major project: Major paper written in conjunction with 3960 or 3931-3932, according to the
guidelines in the *English Major Handbook*, available in the Undergraduate Studies Of-
fice, 224 Lind Hall.

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 224. See other literature courses in American Studies; Classical Studies; Comparative Literature; French; General College; German; Humanities; Philosophy; Slavic Languages; Spanish; The Compleat Scholar; and Women's Studies)

★**Engl 1005 INTRODUCTION TO THE STUDY OF LITERATURE.** 4 credits, \$243.

Understanding and enjoying literature. Readings of novels, short stories, poems, and plays. (No prereq. Limited to 40)

Fall Qtr Sec 1 **M**—6:20-8:50, LindH 215

Winter Qtr Sec 2 **T**—6:20-8:50, LindH 217

Spring Qtr Sec 3 **W**—6:20-8:50, LindH 305

★**Engl 1016 INTRODUCTION TO AMERICAN LITERATURE.** 4 credits, \$243. (◆ \$121.50) (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 **Th**—6:20-8:50, LindH 305, Bibby

Spring Qtr Sec 2 **M**—1-3:30, MacP, Kollin

Offered through Continuing Education for Women

★**Engl 1017 INTRODUCTION TO MODERN POETRY.** 4 credits, \$243. (IS)

Critical discussion of and writing about selected modern poems. Typical authors: Thomas, Frost, Moore, Yeats, Hardy, Cummings. (No prereq. Limited to 40)

Fall Qtr Sec 1 **M**—6:20-8:50, LindH 217, Shillock

Winter Qtr Sec 2 **W**—6:20-8:50, LindH 229, Heacock

★**Engl 1018 INTRODUCTION TO MODERN FICTION.** 4 credits, \$243. (◆ \$121.50)

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 **T**—6:20-8:50, LindH 203

★**Engl 1019 INTRODUCTION TO MODERN DRAMA.** 4 credits, \$243. (IS)

Critical discussion of and writing about selected modern plays. Typical authors: Ibsen, Shaw, Synge, Chekhov, O'Neill, Williams, Beckett. (No prereq. Limited to 40)

Fall Qtr Sec 1 **W**—6:20-8:50, MurH 311, Zhang

Spring Qtr Sec 2 **Th**—6:20-8:50, FordH 285

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★Engl 1241 **INTRODUCTION TO SHAKESPEARE.** 4 credits, \$243. (◆\$121.50)

- ◆ 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 229, Luke

★Engl 1591 **LITERATURE OF AMERICAN MINORITIES.** 4 credits, \$243. (◆\$121.50)

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 **W**—6:20-8:50, LindH 302, Heacock

Winter Qtr Sec 2 **Th**—6:20-8:50, LindH 305, Bibby

Spring Qtr Sec 3 **M**—6:20-8:50, LindH 229, Heacock

★Engl 1595 **INTRODUCTION TO "THIRD WORLD" LITERATURES IN ENGLISH.** 4 credits, \$243.

A broad overview of some of the vital and diverse works produced in English outside of the U.S. and Britain. While these works represent the experiences of many different cultures, they also treat concerns which derive from a common (post-)colonial legacy: the politics of language, the psychology of colonization, the implications of colonial education, culture as popular resistance to domination. Typical artists include Nigerian novelist Chinua Achebe, Palestinian Fadia Faqir, Indian Salman Rushdie, and Zimbabwean Tsitsi Dangaremba; Filipino filmmaker Kidlat Tahimik; and Jamaican "dub" poets Mutabaruka and Jean Binta Breeze. **Note:** students enrolling in spring quarter section 2 will be required to attend some guest lectures during the day, on Tuesdays from 12:45 to 2 in VinH 16. (No prereq. Limited to 32)

Fall Qtr Sec 1 **Th**—6:20-8:50, LindH 215, Eldridge

Spring Qtr Sec 2 **Th**—6:20-8:50, LindH 215, Athey

(A joint Day/Extension class)

new

★Engl 1621 **INTRODUCTION TO WOMEN WRITERS.** 4 credits, \$243. (◆\$121.50)

- ◆ An introduction to several major women writers from Great Britain and the United States. The works studied include novels, short stories, poetry, and drama. (No prereq. Limited to 40)

Winter Qtr Sec 1 **Th**—6:20-8:50, LindH 302

★Engl 1671 **THE SHORT STORY.** 4 credits, \$243. (◆\$121.50)

- ◆ 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)

Fall Qtr Sec 1 **T**—6:20-8:50, LindH 302

Courses in London

English literature and drama courses are offered every spring quarter in the Literature and Theatre in London program. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

★Engl 3008 **TECHNIQUES OF LITERARY STUDY.** 4 credits, \$248. (◆\$124)

- ◆ 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; intro-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

duction to major developments in contemporary criticism. (No prereq. Limited to 30)

Fall Qtr Sec 1 **W**—6:20-8:50, LindH 229

Winter Qtr Sec 2 **M**—6:20-8:50, LindH 215, Shillock

Spring Qtr Sec 3 **T**—6:20-8:50, FordH 115, Shillock

★**Engl 3009 THE STUDY OF LITERATURE.** 4 credits, \$248. (◆ \$124)

Problems of interpretation and criticism. Questions of meaning, form, authority, literary history, social significance. (Prereq two courses in English. Limited to 30)

◆ **Fall Qtr** Sec 1 **M**—6:20-8:50, LindH 302, L Durham

Winter Qtr Sec 2 **T**—6:20-8:50, LindH 203, Athey

Spring Qtr Sec 3 **Th**—6:20-8:50, FordH 130, Bibby

★**Engl 3118 THE ROMANTIC AGE.** 4 credits, \$248. (◆ \$124)

Major and representative works of the romantic period (1798-1832). Typical authors: Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. (No prereq. Limited to 30)

◆ **Fall Qtr** Sec 1 **T**—6:20-8:50, LindH 305, Rosendahl

Spring Qtr Sec 1 **T**—6:20-8:50, LindH 305, Rosendahl

★**Engl 3119 THE VICTORIAN AGE.** 4 credits, \$248.

Major and representative works of the Victorian period (1832-1901). Typical authors: Tennyson, Browning, Hopkins, Arnold, Dickens, and the Brontës. (No prereq. Limited to 30)

Spring Qtr Sec 1 **T**—6:20-8:50, LindH 305, Rosendahl

★**Engl 3241 SHAKESPEARE.** 4 credits, \$248. (◆ \$124) (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 **W**—6:20-8:50, LindH 217, Geffen

Spring Qtr Sec 2 **T**—6:20-8:50, LindH 302, Hurrell

(See also CSch 0132, Contemporary Japanese Theatre: Shakespeare's Plays in Japan)

★**Engl 3242 SHAKESPEARE.** 4 credits, \$248. (◆ \$124) (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)

◆ **Spring Qtr** Sec 1 **T**—6:20-8:50, LindH 229, Geffen

(Engl 3242 is also offered as a winter radio course through CEE Independent Study. See Page 51)

★**Engl 3412 SURVEY OF AMERICAN LITERATURE (18\$248-1900).** 4 credits, \$248. (◆ \$124) (IS)

Historical survey of important authors, intellectual currents, movements, conventions, genres, and themes. Lecture course, with wide reading. Thoreau and Melville through James. (No prereq. Limited to 45)

◆ **Fall Qtr** Sec 1 **W**—6:20-8:50, LindH 217, Ross

Engl 3413 SURVEY OF AMERICAN LITERATURE, 1900-1945.

A fall radio course offered through CEE Independent Study. See page 51.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Engl 3455 **AMERICAN SHORT STORY**. 4 credits, \$248. (IS)

Typical authors: Irving, Poe, Hawthorne, Twain, Crane, Cather, Faulkner, Welty, Bellows. (No prereq. Limited to 30)

cew

Fall Qtr Sec 1 **Th**—1-3:30, MacP, Athey

Offered through Continuing Education for Women

Spring Qtr Sec 2 **M**—6:20-8:50, LindH 302, Solotaroff

★Engl 3671 **THE NOVEL**. 4 credits, \$248. (◆\$124)

◆ The novel as a literary form. Readings of selected works of fiction from the 18th century to the present. (No prereq. Limited to 45)

Fall Qtr Sec 1 **W**—6:20-8:50, LindH 203, Weinsheimer

★Engl 3851 **THE ENGLISH LANGUAGE**. 4 credits, \$5851, \$248. (◆\$124) (IS)

◆ Introduction to the English language including English grammars, phonetics and phonology, British and American dialects, and native-language acquisition. (No prereq. Limited to 45)

Fall Qtr Sec 1 **W**—6:20-8:50, EE/CSci 3111 Anson

cew

Winter Qtr Sec 2 **T**—1-3:30, MacP, Fellegy

Offered through Continuing Education for Women

Spring Qtr Sec 3 **M**—6:20-8:50, Phys 166, MacLeish

★Engl 3852 **ASPECTS OF THE ENGLISH LANGUAGE**. 4 credits, \$248. (◆\$124)

◆ English grammar, phonetics and phonology, regional and social dialects. The application of these aspects of English linguistics to the analysis of specific literary texts. (No prereq. Limited to 30)

Winter Qtr Sec 1 **M**—6:20-8:50, LindH 217, Anson

(See also Linguistics; REX 0902, The Origins of English Words)

★Engl 3910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: CLASSIC AND CONTEMPORARY SCIENCE FICTION**. 4 credits, \$248.

Explores classic and contemporary writing in the field of science fiction with a glance at traditional works of literature that embody similar elements and themes. How does science fiction address gender and politics? Does it express the romance of progress or the terror of technology? Is it the philosophical inheritor of the romantic tradition or does it challenge that tradition's conservatism and nostalgia? (No prereq. Limited to 45)

Fall Qtr Sec 1 **T**—6:20-8:50, LindH 229, L Durham, Ihinger, Gordon

★Engl 3910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: GAELIC IRELAND: Literature and Culture**. 4 credits, \$248. (◆\$124)

◆ Translations of literature written in modern Irish provide a view of the history, culture, and social institutions of the Irish Gaeltacht (Irish-speaking districts). The focus will be primarily on the period from the 17th century, when the collapse of the old social order began to accelerate under pressure from the newer English rulers, to the contemporary period. Themes to be explored will include those of loss and exile, cultural clashes in the changing social order, forms and effects of adaptation and modernization in the society, and the role of literature (oral and written) in Gaeltacht culture. (No prereq. Limited to 30)

Winter Qtr Sec 2 **W**—6:20-8:50, LindH 302, Stenson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Engl 3960 **JUNIOR-SENIOR SEMINAR: GEORGE ELIOT'S CHILDREN.** 4 credits, \$248. (◆\$124)

◆ A look at George Eliot's analysis of motives and at later writers who followed her example, such as Henry James, Edith Wharton, and Fay Weldon. (Prereq English major status, completion of Comp 3011 or 3012 or 3013, jr or sr or Δ. Limited to 17)

Fall Qtr Sec 1 **Th**—6:20-8:50, LindH 217, M Durham

★Engl 5133 **19TH-CENTURY BRITISH POETRY.** 4 credits, \$248.

Major figures; historical and intellectual background; poetic theory. Such authors as Wordsworth, Coleridge, Keats, R. Browning, E.B. Browning, C. Rossetti, Tennyson, Arnold. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr Sec 1 **Th**—6:20-8:50, FordH 120, Fruman

★Engl 5152 **19TH-CENTURY ENGLISH NOVEL.** 4 credits, \$248. (◆\$124)

◆ Novels by such authors as Scott, Dickens, the Bröntes, Thackeray, Eliot, and Hardy. (Prereq grad student or English undergrad major or Δ. 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 305, Fruman

★Engl 5171 **ENGLISH DRAMA TO THE TIME OF SHAKESPEARE.** 4 credits, \$248.

Mystery plays, moralities, interludes, academic and court plays; plays of Kyd, Marlowe, Lyly, Greene, Peele. (Prereq 3241 or 3242, grad student or English undergrad major or Δ. 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 305, Savage

★Engl 5175 **MODERN DRAMA SINCE 1920.** 4 credits, \$248. (IS)

Chief dramatists, English, American, Continental. (Prereq grad student or English undergrad major or Δ. 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 5261 **MILTON.** 4 credits, \$248.

Paradise Lost, *Samson Agonistes*, minor poems, *Areopagitica*, and often *Paradise Regained*. (Prereq grad student or English undergrad major or Δ. 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 229, L Durham

★Engl 5432 **AMERICAN POETRY: SINCE 1890.** 4 credits, \$248. (IS)

Major figures; historical and intellectual background; poetic theory. Typical authors: Frost, Stevens, Pound, Eliot, Moore, Williams. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Winter Qtr Sec 1 **Th**—6:20-8:50, LindH 217, Furia

★Engl 5620 **BRITISH AND AMERICAN WOMEN WRITERS: 19TH-CENTURY WOMEN'S NOVELS.** 4 credits, \$248. (◆\$124)

◆ Novels bearing upon black and white women's experience in England and the U.S. Authors: Jean Rhys, Charlotte Brontë, Jane Austen, Harriet Jacob, Toni Morrison. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr Sec 1 **T**—6:20-8:50, LindH 203, M Durham

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Engl 5712 **LITERARY CRITICISM: PLATO TO DRYDEN.** 4 credits, \$248. (◆\$124)

- ◆ A survey, in English translation, of basic texts in Roman and Greek criticism, and representative texts of English neoclassical criticism up to 1700. (Prereq grad student or English undergrad major or Δ. 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, Weinsheimer

★Engl 5714 **MODERN AND CONTEMPORARY CRITICAL THEORY.** 4 credits, \$248. (◆\$124)

- ◆ Readings in modern and postmodern literary criticism; contemporary movements, theory, and practice. (Prereq grad student or English undergrad major or Δ. 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 203, Anderson

★Engl 5831 **AMERICAN ENGLISH.** 4 credits, \$248. (◆\$124)

- ◆ History of the English language in the United States; significant regional variation. (Prereq grad student or English undergrad major or Δ. 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 203, Brown

★Engl 5843 **AMERICAN SOCIAL DIALECTS.** 4 credits, \$248. (◆\$124)

- ◆ Methods for and results of investigating social and class variation in American English; urban dialects. (Prereq grad student or English undergrad major or Δ. 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 203, Brown

★Engl 5910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: HISTORY OF CHILDREN'S LITERATURE.** 4 credits, \$248. (◆\$124)

- ◆ Prototypes for American children's literature have historical roots from Aesop to 19th-century English and German literature. Authors, illustrators, and translators will be introduced in a survey fashion, and each student will write a paper and give an oral presentation on a particular individual or book. The Kerlan Collection houses facsimiles and editions of most "milestones" in children's literature, while the University libraries provide secondary sources. Class will meet in the Kerlan Collection in Walter Library. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Fall Qtr Sec 1 **M**—6:20-8:50, WaLib 109, Hoyle

★Engl 5910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: ETHICS: Literary and Philosophical Perspectives.** 4 credits, \$248.

- An exploration of ethics which draws on the resources of literature and philosophy. Class participants ask how literature enacts moral conflict and employs its peculiar skills—objective correlatives, symbolic narratives, and metaphors—to speak to huge griefs of the present time, corporate malfeasance, large frustrations, and injustices (to humans, to other creatures, and to the earth). A search in literature for some clue to the mystery of why some people seem indifferent to certain virtues and cruelties, while other persons attend to them with passion for years. Turning from the concrete immediacies of literature to the abstract inquiry of philosophy, the class examines standards to which people can appeal when engaged in moral evaluation; the requirements of justice and the deeper underlying moral principles at stake in current debates over such issues as civil disobedience, abortion, euthanasia, and freedom of the press; the moral significance of practices and institutions and of the various roles defined by
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

them (such as citizen, attorney, physician, nurse, judge). Other topics to be explored include the significance of radical moral disagreement; and how society should proceed when there is deep moral disagreement among its citizens. In their work on literature, class participants will read short stories, poems, and essays by Jim Harrison, D. H. Lawrence, Guy de Maupassant, Alice Walker, George Orwell, Michael Dennis Browne, Louis Simpson, Susan Lowell, Alice Munro, and others. Also included are two philosophical papers by John Rawls and one by Ronald Dworkin. **Note:** This is a two-quarter course. Students must begin with Engl 5910, sec 1 / Phil 5760, sec 1 (fall quarter) and make a commitment to complete the two-quarter course by following up with Phil 5770, sec 1 / Pol 5610, sec 2 (winter quarter). **Preregistration is required;** call 625-3322 for an application and additional information. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Phil 5760, sec 1. Limited to a combined total of 30)

Fall Qtr Sec 2 **T**—6:30-8:50, LindH 217, Bly, Dolan

★Engl 5910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: YOUTH AND OLD AGE IN MODERN LITERATURE AND FILM.** 4 credits, \$248.

A study of youth and old age in novels by Dickens, Hemingway, Stegner, Gardner, and Marquez, and in selected films, including *On Golden Pond* and *Providence*. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr Sec 3 **Th**—6:20-8:50, LindH 305, Luke

★Engl 5910 **TOPICS IN ENGLISH AND NORTH AMERICAN LITERATURE: MEDICINE AND LITERATURE.** 4 credits, \$248.

An exploration of health care issues through their embodiment in such books as *Cancer Ward*, *As We Are*, *The Elephant Man*, and *Love Among the Ruins*. Themes to be investigated include terminal care, the patient-practitioner relationship, the elderly patient, mental health and madness, scientific research, and the politics of health-care institutions. (Prereq grad student or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Spring Qtr Sec 4 **Th**—6:20-8:50, LindH 217, Galle

★Engl 5920 **TOPICS IN ANGLOPHONE LITERATURE: LITERATURE OF SOUTH AFRICA AND ZIMBABWE.** 4 credits, \$248.

Explores the effects of apartheid society on the production of black and white literature in modern South Africa, and will also look into the effects of the Zimbabwean Revolution on Zimbabwean literature in English. Readings will include such writers as Nadine Gordimer, Alex LaGuma, J. M. Coetzee, Tsitsi Dangaremba, and Dambudzo Marachera. (Prereq grad student or English undergrad major or Δ. 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 215, Sugnet

★Engl 8012 **PROBLEMS IN LITERARY HISTORY.** 4 credits, \$544.

Approaches to practical and theoretical problems of literary history and genre. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 25)

Spring Qtr Sec 1 **W**—6:20-8:50, LindH 203, Rabinowitz

★Engl 8118 **PROSEMINAR IN 19TH-CENTURY AMERICAN HISTORY.** 4 credits, \$544.

Wide reading in the literature of this period designed to prepare graduate students for
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

work in other graduate courses or seminars. Attention to relevant scholarship or criticism. (No prereq. Open only to students admitted to the University of Minnesota Graduate School. Limited to 25)

Winter Qtr Sec 1 **M**—6:20-8:50, LindH 203, Ross

Creative and professional writing (EngW)

The program in *Creative and Professional Writing* is a part of the English Department and is partially supported by funds from the Edelstein-Keller Endowment for Creative Writing. The program offers master's degrees in writing courses designed for students pursuing the M.A. degree with an emphasis on creative and professional writing, as well as for undergraduates in English and other disciplines. Some fellowship support is available for graduate students.

Visiting Writers, Academic Year 1991-92: One or more Edelstein-Keller Visiting Writers will be in residence for varying periods during the year. Details of these visits may be obtained from the program office, 204 Lind Hall (telephone 625-6366).

(Literature classes begin on page 217. See other writing classes in General College communication skills courses; The Compleat Scholar noncredit section of this Bulletin; and Composition and Communication)

★EngW 1101 INTRODUCTION TO CREATIVE WRITING. 4 credits, \$Engl 1102, \$243.

Through a combination of small writers' groups and presentations by visiting writers, this course will help students begin writing memoir, poetry, and fiction. 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, FordH 155.) (No prereq. Limited to 25)

Fall Qtr Sec 1 **T**—6:20-8:15, LindH 215, Felland

Sec 2 **W**—6:20-8:15, LindH 215, Legler

Spring Qtr Sec 3 **T**—6:20-8:15, LindH 215, Jeffries

Sec 4 **W**—6:20-8:15, LindH 302, Curran

(See also CSch 0301, Creative Writing I)

★EngW 1102 INTRODUCTION TO FICTION WRITING. 4 credits, \$Engl 1101, \$Comp 1101, 1113, \$243. (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 or Comp 1011. Limited to 25)

Fall Qtr Sec 1 **M**—6:20-8:50, LindH 303

Winter Qtr Sec 2 **W**—6:20-8:50, LindH 320, John

Spring Qtr Sec 3 **M**—6:20-8:50, LindH 217

Sec 4 **M**—9:30 a.m.-12, MacP, Bailey

cew

Offered through Continuing Education for Women

★EngW 1103 INTRODUCTION TO POETRY WRITING. 4 credits, \$Engl 1104, \$Comp 1104, 1111, \$243. (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 Comp 1011 or EngW 1101. Limited to 25)

Fall Qtr Sec 1 **T**—6:20-8:50, Arch 20, Fischer

Spring Qtr Sec 2 **Th**—6:20-8:50, FordH 70, Johnson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★EngW 3102 **INTERMEDIATE FICTION WRITING.** 4 credits, §Engl 3101, §Comp 3101, \$248. (IS)

For students with experience in writing fiction. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1101, or EngW 1102, or equivalent. Limited to 20)

Winter Qtr Sec 1 M—6:20-8:50, FordH 40

Spring Qtr Sec 2 M—6:20-8:50, LindH 215

★EngW 3103 **INTERMEDIATE POETRY WRITING.** 4 credits, §Engl 3104, §Comp 3104, \$248. (IS)

A workshop for students with experience in writing poetry. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1101 or 1103, or equivalent. Limited to 20)

Spring Qtr Sec 1 W—6:20-8:50, LindH 320, Paddock

★EngW 3110 **TOPICS IN CREATIVE WRITING: INTRODUCTION TO PLAYWRITING.** 4 credits, §Th 3115, \$248.

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, BlegH 245, Field

Courses Requiring Instructor's or Department's Permission

NOTE: Admission to courses requiring permission to register (Δ) can be obtained only from the Creative Writing office. For written directions about how to apply for admission to those courses, please contact the office of the Program in Creative and Professional Writing, 204 Lind Hall. Telephone 625-6366 for information on office hours. If you register without permission from the program office, you may be required to forfeit your place in the class.

★EngW 5101, 5102, 5103 **ADVANCED FICTION WRITING.** 4 credits, §Engl 5101, 5102, 5103, \$248.

Advanced workshop for students with considerable experience in writing fiction. While this is not strictly a sequence course, it is easier to enter the course in the fall than in the winter or spring quarters. (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 5101 Sec 1 M—6:20-8:50, LindH 203, Burns

Winter Qtr 5102 Sec 2 T—4:15-6:45, LindH 215

Spring Qtr 5103 Sec 3 T—4:15-6:45, LindH 217

★EngW 5105, 5106, 5107 **ADVANCED POETRY WRITING.** 4 credits, §Engl 5104, 5105, 5106, \$248 each quarter.

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. A joint Day/Extension class limited to 5 Extension students)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	5105	Sec 1	T—4:15-6:45, LindH 320, Browne
Winter Qtr	5106	Sec 2	T—6:20-8:50, LindH 302, Browne (Limited to 7 Extension students)
Spring Qtr	5107	Sec 3	Th—4:15-6:45, LindH 229

★**EngW 5110** 4 credits, \$248.

This course will be taught by a new core faculty member. (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 **M—4:15-6:45, LindH 340**

★**EngW 5110 TOPICS IN ADVANCED FICTION WRITING: COLLABORATION WORKSHOP.** 4 credits, \$248.

Collaboration opens up exciting possibilities for the fiction writer. Diverse imaginations and life experiences, in combination and collision, extend the range and deepen the understanding of those who work together. The need to accommodate to others' views teaches a proper humility. Arguing for your own requires self-analysis and clarification of ideas. This course was inspired by Gabriel Garcia Marquez's screenwriters' workshop, *How to Tell a Story*, in which "...ten writers write a story from scratch. We start by going round and round. At first there are only differences... Then suddenly an idea appears that grabs everyone and the story can be developed" (Marquez, *New York Times*, 1/21/88). We will split into two groups of seven and each group will produce a story. The instructor (who has collaborated with ten novelists in writing a published book) will work with both groups. Regular weekly classes plus additional optional meetings. Publication is the goal. Collaborators will share profits and prestige. (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 2 **Th—4:15-6:45, LindH 325, Burns**

★**EngW 5110 TOPICS IN ADVANCED CREATIVE WRITING: SHORT STORY WRITING.** 4 credits, \$248.

Concentrates on questions relating to the creation of voice, and differences between oral and written stories; the effect of having an audience present. Use of source material from Native American writers such as Harry Robinson, Louise Erdrich, Gerald Vizenor, Basil Johnston, and other writers from other traditions and ethnic backgrounds. (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 3 **M—4:15-6:45, LindH 315, King**

★**EngW 5130 TOPICS IN ADVANCED CREATIVE WRITING: MAGAZINE PRODUCTION WORKSHOP.** 4 credits, \$248.

Covers all aspects of producing a literary magazine with workshop members, along with the instructor, constituting the editorial board. The course includes visiting speakers experienced in the field. Magazine experience is desirable, but not essential. *Class will meet intermittently throughout fall and winter quarters. Students will receive a continuing grade of "X" at the end of the fall quarter.* (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 Spec Term Sec 1 **Th—6:20-8:50, LindH 229**

★**EngW 5130** 4 credits, \$248.

This course will be taught by a two-year visiting faculty member. (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 2 **W—4:15-6:45, FordH 60, Iossel**

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EngW 5204 ADVANCED PLAYWRITING.** 4 credits, \$248.

Advanced playwriting workshop for students with experience in creative writing. Students may wish to take 5310 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 440

★**EngW 5210 TOPICS IN ADVANCED NONFICTION WRITING: CREATIVE NONFICTION.** 4 credits, \$248.

A workshop for experienced writers. Readings in creative nonfiction by writers such as Ryszard Kapuscinski, Susan Griffin, Patricia Hampl, and Eduardo Galeano will help individual students with their creative nonfiction projects. Some exercises and short assignments in addition to the longer project. (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 340, Sugnet

★**EngW 5210 TOPICS IN ADVANCED NONFICTION WRITING: WRITING FROM LIFE—FINDING A SUBJECT, CREATING A VOICE.** 4 credits, \$248.

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. Reading material will be drawn from the work of local writers, some of whom will be asked to discuss their writing process with the class. Students should register in EngW 5310, sec 3, Varieties of Nonfiction Writing, during fall quarter in preparation for this class. (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 2 **M**—4:15-6:45, LindH 320, Sprengnether

○**EngW 5310 READING AS WRITERS: WRITING FROM LIFE—VARIETIES OF NONFICTION WRITING.** 4 credits, \$248.

Focuses on nonfiction writing, with some attention given to fictionalized autobiography. Students examine the ways in which authors select from and use their experience in order to make sense of the world. They will also be concerned with the specifically literary aspects of the works in question: how they organize and present the subject matter of individual history and engagement in a way that elicits response from the reader. Throughout, class members will be asking how the author creates a self or a voice that gives shape to his or her experience. Writing assignments will be designed to assist students in defining their own compelling subject matter for nonfiction writing as well as the means for articulating it. Authors to be examined include Vivian Gornick, Marguerite Duras, Spalding Gray, Annie Dillard, Gretel Erlich, John McPhee, Salman Rushdie, Jamaica Kincaid, Susan Kenney, and others. (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 **M**—4:15-6:45, LindH 325, Sprengnether

★**EngW 5310** 4 credits, \$248.

This course will be taught by a new core faculty member. (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 2 **T**—4:15-6:45, LindH 340

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**EngW 5310** 4 credits, \$248.

This course will be taught by a two-year visiting faculty member. (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 3 **W**—4:15-6:45, LindH 315, Jossel

★**EngW 5310 READING AS PLAYWRIGHTS: CONTEMPORARY DRAMATIC LITERATURE.** 4 credits, \$248.

Wide reading of such authors as Sam Shepard, David Mamet, August Wilson, Caryl Churchill, Harold Pinter, Tom Stoppard, Athol Fugard, Peter Handke, Vaclev Havel, and Mbongeni Ngema. Attendance at some local performances will be required. Written responses and imitative exercises assigned. (Prereq written Δ . Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Th 5950. A joint Day/Extension class limited to a combined total of 7 Extension students)

Fall Qtr Sec 4 **W**—4:15-6:45, LindH 340

(See also EngW 5204, Advanced Playwriting, winter quarter)

★**EngW 5401 INTRODUCTION TO PROFESSIONAL EDITING.** 4 credits, \$248.

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 **Th**—6:20-8:50, LindH 302

Winter Qtr Sec 2 **Th**—6:20-8:50, LindH 215, Marquit

Spring Qtr Sec 3 **W**—6:20-8:50, LindH 217, Ready

(See also CSch 0356, Introduction to Copy-Editing)

★**EngW 5402 ADVANCED EDITING.** 4 credits, \$248.

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 320, Marquit

★**EngW 8110 WRITING OF FICTION: PUBLISHING BOOK-LENGTH FICTION.** 4 credits, \$544.

Focuses on the writing of a full-length book (typically a novel or collection of short stories). There will be assignments in common, but each student will work on an individual project; some students will bring a work in progress into the course, but this is not essential. Non-literary art forms, including painting and music, will be explored for their relevance to a writer of fiction. Examine ideas that might condition the fiction of the future, such as feminism, socialism, and surrealism. Practicalities like copyright, libel, and selecting an agent and publisher will be taught. (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 **W**—4:15-6:45, LindH 325, Burns

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**EngW 8110 WRITING OF FICTION.** 4 credits, \$544.

The winter section will be taught by a new core faculty member; the spring section by a two-year visiting faculty member. (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 2 **Th**—4:15-6:45, LindH 325

Spring Qtr Sec 3 **Th**—4:15-6:45, LindH 325, Iossel

★**EngW 8120 WRITING OF POETRY: ADVANCED WORKSHOP.** 4 credits, \$544.

A workshop for the experienced, seriously committed student poet. Activities include assemblage of a chapbook, close critiques, recording one's work. (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)

Spring Qtr Sec 1 **T**—4:15-6:45, LindH 325, Browne

★**EngW 8130 CREATIVE WRITING SEMINAR: EDELSTEIN-KELLER VISITING WRITER SERIES.** Credit arr, \$136 each credit.

Details of these visits may be obtained from the program office, 204 Lind Hall (telephone 625-6366). (Prereq written Δ . Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class limited to 9 Extension students)

Sec 1 Arr

English as a Second Language (ESL)

(102 Klæber Court: 624-1503)

College of Liberal Arts

Textbooks for most ESL courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Students registering for ESL courses must take one of the following tests: the Minnesota Battery of English Language Proficiency (MBatt) or the Test of English as a Foreign Language (TOEFL), or the Michigan English Language Assessment Battery (MELAB). Arrangements to take one of these tests can be made through the Minnesota English Center. Arrangements for taking the test must be completed well in advance of registration. Call 624-1503 for information. After receiving the test score, contact CEE Counseling, 625-2500, for registration information.

★**ESL 0115-0116 FUNDAMENTALS IN ENGLISH AS A SECOND LANGUAGE.** No credit, \$303.75 plus \$5 course fee each quarter. Total \$308.75 each quarter.

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 from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Fall Qtr 0115 Sec 1 **TTh**—6:20-8:50, FolH 134

Winter Qtr 0116 Sec 2 **TTh**—6:20-8:50, FolH 134

★**ESL 0117 READING AND VOCABULARY SKILLS IN ENGLISH AS A SECOND LANGUAGE.** No credit, \$303.75 plus \$5 course fee. Total \$308.75 (IS)

Practice of reading techniques designed to improve comprehension and increase
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

reading speed; word forms, usage, synonyms, and antonyms are studied with reference to an English-English dictionary; opportunities to increase active vocabulary through discussion activities and receptive vocabulary through listening and reading exercises. **Must be taken S-N.** (Prereq a satisfactory score on the MBatt or TOEFL; and written permission from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Spring Qtr Sec 1 **TTh**—6:20-8:50, FolH 134

★ESL 0125-0126-0127 DEVELOPING FLUENCY IN ENGLISH AS A SECOND LANGUAGE. No credit, \$303.75 plus \$5 course fee each quarter. Total \$308.75 each quarter.

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 from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Fall Qtr 0125 Sec 1 **TTh**—6:20-8:50, FolH 116

Winter Qtr 0126 Sec 2 **TTh**—6:20-8:50, FolH 116

Spring Qtr 0127 Sec 3 **TTh**—6:20-8:50, FolH 116

★ESL 0136 INTERNATIONAL BUSINESS ENGLISH. No credit, \$303.75 plus \$5 course fee. Total \$308.75.

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 from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Fall Qtr Sec 1 **MW**—6:20-8:50, PeikH 225

★ESL 0137 ENGLISH FOR SCIENCE AND TECHNOLOGY. No credit, \$303.75 plus \$5 course fee. Total \$308.75.

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 from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Winter Qtr Sec 1 **MW**—6:20-8:50, NichH 109

★ESL 0138 LISTENING AND SPEAKING THROUGH FILM. No credit, \$303.75 plus \$5 course fee. Total \$308.75.

Focuses on the development of listening and speaking skills and cultural understanding through the medium of American movies and television. **Must be taken S-N.** (Prereq a satisfactory score on MBatt or TOEFL; and written permission from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Spring Qtr Sec 1 **TTh**—6:20-8:50, AkerH 215

★ESL 0145-0146-0147 WRITING IN GRADUATE SCHOOL. No credit, \$303.75 plus \$5 course fee each quarter. Total \$308.75 each quarter.

An advanced writing course for graduate students who are non-native speakers of English; introduction to using 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 from CEE Counseling, 314 NCCE [625-2500]. Limited to 20)

Fall Qtr 0145 Sec 1 **MW**—4:20-6:50, CivMinE 212

Winter Qtr 0146 Sec 2 **MW**—4:20-6:50, AkerH 211

Spring Qtr 0147 Sec 3 **MW**—4:20-6:50, AkerH 211

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Entomology (Ent)

(219 Hodson Hall; 624-3636)

College of Agriculture

Textbooks for most Ent courses are available at Books Underground on the St. Paul campus (624-9200).

No Extension courses offered 1991-92.

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.

F

Family Practice and Community Health (FPCH)

(6-240 Phillips-Wangensteen; 624-2622)

Medical School

Textbooks for most FPCH courses are available at the Health Sciences Bookstore (625-8600).

Edmond E. Coleman, Associate Professor of Family Practice and Community Health

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.

❶FPCH 5950 CLINICAL ISSUES IN HUMAN SEXUALITY. 3 credits, \$337.50.

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)

Winter Qtr Sec 1 T—4:15-6, Research East Bldg, 2630 Univ Ave SE,
Mpls, Coleman

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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 Books Underground (624-9200).

(See also Anth 5920, Topics in Anthropology: Anthropology of AIDS; PubH 5010, Public Health Approach to AIDS; College of Home Economics; General College; and The Compleat Scholar and The Practical Scholar noncredit courses)

Linda Budd, Adjunct Assistant Professor in Family Social Science

Linda Burkett, Lecturer in Family Social Science

Philip L. Colgan, Instructor, Alcohol and Drug Counseling Education Program

Phyllis Dix, Teaching Assistant, Family Social Science

Constance Fabunmi, Instructor, Alcohol and Drug Counseling Education Program

Bruce Fischer, Instructor, Alcohol and Drug Counseling Education Program

William J. Goodman, Adjunct Assistant Professor, Alcohol and Drug Counseling Education Program

Harold Grotevant, Professor and Head of Family Social Science

Susan Hoffman, Teaching Specialist

Cynthia J. Meyer, Lecturer in Family Social Science

Kathryn Rettig, Associate Professor in Family Social Science

Patricia Spaulding, Lecturer in Family Social Science

Deborah Smith, Teaching Assistant, Family Social Science

Robert E. Yahnke, Associate Professor, General College

See the Alcohol and Drug Counseling Program, page 234.

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 DYNAMICS OF FAMILY RELATIONSHIPS. 4 credits, \$1002, \$243 plus \$1 special fee. Total \$244. (◆ \$121.50 plus \$1 special fee. Total \$122.50)

- ◆ Applications of behavioral sciences to mate selection, interaction in marriage, and other committed relationships, sex roles, maintaining, and ending of relationships. (No prereq)

Spring Qtr Sec 1 **M**—6:20-8:50, BlegH 155, Smith

OFSoS 1025 PARENTHOOD. 4 credits, \$243. (◆ \$121.50)

- ◆ 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. A joint Day/Extension class)

Spring Qtr Sec 1 **TTh**—4-6, McNH 198, StP Campus, Dix

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

○FSoS 3260 FAMILY RESOURCE MANAGEMENT. 4 credits, \$292.

Examination of managerial behaviors in families, including valuing, goal setting, problem solving and decision making, planning and implementation, as well as resource use and creation. (Prereq AgEc 1101, Psy 1001, Soc 1001; Anth 1002 and Pol 1001 recommended. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—4:05-7:30, McNH 197, StP Campus, Rettig

★FSoS 5001 HUMAN SEXUAL BEHAVIOR. 5 credits, \$365. (◆\$182.50) (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. Limited to 50)

Fall Qtr Sec 1 **Th**—5:30-9:40, McNH 197, StP Campus, Meyer

FSoS 5025 PARENTING. 4 credits, \$292. (◆\$146)

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)

Fall Qtr Sec 1 **M**—6:15-9:30, McNH 197, StP Campus, Budd

(See also The Practical Scholar Human Development courses)

FSoS 5200 FAMILY RELATIONSHIPS. 5 credits, \$365. (◆\$182.50) (IS)

Family as an institution and system of relationships. Survey of current developments in study of family. Changes in American society and their influence on family life. (Prereq Psy 1001 or equivalent, Soc 1001 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:15-9:30, McNH 198, StP Campus, Budd

(FSoS 5200 is also offered as a winter television course through CEE Independent Study. See page 51)

★FSoS 5240 SPECIAL TOPICS: GENDER ROLES AND THE FAMILY: Changes and Dilemmas. 4 credits, \$292.

What does it mean to be female/male in contemporary American society? What is the impact of gender role change on marriage and family relationships? What changes will the future bring? (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr Sec 1 **M**—4:05-7:30, McNH 375, StP Campus, Spaulding

Spring Qtr Sec 2 **M**—4:05-7:30, McNH 375, StP Campus, Spaulding

○FSoS 5253 HUMANITIES, AGING, AND FAMILY LIVING. 4 credits, \$292. (◆\$146)

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. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—4:05-7:30, McNH 375, StP Campus, Yahne

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OFSoS 5500 RACIAL AND ETHNIC MINORITY FAMILIES. 4 credits, \$292.

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 diversity. (Prereq 5200. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 T—6-9:15, McNH 375, StP Campus

Alcohol and drug counseling education program (ADCEP)

(299A McNeal Hall: 625-3778)

Textbooks for most ADCEP courses are available at Books Underground on the St. Paul campus (624-9200).

YOUR ATTENTION IS ALSO CALLED TO THE ALCOHOL AND DRUG COUNSELING EDUCATION CERTIFICATE, page 661.

To obtain a formal application for the certificate program, write to the Alcohol and Drug Counseling Education Program, University of Minnesota, Family Social Science, 299A 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 ABUSE PROBLEMS. 4 credits, \$292.

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

(See also REX 0324, Alcohol and Degenerative Diseases)

FSoS 3027 CURRENT ISSUES AND PHARMACOLOGY OF ALCOHOL AND DRUG ABUSE. 4 credits, \$292.

Series of lectures with emphasis on the historical and cultural perspectives of drug use and abuse. Additional topics: men's, women's, adolescents', minority, 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, Agr A202, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

FSoS 3028 TREATMENT OF ALCOHOL AND DRUG USE PROBLEMS. 4 credits, \$292.

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, Agr A202, StP Campus

★FSoS 3029 COUNSELING SKILLS PRACTICUM I. 4 credits, \$292.

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**—6-10, Sept. 25-Oct. 30, McNH 144, StP Campus, and

Sa—9 a.m.-5, Oct. 5, McNH 144, StP Campus, Goodman

Sec 2 **W**—6-10, Sept. 25-Oct. 30, McNH 144, StP Campus, and

Sa—9 a.m.-5, Oct 5, McNH 144, StP Campus

Winter Spec Term Sec 3 **W**—6-10, Jan. 8-Feb. 12, McNH 144, StP Campus, Fabunmi, and

Sa—9 a.m.-5, Jan. 18, McNH 144, StP Campus, Goodman

Spring Spec Term Sec 4 **W**—6-10, Apr. 1-May 6, McNH 144, StP Campus, and

Sa—9 a.m.-5, Apr. 11, McNH 144, StP Campus, Goodman

★FSoS 3030 COUNSELING SKILLS PRACTICUM II. 4 credits, \$292.

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, Oct. 7-Nov. 25
McNH 144, StP Campus, and

Sa—9 a.m.-5, Oct. 12, McNH 144, StP Campus, Fabunmi
No late fee through Sept. 30

Winter Spec Term Sec 2 **M**—6-9, Jan. 6-Mar. 2 (no meeting Jan. 20),
McNH 144, StP Campus, and

Sa—9 a.m.-5, Jan. 11, McNH 144, StP Campus, Fabunmi

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Spring Spec Term Sec 3 **M**—6-9, Mar. 30-May 18, McNH 144, StP Campus, and
Sa—9 a.m.-5, Apr. 4, McNH 144, StP Campus, Fabunmi

★**FSoS 3031 COUNSELING SKILLS PRACTICUM III.** 4 credits, \$292.

Designed to provide students with exposure to advanced therapeutic methods. Topics include double bind theory, use of paradox, working with resistant clients, neuro-linguistic 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**—6-10, Sept. 25-Oct. 16, McNH 198, StP Campus, Colgan, and
Sa—9 a.m.-5, Oct. 5, 26, McNH 198, StP Campus

Spring Spec Term Sec 2 **W**—6-10, Apr. 1-22, McNH 198, StP Campus, Colgan, and
Sa—9 a.m.-5, Apr. 11, 25, McNH 198, StP Campus

★**FSoS 3032 CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW.** 4 credits, \$292.

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 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**—6-10, Oct. 3-Nov. 7, McNH 198, StP Campus, and
Sa—9 a.m.-5, Oct. 19, McNH 198, StP Campus, Goodman
No late fee through Sept. 26

Spring Spec Term Sec 2 **Th**—6-10, Apr. 16-May 28, (no meeting May 14), McNH 198, StP Campus, and
Sa—9 a.m.-5, May 9, McNH 198, StP Campus, Goodman
No late fee through Apr. 9

FSoS 3034 TOPICS IN ALCOHOL AND DRUG ABUSE. 1-5 credits, \$73 a credit.

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, 299A 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, \$73 a credit plus \$25 special fee for each placement.

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.**

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 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. 21-23, McNH 274,
StP Campus, Colgan
No late fee through Nov. 14

Winter Spec Term Sec 2 **ThFSa**—9 a.m.-5, Feb. 20-22, McNH 274,
StP Campus, Colgan, Goodman
No late fee through Feb. 13

Spring Spec Term Sec 3 **ThFSa**—9 a.m.-5, May 14-16, McNH 274,
StP Campus, Colgan
No late fee through May 7

★FSoS 5008 **INTROSPECTIVE WORKSHOP AND CLINICAL SUPERVISION.** 1 or 2 credits, \$73 or \$146.

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, \$292.

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

FSoS 5027 **CURRENT ISSUES AND PHARMACOLOGY OF ALCOHOL AND DRUG ABUSE.** 4 credits, \$292.

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, Agr A202, StP Campus

FSoS 5028 **TREATMENT OF ALCOHOL AND DRUG ABUSE PROBLEMS.** 4 credits, \$292.

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, Agr A202, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★FSoS 5029 **COUNSELING SKILLS PRACTICUM I.** 4 credits, \$292.

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 —6-10, Sept. 25-Oct. 30, McNH 144, StP Campus, and Sa —9 a.m.-5, Oct. 5, McNH 144, StP Campus, Goodman
	Sec 2	W —6-10, Sept. 25-Oct. 30, McNH 144, StP Campus, and Sa —9 a.m.-5, Oct. 5, McNH 144, StP Campus
Winter Spec Term	Sec 3	W —6-10, Jan. 8-Feb. 12, McNH 144, StP Campus, Fabunmi, and Sa —9 a.m.-5, Jan. 18, McNH 144, StP Campus, Goodman
	Sec 4	W —6-10, Apr. 1-May 6, McNH 144, StP Campus, and Sa —9 a.m.-5, Apr. 11, McNH 144, StP Campus, Goodman

★FSoS 5030 **COUNSELING SKILLS PRACTICUM II.** 4 credits, \$292.

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, Oct. 7-Nov. 25 McNH 144, StP Campus, and Sa —9 a.m.-5, Oct. 12, McNH 144, StP Campus, Fabunmi <i>No late fee through Sept. 30</i>
	Sec 2	M —6-9, Jan. 6-Mar. 2 (no meeting Jan. 20), McNH 144, StP Campus, and Sa —9 a.m.-5, Jan. 11, McNH 144, StP Campus, Fabunmi
Spring Spec Term	Sec 3	M —6-9, Mar. 30-May 18, McNH 144, StP Campus, and Sa —9 a.m.-5, Apr. 4, McNH 144, StP Campus, Fabunmi

★FSoS 5031 **COUNSELING SKILLS PRACTICUM III.** 4 credits, \$292.

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 —6-10, Sept. 25-Oct. 16, McNH 198, StP Campus, Colgan, and Sa —9 a.m.-5, Oct. 5, 26, McNH 198, StP Campus
	Sec 2	W —6-10, Apr. 1-22, McNH 198, StP Campus, Colgan, and Sa —9 a.m.-5, Apr. 11, 25, McNH 198, StP Campus

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★FSoS 5032 **CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW.** 4 credits, \$292.

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 —6-10, Oct. 3-Nov. 7, McNH 198, StP Campus, and Sa —9 a.m.-5, Oct. 19, McNH 198, StP Campus, Goodman <i>No late fee through Sept. 26</i>
Spring Spec Term	Sec 2	Th —6-10, Apr. 16-May 28 (no meeting May 14), McNH 198, StP Campus, and Sa —9 a.m.-5, May 9, McNH 198, StP Campus, Goodman <i>No late fee through Apr. 9</i>

FSoS 5034 **TOPICS IN ALCOHOL AND DRUG ABUSE.** 2-5 credits, \$73 a credit.

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, 299A 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 ABUSE PROBLEMS.** 2-18 credits, \$73 a credit plus \$25 special fee (placement fee).

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, \$219.

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. 21-23, McNH 274, StP Campus, Colgan <i>No late fee through Nov. 14</i>
Winter Spec Term	Sec 2	ThFSa —9 a.m.-5, Feb. 20-22, McNH 274, StP Campus, Colgan, Goodman <i>No late fee through Feb. 13</i>
Spring Spec Term	Sec 3	ThFSa —9 a.m.-5, May 14-16, McNH 274, StP Campus, Colgan <i>No late fee through May 7</i>

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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 off-campus credit courses in Home Economics areas, please call or write College of Human Ecology, University of Minnesota, St. Paul, Minnesota 55108 (624-3635).

Finance (BFin)

(735 Management/Economics: 624-2888)

Carlson School of Management

Textbooks for most BFin courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

Evelyn Carroll, Adjunct Assistant Professor of Finance

John Reik, Adjunct Assistant Professor of Finance

David Runkle, Adjunct Assistant Professor of Finance

David K. Wyant, Teaching Assistant in Finance

(See also General College; and The Practical Scholar noncredit courses)

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.

★BFin 3000 FINANCE FUNDAMENTALS.4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

Provides students with a comprehensive, analytical introduction to the principal concepts in Finance. After considering the general business environment, the course examines valuation theory. Then financial management decisions concerning uses and sources of funds are presented, thus introducing students to capital budgeting. The course concludes by surveying 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—5:30-8:30, BlegH 120, Reik
	Sec 2	Th—6:10-9:10, AndH 270
Winter Qtr	Sec 3	T—5:30-8:30, BlegH 110, Reik
	Sec 4	W—6:10-9:10, AndH 350
Spring Qtr	Sec 5	T—5:30-8:30, BlegH 120, Reik
	Sec 6	W—6:10-9:10, AndH 350

★BFin 3100 FINANCIAL MANAGEMENT.4 credits, \$275 plus \$16 special fee. Total \$291.

A broad case-oriented course building on concepts introduced in 3000. The viewpoint of a corporation's principal financial officer is generally used. Case discussions, (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

augmented by lectures and readings, enable students to apply finance principles in actual business situations. Experience in problem definition, specification of alternatives, analysis, and decisions. Effective verbal and written communication stressed. *Rigorous analysis of the assigned case material prior to each class is expected as preparation for active student participation.* (Prereq 3000 and at least 90 credits completed or in progress. Limited to 60)

Winter Qtr Sec 1 **M**—6:10-9:10, BlegH 110, Wyant

★**BFin 3300 INVESTMENT MANAGEMENT AND FINANCIAL MARKETS.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 **M**—5:30-8, BlegH 215

★**BFin 3500 REAL ESTATE INVESTMENT ANALYSIS.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Analysis and economic aspects of investments in real property including: cash flow accounting depreciation vs. market value depreciation or appreciation; finance methods and costs; sources of funds; measures of return on investment. (Prereq 3000 and Econ 1002 or equivalent and at least 90 credits completed or in progress. Limited to 50)

Fall Qtr Sec 1 **W**—5:30-8, BlegH 250, Reik

★**OBFin 3601 BANK FINANCIAL MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 **T**—5:30-8, BlegH 210, Runkle

★**OBFin 3602 REGULATION OF DEPOSITORY INSTITUTIONS.** 4 credits, \$275, plus \$16 special fee. Total \$291.

Overview of federal regulation of commercial banks and thrift institutions. Rationale for and history of regulation, current regulatory structure and environment, principles guiding future evolution. Heavy emphasis on student involvement through discussions and group presentations. (Prereq 3000. A joint Day/Extension class limited to 17 Extension students)

Winter Qtr Sec 1 **T**—5:30-8, BlegH 155, Carroll

★**OBFin 3603 SELECTED PROBLEMS IN BANKING MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Close-up view of bank management issues through lectures by guest speakers drawn from the banking community. Bank strategic planning, lending issues, innovative financial instruments, bank risk management, new bank powers. (Prereq 3000. A joint Day/Extension class limited to 17 Extension students)

Spring Qtr Sec 1 **T**—5:30-8, AndH 350, Carroll

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Certified Financial Planner (CFP)

The University of Minnesota no longer offers CFP courses. Classroom training, however, will be available at another Twin Cities area college. For information call (612) 647-5219.

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 Books Underground on the St. Paul campus (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 Extension courses offered 1991-92.

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 the Health Sciences Bookstore in MoosT 2-554 (625-8600); books for courses on the St. Paul campus are available at Books Underground on the St. Paul campus (624-9200).

(See also Microbiology)

Paul B. Addis, Professor of Food Science and Nutrition

Elaine H. Asp, Associate Professor of Food Science and Nutrition

Linda J. Brady, Associate Professor of Nutrition

William M. Breene, Professor of Food Science and Technology

Francis F. Busta, Professor of Food Science and Nutrition; Head of Department

Eugenia A. Davis, Professor of Food Chemistry

Daniel D. Gallaher, Assistant Professor of Nutrition

Madge N. Hanson, Assistant Professor in Clinical Nutrition

Mindy S. Kurzer, Assistant Professor of Nutrition

Theodore P. Labuza, Professor of Food Science

Gary A. Reineccius, Professor of Food Chemistry

Dennis A. Savaiano, Associate Professor of Nutrition

Benjamin H. Senauer, Professor of Agricultural and Applied Economics

David E. Smith, Associate Professor of Dairy and Food Technology

A major in Food Science and Technology can be completed in the evening. See pages 649 and 652.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

FScN 1612 PRINCIPLES OF NUTRITION. 4 credits, \$243 plus \$5 course fee. Total \$248.
(♦ Sec 2 \$121.50 plus \$5 course fee. Total \$126.50)

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)

Fall Qtr ● Sec 1 **TTh**—4:05-5:45, PWB 2-470, Kurzer
(A joint Day/Extension class)

Spring Qtr ♦ Sec 2 **T**—6:15-9:30, MoosT 2-690, Addis

(See also REX 0301, Nutrition and Oral Health of the Elderly)

OFScN 3610 (replaces 3622) COMMUNITY NUTRITION. 2 credits, \$146.

Concepts of nutrition services, intervention programs available in communities throughout the world. Educational, consumer-interactive techniques for nutrition information and services to the community. (Prereq 1612 or equivalent, 5 cr Anth, Psy, or Soc. A joint Day/Extension class)

Spring Qtr Sec 1 **MW**—4:05-4:55, ABLMS 125, StP Campus

OFScN 5111 INDEPENDENT STUDY IN FOOD SCIENCE AND NUTRITION. 1-5 credits,
\$73 per credit.

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 5390 INTRODUCTION TO FOOD LAW. 4 credits, \$292.

Analysis of federal and state legal requirements and case law history affecting production, processing, packaging, marketing, and distribution of food and food products. (Prereq 1102 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—5:30-9, ABLMS 125, StP Campus, Labuza

OFScN 5474 FOOD MARKETING ECONOMICS. 4 credits, \$AgEc 5550, \$292.

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 concurrently 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, McNH 144, StP Campus, Asp, Senauer

OFScN 5524 SENSORY EVALUATION OF DAIRY PRODUCTS. 1 credit, \$73 plus \$10 course fee. Total \$83.

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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OFScN 5555 FREEZING AND DEHYDRATION OF FOODS. 5 credits, \$365 plus \$5 course fee. Total \$370.

Principles involved in the processing, handling, and storage of frozen, dry, and intermediate moisture foods, with emphasis on physicochemical properties of water in foods. (Prereq 1102, 5135. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr Sec 1 **TTh**—3-6, ABLMS 125, StP Campus, Labuza

FScN 5600 NUTRITION SEMINAR. 1 credit, \$73.

Literature review and presentation of papers in selected areas of nutrition. **Must be taken A-F.** (Prereq #. For University Hospitals dietetic interns only. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Arr**, Gallaher

Spring Qtr Sec 2 **Arr**, Hanson

OFScN 5622 MACRONUTRIENT METABOLISM. 4 credits, \$292.

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, ABLMS 125, StP Campus, Brady

OFScN 5623 VITAMIN AND MINERAL METABOLISM. 4 credits, \$292.

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)

Spring Qtr Sec 1 **MW**—4:30-6:10, HckrH 100, StP Campus, Gallaher

OFScN 5624 HUMAN PROTEIN AND ENERGY UTILIZATION. 4 credits, \$292.

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, 5623. 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, ABLMS 125, StP Campus, Kurzer

OFScN 5643 WORLD FOOD PROBLEMS. 3 credits, \$AgEc 5790, \$Agro 5200, \$LACS 5280, \$219.

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, and Agro 5200. A joint Day/Extension class)

Fall Qtr Sec 1 **W**—6-9, ClaOff B35, StP Campus, Breene, Busta, Savaiano

FScN 5662 CLINICAL NUTRITION. 3 credits, \$219.

Application of principles of normal nutrition to clinical problems, with description of altered nutrient requirements in human disease. Nutritional therapy of common clinical conditions and the effects of treatment on the nutritional status of the patient. (Prereq 5620. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:30-9, ABLMS 125, StP Campus, Hanson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OFScN 5665 APPLIED CLINICAL NUTRITION I. 3 credits, \$219.

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**—4-6:30, ABLMS 125, StP Campus, Hanson

OFScN 5666 APPLIED CLINICAL NUTRITION II. 3 credits, \$219.

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**—4-6:30, FScN 15, StP Campus, Hanson

OFScN 5667 APPLIED CLINICAL NUTRITION III. 2 credits, \$146.

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 geriatric 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**—4-6:30, ABLMS 125, StP Campus, Hanson

OFScN 8311 FLAVOR CHEMISTRY. 3 credits, \$408.

Chemistry of food flavor including biogenesis of flavor, production during processing, deterioration during storage, potentiation, duplication as an art and science, and use in food industry. (Prereq 5312 or #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Fall Qtr Sec 1 **M**—6:15-9:15, ABLMS 125, StP Campus, Reineccius

OFScN 8315 FOOD PROTEINS. 3 credits, \$408.

Principles of isolating, handling, and processing proteins from conventional and new protein sources. Relationship of structural, functional, and interactive properties of proteins to developing and/or maintaining the nutritional and aesthetic properties of the products they comprise. (Prereq 5110 and 5312 or #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class)

Spring Qtr Sec 1 **W**—4:05-6, FScN 15, StP Campus, Davis
F—4:05-4:55, FScN 15, StP Campus, Davis

Foreign Studies SPAN (FSSP)

(646 Social Sciences: 624-4525)

College of Liberal Arts

Textbooks are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Classical and Near Eastern Studies)

(For information about SPAN—Student Project for Amity Among Nations—see page 449.)

For information about other study abroad opportunities, see the Global Campus section of this bulletin, page 475.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, \$310 each quarter.

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 255, T Stavrou
Winter Qtr 3002 Sec 2 **Th**—6:20-8:50, BlegH 225, T Stavrou
Spring Qtr 3003 Sec 3 **Th**—6:20-8:50, BlegH 225, T Stavrou

FSSP 3004-3005-3006 LANGUAGE, CULTURE AND SOCIETY: INTERMEDIATE MODERN GREEK. 5 credits each quarter, \$MdGk 1104-1105-1106, \$310 each quarter.

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. (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 1383, S Stavrou
Spring Qtr 3006 Sec 3 **M**—6:20-8:50, SocSci 1383, S Stavrou

Forest Products (ForP)

(203 Kaufert Laboratory: 624-9219)

College of Natural Resources

Textbooks for most ForP courses are available at Books Underground on the St. Paul campus (624-9200).

R. W. Erickson, Professor of Forest Products

R. O. Gertjens, Professor of Forest Products

Robert H. Rouda, Professor and Director, Paper Science and Engineering

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, \$219 plus \$15 course fee. Total \$234.

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

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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)

Sec 1 **Fri., Jan. 31, 1992, 6-9**
Sat., Feb. 1, 1992, 9 a.m.-4:30
Sun., Feb. 2, 1992, 9 a.m.-4:30
Mon., Feb. 3, 1992, 6-9

Kaufert Laboratory, room 125, StP Campus, Gertjensan, Erickson
Registration closes Jan. 10, 1992. No late fee through Jan. 10

Sec 2 **Fri., Feb. 7, 1992, 6-9**
Sat., Feb. 8, 1992, 9 a.m.-4:30
Sun., Feb. 9, 1992, 9 a.m.-4:30
Mon., Feb. 10, 1992, 6-9

Kaufert Laboratory, room 125, StP Campus, Gertjensan, Erickson
Registration closes Jan. 17, 1992. No late fee through Jan. 17

★ForP 5420 **USING PROCESS SIMULATION IN THE PULP AND PAPER INDUSTRY. 2**
 credits. **Not offered 1991-92.**

This two-day workshop provides the skills and insights to effectively use simulation as a tool to increase productivity in mill operations by using microcomputers to solve practical problems related to pulping and papermaking operations. Intended primarily for practicing engineers in the paper industry who have not previously used microcomputers for process simulation, or as a refresher for people who want an update on simulation. This practical, hands-on microcomputer workshop provides instruction in solving flowsheet calculation problems relating to pulp and paper process engineering, and demonstrations of the types of problems which can be solved using these techniques. The Computer Teaching Laboratory in the College of Natural Resources is completely equipped with the latest in IBM Personal System II microcomputers. *Course fee includes seminar notes and workbook, use of all computers and programs, coffee breaks and lunch on both days. Not open to Forest Products majors.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Forest Resources (FR)

(110 Green Hall: 624-3400)

College of Natural Resources

Textbooks for most FR courses are available at Books Underground on the St. Paul campus (624-9200).

(See also The Compleat Scholar noncredit courses in natural sciences)

Alan R. Ek, Professor in Forest Resources

Roger T. Johnson, Associate Professor of Elementary Education

Carl E. Vogt, Instructor in Forest Resources

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, \$219 plus \$5 course fee. Total \$224.

For elementary school teachers. Soil, water, forest and wildlife resources of Minnesota and biological principles and ecological implications of management. Environmental issues associated with natural resource manipulation. Outdoor teaching skills in environmental education developed through experience in metropolitan area nature centers. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 36)

Fall Spec Term Sec 1 **Fri., Sept. 20, 1991, 6:30-10**
Sat., Sept. 21, 1991, 8:30 a.m.-5
Sun., Sept. 22, 1991, 9 a.m.-5
Mon., Nov. 4, 1991, 6-10

Wood Lake Nature Center, Richfield (66th and Lakeshore Drive) Johnson, Vogt
No late fee through Sept. 13

Spring Spec Term Sec 2 **Fri., Apr. 24, 1992, 6:30-10**
Sat., Apr. 25, 1992, 8:30 a.m.-5
Sun., Apr. 26, 1992, 9 a.m.-5
Mon., June 1, 1992, 6-10

Wood Lake Nature Center, Richfield (66th and Lakeshore Drive) Vogt
No late fee through Apr. 17

Study Abroad Courses and Internships

Forest Resources courses and internships may be arranged in the Minnesota Studies in International Development (MSID) program in India, Jamaica, Kenya, and Senegal. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities

French (Fren)

(260 Folwell Hall: 624-4308)

French and Italian

College of Liberal Arts

Textbooks for most Fren courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See History; Humanities; and PSch 0982, French for Travelers)

F.R.P. Akehurst, Professor of French
Betsy Barnes, Associate Professor of French
Tom Conley, Professor of French
Susan Noakes, Professor of French
Judith Preckshot, Associate Professor of French
Peter Robinson, Associate Professor of French
Eileen Sivert, Associate Professor of French
Joseph Waldauer, Professor of French
Molly Wieland, Professor of French

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Joint Day/Extension Classes

You may register through Extension for certain 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.

Students who entered CLA Fall 1986 or later with freshman status (39 credits or fewer) should keep in mind that unless they have fulfilled the CLA second language requirement, no CLA credit will be given for Fren 1101, 1102, 1103. Those CLA students who have already studied French are required to take a proficiency exam 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 61.

★**Fren 1101-1102-1103 BEGINNING FRENCH.** 5 credits each quarter, \$303.75 each quarter. (15)

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 S137
		Sec 2	MTh —6:20-8:25, SmithH 121
		Sec 3	MTh —6:20-8:25, AmundH 156
		Sec 4	MTh —6:20-8:25, KoltH S133
		Sec 5	MTh —6:20-8:25, KoltH S139, S140 (Limit 50)
Winter Qtr	1102	Sec 6	MTh —6:20-8:25, FolH 344
		Sec 7	MTh —6:20-8:25, KoltH S138
		Sec 8	MTh —6:20-8:25, KoltH S139, S140 (Limit 50)
Spring Qtr	1103	Sec 9	MTh —6:20-8:25, KoltH S136
		Sec 10	MTh —6:20-8:25, KoltH S138, S140 (Limit 50)

★**Fren 1104 INTERMEDIATE FRENCH.** 5 credits, \$303.75.

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 S136
	Sec 2	MTh —6:20-8:25, KoltH S138

★**Fren 1105 INTERMEDIATE FRENCH.** 5 credits, \$303.75.

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, FordH 60
	Sec 2	MTh —6:20-8:25, FordH 70

★**Fren 1106 INTERMEDIATE FRENCH.** 5 credits, \$303.75.

Continued development of all four language skills. Provides an integrated presenta-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

tion 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 130

Spring Qtr Sec 2 **MTh**—6:20-8:25, AmundH 124

Study Abroad Courses and Internships

Intermediate and advanced French courses, including internships, are offered in several French-speaking countries through the Global Campus. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

★Fren 3014 FRENCH PHONETICS. 4 credits, \$248.

new Theoretical description and practical application of French phonetics, including corrective work. (Prereq 1106. Limited to 18)

Fall Qtr Sec 1 **TTh**—6:10-7:40, AkerH 215, Wieland

★Fren 3015 FRENCH CONVERSATION AND COMPOSITION. 4 credits, \$248.

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, KoltH S139

★Fren 3016 ADVANCED FRENCH COMPOSITION AND CONVERSATION. 4 credits, \$248.

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 340

★Fren 3017 STYLISTICS THROUGH TRANSLATION. 4 credits, \$248.

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 240

★Fren 3020 BUSINESS FRENCH. 4 credits, \$248.

Intended to increase active command of the language, in particular the specialized vocabulary used in French business and industry. Recommended for students planning to use the language in a French milieu. (Prereq 3015. Limited to 18)

Spring Qtr Sec 1 **W**—6:10-9:15, FolH 138

★Fren 3601 FRENCH LITERATURE IN ENGLISH TRANSLATION. 4 credits, \$248. (◆\$124)

Representative works from medieval times to French Revolution—movements, genres, themes. (No prereq. Limited to 50)

Fall Qtr Sec 1 **W**—6:20-9:15, FolH 134

★Fren 3602 FRENCH LITERATURE IN ENGLISH TRANSLATION. 4 credits, \$248. (◆\$124) (IS)

Representative works from 19th and 20th centuries, movements, genres, themes. Knowledge of French helpful but not necessary. (No prereq. Limited to 50)

Spring Qtr Sec 1 **W**—6:20-9:15, FolH 134

Frit 3604 CINEMAS OF THE REAL.

See French and Italian below.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Reading French

Fren 0001 READING FRENCH. No credit, \$243. (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 the graduate Reading Examination in French. The department will certify to the Graduate School a reading knowledge of French upon successful completion of this examination. (No prereq. **Must be taken S-N**)

Fall Qtr Sec 1 T—6:20-8:50, FordH 40

Spring Qtr Sec 2 T—6:20-8:50, VinH 206

Fren 0001 is also offered as a Summer Extension Class in first 5-week term.

French and Italian (Frlt)

(260 Folwell Hall: 624-4308)

French and Italian

College of Liberal Arts

Textbooks for most Frlt courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Tom Conley, Professor of French

Joint Day/Extension Class

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.

Frlt 3604 CINEMAS OF THE REAL. 4 credits, \$248.

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

(See also CSch 0147, Inside Movies: Understanding Cinema)

G

General College (GC)

(109 Appleby Hall: 625-6663)

Textbooks for most GC courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

General College Faculty

William Adamson, Associate Professor
Fred M. Amram, Professor
F. T. Benson, Professor
Thomas Brothen, Professor
Thomas Buckley, Associate Professor
Terence Collins, Professor
Douglas Dearden, Professor
Aparna Ganguli, Assistant Professor
Joan Garfield, Associate Professor
Jill Gidmark, Professor
David Giese, Professor
Jay Hatch, Associate Professor
Dennis Hower, Professor
Allen Johnson, Associate Professor
Fred Johnson, Associate Professor
Peter Kahn, Assistant Professor
Laura Koch, Assistant Professor
Patrick Kroll, Associate Professor
Roger Larson, Professor
Sander Latts, Associate Professor
Carol Miller, Associate Professor
Shari Peterson, Assistant Professor
Ivan M. Policoff, Associate Professor
Douglas Robertson, Associate Professor
Mary K. St. John, Associate Professor
William Schwabacher, Professor
Geoffrey Sirc, Associate Professor
Gail Thoen, Assistant Professor
Richard Uthe, Associate Professor
Gloria Wood, Assistant Professor
Robert E. Yahnke, Professor
Candido Zanoni, Professor

General College Adjunct Faculty

Jeff Millikan, Lecturer
Duane Nelson, Lecturer
Justin O'Connell, Lecturer

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 multi-cultural 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.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

General College Categories

Artistic Expression

- 1311 Art: General Arts
- 1355 Philosophy: Problems of Ethics
- 1374 The Movies: An Introductory Course
- 1485 Creativity: Photography I
- 1486 Creativity: Photography II
- 1812 American Indian Literature

Business Studies

- 1235 United States: Law in Society
- 1454 Statistics
- 1511 Introduction to Modern Business
- 1513 Principles of Small Business Operations
- 1533 Financial Mathematics: Procedures and Applications
- 1534 Practical Law
- 1537 Professional Selling
- 1540 Accounting Fundamentals I
- 1551 Marketing: Introduction
- 1553 Marketing: Principles of Management
- 1571 Introduction to BASIC and to Microcomputers
- 1572 Introduction to Computer Programming
- 1575 Introduction to Computers

Communication Skills

- 0402 Grammar and Usage Review
- 1421 Writing Laboratory: Basic Writing
- 1422 Writing Laboratory: Communicating in Society
- 1456 Functions and Problems of Logic
- 1461 Oral Communication: Speaking and Creative Thinking
- 1462 Oral Communication: Speaking and Critical Thinking
- 1471 Creativity: Creative Problem Solving—Innovation Techniques

Family Life Studies

- 1721 Marriage, Family, and Personal Fulfillment
- 1722 Home Life: Parent-Child Relationships
- 1731 Consumer Problems and Personal Finance
- 1733 Contemporary Sex Roles

Mathematical Studies

- 0621 Elementary Algebra
- 0623 Plane Geometry
- 0625 Intermediate Algebra, Part I
- 0631 Intermediate Algebra, Part II
- 0643 Basic Mathematics: Programmed Instruction
- 1454 Statistics

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

- 1533 Financial Mathematics: Procedures and Applications
- 1571 Introduction to BASIC and to Microcomputers
- 1572 Introduction to Computer Programming
- 1575 Introduction to Computers

Natural Science

- 1111 Science in Context: Weather and Climate
- 1112 Science in Context: Human Uses of the Environment
- 1114 Personal Environmental Health
- 1132 Biological Science: The Human Body
- 1133 Nature Study
- 1134 Cardiovascular Anatomy and Physiology
- 1136 Biological Aspects of Aging
- 1162 Physical Science: Stellar Astronomy
- 1166 Physical Science: Principles of Chemistry
- 1167 Astronomy Lab

Psychology

- 1076 Career Planning
- 1281 Psychology in Modern Society
- 1282 Psychology Applied to Human Affairs
- 1283 Psychology of Human Development
- 1284 Behavior Problems of Children

Social Issues

- 1211 People and Problems
- 1236 United States: The Crime Problem
- 1285 Cultural Anthropology

General College Course Descriptions

(Listed in numerical order)

COMPOSITION COURSES

ATTENDANCE: Students absent from the first day of classes in any 0xxx-level composition course may lose their place unless they contact their instructor prior to the first class meeting.

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.

(See also Composition and Communication; Practical Scholar; and Rhetoric)

★GC 0402 (formerly Comp 0002C) **GRAMMAR AND USAGE REVIEW.** No credit, \$243. (IS)

An intensive step-by-step review of grammar (parts of speech, inflections, syntax), punctuation, and spelling for those who want a "refresher" before going into other composition courses or who feel the need of a basic course in the fundamentals of English usage; designed to develop the ability to compose correct and effective sentences. (No prereq. Limited to 30)

Fall Qtr Sec 1 **T**—6:20-8:50, NichH 209, O'Connell

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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. Our experience indicates that students choose an inappropriate advanced class more often than they choose a more elementary class. Be careful in your choice. Your success depends on your choice.

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, Calculus I (see the Mathematics section of this Bulletin). However, if it has been more than two years since the last mathematics course in high school was completed, the student should register in Math 1201, Pre-calculus (see the Mathematics section of this Bulletin), or possibly GC 0631, Intermediate Algebra, which corresponds to second-year high school algebra.

The following rules apply to students who did not have (or did not do well in) second-year algebra in high school. 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, the student 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, 9 Appleby Hall.

Testing schedule (appointments are not needed in advance to take tests): Prior to fall quarter, the test will be given at 6 p.m. on the following dates: *Monday, August 12; Tuesday, August 20; Monday, September 9; and Tuesday, September 17.* Placement tests also may be taken during regular office hours during summer terms, and during noon hours (11 a.m. to 1 p.m.) September 3 to 20, 1991.

Test scores and enrollment recommendations will be provided as soon as possible—frequently on the same day as tests are taken.

For winter and spring quarter placement testing schedules, contact the CEE Counseling Office (314 Nolte Center; telephone 625-2500).

After the term begins, the Mathematics Learning and Assessment Center provides tutorial assistance, placement testing in mathematics for those unable to attend the above scheduled sessions, and personal help in overcoming mathematics anxiety. These services are available to students registered in any of the General College preparatory mathematics courses.

(See also The Practical Scholar noncredit courses)

★GC 0621 ELEMENTARY ALGEBRA. No credit, \$1435, \$303.75. (IS)

For students with strong arithmetic background. Topics include signed numbers, variables, expressions, equations, inequalities, exponents, polynomials, factoring, rational expressions, Cartesian graphing, systems of equations, radicals, and word problems. (Prereq GC math level C or GC 0611 or GC 1434. Limited to 30)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	Sec 1	MW —6-8:05, NichH 209
	Sec 2	TTh —6-8:05, NichH 216
Winter Qtr	Sec 3	TTh —6-8:05, NichH 216
Spring Qtr	Sec 4	MW —6-8:05, NichH 109

★GC 0623 **PLANE GEOMETRY.** No credit, \$303.75.

Elements of plane geometry with some geometry of solids equivalent to 1 year of high school plane geometry with adequate time given to each idea. (Prereq one year of high school algebra or GC 0621. Entrance requirement for College of Liberal Arts and Institute of Technology. Limited to 30)

Winter Qtr Sec 1 **M**—5-8, NichH 209

★GC 0625 **INTERMEDIATE ALGEBRA, Part I.** No credit, \$1445, \$303.75. (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, complex numbers. (Prereq GC math level D or GC 0621 with grade of C or better or GC 1435. Limited to 30)

Fall Qtr Sec 1 **W**—5-8, NichH 207

Winter Qtr Sec 2 **W**—5-8, NichH 207

Spring Qtr Sec 3 **W**—5-8, NichH 209

★GC 0631 **INTERMEDIATE ALGEBRA, Part II.** No credit, \$1446, \$303.75. (IS)

Basic knowledge of linear and quadratic equations and inequalities, exponents, factoring, rational expressions, roots, radicals, complex numbers, and graphing assumed. Topics include quadratic equations, matrix solutions to systems of equations, general inequalities, conic sections, functions, logarithmic and exponential functions. Introduction to sequences, series, and binomial theorem. (Prereq GC math level E or GC 0625 or 1445. Limited to 30)

Fall Qtr Sec 1 **MW**—6-8:05, NichH 122

Sec 2 **TTh**—6-8:05, NichH 122

cew

Sec 3 **TTh**—1-3:05, MacP, Giese (A joint Day/Extension class limited to 20 Extension students)

Offered through Continuing Education for Women

Winter Qtr Sec 4 **MW**—6-8:05, NichH 122

Sec 5 **TTh**—6-8:05, NichH 122

Spring Qtr Sec 6 **MW**—6-8:05, NichH 122

Sec 7 **TTh**—6-8:05, NichH 122

★GC 0643 **BASIC MATHEMATICS: PROGRAMMED STUDY.** No credit, \$303.75.

With aid of instructor, topics selected from following: whole numbers, fractions, decimals, percents, signed numbers, formulas, simple graphs, ratio and proportion, sets, properties, equations, inequalities, rectangular graphs, polynomials, factoring, rational expressions, radicals. Offered through Mathematics Learning and Assessment Center. (No prereq. Limited to 30)

Fall Qtr Sec 1 **W**—5-8, ApH 9

Winter Qtr Sec 2 **W**—5-8, ApH 9

Spring Qtr Sec 3 **W**—5-8, ApH 9

GC 1076 **CAREER PLANNING.** 3 credits, \$182.25 plus \$10 course fee. Total \$192.25.

Career workshop designed to assess student's interests, abilities, needs, values, per-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

sonality through testing/subjective self-exploration. Occupational information provided through computerized system/other printed materials. For students undecided about future career choice/need to confirm tentative career choice. (No prereq)

Fall Qtr Sec 1 **Th**—6-8:15, ApH 103, Wood

Spring Qtr Sec 2 **Th**—5:30-7:45, ApH 226, Wood

(See also The Practical Scholar noncredit courses)

★**GC 1111 SCIENCE IN CONTEXT: WEATHER AND CLIMATE.** 4 credits, \$243. (◆\$121.50)

◆ 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**—6-8:30, Roseville Area HS 256, A Johnson

GC 1112 SCIENCE IN CONTEXT: HUMAN USES OF THE ENVIRONMENT. 4 credits, \$1113, \$243. (◆\$121.50)

◆ 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)

Winter Qtr Sec 1 **W**—6-8:30, SciCB 125, Hatch

(See also EEB 3001, Introduction to Ecology; Interdepartmental Study; and CSch 0582, Rainbow Warriors and Ecoterrorists: How Best to Save the Planet)

★**GC 1114 PERSONAL ENVIRONMENTAL HEALTH.** 5 credits, \$303.75.

Emphasis on applying health concepts to daily life for a healthier, longer life. Topics include pollution, infectious and degenerative diseases, drugs, stress, allergies, immunity, and digestive problems. (Prereq GC 1132 recommended. Limited to 35)

Fall Qtr Sec 1 **T**—5:30-8, SciCB 175, Dearden

GC 1132 BIOLOGICAL SCIENCE: THE HUMAN BODY. 4 credits, \$243. (◆\$121.50)

◆ 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)

Fall Qtr Sec 1 **M**—5:30-8, SciCB 125

Winter Qtr Sec 2 **T**—5-7:30, SciCB 125

(See also Biology; and GC 1134, Cardiovascular Anatomy and Physiology)

GC 1133 NATURE STUDY. 4 credits, \$243. (◆\$121.50)

◆ 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)

Spring Qtr Sec 1 **W**—5-7:30, SciCB 125, Hatch

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

GC 1134 CARDIOVASCULAR ANATOMY AND PHYSIOLOGY. 4 credits, \$243.

Names, location, and structure of the parts of the circulatory system. Normal functions of these body parts are described, with an explanation of their common abnormalities and diseases. (Prereq GC 1132 or equivalent)

Spring Qtr Sec 1 **T**—5:30-8, SciCB 125

GC 1136 BIOLOGICAL ASPECTS OF AGING. 4 credits, \$243. (♦\$121.50)

◆ An overview of the biological changes that occur with age, including a discussion of normal aging, common physical problems, diseases of the aged, drugs, preventive health care, the "activated patient" role, and the limits of intervention. (No prereq)

Spring Qtr Sec 1 **M**—5:30-8, SciCB 125, Dearden

★**GC 1162 PHYSICAL SCIENCE: STELLAR ASTRONOMY.** 5 credits, \$303.75. (♦\$152) (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)

Winter Qtr Sec 1 **M**—6:20-8:50, Phys 131, Policoff

GC 1166 PHYSICAL SCIENCE: PRINCIPLES OF CHEMISTRY. 5 credits, \$303.75 (♦\$152) (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)

Fall Qtr Sec 1 **TTh**—6:10-8:50, SciCB 125, Uthe

★**GC 1167 ASTRONOMY LAB.** 4 credits, \$243.

Students will learn techniques of using amateur telescopes in systematically viewing the night sky and will perform a series of experiments, some of which include astrophotography. Instructors are members of the Minnesota Astronomical Society. (Prereq one course in astronomy or concurrent registration in an astronomy course or equivalent. A joint Day/Extension class limited to 25 Extension students)

Fall Qtr Sec 1 **Th**—7-11, Phys 133, Policoff

★**GC 1211 PEOPLE AND PROBLEMS.** 4 credits, \$243. (IS)

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 40)

Spring Qtr Sec 1 **W**—6-9, ApH 103, Thoen

★**GC 1235 UNITED STATES: LAW IN SOCIETY.** 4 credits, \$243. (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 40)

Fall Qtr Sec 1 **M**—5-7:30, NichH 207, Hower

Spring Qtr Sec 2 **M**—5-7:30, NichH 207, Hower

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★GC 1236 **UNITED STATES: THE CRIME PROBLEM.** 4 credits, \$243. (◆\$121.50)

- ◆ Nature and extent of crime in America. Causes and consequences of crime as it relates to criminals, victims, and general social order. (No prereq. Limited to 35)
Spring Qtr Sec 1 **T—5-8, ApH 103, F Johnson**

★GC 1281 **PSYCHOLOGY IN MODERN SOCIETY.** 5 credits, \$303.75 plus \$10 course fee. Total \$313.75. (◆\$152 plus \$10 course fee. Total \$162)

- ◆ 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—6-8:45 (plus 1 hr arr), ApH 122, 128, Brothen**
Winter Qtr Sec 2 **M—6-8:45 (plus 1 hr arr), ApH 122, 128, Brothen**

GC 1282 **PSYCHOLOGY APPLIED TO HUMAN AFFAIRS.** 5 credits, \$303.75. (◆\$152)

- ◆ How psychological principles and practices affect our daily lives. Methods and findings of behavioral science in the study of everyday human affairs. Contributions of psychology to such fields as law and crime, behavior in unusual environments, personnel selection and training in industry, worker efficiency and job satisfaction, consumer behavior and advertising, teaching and learning, mental health, and accidents and driving safety. (No prereq)
Spring Qtr Sec 1 **M—5:30-9, ApH 103, Brothen**

GC 1283 **PSYCHOLOGY OF HUMAN DEVELOPMENT.** 5 credits, \$303.75. (◆\$152) (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)
Fall Qtr Sec 1 **T—5:30-9, ApH 103, Latts**

GC 1284 **BEHAVIOR PROBLEMS OF CHILDREN.** 4 credits, \$243. (◆\$121.50) (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)
Winter Qtr Sec 1 **T—6-9, ApH 103, Latts**

GC 1285 **CULTURAL ANTHROPOLOGY.** 4 credits, \$243. (◆\$121.50)

- ◆ 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)
Fall Qtr Sec 1 **M—5-8, ApH 103, F Johnson**

(See also Anthropology)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

★GC 1311 **ART: GENERAL ARTS.** 4 credits, §3311, \$243. (♦\$121.50)

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 40)

Fall Qtr Sec 1 **W**—6:20-8:50, ApH 302, Adamson

Winter Qtr Sec 2 **T**—6:20-8:50, ApH 302, Adamson

★GC 1355 **PHILOSOPHY: PROBLEMS OF ETHICS.** 4 credits, \$243. (IS)

Students discover and analyze presuppositions, principles, and standards used in doing "what is right." Nature and justification of moral judgments, extent of individual moral responsibility, and ethical foundations of democratic society. (No prereq. Limited to 40)

Spring Qtr Sec 1 **M**—5-7:30, ApH 226, Zaroni

★GC 1374 **THE MOVIES: AN INTRODUCTORY COURSE.** 4 credits, \$243.

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 40)

Fall Qtr Sec 1 **T**—5:30-8:30, ApH 302, Adamson

Winter Qtr Sec 2 **M**—5-8, ApH 302, Adamson

Spring Qtr Sec 3 **W**—5:30-8:30, ApH 302, Adamson

★GC 1421 **WRITING LABORATORY: BASIC WRITING.** 4 credits, \$243.

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. (No prereq. Limited to 18)

Fall Qtr Sec 1 **MW**—5-7:30, ApH 204

Winter Qtr Sec 2 **MW**—6:20-8:50, ApH 204

★GC 1422 **WRITING LABORATORY: COMMUNICATING IN SOCIETY.** 4 credits, \$1423, \$243.

Primarily through writing, but also through reading and discussion, student analyzes how people communicate in society: how they perceive events, how they think about them, and how they write and talk about them. Extensive writing practice. (Prereq 1421 or #. Limited to 20)

Winter Qtr Sec 1 **T**—5:30-8, ApH 204, Collins

Spring Qtr Sec 2 **M**—5:30-8, ApH 204, Collins

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 1454 **STATISTICS.** 4 credits, \$243. (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 30)

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	Sec 1	W —5-7:30, ApH 303, Garfield
Winter Qtr	Sec 2	W —6-8:30, ApH 303
Spring Qtr	Sec 3	W —5-7:30, ApH 303, Garfield

(See also PSch 0664, Basic Concepts of Statistics: Preparing for College Level)

★**GC 1456 FUNCTIONS AND PROBLEMS OF LOGIC.** 4 credits, \$1442, \$243.
(♦\$121.50)

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 40)

Fall Qtr	Sec 1	M —5:30-8, ApH 226, Zanoni
Winter Qtr	Sec 2	W —6:20-8:50, ApH 226, Zanoni
Spring Qtr	Sec 3	T —6:20-8:50, ApH 226, Benson

★**GC 1461 ORAL COMMUNICATION: SPEAKING AND CREATIVE THINKING.** 4 credits, \$243. (♦\$121.50)

In conversations, discussions, and prepared speeches, students share ideas, attitudes, and experiences with others; examine how language functions as means of communication. Modes and methods of creative thinking are explored in relation to effective oral communication. Students listen and respond to communication of others and comment on what they see, hear, and feel. (No prereq. Limited to 20)

Fall Qtr	Sec 1	W —6:20-8:50, ApH 102, Benson
Winter Qtr	Sec 2	M —6:20-8:50, ApH 102, Benson

★**GC 1462 ORAL COMMUNICATION: SPEAKING AND CRITICAL THINKING.** 4 credits, \$243.

In conversations, discussions, and prepared speeches, students share ideas, attitudes, and experiences with others. Focus is on methods of organizing and developing oral communication so that students are helped to increase skills in gathering and selecting material, organizing and presenting it in a manner appropriate to the particular audience and occasion. Modes and methods of critical thinking are explored in relation to effective oral communication. Students listen and respond to communication of others and comment on what they see, hear, and feel. (Prereq GC 1461. Limited to 20)

Spring Qtr	Sec 1	M —5:30-8, ApH 102, Amram
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(See also Ling 1005, Language and Society; and Speech-Communication)

★**GC 1471 CREATIVITY: CREATIVE PROBLEM SOLVING—INNOVATION TECHNIQUES.** 4 credits, \$243.

To heighten awareness of problems and challenges in academic and personal life, students solve problems in an open and trusting environment and become aware of their creative potential. Working individually or in groups, students use innovative techniques to help them perceive and approach problems flexibly and imaginatively. Readings and class exercises. (No prereq. Limited to 40)

Winter Qtr	Sec 1	T —6:20-8:50, ApH 226, Amram
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★**GC 1485 CREATIVITY: PHOTOGRAPHY I.** 4 credits, \$243 plus \$30 special fee. Total \$273.

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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 **Th**—6-9:45, MacP 31, Millikan

Winter Qtr Sec 2 **Th**—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 507)

★GC 1486 CREATIVITY: PHOTOGRAPHY II. 4 credits, \$243.

For students with previous experience in developing and printing. Discussion of photographic history, continued work with black and white processes, and introduction to some nonsilver media. Emphasis on exploration of students' own photographic sensibilities. **Students must have a camera; a 35mm camera is preferred, but not required.** (Prereq GC 1485 or #. Limited to 24)

Spring Qtr Sec 1 **Th**—6-9:45, MacP, Millikan

★GC 1511 INTRODUCTION TO BUSINESS. 4 credits, \$243. (IS)

Broad overview of business and the economic environment in which businesses operate. Topics include economic systems, ethics, management, marketing, finance, and law. *Useful introductory course for students planning further study in business fields; also recommended for those who want to survey field without studying it in detail.* (No prereq. Limited to 40)

Fall Qtr Sec 1 **T**—5-7:30, ApH 303, St. John

Spring Qtr Sec 2 **Th**—6-8:30, NichH 209, Kroll

★GC 1513 SMALL BUSINESS OPERATIONS. 4 credits, \$243. (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 40)

Fall Qtr Sec 1 **Th**—6-8:30, ApH 303, Kroll

Winter Qtr Sec 2 **Th**—6-8:30, ApH 303, Kroll

Spring Qtr Sec 3 **T**—5-7:30, ApH 303, St. John

(See also PSch 0734, Starting and Building a Successful Consulting Business)

GC 1533 FINANCIAL MATHEMATICS: PROCEDURES AND APPLICATIONS. 4 credits, \$243.

Using only basic mathematical skills, students solve problems with percentages, simple interest and discount, compound interest, annuities, corporate securities, and depreciation. Through study of practical business situations, students develop calculation skills to assist them in dealing with various financial problems. (No prereq)

Spring Qtr Sec 1 **W**—5:30-8, ApH 226

★GC 1534 PRACTICAL LAW. 4 credits, \$243. (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),

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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**—6:20-8:50, NichH 207, Kahn

Spring Qtr Sec 2 **T**—6-8:30, NichH 216, Kahn

(See also Business Law; The Practical Scholar noncredit courses; and Soc 3102, Introduction to Criminal Behavior and Social Control)

★GC 1537 PROFESSIONAL SELLING. 4 credits, \$243 plus \$10 course fee. Total \$253.

In order to apply knowledge and skills from many fields for a professional sales career, students develop an understanding of related theories and their applications. Format includes lecture/discussions, guest speakers, films, and case problems; techniques practiced in small-group activities include role playing, sales demonstrations, and videotaping. Qualifications needed for successful career in sales, opportunities, and pitfalls also discussed. (No prereq. Limited to 35)

Winter Qtr Sec 1 **T**—5-7:30, ApH 303, St. John

(See also The Practical Scholar noncredit courses)

★GC 1540 ACCOUNTING FUNDAMENTALS I. 4 credits, \$243. (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 40)

Fall Qtr Sec 1 **M**—6-8:30, NichH 216, Larson

Spring Qtr Sec 2 **M**—5-7:30, NichH 216, Larson

★GC 1551 MARKETING: INTRODUCTION. 4 credits, \$243. (IS)

Product pricing, distribution, and promotional principles; target market and segmentation analysis; current marketing strategies and trends. (No prereq. Limited to 40)

Fall Qtr Sec 1 **M**—5:30-8, ApH 303, Peterson

Winter Qtr Sec 2 **T**—1-4, MacP, Peterson

CEW

Offered through Continuing Education for Women

★GC 1553 MARKETING: PRINCIPLES OF MANAGEMENT. 4 credits, \$243. (IS)

Principles of management: planning, organizing, directing, controlling. Also covers decision making, leadership, group dynamics, and motivation. (Prereq GC 1551 or #. Limited to 40)

Spring Qtr Sec 1 **M**—5:30-8, ApH 303, Peterson

★GC 1571 INTRODUCTION TO BASIC AND TO MICROCOMPUTERS. 5 credits, \$303.75 plus \$10 course fee. Total \$313.75. (IS)

Introduction to microcomputers and elementary programming using the computer language BASIC. Topics include a brief description of microcomputers with emphasis on the IBM PC and elements of writing programs in BASIC, use of word processing packages, and simple spreadsheet applications. Students should have had some exposure to elementary algebra. **Laboratory hours arranged.** (Prereq 0621 or elementary algebra. Limited to 40)

Fall Qtr Sec 1 **Th**—5-7:30 plus 2 hrs lab arr, ApH 319, Robertson

Winter Qtr Sec 2 **T**—5-7:30 plus 2 hrs lab arr, ApH 319, Robertson

Spring Qtr Sec 3 **Th**—5-7:30 plus 2 hrs lab arr, ApH 319, Robertson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★GC 1572 **INTRODUCTION TO COMPUTER PROGRAMMING.** 5 credits, \$1535, \$303.75.

Experience using microcomputer as problem-solving tool. Students design, write, code, and run computer programs on IBM microcomputers. Emphasis on writing properly structured and documented BASIC programs to solve problems from social sciences. Provides excellent background for further programming courses. (Prereq GC 1571 or IBM microcomputer experience. Limited to 40)

Winter Qtr Sec 1 **Th**—5-7:30 plus 2 hrs lab arr, ApH 319, Robertson

★GC 1575 (formerly 1535) **INTRODUCTION TO COMPUTERS.** 4 credits, \$1535, \$243 plus \$5 course fee. Total \$248.

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. Students apply concepts by programming representative problems in BASIC. Some work on computers outside of class is required; terminals are available on campus at moderate charge. (Prereq 0621 or elementary algebra. Limited to 30)

Spring Qtr Sec 1 **T**—6:20-8:50, ApH 319

★GC 1721 **MARRIAGE, FAMILY, AND PERSONAL FULFILLMENT.** 4 credits, \$243.

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 40)

Fall Qtr Sec 1 **W**—6-9, ApH 103, Thoen

★GC 1722 **HOME LIFE: PARENT-CHILD RELATIONSHIPS.** 4 credits, \$243. (IS)

Interdisciplinary course aimed at helping students develop their own philosophy of child rearing—attitudes, principles, and perspectives that will guide them. Focus on crises of parenthood. Relevant research used to emphasize principles of parent-child relations and tasks of parenthood. (No prereq. Limited to 40)

Spring Qtr Sec 1 **Th**—6-9, ApH 103, Latts

★GC 1731 **CONSUMER PROBLEMS AND PERSONAL FINANCE.** 4 credits, \$243.

Economic system from viewpoint of family as consumer unit. Fundamentals of financial planning and personal economic decision making, their application to such specific areas as food, clothing, shelter, buying insurance protection, saving and investing, using credit, and obtaining and evaluating consumer information. (No prereq. Limited to 30)

Spring Qtr Sec 1 **T**—6-8:30, NichH 207

★GC 1733 **CONTEMPORARY SEX ROLES.** 4 credits, \$243. (IS)

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 35)

Winter Qtr Sec 1 **W**—6-9, ApH 103, Thoen

★GC 1812 **AMERICAN INDIAN LITERATURE.** 4 credits, \$243.

Fiction, poetry, essays, oratory by American Indians. Heritage, contributions, aspirations of traditional and contemporary American Indian cultures. Film, visual art, and music. (No prereq. Limited to 40)

Winter Qtr Sec 1 **W**—6-8:30, ApH 302

Spring Qtr Sec 2 **T**—6-8:30, ApH 302

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 the Minnesota Book Center in Williamson Hall (625-6000); books for courses on the St. Paul campus are available at Books Underground on the St. Paul campus (624-9200).

Robert McKinnell, Professor of Genetics and Cell Biology

D. Peter Snustad, Professor of Genetics and Cell Biology

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, \$219; 4 degree credits with term paper, \$292.

For students in programs not directly related to biological sciences. Human genetics; study of individuals, families, populations, and races with respect to differences in intelligence, behavior, disease, and other matters of social concern. (No prereq)

Winter Qtr Sec 1 **W**—6:20-8:50, Botany B6

GCB 3008 THE BIOLOGY OF CANCER. 3 credits, \$219.

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)

Spring Qtr Sec 1 **W**—6:30-9, BioSci 6, StP Campus, McKinnell

GCB 3022 GENETICS. 4 credits, \$Biol 5003, \$292.

Not intended for biology majors. Mechanisms of heredity, their implications for biological populations and applications to practical problems. (Prereq Biol 1009. Meets concurrently with 5022)

Fall Qtr Sec 1 **MW**—5:30-7:10, ClaOff B25, StP Campus

Winter Qtr Sec 2 **TTh**—5:30-7:10, ClaOff B45, StP Campus, Snustad
(A joint Day/Extension Class)

(See also Biology and Biochemistry)

GCB 5022 GENETICS. 3 credits, \$3022, \$Biol 5003, \$219.

See course description for 3022. (No prereq. Not open to graduate students in genetics. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3022)

Fall Qtr Sec 1 **MW**—5:30-7:10, ClaOff B25, StP Campus

Winter Qtr Sec 2 **TTh**—5:30-7:10, ClaOff B45, StP Campus, Snustad
(A joint Day/Extension class)

Geo-Engineering (GeoE)

(See Civil Engineering)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Geography (Geog)

(414 Social Sciences: 625-6080)

College of Liberal Arts

Textbooks for most Geog courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also General College; and The Compleat Scholar noncredit courses)

John S. Adams, Professor of Geography

Ward J. Barrett, Professor of Geography

John R. Borchert, Regents' Professor Emeritus

Dwight A. Brown, Professor of Geography

Philip J. Gersmehl, Professor of Geography

John Fraser Hart, Professor of Geography

Mei-Ling Hsu, Professor of Geography

Helga Leitner, Associate Professor of Geography

Fred E. Lukermann, Professor of Geography

Judith A. Martin, Associate Professor of Geography

Robert B. McMaster, Associate Professor of Geography

Cotton Mather, Professor Emeritus of Geography

Roger P. Miller, Associate Professor of Geography

Philip W. Porter, Professor of Geography

John C. Rice, Professor of Geography

Joseph E. Schwartzberg, Professor of Geography

Earl P. Scott, Associate Professor of Geography

Eric S. Sheppard, Professor of Geography

Richard H. Skaggs, Professor of Geography

Roderick H. Squires, Associate Professor of Geography

Connie H. Weil, Associate Professor of Geography

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.

★Geog 1301 HUMAN GEOGRAPHY. 5 credits, \$1302, \$303.75.

Geography of population and principal ways of life; capacity of earth for future population. (No prereq. Limited to 25)

Spring Qtr Sec 1 **M—Lect**, 6:20-8:50, AndH 210, Miller
MW—Rec, 3:35-4:25, BlegH 460

Sec 2 **M—Lect**, 6:20-8:50, AndH 210, Miller
T—Rec, 6:15-8, BlegH 460

Sec 3 **M—Lect**, 6:20-8:50, AndH 210, Miller
TTh—Rec, 3:35-4:25, BlegH 445

Sec 4 **M—Lect**, 6:20-8:50, AndH 210, Miller
W—Rec, 6:15-8, BlegH 460

○Geog 1973 GEOGRAPHY OF THE TWIN CITIES. 4 credits, \$3973, \$243.

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 230, J Adams

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Geog 3111 MINNESOTA. 4 credits, \$248.

Physical resources, population, and commercial production. (No prereq. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—6:20-8:50, BlegH 5, Borchert

(Geog 3111 is also offered as a fall and spring television course through CEE Independent Study. See page 51)

Geog 3331 ECONOMIC GEOGRAPHY. 4 credits, \$248.

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 3973 GEOGRAPHY OF THE TWIN CITIES. 4 credits, \$1973, \$248.

See 1973 for description. (No prereq. Meets concurrently with 1973. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—6:20-9, AndH 230, J Adams

Geog 8800 SEMINAR: DEVELOPMENT OF GEOGRAPHIC THOUGHT. 3 credits, \$408.

(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 Minnesota Book Center in Williamson Hall (625-6000).

(See also CSch 0550, Minnesota Geology: An Introduction to Your Surroundings)

Hans-Olaf Pfannkuch, Professor of Geology and Geophysics

E. Calvin Alexander, Jr., Professor of Geology and Geophysics

Robert E. Sloan, Professor of Geology and Geophysics

James H. Stout, Professor of Geology and Geophysics

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 procedures for registration through Extension, call 624-2388 two weeks before mail registration for that quarter begins.

Geo 1001 INTRODUCTION TO GEOLOGY. 4 credits, \$243. (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, PillsH 110, Stout

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Geo 1002 HISTORICAL GEOLOGY.** 4 credits, \$243. (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 Th —6-8, FordH 85
	Sec 2	Lect T —6:30-9, PillsH 110, Sloan Lab Th —6-8, FordH 180
	Sec 3	Lect T —6:30-9, PillsH 110, Sloan Lab Th —8-10, FordH 85
	Sec 4	Lect T —6:30-9, PillsH 110, Sloan Lab Th —8-10, FordH 180

Geo 1005 GEOLOGIC PERSPECTIVES ON ENERGY. 4 credits, \$243.

Introduction to the geologic aspects of energy resources, conventional and unconventional. History of energy use, distribution and amounts of known and potential reserves, environmental aspects and implications of U.S. consumption patterns. (No prereq)

Winter Qtr Sec 1 **T**—6:30-9, PillsH 110, Alexander

(See also GC 1112, Science in Context: Human Uses of the Environment; and BGS 3003, Business and the Natural Environment)

★**Geo 1021 PHYSICAL GEOLOGY LAB: GEOLOGY OF MINNESOTA.** 1 credit, \$60.75.

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.** (Prereq 1001 or concurrent enrollment. Meets concurrently with 5051 lab. Limited to 25)

Fall Qtr	Sec 1	Th —5-7, FordH 185
	Sec 2	Th —5-7, FordH 180
	Sec 3	Th —7-9, FordH 185
	Sec 4	Th —7-9, FordH 180

Geo 5051 PHYSICAL GEOLOGY FOR TEACHERS. 4 credits, \$1001, 1111, \$292. (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, PillsH 110, Stout
Lab Th—7-9, FordH 185

★**Geo 5052 HISTORICAL GEOLOGY FOR TEACHERS.** 4 credits, \$1002, 1112, \$292 plus \$1.50 course fee. Total \$293.50.

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 1111 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)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Spring Qtr	Sec 1	Lect T —6:30-9, PillsH 110, Sloan Lab Th —6-8, FordH 85
	Sec 2	Lect T —6:30-9, PillsH 110, Sloan Lab Th —6-8 FordH 180
	Sec 3	Lect T —6:30-9, PillsH 110, Sloan Lab Th —8-10, FordH 85
	Sec 4	Lect T —6:30-9, PillsH 110, Sloan Lab Th —8-10, FordH 180

Geo 5108 ADVANCED ENVIRONMENTAL GEOLOGY. 4 credits, \$292.

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 1111 through 5201 for majors or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:30-9, PillH 110, Pfannkuch

German (Ger)

(231 Folwell Hall: 625-2080)

College of Liberal Arts

(See also Dutch; History; Humanities; and PSch 0983, German for Travelers)

Textbooks for most Ger courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Evelyn Firchow, Professor
Anatoly Liberman, Professor
Richard McCormick, Assistant Professor
James Parente, Jr., Associate Professor
Rainer Praetorius, Associate Professor
Jochen Schulte-Sasse, Professor
Wolfgang Taraba, Professor
Ray Wakefield, Associate Professor
Margrit Zinggeler, Teaching Assistant
Jack Zipes, Professor

Read about language laboratories on page 61.

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.

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 1000-1110 is an individually paced sequence which has neither obligatory attendance nor conventional classroom sessions. In Ger 1000-1110, students work independently; teacher-student interaction is at the discretion of the student and usually involves tutorial consultation

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

and testing. Ger 1000-1110 is *not* recommended for students who have not had language-learning experience in a classroom course.

Students who entered CLA Fall 1986 or later should check CLA's second language requirement to see if they are eligible for degree credits for Ger 1101-1102-1103 or 1110. Those CLA students who have already 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 and the Graduation Proficiency Text.

Minor Requirements: 3104, 3105; one course from 3011, 3012, 3013, 3014, 3015, 3016; 12 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.

Semester-Length Courses

All credits listed in the class description are QUARTER credits even though some 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 47 of this bulletin.

★Ger 1000 INDIVIDUALIZED GERMAN FOR NON-DEGREE CREDIT. 2-5 credits (maximum 5 credits) \$1101, \$60.75 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Each student earns credits at his/her own pace, working with book, computer, and tapes. Teacher 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 1110 or 1102. (No prereq. Limited to 50)

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 1101-1102-1103 BEGINNING GERMAN. §1110. 5 credits each term, \$303.75 each term. (IS)

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 1000 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**, AkerH 225
Th—6:20-8, AkerH 225
1101 Sec 2 **M—6:20-8:50**, AmundH 124
Th—6:20-8, AmundH 124
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

	1101	Sec 3	M —6:20-8:50, AmundH 158 Th —6:20-8, AmundH 158
Fall Sem	1101	Sec 4	M —6:20-9:30, FolH 116
Winter Qtr	1102	Sec 5	M —6:20-8:50, KoltH 5137 Th —6:20-8, KoltH 5137
	1102	Sec 6	M —6:20-8:50, KoltH 5136 Th —6:20-8, KoltH 5136
Spring Sem	1102	Sec 7	M —6:20-9:30, FolH 116
Spring Qtr	1103	Sec 8	M —6:20-8:50, FolH 344 Th —6:20-8, FolH 344
	1103	Sec 9	M —6:20-8:50, KoltH 5137 Th —6:20-8, KoltH 5137

★**Ger 1104-1105-1106 INTERMEDIATE GERMAN** 5 credits each quarter. \$303.75 each quarter.

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. Limited to 25)

Fall Qtr	1104	Sec 1	M —6:20-8:50, FolH 148 Th —6:20-8, FolH 148, Taraba
Winter Qtr	1105	Sec 2	M —6:20-8:50, FolH 312 Th —6:20-8, FolH 312, Taraba
Spring Qtr	1106	Sec 3	M —6:20-8:50, FolH 148 Th —6:20-8, FolH 148, Taraba

★**Ger 1110 INDIVIDUALIZED BEGINNING GERMAN.** 1-10 credits (10 credits maximum), \$1102-1103, \$60.75 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Students work at own pace with book, 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. (Prereq 1101, 5 cr 1000 or placement. 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

Courses and Internships in Austria

A variety of German courses, including internships, are available through the German and Austrian Studies in Graz program. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**Ger 3011-3012-3013 CONVERSATION AND COMPOSITION.** 4 credits each quarter, \$248 each quarter.

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 344

Winter Qtr 3012 Sec 2 **TTh**—5:15-7, KoltH S132

Spring Qtr 3013 Sec 3 **TTh**—5:15-7, KoltH S132

★**Ger 3021 BUSINESS GERMAN.** 4 credits, \$248.

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 104, Zinggeler

★**Ger 3022 ADVANCED BUSINESS GERMAN.** 4 credits, \$248.

Specific German business and economic vocabulary developed for oral and written proficiency. Writing business letters and reading German economic texts for comprehension. Discussion of videotaped German business transactions. (Prereq 3021. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr Sec 1 **W**—6:20-8:50, FolH 104, Zinggeler

★**Ger 3104 READING AND ANALYSIS OF PROSE.** 4 credits, \$248.

Reading fluency; appreciation of literary values through literary interpretation and familiarization with critical terminology. **Introductory course for a major or minor in German.** (Prereq 1106 or #. Limited to 25)

Winter Qtr Sec 1 **M**—5:15-7:45, FolH 240, Parente

★**Ger 3105 READING AND ANALYSIS OF DRAMA AND POETRY.** 4 credits, \$248.

Reading fluency; appreciation of literary values through literary interpretation and familiarization with critical terminology. (Prereq 1106 or #. **Introductory course for a major or minor in German.** Limited to 25)

Fall Qtr Sec 1 **M**—5:15-7:45, FolH 419, Schulte-Sasse

★**Ger 3604 LITERATURE, HISTORY, AND THE GERMAN FILM.** 4 credits, \$248 plus \$10 course fee. Total \$258. (♦ \$124 plus \$10 course fee. Total \$134)

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 **Th**—6:20-9:40, FolH 38, McCormick

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Ger 3610 GERMAN AUTHORS OR TOPICS IN TRANSLATION: FEMINIST FAIRY TALES. 4 credits, \$248. (◆\$124) (IS)

- ◆ Analysis of how the fairy tales of the Grimm Brothers have been revised by many different authors along feminist and non-sexist lines. **Not open for credit toward a major or minor in German.** (No prereq)

Spring Qtr Sec 1 **T**—6:20-8:50, SmithH 121, Zipes

Ger 3641 INTRODUCTION TO GERMAN FOLKLORE. 4 credits, \$248. (◆\$124)

- ◆ 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 419, Liberman

***○Ger 5011 ADVANCED COMPOSITION AND CONVERSATION.** 4 credits, \$248.

(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 **M**—4:40-7:20, FolH 426, Firchow

○Ger 5510 TOPICS IN CONTEMPORARY GERMAN CULTURE: CULTURE AFTER THE BREAKDOWN, 1945-1950. 4 credits, \$248.

Examines the peculiar culture and society that followed the collapse of Nazi Germany. Was there a new beginning or a vacuum? Did literature deal with the immediate past or prefer romanticism and escapism? Did democratic values develop from the grass roots or did they derive from a patronizing "re-education"? (Prereq 3513 or equivalent. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **MTh**—4:40-6:10, FolH 114, Praetorius

○Ger 5622 NAZI AND POSTWAR GERMAN CINEMA. 4 credits, \$248.

German cinema 1933-1962: Nazi cinema, including Riefenstahl, Harlan, Sirk; continuities (e.g., Harlan) and discontinuities (e.g., Staudte's work in East and West Germany) in postwar cinema. **May be taken for credit toward a major or minor in German if student registers A-F and does a portion of the readings in German.** (Prereq 3604 or other 3xxx-level film studies course or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr Sec 1 **M**—**Lect**, 4:40-6:35, FolH 38, McCormick
M—**Film Showing**, 7:15-9:30, FolH 38

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, \$243.

This course is designed to help students acquire a reading knowledge of basic German as rapidly as possible. Ger 0221 assumes no knowledge of German on the part of the student. Grammar is reduced to an essential minimum. The course progresses from intensive reading of simple, graded material to selections of moderate difficulty. Vocabulary building and analysis of compound words are emphasized. **Must be taken S-N.** (No prereq)

Fall Sem Sec 1 **M**—6:20-8:30, FolH 138

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Ger 0222 READING GERMAN. No credit, \$243.

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)

Spring Sem Sec 1 **M**—6:20-8:30, FolH 138

German 0221 and 0222 are also offered as Summer Evening Extension Classes.

Gerontology

See page 653.

Global Campus

See page 475.

Greek (Grk)

See Classical Studies, page 136.

Greek, Modern (MdGk)

See Classical Studies, page 137.

H

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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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
 PUBLIC HEALTH

Health Science Units (HSU)

(W42 Centennial Hall: 624-7102)

Health Sciences

Textbooks for most HSU courses are available at the Health Sciences Bookstore (625-8600)

(See also Anth 5920, Topics in Anthropology: Anthropology of AIDS; Family Social Science; PubH 5010, Public Health Approach to AIDS)

John D. Allison, Associate Professor

Gary T. Athelstan, Professor

S. Bruce Benson, Associate Professor

Rondell Berkeland, Director of Occupational Therapy

Janet Berkseth, Assistant Professor

Earl L. Burger, Assistant Professor of Mortuary Science

Miriam Cohn, Professor

Barton W. Galle, Assistant Professor

David Garloff, Director, Health Sciences Learning Resources

Judith Garrard, Associate Professor

Karen Karni, Associate Professor

Thomas McKennell, Assistant Professor and Director of Pharmacy Continuing Education

James Meland, Research Associate, Epidemiology

Cynthia J. Meyer, Lecturer in Family Social Science

Mary Mueller, Assistant Professor

Kathleen Newell, Associate Professor

Sharon Ostwald, Assistant Professor

Frank Rhame, Assistant Professor, Medical School, Infection Control Department

Franklin C. Roberts, Assistant Professor, Curriculum and Instructional Systems

James Rothenberger, Instructor

James Schaefer, Director, Epidemiology

Suzanne Schoenfelt, Instructor, College of Pharmacy

Robert W. Schwanke, Associate Professor

Barbara A. Spradley, Associate Professor, Public Health Administration

Maura Sullivan, Instructor

Robert E. Yahnke, Associate Professor

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

HSU 3003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. 2 credits, \$PubH 3003, \$162.50.

See PubH 3003 for description. (No prereq. Meets concurrently with 5032, PubH 3003, 5003)

Spring Qtr Sec 1 **Th**—6:35-8:35, MoosT 2-520, Rothenberger

(See also REX 0324, Alcohol and Degenerative Diseases)

★OHSU 3005 ORIENTATION TO HEALTH SCIENCES. 2 credits, \$162.50.

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. A joint Day/Extension class limited to 100 Extension students)

Winter Qtr Sec 1 **T**—4:15-6, MoosT 2-530, Allison, Benson, Berkeland, Karni, Newell

★OHSU 5001 INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. 3 credits, \$PubH 5013, SW 5013, \$243.75.

See PubH 5013 for course description. (Prereq #. See boxed note about graduate credit above. Meets concurrently with PubH 5013, SW 5013. A joint Day/Extension class limited to a combined total of 12)

Spring Qtr Sec 1 **W**—5:45-8:45, MoosT 2-585, 2-571, Sullivan, Berkeland

★OHSU 5007 HEALTH LEADERSHIP AND EFFECTING CHANGE. 3 credits, \$PubH 5727, \$243.75.

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 Public Health or other health sciences grad students interested in becoming more effective leaders and change agents in their professional roles or #. See boxed 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, HSUnitF 2-110, 2-140, Spradley

★OHSU 5008 SOCIAL AND PSYCHOLOGICAL ASPECTS OF PHYSICAL DISABILITY. 4 credits, \$325. (IS)

Communication barriers often exist between able-bodied people and those with physical disabilities. By understanding the psychological and cultural impact of various sensory and motor disabilities, health professionals should be better equipped to provide disabled patients with effective quality service. Course content will include information about common disabling conditions, the impact of disability on lifestyle, the rehabilitation process, and society's response to disability. Techniques for enhancing communication with people who are blind, deaf, or have mobility impairments will be introduced. Attention also will be given to the advocacy role that health professionals can play in effecting social changes important to people with disabilities. (No prereq. See boxed note about graduate credit above. A joint Day/Extension class limited to 20)

Winter Qtr Sec 1 **TTh**—3:15-5, MoosT 2-690, Athelstan

OHSU 5009 MULTIDISCIPLINARY PERSPECTIVES ON AGING. 4 credits, \$AdEd 5440, \$CPsy 5305, Phar 5009, PA 5414, SW 5024, Soc 5960, SAHP 5009, PubH 5737, \$325.

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

See course description for Soc 5960. (No prereq. See boxed 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

OHHSU 5010 PUBLIC HEALTH APPROACHES TO AIDS. 3 credits, \$PubH 5010, \$243.75.

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. See boxed note above about graduate credit. Meets concurrently with PubH 5010. A joint Day/Extension class)

Fall Qtr Sec 1 **M**—4:40-6:25, MoosT 2-520, Rothenberger, Rhame
W—4:40-5:30, MoosT 2-520, Rothenberger, Rhame

Spring Qtr Sec 2 **M**—4:40-6:25, MoosT 2-520, Rothenberger, Rhame
W—4:40-5:30, MoosT 2-520, Rothenberger, Rhame

OHHSU 5011 THE TEACHING-LEARNING PROCESS IN THE HEALTH CARE SETTING. 3 credits, \$PubH 5064, \$243.75.

Learning activities include lectures, group discussion, written assignments and projects. The learning activities will be consistent with the practice of the various disciplines and many will be individualized to meet the projected professional needs of the students. (No prereq. See boxed 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

★OHHSU 5013 SYSTEMS APPROACH TO THE DESIGN OF INSTRUCTION. 3 credits, \$CISy 5201, \$243.75.

See CISy 5201 for course description. (No prereq. See boxed note about graduate credit above. Meets concurrently with CISy 5201. A joint Day/Extension class limited to a combined total of 25 Extension students)

Spring Qtr Sec 1 **W**—6:15-8, EdHAN 64

★HSU 5017 WRITTEN COMMUNICATION SKILLS FOR HEALTH PROFESSIONALS. 3 credits, \$243.75.

By examining journal articles, style, grammar, and other writing guidelines, students learn to distinguish between good and bad writing. Some emphasis will be placed on writing journal articles for publication. Students will be expected to participate in workshop sessions during which the work of class participants will be critiqued. Throughout the course there will be work on organization, style, clarity of presentation, conciseness, accuracy, transitions, writing mechanics, and identification of audience. Students will submit a paper suitable for publication. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Winter Qtr Sec 1 **T**—4-6:30, HSUnitF 4-154, 4-172

HSU 5027 HUMAN SEXUAL BEHAVIOR. 5 credits, \$FSoS 5001, \$406.25.

Multidisciplinary approach to human sexuality, with emphasis on sexual development through individual and family life cycles. Oriented toward applying scientific

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 boxed note about graduate credit above. Meets concurrently with FSoS 5001)

Fall Qtr Sec 1 **Th**—5:30-9:40, McNH 197, StP Campus, Maddock, Meyer

HSU 5029 HUMANISTIC CASE STUDIES IN HEALTH CARE. 3 credits, \$SAHP 5305, \$243.75.

An exploration of health care issues through their embodiment in such books as *Cancer Ward*, *As We Are*, *The Elephant Man*, and *Love Among the Ruins*. Themes to be investigated include terminal care, the patient-practitioner relationship, the elderly patient, mental health and madness, scientific research, and the politics of health-care institutions. (No prereq. See boxed note about graduate credit above. Meets concurrently with Phar 5305)

Spring Qtr Sec 1 **Th**—4:15-6:30, MoosT 2-690

OHHSU 5030 HUMANITIES AND AGING. 2 credits, \$Phar 5008, \$SAHP 5008, \$162.50.

An examination of aging—through the perspectives of literature, music, art, philosophy, and history. Discussion will focus on such topics as the historical experience of today's elderly cohort, paternalism, generational conflict, cross-cultural ceremonies of aging, and changing attitudes toward the elderly in America. (No prereq. See boxed note about graduate credit above. Meets concurrently with Phar 5008. A joint Day/Extension class)

Spring Qtr Sec 1 **Th**—4:40-6:25, ApH 102, Yahnke

OHHSU 5031 BIOLOGY OF AGING. 2 credits, \$SAHP 5007, \$162.50.

The class will follow a lecture/discussion format under the direction of a faculty member. Emphasizing human biology, guest lecturers present normal changes with age. Selected readings will be assigned during the course; there is no text. *Student evaluation:* one final examination consisting of multiple-choice questions. Those taking course for graduate credit are required to write a 3 to 5 page paper which constitutes 40 percent of the grade. (No prereq. See boxed note about graduate credit above. Meets concurrently with Phar 5007. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—4:40-6:25, MoosT 2-580, McKennell

(See also GC 1136, Biological Aspects of Aging)

HSU 5032 FUNDAMENTALS OF ALCOHOL AND DRUG PROBLEMS. 2 credits, \$PubH 5003, \$162.50.

See PubH 3003 for description. (Prereq sr or grad. See boxed note about graduate credit above. Meets concurrently with 3003, PubH 3003, 5003)

Spring Qtr Sec 1 **Th**—6:35-8:35, MoosT 2-520, Rothenberger

(See also Family Social Science; and Rex 0324, Alcohol and Degenerative Diseases)

OHHSU 5039 TOPICS IN ALCOHOL AND DRUG PROBLEMS. 1 credit, \$PubH 5044, \$81.25.

A basic course on recognizing and dealing with alcohol and other drug abuse problems in patients and peers: Awareness, diagnosis, intervention, treatment options, prevention, peer assistance, and professional licensure are discussed in a retreat setting with professional role models. A weekend seminar. (Prereq written #. See boxed note about graduate credit above. Meets concurrently with PubH 5044. A joint Day/Extension class)

Spring Spec Term Sec 1 **FSaSu**—Apr. 1992 (call 624-3619 for dates and information)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OHSU 5040 DYING AND DEATH IN CONTEMPORARY SOCIETY. 3 credits, \$PubH 5040, \$Mort 5040, \$243.75.

(Prereq Health Science major, School of Public Health major, education senior, Mortuary Science major, or written #. See boxed note about graduate credit above. Meets concurrently with PubH 5040. A joint Day/Extension class)

Winter Qtr Sec 1 **M**—4:40-6:25, JacH 2-135

W—4:40-5:30, JacH 2-135, Rothenberger, Burger

OHSU 5210 TERMINOLOGY OF THE HEALTH SCIENCES. 2 credits, \$SAHP 5210, \$162.50.

An independent study course which meets biweekly for tests. Day and time for tests arranged at the beginning of each term (call 624-2442). No lectures or formal class sessions other than test periods, but conference hours are available for informal discussion. (No prereq. See boxed note about graduate credit above. Meets concurrently with Phar 5210. A joint Day/Extension class)

Fall Qtr Sec 1 **Arr** (call 624-2442), McKennell

Winter Qtr Sec 2 **Arr** (call 624-2442), McKennell

Spring Qtr Sec 3 **Arr** (call 624-2442), McKennell

Health, Environmental

(See Public Health)

Hebrew

(See Ancient Near Eastern Studies)

Higher Education (HiEd)

See Educational Policy and Administration (EdPA) for former HiEd listings, page 183.

History (Hist)

(614 Social Sciences: 624-2800)

College of Liberal Arts

Textbooks for most Hist courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

(See also Afro-American and African Studies; Ancient Studies; East Asian Studies; Interdepartmental Study; South Asian and Middle Eastern Studies; Political Science; General College social and behavioral science courses; The Compleat Scholar noncredit courses; History of Science and Technology; Religious Studies; Compleat Scholar Weekends; and Women's Studies)

Bernard S. Bachrach, Professor of History

Hyman Berman, Professor of History

Kinley J. Brauer, Professor of History

Caesar Farah, Professor of History

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Irmgard Farah, Professor of History
Edward Farmer, Professor of History
George Green, Associate Professor of History
Allen Isaacman, Professor of History
Thomas Kelly, Professor of History
David Kopf, Professor of History
Byron K. Marshall, Professor of History
Michael Metcalf, Professor of History
John Kim Munholland, Professor of History
Thomas Noonan, Professor of History
Richard Rudolph, Professor of History
Theofanis C. Stavrou, Professor of History
John Thayer, Professor of History
James D. Tracy, Professor of History
William E. Wright, Professor of History

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).

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.

Language Requirement Route I; or Route II.

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.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Hist 1001, 1002, 1003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits each quarter, \$3001, 3002, 3003, \$243 each quarter. (◆ \$121.50 each quarter) (IS)

◆ **1001:** Western European civilization to 1715. **1002:** Revolution, liberalism, and nationalism to 1870. **1003:** 1870 to recent times. (No prereq. Meet concurrently with 3001, 3002, 3003)

Fall Qtr 1002 Sec 1 **W**—6:20-8:50, AndH 350, Wright

Winter Qtr 1003 Sec 2 **W**—6:20-8:50, FordH 155, Wright

Spring Qtr 1001 Sec 3 **W**—6:20-8:50, BlegH 155, Thayer

Hist 1012, 1013 INTRODUCTION TO WORLD HISTORY. 5 credits each semester, \$1012H, 1013H, \$303.75 each semester. (◆ \$152 each semester)

1012: 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. **1013:** 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 Sem 1012 Sec 1 **M**—6:20-9, BlegH 105

Spring Sem 1013 Sec 2 **M**—6:20-9, BlegH 250

new

◆ **Hist 1051 ANCIENT CIVILIZATION.** 4 credits, \$3051, \$243. (◆ \$121.50) (IS)

The history of civilization of the ancient world to 500 B.C. (No prereq. Meets concurrently with 3051)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 130, Kelly

◆ **Hist 1052 ANCIENT CIVILIZATION.** 4 credits, \$3052, \$243. (◆ \$121.50) (IS)

History and civilization of the ancient world, 500-146 B.C. (No prereq. Meets concurrently with 3052)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 245, Kelly

◆ **Hist 1053 ANCIENT CIVILIZATION.** 4 credits, \$3053, \$243. (◆ \$121.50) (IS)

History and civilization of the ancient world, 146 B.C. to A.D. 337. (No prereq. Meets concurrently with 3053)

Spring Qtr Sec 1 **T**—6:20-8:50, BlegH 210, Kelly

◆ **Hist 1101 INTRODUCTION TO MEDIEVAL HISTORY.** 4 credits, \$243. (◆ \$121.50)

Europe from the decline of Rome to the Early Renaissance; politics, institutions, society, economy, and culture of the Middle Ages. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, EE/CSci 2260, Bachrach

◆ **Hist 1151 ENGLISH HISTORY TO THE 17TH CENTURY.** 4 credits, \$3151, \$243. (◆ \$121.50) (IS)

The Anglo-Saxons and Normans; development of English law in Parliament; Reformation and constitutional crisis. (No prereq. Meets concurrently with 3151)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 130

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 1152 ENGLISH HISTORY FROM THE 17TH CENTURY TO THE PRESENT. 4 credits, \$3152, \$243. (♦\$121.50) (IS)

- ◆ Civil war, revolution, and constitutional settlement; industrial revolution, democracy, and welfare state. (No prereq. Meets concurrently with 3152)

Spring Qtr Sec 1 **T**—6:20-8:50, AndH 330

Hist 1301, 1302 AMERICAN HISTORY. 4 credits each quarter. \$243 each quarter. (♦\$121.50 each quarter) (IS)

Survey of political, economic, and social history of the United States with emphasis on forces that resulted in the emergence of Modern America. **1301:** Colonial, early national period from the Revolution through Civil War and Reconstruction. **1302:** Modern America from 1880 to the present. (No prereq)



Fall Qtr **1302** Sec 1 **M**—6:20-8:50, AndH 370, Berman

cew

Winter Qtr **1301** Sec 2 **M**—9:30 a.m.-12, MacP

Offered through Continuing Education for Women

Spring Qtr **1301** Sec 3 **M**—6:20-8:50, AndH 330

Hist 1305 RACIAL MINORITIES IN AMERICAN HISTORY. 4 credits, \$243. (♦\$121.50) (IS)



A survey of the development of American society focusing on the role of Afro-Americans, American Indians, Asian Americans, and Hispanic Americans. Concepts of cultural pluralism, racism, and inter-group relations will be explored within a comparative historical framework. (No prereq)

Winter Qtr Sec 1 **T**—6:20-8:50, AndH 270

(Hist 1305 is also offered as a fall radio course through CEE Independent Study. See page 51)

Hist 3001, 3002, 3003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits each quarter, \$1001, 1002, 1003, \$248 each quarter.

See course description for Hist 1001, 1002, 1003. (No prereq. Meet concurrently with 1001, 1002, 1003)

Fall Qtr **3002** Sec 1 **W**—6:20-8:50, AndH 350, Wright

Winter Qtr **3003** Sec 2 **W**—6:20-8:50, FordH 155, Wright

Spring Qtr **3001** Sec 3 **W**—6:20-8:50, BlegH 155, Thayer

Hist 3051 ANCIENT CIVILIZATION. 4 credits, \$1051, \$248.

See course description for Hist 1051. (No prereq. Meets concurrently with 1051)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 130, Kelly

Hist 3052 ANCIENT CIVILIZATION. 4 credits, \$1052, \$248.

See course description for 1052. (No prereq. Meets concurrently with 1052)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 245, Kelly

Hist 3053 ANCIENT CIVILIZATION. 4 credits, \$1053, \$248.

See course description for 1053. (No prereq. Meets concurrently with 1053)

Spring Qtr Sec 1 **T**—6:20-8:50, BlegH 210, Kelly

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 3151 ENGLISH HISTORY TO THE 17TH CENTURY. 4 credits, \$1151, \$248. (◆\$124) (IS)

new ◆ The Anglo-Saxons and Normans; development of English law in Parliament; Reform and constitutional crisis. (No prereq. Meets concurrently with 1151)
Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 130

Hist 3152 ENGLISH HISTORY FROM THE 17TH CENTURY TO THE PRESENT. 4 credits, \$1152, \$248. (IS)

See course description for Hist 1152. (No prereq. Meets concurrently with 1152)

Spring Qtr Sec 1 **T**—6:20-8:50, AndH 330

Hist 3200 CONTEMPORARY PROBLEMS IN HISTORICAL PERSPECTIVE. 4 credits, \$248. (◆\$124)

◆ Comparative treatment of a contemporary problem (e.g., urbanization, social change, nationalism, inter-cultural conflict, revolution) in historical perspective. (No prereq)

Spring Qtr Sec 1 **T**—6:20-8:50, BlegH 105, Isaacman

Hist 3244 HISTORY OF EASTERN EUROPE TO THE EARLY 19TH CENTURY. 4 credits, \$248. (◆\$124)

new ◆ Peoples of Poland, Czechoslovakia, Hungary, Romania, Yugoslavia, and the Ukraine from their origins to modern times. Culture and Society in Middle Ages; golden age of Eastern Europe; loss and regaining of independence in modern times. (No prereq)

Winter Qtr Sec 1 **W**—6:20-8:50, Law 3, Rudolph

Hist 3245 HISTORY OF EASTERN EUROPE: 19TH AND 20TH CENTURIES. 4 credits, \$248. (◆\$124)

new ◆ 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 105, Rudolph

Hist 3347 WOMEN IN COLONIAL AND VICTORIAN AMERICA: 1600-1890. 4 credits, \$248. (◆\$124)

◆ The female experience in U.S. history to 1890; work, family, images, sexuality, feminism; impact of race and class. (No prereq)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 350

Hist 3348 WOMEN IN MODERN AMERICA: 1890-1980. 4 credits, \$248. (◆\$124)

◆ 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 235

Hist 3401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO 1800. 4 credits, \$1401, \$248.

See course description for 1401. (No prereq. Meets concurrently with 1401)

Fall Qtr Sec 1 **Th**—6:20-8:50, BlegH 130

Hist 3402 SURVEY OF LATIN AMERICAN HISTORY: 1800-1929. 4 credits, \$1402, \$248.

See course description for Hist 1402. (No prereq. Meets concurrently with 1402)

Winter Qtr Sec 1 **Th**—6:20-8:50, BlegH 235

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 3403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO PRESENT. 4 credits, \$1403, \$248.

See course description for Hist 1403. (No prereq. Meets concurrently with 1403)

Spring Qtr Sec 1 **Th**—6:20-8:50, RlegH 130

Hist 3421 THE WORLD AND THE WEST. 4 credits, \$248. (◆\$124)

- ◆ 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)

Spring Qtr Sec 1 **T**—6:20-8:50, HHCtr 60, Kopf

Hist 3424 HISTORY OF MEXICO: PRE-COLUMBIAN PERIOD THROUGH INDEPENDENCE. 4 credits, \$LAS 3424, \$248. (◆\$124)

- ◆ Indian cultures of Mexico prior to the conquest and subsequent contact between Europeans and Indians during the formation of Mexican society. (No prereq)

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 235

Hist 3427 HISTORY OF CUBA AND PUERTO RICO. 4 credits, \$AmSt 3920, sec 1, \$Chic 3427, \$LAS 3427, \$248. (◆\$124)

- ◆ Historical development from Spanish conquest to the present. Conquest and colonization, slavery, Hispanic Caribbean society and culture, Operation Bootstrap, Cuban Revolution. Meets *CLA Cultural Pluralism* requirement. (No prereq. Meets concurrently with AmSt 3920, sec 1, Chic 3427, and LAS 3427)

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

Hist 3431 HISTORY OF AFRICA TO 1800. 4 credits, \$1431, \$248. (◆\$124)

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

Fall Qtr Sec 1 **T**—6:20-8:50, RarigC 616, Isaacman

Hist 3432 HISTORY OF AFRICA: 1800 TO PRESENT. 4 credits, \$1432, \$248. (◆\$124)

- ◆ Colonial rule, the forced restructuring and underdevelopment of African economies, African resistance, nationalism, and the problems of independence. (No prereq)

Winter Qtr Sec 1 **Th**—6:20-8:50, AndH 330, Isaacman

Hist 3441 THE SPANISH-MEXICAN BORDERLANDS AND THE CHICANO EXPERIENCE TO 1900. 4 credits, \$AmSt 3920, sec 2, \$Chic 3441, \$LAS 3441, \$248. (◆\$124)

new The history of Chicanos to 1900. Meets *CLA Cultural Pluralism* requirement. (No prereq. Meets concurrently with AmSt 3920, sec 2, Chic 3441, LAS 3441)

◆ **Winter Qtr** Sec 1 **M**—6:20-8:50, ScottH 4

Hist 3442 SURVEY OF CHICANO HISTORY: 1900 TO PRESENT. 4 credits, \$AmSt 3920, sec 3, \$Chic 3442, \$LAS 3442, \$248. (◆\$124)

new Twentieth-century Chicano experience including migration and repatriation, contemporary politics, society, and culture. Meets *CLA Cultural Pluralism* requirement. (No prereq. Meets concurrently with AmSt 3920, sec 3, Chic 3442, LAS 3442)

◆ **Spring Qtr** Sec 1 **M**—6:20-8:50, ScottH 4

Hist 3450 TOPICS IN SOUTHEAST ASIAN HISTORY. 4 credits, \$248. (◆\$124)

new Topics may include history of Vietnam and Vietnamese war, the origins of colonialism and nationalism in Southeast Asia. (No prereq)

◆ **Fall Qtr** Sec 1 **M**—6:20-8:50, RarigC 616, Young

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 3453 SURVEY OF ASIAN CIVILIZATIONS IN THE MODERN ERA. 4 credits, \$248. (◆ \$124) (IS)

◆ 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)

Winter Qtr Sec 1 T—6:20-8:50, BlegH 10, Kopf

Hist 3463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$1463, \$EAS 1463, \$248. (◆ \$124)

◆ 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)

Winter Qtr Sec 1 W—6:20-8:50, BlegH 120

Hist 3465 CHINA'S RESPONSE TO THE WEST, 1750-1911. 4 credits, \$5465, \$EAS 3465, \$248. (◆ \$124)

◆ 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)

Winter Qtr Sec 1 W—6:20-8:50, SocSci 101, Farmer

Hist 3467 THE NATIONALIST REVOLUTION IN CHINA: 1900 TO PRESENT. 4 credits, \$5467, \$EAS 3467, \$248. (◆ \$124)

◆ Failure of the early republic, warlordism, the new culture movement, and the development of Chinese nationalism. The rise of the Nationalist Party and intervention of the Soviet Union, Japan, and the United States, Taiwan, and the People's Republic of China. (No prereq. Meets concurrently with EAS 3467)

Spring Qtr Sec 1 W—6:20-8:50, BlegH 350, Farmer

Hist 3468 PEOPLE'S REPUBLIC OF CHINA: THE COMMUNIST REVOLUTION, 1900 TO PRESENT. 4 credits, \$5468, \$EAS 3468, \$248. (◆ \$124)

◆ 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)

Fall Qtr Sec 1 W—6:20-8:50, AndH 230, Farmer

Hist 3471 20TH-CENTURY JAPAN. 4 credits, \$5471, \$EAS 3471, \$248. (◆ \$124)

◆ 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 EAS 3471)

Spring Qtr Sec 1 M—6:20-8:50, BlegH 135, Marshall

Hist 3474 RISE OF MODERN JAPAN, 1853-1914. 4 credits, \$EAS 3474, \$248. (◆ \$124)

◆ The Meiji Revolution from Commodore Perry to the eve of World War I: the origins of constitutional monarchy, and industrial economy, Western influence, and modern culture change. (No prereq. Meets concurrently with EAS 3474)

Fall Qtr Sec 1 M—6:20-8:50, BlegH 210, Marshall

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 3505 SURVEY OF THE MIDDLE EAST. 4 credits, \$MidE 3505, 5505, \$248. (◆\$124)

- ◆ Lands and peoples of the Middle East, historical evolution of Middle East civilizations and societies, the status of Middle East countries in world affairs. (No prereq. Meets concurrently with MidE 3505)

Fall Qtr Sec 1 **Th**—6:20-8:50, BlegH 5

Hist 3541 HISTORY OF THE ARABS: 500-800. 4 credits, \$MidE 3541, \$248. (◆\$124)

new

- ◆ Arabia on eve of Islam. Muhammed and Islam. The Caliphal era-Orthodox Umayyad and early Abbasid. Establishment of Islam as religion, ideology, and way of life. Political and cultural achievements. Empire of the Arabs. (No prereq. Meets concurrently with MidE 3541)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 5, C Farah

Hist 3544 THE ARAB WORLD IN RECENT TIMES. 4 credits, \$MidE 3544, \$248. (◆\$124)

- ◆ 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 MidE 3544)

Spring Qtr Sec 1 **W**—6:20-8:50, AndH 230

Hist 3609 MILITARY HISTORY OF MEDIEVAL WESTERN EUROPE. 4 credits, \$248. (◆\$124)

- ◆ Concept and conduct of war in Western Europe in the Middle Ages and the relation between military organization and society. (No prereq)

Winter Qtr Sec 1 **W**—6:20-8:50, Law 1, Bachrach

Hist 3613 HISTORY OF THE CRUSADES. 4 credits, \$248. (◆\$124)

- ◆ Results of the medieval crusades from circa 1095 to 1285. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 210, Bachrach

Hist 3614 WOMEN IN MEDIEVAL EUROPE, CIRCA 500-1500. 4 credits, \$248. (◆\$124)

new

- ◆ Women in medieval European society from the royal court and secluded nunnery to the urban workshop and peasant hovel. (No prereq)

◆ **Spring Qtr** Sec 1 **Th**—6:20-8:50, HHHctr 30

Hist 3623 THE REFORMATION IN GERMANY. 4 credits, \$248. (◆\$124)

- ◆ The Lutheran movement and the beginnings of the Catholic Reformation. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 350, Tracy

Hist 3636 RUSSIAN HISTORY FROM THE ORIGINS TO PETER THE GREAT. 4 credits, \$248. (◆\$124)

- ◆ A survey of Russian history: origins to Peter the Great. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, Law 1

Hist 3681 MODERN IRISH HISTORY. 4 credits, \$248. (◆\$124)

- ◆ History of Ireland since 1535, with emphasis on the period of the union with Britain, 1800-1922. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, HHHctr 60

Hist 3700 TOPICS IN EUROPEAN HISTORY: WITCH HUNTING AND RELIGION—THE SUPPRESSION OF MAGIC IN EARLY MODERN EUROPE. 4 credits, \$248. (◆\$124)

new

- ◆ **Fall Qtr** Sec 1 **Th**—6:20-8:50, BlegH 135

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- Hist 3700 TOPICS IN EUROPEAN HISTORY: FLYING DUTCHMEN.** 4 credits, \$248.
new (◆ \$124)
 ◆ **Winter Qtr** Sec 2 **M**—6:20-8:50, RarigC 616, Tracy
- Hist 3700 TOPICS IN EUROPEAN HISTORY: WOMEN IN CENTRAL AND EASTERN EUROPE.** 4 credits, \$248. (◆ \$124)
new
 ◆ **Spring Qtr** Sec 3 **Th**—6:20-8:50, BlegH 205
- Hist 3704 DAILY LIFE IN EUROPE, 1348-1750.** 4 credits, \$248. (◆ \$124)
new
 ◆ Economy and society in various European countries from the Renaissance to the Industrial Revolution. Topics include court life, the nobility, peasants, artisans, marriage, family, the middle class, disease, agriculture, handicrafts, witchcraft, piracy, crime, and trade. (No prereq)
Winter Qtr Sec 1 **W**—6:20-8:50, RarigC 616
- Hist 3706 EUROPEAN AGRICULTURE, ROME TO THE PRESENT.** 4 credits, \$248.
 (◆ \$124)
new
 ◆ Discussion of both agricultural technology and the social conditions surrounding agricultural production as they have evolved over the last 2,000 years. (No prereq)
Spring Qtr Sec 1 **T**—6:20-8:50, RarigC 610
- Hist 3721 EUROPE IN THE ERA OF WORLD WAR I.** 4 credits, \$248. (◆ \$124)
 ◆ 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 **M**—6:20-8:50, AndH 210, Munholland
- Hist 3722 EUROPE IN THE ERA OF WORLD WAR II.** 4 credits, \$3224, \$248. (◆ \$124) (IS)
 ◆ 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 **M**—6:20-8:50, AndH 350, Munholland
- Hist 3723 EUROPE SINCE WORLD WAR II.** 4 credits, \$248. (◆ \$124)
 ◆ 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 **M**—6:20-8:50, AndH 350, Munholland
- Hist 3812 CIVIL WAR AND RECONSTRUCTION.** 4 credits, \$248. (◆ \$124) (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)
Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 235
- Hist 3821 UNITED STATES IN THE 20TH CENTURY: 1890-1917.** 4 credits, \$248. (◆ \$124)
 ◆ 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
 (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

women's suffrage; social and cultural conflict in the 1920s; the coming of the Great Depression. (No prereq)

Fall Qtr Sec 1 **Th**—6:20-8:50, AndH 350

Hist 3822 UNITED STATES IN THE 20TH CENTURY: 1932-1960. 4 credits, \$248. (◆ \$124) (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 230, Berman

Hist 3823 UNITED STATES IN THE 20TH CENTURY: 1960-PRESENT. 4 credits, \$248. (◆ \$124)

◆ The conflicts of the 1960s; the New Frontier and Great Society; the black struggle for freedom; the Vietnam War; the new left and counter-culture; the women's movement and gay liberation; Watergate and the uncertainties of the 1970s; the Reagan counter-revolution. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 10, Berman

Hist 3841 AMERICAN BUSINESS HISTORY. 4 credits, \$248. (◆ \$124)

◆ 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 relation of business to economic development, social change, politics, and government policies. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, BlegH 260, Green

★**Hist 3955 INTRODUCTION TO HISTORICAL RESEARCH.** 4 credits, \$248.

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, 668 Soc-Sci on the West Bank campus. (Prereq written Δ. Limited to 15)

Fall Qtr Sec 1 **W**—6:20-8:50, Law 1, Rudolph

Winter Qtr Sec 2 **W**—6:20-8:50, BlegH 350, Green

Sec 3 **M**—6:20-8:50, SocSci 101, Metcalf

★**Hist 3961 MAJOR PAPER.** 5 credits, \$310.

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 Δ. Limited to 15)

Spring Qtr Sec 1 **W**—6:20-8:50, SocSci 101, Green

Sec 2 **W**—6:20-8:50, SocSci 1383, Metcalf

Hist 5200 TOPICS IN EUROPEAN HISTORY: MIDDLE EAST IN WORLD AFFAIRS: The Arab World, Turkey and Iran, 1915 to the Present. 4 credits, \$MidE 5525, \$248. (◆ \$124)

new ◆ Struggle for independence; rise of Turkey and Iran; problems of social, cultural, economic, and political development; modernizing trends; role in international affairs. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with MidE 5525)

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 5, C Farah

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hist 5264 MODERN RUSSIA: 18TH-CENTURY BACKGROUND. 4 credits, \$248. (◆\$124)

◆ Foundation of the Russian Empire, modernization and expansion under Peter the Great and Catherine the Great. Russia's Europeanization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 255, Stavrou

Hist 5265 MODERN RUSSIA: 19TH-CENTURY. 4 credits, \$248. (◆\$124)

◆ 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, BlegH 350, Stavrou

Hist 5266 MODERN RUSSIA: THE 20TH CENTURY. 4 credits, \$248. (◆\$124)

◆ 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

(See also CSch 0207, The Soviet Union and Eastern Europe: Reform and Revolution; and CSch 0209, The Changing World of the Soviet Union)

History of Medicine (HMed)

(510 Diehl Hall: 624-4416)

Medical School

Most textbooks for HMed courses are available at the Health Sciences Bookstore (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.

History of Science and Technology (HSci)

(438 Physics: 624-8073)

Institute of Technology

Most textbooks for HSci courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

John Beatty, Associate Professor

Jole Shackelford, Lecturer

Roger Stuewer, Professor

HSci 1812 INTRODUCTION TO HISTORY OF SCIENCE: THE SCIENTIFIC REVOLUTION. 4 credits, \$HSci 3812, \$243. (◆\$121.50) (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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

HSci 3812 INTRODUCTION TO HISTORY OF SCIENCE: THE SCIENTIFIC REVOLUTION. 4 credits, \$HSci 1812, \$292.

See course description for 1812. (No prereq. Meets concurrently with 1812)

Fall Qtr Sec 1 **W**—6:20-8:50, Phys 210

HSci 3202 HISTORY OF BIOLOGY IN THE 19TH AND 20TH CENTURIES. 4 credits, \$5202, \$292. (♦ \$146)

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)

Winter Qtr Sec 1 **Th**—6:20-8:50, Zoology 108, Beatty, Shackelford

HSci 5202 HISTORY OF BIOLOGY IN THE 19TH AND 20TH CENTURIES. 4 credits, \$3202, \$292.

See course description for 3202. (No prereq. Meets concurrently with 3202. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:20-8:50, Zoology 108, Beatty

HSci 5924 HISTORY OF 19TH-CENTURY PHYSICS. 4 credits, \$Phys 5924, \$292. (♦ \$146)

Conceptual developments in physics in the 19th century (Young, Fresnel, Oersted, Ampère, Faraday, MacCullagh, Maxwell, Hertz, Lorentz, Lavoisier, Rumford, Dalton, Mayer, Joule, Helmholtz, Carnot, Clausius, Kelvin, Boltzmann, Mach, others). Relationships of these developments to social, philosophical, and theological influences. (Prereq general physics or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Phys 5924)

Fall Qtr Sec 1 **Th**—6:20-8:50, Phys 210

Home Economics Education

(See Vocational and Technical Education)

Honors Opportunities

(115 Johnston Hall: 624-5522)

College of Liberal Arts

Textbooks for HSem courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

Clarke Chambers, Professor Emeritus of History

Toni McNaron, Professor of English and Women's Studies

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★HSem 3070 **THE SIXTIES REVISITED.** 4 credits, \$248.

Historians are constantly engaged in defining and trying to make sense of historical eras. Scholars from many different academic fields agree that political, social, and cultural tendencies of the decade of the 1960s constitute an "era" set apart from the years that preceded and followed. One historian entitled history of the '60s "Coming Apart"—and indeed many traditional perceptions and assumptions of American society did come under sharp and direct challenge. There was no simple coherence or consensus in those years; rather, they were marked by disagreement, hostility, and conflict. Five interrelated and broadly based social movements swept through these years: civil rights (especially for blacks), feminism, environmentalism, neighborhood action sparked by the War on Poverty, and the anti-war (Vietnam) crusade. (From each of these movements there emerged a "Youth Counter-Culture" that will be a sixth, implicit, movement to be pondered.) These will be the topics of study with texts to include five books relevant to the period: Baldwin's *The Fire Next Time*, Friedan's *The Feminine Mystique*, Carson's *The Silent Spring*, Harrington's *The Other America*, and Heller's *Catch 22*. (Prereq 3.50 GPA, special written Δ . Limited to 15)

Fall Qtr Sec 1 **T**—6:20-8:50, SocSci 1383, Chambers

★HSem 3080 **THE FALL—THEN AND NOW.** 4 credits, \$248.

A seminar to explore the significance of the theological Fall in the lives of European artists and writers in the 16th and 17th centuries, in Milton's *Paradise Lost*, in visions of America as the New Eden eventually ruined by industrialism, and in the U.S. citizenry's response both to the Vietnam war and to present ecological warnings about the permanent loss of resources necessary to a high quality of life. (Prereq 3.50 GPA, special written Δ . Limited to 15)

Spring Qtr Sec 1 **W**—6:20-8:30, LindH 216, McNaron

Horticultural Science (Hort)

(305 Alderman Hall: 624-4242)

College of Agriculture

Textbooks for most Hort courses are available at Books Underground on the St. Paul campus (624-9200)

(See also Landscape Architecture; Botany; and The Compleat Scholar and The Practical Scholar noncredit courses)

N. Anderson, Instructor in Horticultural Science
Peter D. Ascher, Professor of Horticultural Science
David W. Davis, Professor of Horticultural Science
Anne Hanchek, Assistant Professor of Horticultural Science
Leonard Hertz, Professor of Horticultural Science
Peter Moe, Instructor in Horticultural Science
Robert Mullin, Professor of Horticultural Science
D. B. White, Professor of Horticultural Science

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Hort 1010 HOME HORTICULTURE. 4 credits, \$243 plus \$10 course fee. Total \$253. (1S)

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 T—6:10-9:30, HrG 172, StP Campus, Ascher

Winter Qtr Sec 2 T—6-9:20, (Saturday 3-hour lab arr) Snyder Research and Education Bldg, Minnesota Landscape Arboretum (West of Rt 41 on Hwy 5), Chaska, Moe
(Books available at the Arboretum Gift Shop)

(Hort 1010 is also offered as a spring radio course through CEE Independent Study. See page 51)

(See also PSch 0951, *Beauty in the Bleak Season: Landscaping for the Minnesota Winter*; and PSch 0950, *Landscaping the Minnesota Home Grounds*)

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, \$243 plus \$35 course fee. Total \$278.

Design for use in commercial flower shops, including principles of design, wedding and funeral arrangements, corsages, and decorative use of dried materials, silks, and accessories. (No prereq. Limited to 30)

Fall Qtr Sec 1 Th—6-9:20, AlderH 415 (Lecture), StP Campus, Anderson
(Lab meets in AlderH 423)

Hort 1021 WOODY PLANT MATERIALS. 5 credits, \$303.75 (◆\$152)

◆ Taxonomy, ecology, and landscape use of trees, shrubs, and evergreens. Lectures, laboratories. (No prereq)

Spring Qtr Sec 1 T—6-10 (plus arr), Snyder Research and Education Bldg, Minnesota Landscape Arboretum (West of Rt 41 on Hwy 5), Chaska
(Books available at Arboretum Gift Shop)

Hort 1022 HERBACEOUS PLANT MATERIALS. 5 credits, \$303.75. (◆\$152)

◆ Taxonomy, ecology, and landscape use of perennial and annual flowers, tender and hardy bulbs, ground covers, wild flowers. Lectures, laboratory, and garden experience. (No prereq)

Spring Qtr Sec 1 T—6-10 (plus arr), HrG 172, StP Campus

★**Hort 1036 PLANT PROPAGATION.** 5 credits, \$303.75 plus \$5 course fee. Total \$308.75.

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 50)

Winter Qtr Sec 1 TTh—6:15-9:15, HrG 172, StP Campus, Ascher

Hort 3031 FRUIT SCIENCE. 3 credits, \$219. (◆\$109.50)

◆ Principles of tree and small fruit production in temperate climates. Site selection, cultural and management practices, physiological and environmental control of plant
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

development, dwarfing, growth regulating compounds, pest and weed control. Lecture and laboratory. (No prereq)

Winter Qtr Sec 1 **W**—6:20-9:30, AlderH 415, StP Campus, Hertz

Hort 5042 TURF MANAGEMENT. 4 credits, \$292.

For advanced students in turf with career objectives in professional turf management. All phases of the turf industry considered, with emphasis on the ecology, physiology, and theory of turf population dynamics and on specialized management situations such as golf course, commercial sod production, and fine turf athletic situations. *Students without prerequisites may audit the course (see Auditors, page 51).* (Prereq 3072, PIPa 1001, PIPh 3131. Qualified students may register for graduate credit at the University of Minnesota)

Winter Spec Term Sec 1 **M**—6:10-9:30, Feb. 17-Apr. 20 (10 meetings),
HrG 172, StP Campus, White
No late fee through Feb. 10

Hort 5034 COMMERCIAL VEGETABLE AGRICULTURE. 5 credits, \$365.

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 1100 or Agro 1010; Soil 1122; PIPh 3131 recommended. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **MW**—4-6 (plus arr), HrG 174, StP Campus, Davis

Hospital and Health Care Administration

For information on noncredit conferences or workshops in hospital administration, please contact Vernon Weckwerth, Box 97 Mayo, telephone 624-0603; or M. Perron, 624-1411.

Housing (Hsg)

(240 McNeal Hall: 624-9700)

College of Human Ecology

(Department of Design, Housing, and Apparel)

Textbooks for most Hsg courses are available at the Books Underground Bookstore on the St. Paul campus (624-9200)

Evelyn Franklin, Associate Professor of Design, Housing, and Apparel

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Housing. 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.

Hsg 5861 HOUSING MANAGEMENT. 5 credits, \$365.

Career demands for professionalism in housing management. Emphasis on increasing
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

interpersonal skills. Includes historical perspectives, current status of housing, management approaches, psychosocial impact of housing and community design, specific residential populations. (Prereq 3863 or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **TTh**—1:55-3:30, McNH B3, StP Campus, Franklin

Hsg 5881 (formerly Dsgn 5581) DESIGNED ENVIRONMENTS AND AGING. 4 credits, \$292.

Design of environments with potential to compensate for deficits in physical and mental functioning; emphasis on older adults and on barrier-free, flexible, and responsible physical environments. (Prereq 3863 or Dsgn 1555 or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6-9, McNH 316, StP Campus, Franklin

College of Human Ecology

Courses are listed under the following units:

Design

Includes Graphic Design/Commercial Illustration

Family Social Science

Includes Alcohol and Drug Counseling Education

Food Science and Nutrition

Housing

Social Work

Textiles and Clothing

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)

(314 Ford Hall: 624-5553)

College of Liberal Arts

Most textbooks for Hum courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

(See also English; Philosophy; Psychology; General College; Classical Studies; The Compleat Scholar noncredit courses; and American Studies)

Claudia Crawford, Assistant Professor of Humanities

Barbara Engh, Teaching Assistant in Humanities

Jennifer Horne, Teaching Assistant in Humanities

Dianne Johnson, Teaching Assistant in Humanities

George Kliger, Assistant Professor of Humanities

Melanie Morton, Teaching Assistant in Humanities

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Gary Thomas, Assistant Professor of Humanities
 Robert Tapp, Professor of Humanities
 Jacquelyn Zita, Associate Professor of Women's Studies

MOST OF THE COURSES FOR A MAJOR IN HUMANITIES CAN BE COMPLETED IN THE EVENING.

Students interested in a major in Humanities should discuss plans with an Extension counselor (625-2500).

B.A. MAJOR SEQUENCE

Major Requirements

Option A: Minimum of 64 credits to include: (1) Hum 1301, 1302, and 1303 (12 credits); (2) Five 3xxx-level Humanities courses (including courses from at least three of the four divisions: 31xx, 32xx, 33xx, 34xx) (20 credits); (3) Four 5xxx-level Humanities courses (including one Hum 5990 [Senior Workshop/Major Project], and three additional courses drawn from any of the three divisions: 51xx, 52xx, 53xx) (16 credits); (4) Four courses in the area of one's "concentration" (at least one of which must be a Humanities course, and none of which can be a 1xxx-level course) (16 credits). For (2), (3), and (4) above, topics courses (Hum 3910, Hum 5910) and directed studies (Hum 3970, Hum 5970) will meet stated requirements.

Option B: Minimum of 65 cr, as follows:

- A. Humanities courses, minimum of 49 credits to include: 1301; three courses in the Western culture sequences (at least one course in both the European Heritage and Modern World sequences); three 3xxx or 5xxx courses in Western culture; two courses in non-Western culture (see your adviser for approval); major project; 3910 or 5910; any two additional Humanities courses.
- B. Concentration (minimum 16 cr): four 3xxx-5xxx courses relevant to your declared area of concentration, approved by your adviser, from liberal education departments and programs (see list of approved units in Humanities advisers' offices).

Up to five courses beyond Hum 1301 may be taken at the 1xxx level, with a maximum of three 1xxx-level courses from the European Heritage—Modern World sequences. Up to four courses applied to requirements A and B together, excluding 3xxx and 5xxx Humanities courses, may be taken on S-N grading.

You need not be majoring in Humanities 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 Humanities. 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.

Hum 1001 HUMANITIES IN THE MODERN WORLD I. 4 credits, \$Rhet 1301, \$243.
 (◆ \$121.50) (IS)

◆ Eighteenth-century Europe. Old Regime through French Revolution and Napoleon; new science, Enlightenment, cult of sensibility; 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)

Fall Qtr Sec 1 **W**—6:20-8:50, FordH 115, Thomas

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

Hum 1003 HUMANITIES IN THE MODERN WORLD III. 4 credits, §Rhet 1303, \$243.
(♦\$121.50) (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)

Spring Qtr Sec 1 **T**—9:15 a.m.-12, MacP, Tapp

Offered through Continuing Education for Women

Hum 1004 HUMANITIES IN THE MODERN WORLD IV. 4 credits, §Rhet 3381, \$243.
(♦\$121.50) (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)

Fall Qtr Sec 1 **T**—6:20-8:50, FordH 120, Kliger

Hum 1005 HUMANITIES IN THE MODERN WORLD V. 4 credits, \$243. (♦\$121.50)

◆ 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)

Winter Qtr Sec 1 **T**—6:20-8:50, FordH 120, Kliger

★Hum 1111 EUROPEAN HERITAGE: GREECE. 4 credits, §Rhet 3321, \$243. (♦\$121.50) (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. Limited to 30)

Fall Qtr Sec 1 **M**—6:20-8:50, FordH 175, Johnson

★Hum 1301 DISCOURSE AND SOCIETY. 4 credits, \$243. (♦\$121.50) (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 **T**—9:15 a.m.-12, MacP, Horne

Offered through Continuing Education for Women

Sec 2 **Th**—6:20-8:50, FordH 60, Engh

Spring Qtr Sec 3 **M**—6:20-8:50, FordH 175, Engh

★Hum 1302 TEXT AND CONTEXT. 4 credits, \$243. (♦\$121.50) (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 socio-historical conditions of their emergence. (No prereq. Limited to 30)

Winter Qtr Sec 1 **M**—6:20-8:50, FordH 170, Engh

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Hum 1303 KNOWLEDGE, PERSUASION, AND POWER.** 4 credits, \$243. (◆\$121.50)

◆ 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 **Th**—6:20-8:50, FordH 160, Morton

Hum 3472 GAY MEN AND HOMOPHOBIA IN THE MODERN WEST. 4 credits, \$248. (◆\$124)

new

◆ Historical experience and the representation of gay men in the West since 1600, studied in the context of social constructions of same-sex desire, homophobia, gender, sexuality and the body, in discourses of religion, law, literature, and the arts. (No prereq)

Winter Qtr Sec 1 **T**—6:20-8:50, FordH 40, Thomas

Hum 3701 COMEDY: TEXT AND THEORY. 4 credits, \$248. (◆\$124)

◆ 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 **W**—6:20-8:50, FordH 120, Crawford

Hum 5910 TOPICS IN THE HUMANITIES: FEMINISM AND FOUCAULT. 4 credits, \$248. (◆\$124)

◆ Examines the work of Michel Foucault and feminist criticism of his work. An exploration of the convergences and antagonisms between feminists and Foucaultian analyses of power, knowledge, the body, sexuality, subjectivity, resistance, politics, and Western humanism. (Prereq grad; # for undergraduates. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—4-6:30, FordH 120, Zita

★**Hum 5910 TOPICS IN THE HUMANITIES: FREUD vs. JUNG.** 4 credits, \$248.

Seminar. Freud and Jung compared and contrasted with respect to their views on instinct and libido, the unconscious, ego and self, masculinity and femininity, dreams, mythology, religion, literature, and art. (Prereq jr or sr or grad. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr Sec 2 **T**—6:20-8:50, FordH 285, Kliger

Human Relations

(See EPsy 5135, Workshop in Human Relations)

I

Industrial Education

(See Vocational and Technical Education)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Industrial Engineering/Operations Research (IEOR)

(121 Mechanical Engineering: 625-5842)

Institute of Technology

Textbooks for most IEOR courses are available at the Minnesota Book Center in Williamson Hall (625-6000).

*Sant R. Arora, Professor of Mechanical Engineering
Edward Barnett, Lecturer in Mechanical Engineering
Russell D. Melton, Lecturer*

IEOR 3000 (formerly IEOR 5000) INTRODUCTION TO INDUSTRIAL ENGINEERING ANALYSIS. 4 credits, \$IEOR 5000, \$292.

Scientific management, mathematical models, methods engineering, work measurement, worker satisfaction and participation, wage payment plans, break-even analysis, incremental costs, the time value of money and the present value concept; cost quality and inventory control; production scheduling, plant locations, and layout; linear programming, PERT, and the systems approach to management problems. (No prereq. May not be taken for graduate credit)

Spring Qtr Sec 1 **Th**—6:10-9:10, MechE 221, Barnett

IEOR 5020 ENGINEERING COST ACCOUNTING, ANALYSIS AND CONTROL. 4 credits, \$292.

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, MechE 221, Barnett

IEOR 5030 QUALITY CONTROL AND RELIABILITY. 4 credits, \$292.

History of quality control, quality policies and objectives, economics of quality, design for system effectiveness, reliability and maintainability, statistical aids to reliability, quality specifications, inspection, acceptance sampling, vendor relations, process control, motivation for quality, quality assurance, and quality control engineering. (Prereq Math 1231, 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 60, Arora

IEOR 5311 MANAGEMENT FOR ENGINEERS. 4 credits, \$292.

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, MechE 221, Barnett

★IEOR 5321 INDUSTRIAL SAFETY. 4 credits, \$292.

Definition and philosophy of safety, safety training, safety requirements for produc-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

tion 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 T—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 the Harold D. Smith Bookstore on the West Bank campus (625-3000)

(See also GC 3602, Applied Supervision; GC 3464, Communication in Organizations; GC 3560, Personnel Administration; Spch 5441, Communication in Human Organizations; Economics; and The Practical Scholar noncredit courses)

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.

Ross E. Azevedo, Associate Professor of Industrial Relations

James W. Beaton, Lecturer in Industrial Relations

Robert L. Fjerstad, Human Relations Consultants

Charles H. Davis, Lecturer in Industrial Relations

Kenneth L. Gagala, Lecturer in Industrial Relations

Edward R. Goettl, Industrial Relations Consultant

Raymond A. Noe, Assistant Professor of Industrial Relations

Robert T. Weaver, Associate Professor, Bethel College

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, \$182.25 plus \$2 course fee and \$16 special fee. Total \$200.25. (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 M—6-9, BlegH 5 (Limit 30)

(See also The Practical Scholar business and professional development courses)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

IR 0002C SUPERVISION II: ADVANCED TECHNIQUES OF SUPERVISION. 3 certificate credits, \$182.25 plus \$2 course fee and \$16 special fee. Total \$200.25.

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 610

★IR 3000 LABOR ARBITRATION. 4 degree credits. **Tentatively scheduled for 1992-93.**

IR 3000 SELECTION PROCEDURES, TECHNIQUES AND REGULATIONS. 4 credits, \$275 plus \$16 special fee. Total \$291.

Course designed for personnel practitioner or one preparing to enter the field. Subject deals with employment regulations and rules, interviewing, testing, and other selection techniques. (Prereq at least 90 credits completed or in progress)

Fall Qtr Sec 1 **W**—6-9, RarigC 610, Fjerstad

★IR 3000 POLICY AND PRACTICE IN LABOR LAW. 4 credits. **Tentatively scheduled for 1992-93.**

★IR 3000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR. 4 credits. **Tentatively scheduled for 1992-93.**

IR 3000 JOB ANALYSIS, DESCRIPTION AND PAY. 4 credits, \$275 plus \$16 special fee. Total \$291.

Gives the student working in the area or interested in the area of personnel an opportunity to learn and apply the techniques of job analysis, job description writing and job evaluation. The student also is given an opportunity to learn the principles of compensation theory and various types and methods of compensation. (Prereq at least 90 credits completed or in progress)

Spring Qtr Sec 3 **W**—6-9, BlegH 235, Fjerstad

★IR 3002 PERSONNEL AND INDUSTRIAL RELATIONS. 4 credits, \$8002, \$275 plus \$16 special fee. Total \$291. (IS)

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 1001, Econ 1002, Psy 1001. Sec 2 Meets concurrently with IR 8002. Limited to 65)

Fall Qtr Sec 1 **Th**—6-9, BlegH 215

Winter Qtr Sec 2 **T**—6-9, BlegH 235 (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, \$275 plus \$16 special fee. Total \$291. (IS)

Analysis of the roles of unions and collective bargaining in contemporary American
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 **T**—6-9, Law 1

Spring Qtr Sec 2 **M**—6-9, Law 1

IR 3010 THE INDIVIDUAL IN THE ORGANIZATION. 4 credits, \$275 plus \$16 special fee. Total \$291.

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, BlegH 120

Winter Qtr Sec 2 **Th**—6-9, BlegH 115

Spring Qtr Sec 3 **T**—6-9, BlegH 150

IR 5000 PERSONNEL AND INDUSTRIAL RELATIONS LAW. 4 credits, \$275 plus \$16 special fee. Total \$291.

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, HHHctr 30, Beaton

IR 5000 INTERNATIONAL PERSONNEL AND INDUSTRIAL RELATIONS PRACTICES. 4 credits, \$275 plus \$16 special fee. Total \$291.

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, BlegH 5, Beaton

IR 5000 EMPLOYEE PERFORMANCE: DESIGN APPRAISAL AND MANAGEMENT. 4 credits, \$275 plus \$16 special fee. Total \$291.

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 3 **Th**—6-9, BlegH 260, Beaton

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**IR 5002 SYSTEMS OF CONFLICT AND DISPUTE RESOLUTION.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 M—5:30-9, BlegH 260, Azevedo

★**IR 8000 LABOR ARBITRATION.** 4 credits. **Tentatively scheduled for 1991-92.**

★**IR 8000 POLICY AND PRACTICE IN LABOR LAW.** 4 credits. **Tentatively scheduled for 1992-93.**

★**IR 8000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR.** 4 credits. **Tentatively scheduled for 1992-93.**

★**IR 8002 PERSONNEL AND INDUSTRIAL RELATIONS.** 4 credits, \$544.

See description for IR 3002. (Prereq Econ 1001, 1002, 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, BlegH 235

Certified Employee Benefits Specialist (CEBS)

C. Arthur Williams, Professor of Insurance and Industrial Relations

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 has offered nine of the ten CEBS courses—I, II, III, V, VI, VII, VIII, IX, and X.

This year CEE will offer six parts. Some CEBS courses are so close to existing School of Management courses that students should be able to take these existing courses and, with the aid of Learning Guides available from the Foundation and some additional reading, prepare themselves for the CEBS examinations. For example, CEBS Course IV—Management Principles, is close to *Mgmt 3001*, Fundamentals of Management.

During 1992-93 CEE intends to offer a minimum of three parts: Courses I—Life, Health, and Other Group Benefit Programs, II—Retirement Plans: Basic Features and Defined Benefit Approaches, and III—Retirement Plans: Defined Contribution Approaches and Plan Administration.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 1992 Examinations is Nov. 1, 1991. 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 0001C (I) LIFE, HEALTH, AND OTHER GROUP BENEFIT PROGRAMS. 4 certificate credits, \$243.

Course I analyzes how protection against the financial hazards resulting from illness, disability, and premature death is provided through public and private sector arrangements, with an emphasis on the private methods. Funding techniques and the regulatory and tax aspects of benefits plans are also analyzed. (No prereq)

Winter Spec Term Sec 1 **M**—6:30-9, Mar. 16-June 1, 1992, BlegH 5, 150
No late fee through Mar. 9

CEBS 0002C (II) RETIREMENT PLANS: BASIC FEATURES AND DEFINED BENEFIT APPROACHES. 4 certificate credits, \$243.

Course II provides the fundamentals of pension plans with emphasis on defined benefit approaches to providing retirement income. Basic issues covered include historical background and development of pension theory, plan design, actuarial aspects (costs and funding), investment of plan assets and plan termination insurance. (No prereq)

Fall Spec Term Sec 1 **T**—6:30-9, Sept. 24-Dec. 10, 1991, EE/CSci 3115
No late fee through Sept. 17

CEBS 0003C (III) RETIREMENT PLANS: DEFINED CONTRIBUTION APPROACHES AND PLAN ADMINISTRATION. 4 certificate credits, \$243.

Course III covers individual account retirement plans, including profit-sharing, thrift and savings plans, cash or deferred arrangements, employee stock ownership and stock bonus plans, tax-deferred annuities, executive retirement arrangements, and taxable distributions from individual accounts. (No prereq. It is suggested, however, that 0002C (II) be taken prior to this course)

Winter Spec Term Sec 1 **T**—6:30-9, Mar. 17-June 2, 1992, SocSci 1383
No late fee through Mar. 10

CEBS 0005C (V) CONTEMPORARY LEGAL ENVIRONMENT OF EMPLOYEE BENEFIT PLANS. 4 certificate credits, \$243.

Course V covers the legal system and basic legal rights and responsibilities. It provides a general understanding of the legal environment, focusing on those legal concepts and principles of significance in employee benefit planning and administration. (No prereq)

Fall Spec Term Sec 1 **M**—6:30-9, Sept. 23-Dec. 9, 1991, NichH 201
No late fee through Sept. 16

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

CEBS 0007C (VII) ASSET MANAGEMENT. 4 certificate credits, \$243.

Subjects studied include security analysis, portfolio theory, federal regulation of the securities markets and the overall investment strategies appropriate for employee benefit trusts. (No prereq)

Fall Spec Term Sec 1 **W**—6:30-9, Sept. 25-Dec. 11, 1991, SocSci 101
No late fee through Sept. 18

CEBS 0009C (IX) EMPLOYEE BENEFIT PLANS AND THE ECONOMY. 4 certificate credits, \$243.

Course IX reviews the economic principles underlying inflation, national income, business cycles, employment levels, money and banking, monetary and fiscal policy, and their overall effect on employee benefit plans. (No prereq)

Winter Spec Term Sec 1 **W**—6:30-9, Mar. 18-June 3, 1992, FordH 50
No late fee through Mar. 11

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 the Harold D. Smith bookstore on the West Bank campus (625-3000).

(See also Operations and Management Science)

Carl Adams, Professor

Cynthia Beath, Assistant Professor

George Benson, Associate Professor

Norm Chervany, Professor

Shawn Curley, Assistant Professor

Gordon Davis, Professor

George D'Elia, Associate Professor

Gerardine DeSanctis, Associate Professor

Gary Dickson, Professor

Gretchen Donahue, Lecturer

Gordon Everest, Associate Professor

Jerry Fruin, Associate Professor, Agricultural and Applied Economics

Dale Goodhue, Assistant Professor

Kenneth Hasledalen, Director, IS, State of Minnesota Department of Human Services

Thomas Hoffmann, Professor

Nancy Johnson, Assistant Professor, Metropolitan State University

Paul Johnson, Professor

Douglas C. Lund, Lecturer and Coordinator

Salvatore T. March, Associate Professor

J. David Naumann, Associate Professor

Raoul Schander, Schander & Associates

Craig Seitel, Inst. Analyst, Allison-Williams, Inv. Bnkr.

Gerald Smith, Assistant Professor

Detmar Straub, Assistant Professor

Robert Van Cleave, Lecturer and Coordinator, MBA Program

Les Wanninger, Lecturer and Coordinator, Extension Classes

James Wetherbe, Professor

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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
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 3002 is an introductory course to IDSc designed for non-Carlson School students. It has a lot of commonality with IDSc 3030; hence, students should not take both courses. Either 3002 or 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.

Undergraduate Core

Beginning with admission for Fall Qtr 1988, several lower division and upper division IDSc and OMS (formerly Department of Management Sciences) class changes were implemented by the Carlson School of Management. If you are seeking admission to the Carlson School and you have taken DSci 1050, MIS 3100 and/or MIS 3101, please contact a CEE adviser in 314 Nolte Center, or call 625-2500 for information.

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, \$243 plus \$16 special fee. Total \$259. (IS)

Meeting information needs of managers. Sources of data, data collection methods, data organization and presentation. Descriptive statistical analysis methods. Lab instruction to provide skill development in word processing and spreadsheet analysis on personal computers. *In addition to tuition, students are required to purchase a computer access card. Registered students may purchase this card at any Bursar's Office; the West Bank Bursar's Office is in Anderson Hall (8 a.m.-3:30 p.m.), telephone 625-1383. The fee also may be paid at the Extension Classes Cashier's Office in 138*
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Wesbrook Hall. That office is open until 8 p.m. most evenings Monday through Thursday early each quarter. When the office is not open in the evening, cards are available at the Information Desk in 101 Wesbrook Hall. (Prereq 30 credits, Math 1111 or ¶1111. Limited to 45)

Fall Qtr	Sec 1	Lect, M —5:30-8:15, BlegH 125 Lab, T —5:15-6:15, BlegH 90*
	Sec 2	Lect, T —5:30-8:15, ClaOff B35, StP Campus (Limit 36) Lab, W —5:30-6:30, ClaOff 135, StP Campus*
	Sec 3	Lect, W —5:30-8:15, BlegH 125 Lab, Th —5:30-6:30, BlegH 90*
Winter Qtr	Sec 4	Lect, M —5:30-8:15, BlegH 130 Lab, T —5:15-6:15, BlegH 90*
	Sec 5	Lect, T —5:30-8:15, ClaOff B35, StP Campus (Limit 36) Lab, W —5:30-6:30, ClaOff 135, StP Campus*
	Sec 6	Lect, W —5:30-8:15, BlegH 130 Lab, Th —5:15-6:15, BlegH 90*
Spring Qtr	Sec 7	Lect, M —5:30-8:15, BlegH 130 Lab, T —5:30-6:30, BlegH 90*
	Sec 8	Lect, T —5:30-8:15, ClaOff B35, StP Campus (Limit 36) Lab, W —5:30-6:30, ClaOff 135, StP Campus*
	Sec 9	Lect, W —5:30-8:15, BlegH 125 Lab, Th —5:30-6:30, BlegH 90*

*Students should be sure to attend the first lab for their section even if it occurs prior to the first lecture (due to the start of the quarter)

OMS 1020 DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS. See page 365.

★**IDSc 3030 (formerly MSci 3030) INFORMATION SYSTEMS AND INFORMATION MANAGEMENT.** 4 credits, \$MSci 3030, \$IDSc 3002, \$MIS 3100, 5100, 3101, 3300, 5101, \$275 plus \$16 special fee. Total \$291.

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. (Prereq IDSc 1010 and OMS 1020. Limited to 30)

Fall Qtr	Sec 1	W —5:30-9, HHHCtr 35
Winter Qtr	Sec 2	W —5:30-9, HHHCtr 35
Spring Qtr	Sec 3	T —5:30-9, HHHCtr 35
	Sec 4	W —5:30-9, HHHCtr 35

COMPUTING SOFTWARE COURSES

The use of computing software is fundamental to many courses in the School of Management. To acquire these skills, the following courses are available.

★**IDSc 1070 (formerly MIS 1070) ORIENTATION TO COMPUTER SOFTWARE AND PROGRAMMING.** 1 credit, \$IDSc 1010, 3030, 3002, \$MIS 1070, MIS 3300, or MSci 1010, \$60.75 plus \$50 special fee. Total \$110.75.

Intended for persons seeking to learn to use computer software and program computer applications for business. Provides instruction on software alternatives and how to use software effectively. **Must be taken S-N.** (No prereq. Limited to 30)

Fall Qtr	Sec 1	T —5:30-6:30, HHHCtr 35
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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★IDSc 3990 **SPECIAL TOPICS: BUSINESS COMPUTING LITERACY.** 4 credits, \$275 plus \$50 special fee. Total \$325.

Combines the skills topics of database, spreadsheet, word processing, graphics, desktop publishing, desktop organizers, and data access. Covers both IBM and Macintosh technology, and includes laser printers and scanners. Focus is on the personal business use of these software and hardware tools. Use is made of meaningful functional area applications as problems to solve with these tools. End user computing topics such as model validation, data security, viruses, and backup are included. *Students concerned with the level of experience required for this course should consult with the instructor.* (Prereq IDSc 1070 or 1010 or equivalent experience. Limited to 30)

Winter Qtr Sec 1 **T--**5:30-9, HHHCtr 35, Lund

PROGRAMMING COURSES: IDSc 1075 and 1076 Course Procedures

In these programming courses (IDSc 1075 and 1076), students learn to program by writing programs guided by the systematic courseware. An orientation lecture is held the first week of the quarter to familiarize the student with computing facilities and course procedures. Thereafter a student need attend sessions only (1) to take an exam, or (2) to seek assistance on a programming problem. Satisfactory completion of a programming module entails three programs and three exams. After the first week of class, students may not register without the instructor's permission.

IDSc 1075 (formerly MIS 1075) ELEMENTARY COBOL. 2 credits, \$MIS 1075, 3098, \$121.50 plus \$50 special fee. Total \$171.50.

Introduction to programming in COBOL, a widely used business data processing language. In self-paced units, students complete a structured set of COBOL programs and tests. **See Course Procedures above. Must be taken S-N.** (Prereq IDSc 1070 or ¶1070 or MIS 1070 or proficiency exam or waiver based upon equivalent experience. Meets concurrently with 1076)

Fall Qtr Sec 1 **Th—**5:30-7:30, BlegH 250

Winter Qtr Sec 2 **Th—**5:30-7:30, BlegH 150

IDSc 1076 (formerly MIS 1076) INTERMEDIATE COBOL. 2 credits, \$MIS 1076, 5098, \$121.50 plus \$50 special fee. Total \$171.50.

Advanced features of COBOL. Students complete a structured set of COBOL programs and tests on or before a scheduled date on a self-paced basis. **See Course Procedures above. Must be taken S-N.** (Prereq IDSc 1075 or ¶1075 or MIS 1075 or MIS 3098 or proficiency exam or waiver based upon equivalent experience. Meets concurrently with 1075)

Fall Qtr Sec 1 **Th—**5:30-7:30, BlegH 250

Winter Qtr Sec 2 **Th—**5:30-7:30, BlegH 150

★IDSc 3002 (formerly MIS 3002) **FUNDAMENTALS OF MANAGEMENT INFORMATION SYSTEMS.** 4 credits, \$IDSc 3001, 3030, \$MIS 3100, 3002, 3101, 3300, 5101, MScI 3030, \$275 plus \$16 special fee. Total \$291.

Introductory course intended for managers and work professionals for whom computing has become a part of the work environment. Topics include: strategies for the effective use of the computing resources, impacts of new technologies on traditional information systems, and overview of the information system development process. An overview and conceptual foundations of MIS including: concepts of information,

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

humans as information processors, system concepts and information systems, management and organizational concepts relevant to IDS, decision-making concepts and the value of information for decision making. The structure of an MIS and its development, organization, management and evaluation. Emphasis is placed on the user/system interface. *This course is equivalent to IDSc 3001.* **Credit for non-Carlson School of Management students only.** (Prereq at least 90 credits completed or in progress. Limited to 30)

Fall Qtr Sec 1 **Lect, T—5:30-9, BlegH 155**

★IDSc 3131 (formerly MIS 3131) DATABASE MANAGEMENT SYSTEMS. 4 credits, \$275 plus \$16 special fee. Total \$291.

Concepts and methods in the definition, creation, and management of databases for management information systems. Topics include objectives of database management, design and evaluation of database management systems, theory of files, data structures, storage structures, interrogation, responsibilities of the database administrator, database integrity, security, and privacy. (Prereq IDSc 5103 or equivalent or #. Limited to 50)

Spring Qtr Sec 1 **T—5:30-9, BlegH 235, Everest**

★IDSc 3132 (formerly MIS 3132) DATA COMMUNICATIONS SYSTEMS. 4 credits, \$MIS 3132, \$275 plus \$16 special fee. Total \$291.

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. (Prereq 5102 or MIS 5102 and at least 90 credits completed or in progress. **Open to nondegree students with equivalent experience.** Limited to 50)

Winter Qtr Sec 1 **T—5:30-9, BlegH 215**

★IDSc 3151 (formerly MIS 3151) ADMINISTRATION AND CONTROL OF MANAGEMENT INFORMATION SYSTEMS. 4 credits, \$MIS 3151, \$275 plus \$16 special fee. Total \$291.

Technical tools and management concepts required in the administration of the information systems function. Topics include the structure and management of computer operations, measurement of operating performance, budgeting and planning project management techniques for systems and programming, personnel selection, training, and compensation, and the role of the information processing manager. (Prereq 5102 or MIS 5102 and Mgmt 3001 and at least 90 credits completed or in progress. **Open to nondegree students with equivalent experience.** Limited to 50)

Fall Qtr Sec 1 **W—5:30-9, BlegH 215**

★IDSc 5102 (formerly MIS 5102) INTRODUCTION TO INFORMATION SYSTEMS ANALYSIS. 4 credits, \$MIS 5102, \$275 plus \$16 special fee. Total \$291.

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. (Prereq 3030 or 3001 or 3002 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. Credits may not be applied to MBA programs begun after Dec. 15, 1979. Limited to 50)

Fall Qtr Sec 1 **T—5:30-9, BlegH 110**

Spring Qtr Sec 2 **T—5:30-9, BlegH 135**

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★IDSc 5103 **DATABASE DESIGN, MANIPULATION, AND MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 50)

Winter Qtr Sec 1 **Th**—5:30-9, BlegH 135, Everest

★IDSc 5410 **DECISION SUPPORT SYSTEMS.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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. (Prereq 3030 or MSci 3030 or MBA 8025 or equivalent or #. **Open to nondegree students with equivalent experience.** 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 **T**—5:30-9, BlegH 260, De Sanctis

★IDSc 5420 **MANAGERIAL DECISION ANALYSIS.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Prescriptive implications of research in individual decision making for managerial problems. Problem structuring, elicitation of values/utilities for one or more decision variable(s), probability assessment. Focus on prescriptive tools and guidelines that can improve the quality of decisions. Application of computer software for decision analysis. (Prereq 1010 or MSci 1010 or MBA 8025 or equivalent or #. **Open to nondegree students with equivalent experience.** 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, BlegH 90, Curley

★IDSc 5998 **SPECIAL RESEARCH TOPICS: STRATEGIC USE OF INFORMATION TECHNOLOGY.** 4 credits (may be repeated for credit), \$275 plus \$16 special fee. Total \$291.

The short history of the use of Information Technology (IT) in industry can be divided into two eras. The first emphasized efficiency in operations, while the second stressed effectiveness through providing information for decision making in planning and control. Now, we've entered a third era that is primarily aimed at competitiveness: Using IT to support or shape the strategy of the corporation. This course covers issues related to a firm's use of technology to enhance its strategies and its plans for gaining or maintaining a competitive advantage. Specifically, it examines the management questions concerned with IT's support of six different strategic thrusts: differentiation, cost, innovation, growth, alliance, and time. The basic emphasis is on the fundamental role of IT in strategic planning and implementation rather than on technical issues. The course uses a combination of lecture and case discussions. (Prereq IDSc 3002 or 3030 or MBA 8025 or equivalent experience. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Winter Qtr Sec 2 **M**—5:30-9, HHCtr 60, Dickson, Wanninger

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**IDSc 5998 SPECIAL TOPICS: IMAGE PROCESSING.** 4 credits (may be repeated for credit), \$275 plus \$16 special fee. Total \$291.

Image Processing is one of the key emerging computing technologies of the '90s. This course examines Image Processing from the perspective of how it can be used strategically in pursuit of organizational objectives. A variety of Image Processing applications are investigated, the capabilities that are used, benefits derived, and issues and limitations. Implementation issues include managing change, data security, data sensitivity, project cost and justification, legal issues, changes brought about by the technology, and project definition and management. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30)

Spring Qtr Sec 3 **M**—5:30-9, BlegH 330, Wanninger

APEX (Academy Practitioner Exchange) PROJECT. 4 credits (may be repeated for credit). Tuition for APEX Project courses will be \$650 to \$800 a course.

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 course listed below, contact the course coordinator at (612) 624-8030. Course sites to be announced.

IDSc 5998 SPECIAL TOPICS: APEX PROGRAM: CASE Technology. 4 credits (may be repeated for credit), \$275 plus \$16 special fee. Total \$291.

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 624-0854 for a complete description and to discuss your participation.* (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—5:30-9, BlegH 335, Everest

Institute of Technology (IofT)

(106 Lind Hall: 624-5091)

Textbooks for most IofT courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Allen J. Baldwin, Quality Manager, Honeywell Inc.

Russell K. Hobbie, Associate Dean, Institute of Technology

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

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.

loft 0001 FUNDAMENTALS OF ENGINEERING REVIEW. (E.I.T. REFRESHER). No credit, \$182.25.

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. **Must be taken S-N.** (Prereq bachelor's degree in engineering)

Fall Spec Term Sec 1 **TTh**—6:10-8:40, Sept. 17-Oct. 17,
(10 meetings), ClaOff B42, StP Campus, Baldwin
No late fee through Sept. 10

Winter Qtr Sec 2 **W**—6:10-8:40, Phys 133, Baldwin

Insurance (Ins)

(537 Management/Economics: 624-2500)

Carlson School of Management

Textbooks for most Ins courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

C. Arthur Williams, Professor of Insurance and Industrial Relations

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.

Ins 5100 RISK MANAGEMENT AND INSURANCE. 4 credits, \$3100, \$8100, \$275 plus \$16 special fee. Total \$291.

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

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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 **Th**—5:30-8:30, BlegH 350

Spring Qtr Sec 2 **Th**—5:30-8:30, BlegH 350

Interdepartmental Study (ID)

(225 Johnston Hall: 624-5701)

College of Liberal Arts

Terence Ball, Professor of Political Science

Norman E. Bowie, Professor of Philosophy, Carlson School of Management

Terence Cooper, Associate Professor of Soil Sciences

Hans W. Courant, Professor of Physics and Astronomy

William Cummingham, Professor of Genetics and Cell Biology

Roger S. Jones, Associate Professor, Physics

Michael B. Kac, Professor of Linguistics

Paul T. Magee, Professor of Genetics and Cell Biology

Elaine T. May, Professor of American Studies and History

Carol Miller, Professor of American Literature

Gordon Rands, Teaching Assistant in Strategic Management and Organization

Mark Snyder, Professor of Psychology

★ID 3333 PHYSICS ON TRIAL. 4 credits, \$248. (◆\$124)

A critical exploration of physics—its assumptions, meaning, conceptual structure, philosophical implications, aesthetics, ethics, and relationship to the humanities. Focus of the course is *Trial by Fire*, a play by physics professor Roger S. Jones. Based loosely on George Bernard Shaw's *Saint Joan*, the play portrays the "heresy" trial of a physicist (the "Saint Joan" character) who challenges the uncompromising materialism and reductionism of physics. Throughout the drama, Joan struggles to infuse into physics some spiritual, aesthetic, and humanistic elements and to temper its hypnotic influence on modern culture. Students will read and perform excerpts from the play as well as discuss its ideas. Additional texts also will be assigned. The course, which will have much in common with a literature course, treats science as a genuine branch of the humanities. **S-N recommended.** (No prereq. Limited to 20)

Winter Qtr Sec 1 **Th**—6:20-8:50, Phys 157, Jones

ID 5001 SCIENTIFIC DISCOVERY AND THE HUMAN IMAGINATION. 4 credits, \$248. (◆\$124)

Philosophical problems of contemporary interest. Science is frequently thought of as the application of established rules of procedure leading to major discoveries; all too often the role of imagination and creativity in scientific thought is ignored. The purpose of this course is to challenge that notion via three case studies: The Copernican Revolution, Cantor's discovery of transfinite numbers, and Einstein's theory of relativity. Each of these achievements "shattered" basic scientific assumptions and led to a new understanding of reality. **S-N recommended.** (No prereq. Inquire about graduate credit at the time of registration)

Spring Qtr Sec 1 **T**—6:20-8:50, FordH 70, Jones, Kac

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★ID 5525-5526† **GARBAGE, GOVERNMENT, AND THE GLOBE.** 4 credits each quarter, \$248 each quarter.

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 two-quarter 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 sequence includes lectures, exams, major project, films, visiting speakers, and field trips. **Students must enroll in both quarters in order to receive any credit.** (No prereq for 5525; 5525 for 5526. Inquire about graduate credit at the time of registration. Limited to 50)

Winter Qtr 5525 Sec 1 T—6:20-8:50, BorlaughH 335, StP Campus

Spring Qtr 5526 Sec 2 T—6:20-8:50, BorlaughH 335, StP Campus

★ID 5615-5616-5617† **WAYS OF KNOWING.** 4 credits each quarter, \$248 each quarter. (◆\$124 each quarter)

How do biologists know what genes cause cancer? How do historians decide what the Cold War was all about? How do physicists explore the first few seconds of the universe? Join a seminar with six faculty members drawn from the humanities, sciences, and social sciences for a full year to discover how these kinds of questions are examined in six very different disciplines. Become a biologist for five weeks, a historian 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: Contact Susan Henderson in 202 Westbrook Hall; telephone (612) 625-6361.** (Prereq written # for 5615; 5615 for 5616; 5616 for 5617. Inquire about graduate credit at the time of registration. Limited to 18)

Fall Qtr 5615 Sec 1 T—6:20-8:50, FordH 150

Winter Qtr 5616 Sec 2 T—6:20-8:50, FordH 150

Spring Qtr 5617 Sec 3 T—6:20-8:50, FordH 160

International Education

See page 475.

International Relations (IntR)

(248 Social Sciences: 624-9353)

College of Liberal Arts

Textbooks for most IntR courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

(See also Political Science; Journalism and Mass Communication; The Compleat Scholar non-credit courses; and History)

For information about study abroad programs, see The Global Campus, page 475.

Rhona Leibel, Graduate Teaching Assistant

Sonia Patten, Instructor

Martin W. Sampson, Associate Professor of Political Science

Eric Selbin, Graduate Teaching Assistant

Binnaz Toprak, Associate Professor

IntR 3101 THEORETICAL APPROACHES TO INTERNATIONAL RELATIONS. 4 credits, \$248. (◆\$124)

- ◆ Interdisciplinary study of international relations; contributions of various disciplines to the analysis of significant contemporary world problems. (Prereq international relations major or #)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 120, Leibel

IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: ASPECTS OF THE ARAB-ISRAELI ISSUE. 4 credits, \$248.

Examine rise of and challenge to nationalist identity, relationship of Zionist and Palestinian movements to governing institutions, role of other states, and ideas for defusing the situation. **No credit for students who have taken IntR 5900/Pol 5810 topics course on this subject.** (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 115, Sampson

IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: INTERNATIONAL COMMUNICATIONS. 4 credits, \$248. (◆\$124)

- ◆ Focus on intercultural communication theory. Intended for International Relations majors. The course will look at cultural variables that influence communication, intergroup and international communication. (No prereq)

Fall Qtr Sec 2 **W**—6:20-8:50, BlegH 210

IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: REVOLUTION IN LATIN AMERICA. 4 credits, \$248. (◆\$124)

- ◆ Investigation and consideration of the region's major revolutions, including Cuba and Nicaragua. Relationships between and among the nation-states of Latin and Central America and the U.S. Specific attention will be paid to the role of U.S. policy, intervention and "covert" action in the occurrence and unfolding of the revolutionary processes. (No prereq)

Spring Qtr Sec 3 **M**—6:20-8:50, AndH 230, Selbin

IntR 3900 TOPICS IN INTERNATIONAL RELATIONS: INTERNATIONAL POLITICAL ECONOMY AND THE THIRD WORLD. 4 credits, \$248. (◆\$124)

- ◆ Focuses on issues in the international political economy with a specific area of concentration on the third world. (No prereq)

Spring Qtr Sec 4 **W**—6:20-8:50, AndH 210

★IntR 3981 INTERNATIONAL RELATIONS MAJOR PROJECT. 4 credits, \$248.

International Relations majors who wish to begin and complete senior projects during the quarter. (Prereq international relations non-honors majors. Limited to 15)

Fall Qtr Sec 1 **T**—6:20-8:50, SocSci 101

Winter Qtr Sec 2 **Th**—6:20-8:50, SocSci 101

Spring Qtr Sec 3 **T**—6:20-8:50, SocSci 101

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Study Abroad Courses and Internships

Students interested in International Relations courses and internships will find a variety of international opportunities available through the Global Campus. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

IntR 5900 TOPICS IN INTERNATIONAL RELATIONS: WOMEN AND MIDDLE EASTERN POLITICS. 4 credits, \$248. (◆ \$124)

◆ An examination of the status of women under Muslim law, and the Islamic conception of gender relations. Actual experiences of women in several Middle Eastern countries, taking into consideration the impact of economic and political forces in shaping women's lives. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6:20-8:50, BlegH 210, Toprak

IntR 5930 TOPICS IN INTERNATIONAL DEVELOPMENT: WOMEN'S INVOLVEMENT IN DEVELOPMENT. 4 credits, \$248. (◆ \$124)

◆ An examination of the problems that exist in developing and implementing methodologies to assess women's involvement in international development. Focuses on women in countries which are recipients of international development assistance. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 155, Patten

Islamic

(See Middle Eastern and South Asian Studies)

Italian (Ital)

(260 Folwell Hall: 624-4308)

College of Liberal Arts

Textbooks for most Ital courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Ronald Martinez, Associate Professor of Italian

Joint Day/Extension Classes

You may register through Extension for certain 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 61.

(See also PSch 0981, Italian for Travelers)

★**Ital 1101-1102-1103 BEGINNING ITALIAN.** 5 credits each quarter, \$303.75 each quarter. (IS 1101)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, FordH 50, 115 (Limit 50)

Winter Qtr 1102 Sec 2 **MTh**—6:20-8:25, AmundH 158

Spring Qtr 1103 Sec 3 **MTh**—6:20-8:25, KoltH S139

★**Ital 1104 INTERMEDIATE ITALIAN.** 5 credits, \$303.75.

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**—6:20-8:25, AkerH 309

★**Ital 1105 INTERMEDIATE ITALIAN.** 5 credits, \$303.75.

Literary and cultural readings, leading to introductory knowledge of Italian literature and civilization. (Prereq 1104 or equivalent. Limited to 25)

Winter Qtr Sec 1 **MTh**—6:20-8:25, FolH 148

★**Ital 1106 INTERMEDIATE ITALIAN.** 5 credits, \$303.75.

new 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**—6:20-8:50, FolH 318

Frlt 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, \$243.

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 the graduate Reading Examination in Italian. The department will certify to the Graduate School a reading knowledge of Italian upon successful completion of the examination. **Must be taken S-N.** (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, FolH 218

J

Japanese

(See East Asian Studies)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 the Minnesota Book Center in Williamson Hall (625-6000)

(See also The Compleat Scholar and The Practical Scholar noncredit courses; and English)

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Journalism. 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.

Pre-registration

Pre-registration is required for Jour 3003 and all core, enrichment, and professional journalism day school courses. Extension courses that require pre-registration are designated with the Δ symbol. Pre-registration is held one week before regular day school registration begins. Pre-registration dates are published each quarter in an undergraduate newsletter which is distributed in all journalism classes. Copies are also available in the Undergraduate Studies Center (see below).

In order to pre-register for classes, students must bring a current transcript to the Undergraduate Studies Center and meet all course prerequisites, including admission to major status (see below). School of Journalism and Mass Communication (SJMC) major courses designated as a non-elective requirement to complete another departmental major may be taken provided students seeking admission to such courses pre-register with the SJMC and bring a copy of their official major program. In most cases, SJMC course prerequisites will not be required.

Admission to the Major

Students must apply for admission to the journalism 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 before enrolling in Jour 3003.

Undergraduate Studies Center

Further information about pre-registration or declaring pre-journalism major status is available from the Undergraduate Studies Center, 15 Murphy Hall (telephone 625-0120). Office hours are weekdays 8 a.m. to noon and 1 to 4 p.m.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Jour 1001 INTRODUCTION TO MASS COMMUNICATION. 4 credits, \$243. (♦ \$121.50)

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. (No prereq)

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Fall Qtr	Sec 1	M —1:30-4, MacP <i>Offered through Continuing Education for Women</i>
	Sec 2	T —6:20-8:50, MurH 105
Winter Qtr	Sec 3	M —6:20-8:50, MurH 105
Spring Qtr	Sec 4	T —6:20-8:50, MurH 105

★Jour 3003 (formerly 1003) PRODUCING MASS MEDIA MESSAGES. 4 credits, \$Jour 1003, \$248.

new

Examination and analysis of mass media messages; practice, under instruction, in writing factual and persuasive messages. Emphasis on message attributes, style, structure, formula, constraints, techniques and conventions. Applications to news, advertising, documentary and interpretive writing for print, film, and video. Typed assignments required. (Prereq formal pre-journalism program filed, 1001, freshman composition or exemption, Δ. **See pre-registration note, page 317.** Lectures meet concurrently. Limited to 72)

Winter Qtr	Sec 1	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 6:20-7:10, MurH 30
	Sec 2	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 6:20-7:10, MurH 435
	Sec 3	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 6:20-7:10, MurH 30
	Sec 4	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 7:25-8:10, MurH 30
	Sec 5	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 7:25-8:10, MurH 435
	Sec 6	T—Lect , 6:20-8:50, MurH 105 Th—Lab , 7:25-8:10, MurH 311

★Jour 3006 (formerly 1002) VISUAL COMMUNICATION. 4 credits, \$1002, \$248.

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. (Prereq Jour major or minor status, 3004 or ¶3004, Δ. **See pre-registration note, page 317.** Limited to 165)

Spring Qtr	Sec 1	W —6:20-8:50, MurH 105
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★Jour 3008 MASS COMMUNICATION PROCESSES AND STRUCTURE. 4 credits, \$248.

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. (Prereq Jour major or minor status, 3004 or ¶3004, Δ. **See pre-registration note, page 317.** Limited to 32)

Winter Qtr	Sec 1	M —6:20-8:50, MurH 311
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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- new** ★**Jour 3155 PUBLICATIONS EDITING.** 4 credits, \$248.
 Selection and editing of news-editorial content of newspapers, brochures, magazines. Newspaper makeup, magazine format. Press association teletype service. Lecture and laboratory. (Prereq Jour major status, 3004, 3101, Δ. **See pre-registration note, page 317.** Limited to 12)
Fall Qtr Sec 1 **TTh—Lect**, 6-9, MurH 315
F—Lab, 6-9, MurH 315
Not all lab hours required
- ★**Jour 3159 PUBLIC RELATIONS.** 4 credits, \$248.
 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. (Prereq Jour major status, 3004, 3101 or 3201, Δ. **See pre-registration note, page 317.** Limited to 25)
Fall Qtr Sec 1 **M—6-9**, MurH 311
Spring Qtr Sec 2 **Th—6-9**, MurH 311
- ★**Jour 3173 MAGAZINE WRITING.** 4 credits, \$248. (IS)
 Writing feature articles for general, class, and trade publications; study of market free-lance methods. (Prereq Jour major status, 3004, 3101, Δ. **See pre-registration note, page 317.** Limited to 16)
Winter Qtr Sec 1 **M—6-9**, MurH 212
Spring Qtr Sec 2 **M—6-9**, MurH 212
 (See also CSch 0350, Free-Lance Magazine Writing; and CSch 0352, Magazine Writing)
- ★**Jour 3201 PRINCIPLES OF ADVERTISING.** 4 credits, \$248.
 Theory, principles and functions of advertising, its role in social, economic and marketing structure. Newspapers, magazines, radio, and television as advertising media. (Prereq Jour major or minor status, 3004, Δ. **See pre-registration note, page 317.** Limited to 180)
Winter Qtr Sec 1 **Th—6:20-8:50**, MurH 105
- ★**Jour 3241 ADVERTISING COPYWRITING.** 4 credits, \$248.
 Advertising appeals and strategy; advertising for print and broadcast. Individual and group projects. (Prereq Jour major status, 3004, 3201, Δ. **See pre-registration note, page 317.** Limited to 16)
Winter Qtr Sec 1 **W—6-9**, MurH 212
- ★**Jour 3301 BASIC PHOTOGRAPHIC COMMUNICATION.** 4 credits, \$248.
 Photography as creative communication. Fundamentals of photography; use of news cameras; darkroom processes. Film and processing expenses. (Prereq Jour major status, 3004, Δ. **See pre-registration note, page 317.** Limited to 16)
Winter Qtr Sec 1 **TTh—6-9**, MurH 20
Spring Qtr Sec 2 **MW—6-9**, MurH 20
- ★**Jour 3321 BASIC MEDIA GRAPHICS.** 4 credits, \$248 plus \$10 course fee. Total \$258.
 Basic introduction to mass media graphics, including design principles and history, production technology, typographic legibility, research and analysis of printing and production costs. (Prereq Jour major status, 3004, Δ. **See pre-registration note, page 317.** Limited to 16)
Spring Qtr Sec 1 **W—6:20-8:50**, MurH 315, 320

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

★**Jour 3614 HISTORY OF MASS COMMUNICATION TECHNOLOGY.** 4 credits, \$248.

History of communication technology, with emphasis on mass communication, from earliest times to the present. The impact of new technologies on society. (No prereq; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Limited to 72)

Fall Qtr Sec 1 **Th**—6:20-9:20, MurH 308

★**Jour 3776 MASS COMMUNICATION LAW.** 4 credits, \$248.

Brief historical background, First Amendment rights, basic law of defamation, free press and fair trial, access to news, access to the press, privacy, contempt, obscenity, the regulation of broadcasting and advertising, anti-trust controls, legal and ethical rules affecting journalistic practice. (No prereq; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Limited to 72)

Winter Qtr Sec 1 **W**—6:20-8:50, MurH 308

★**Jour 5159 CASE STUDIES IN PUBLIC RELATIONS.** 4 credits, \$248.

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. (Prereq Jour major status, 3004, 3159, Δ. Inquire about graduate credit at time of registration. **See pre-registration note, page 317.** Limited to 25)

Winter Qtr Sec 1 **T**—6-9, MurH 311

★**Jour 5170 ARTS AND ENTERTAINMENT REPORTING.** 4 credits, \$248.

News and feature writing about the arts and the entertainment industry. Assignments will follow the flow of Twin Cities arts/entertainment news, with an emphasis on campus events. Weekly writing assignments, readings, guest lectures from local artists and journalists. (Prereq major status, 3004, 3101 for Jour students; # for outside majors; Δ. Inquire about graduate credit at the time of registration. **See pre-registration note, page 317.** Limited to 16)

Fall Qtr Sec 1 **T**—6-9, MurH 30

new

★**Jour 5171 ARTS REVIEWING.** 4 credits, \$248.

Book, theatre, visual media reviews. Analysis of leading critics and critical periodicals. Weekly reviews. (Prereq major status, 3004, 3101 for Jour students; # for professional writers and reporters and majors in performing and studio arts; Δ. Inquire about graduate credit at the time of registration. **See pre-registration note, page 317.** Limited to 16)

Winter Qtr Sec 1 **W**—6-9, MurH 30

★**Jour 5174 MAGAZINE EDITING AND PRODUCTION.** 4 credits, \$248.

Writing, editing, illustration, design, layout, photocomposition of a single-issue magazine. (Prereq Jour major status, 3004, 3173 or 5302, #, Δ. Inquire about graduate credit at the time of registration. **See pre-registration note, page 317.** Limited to 24)

Winter Qtr Sec 1 **MW**—4:15-6, MurH 315

★**Jour 5221 PUBLICATION GRAPHICS.** 4 credits, \$248 plus \$10 course fee. Total \$258.

Role of printing processes in graphic communication. Technique and production of illustrations. Significant developments in graphic arts technology. (Prereq 8 cr in 3000- or 5000-level courses in art and design, or #; if you have not been officially

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor, Δ . Inquire about graduate credit at the time of registration. See **pre-registration note, page 317**. Limited to 30)

Winter Qtr Sec 1 **Th**—6:20-8:50, MurH 308

★**Jour 5251 PSYCHOLOGY OF ADVERTISING.** 4 credits, \$248.

Psychological principles, research techniques, and applications in advertising and selling. Consumer attitudes and behavior. Psychological mechanisms upon which effectiveness of advertisements and commercials depends. (Prereq Psy 1001; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Inquire about graduate credit at the time of registration. Limited to 180)

Fall Qtr Sec 1 **M**—6:20-8:50, MurH 105

★**Jour 5261 ADVERTISING: MEDIA ANALYSIS.** 4 credits, \$248.

new

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. (Prereq Jour major status, 3004, 3201 or #, Δ . See **pre-registration note, page 317**. Inquire about graduate credit at the time of registration. Limited to 25)

Fall Qtr Sec 1 **T**—6:20-8:50, MurH 311

★**Jour 5272 ADVANCED ADVERTISING COPYWRITING.** 4 credits, \$248.

Advanced work in formulating creative strategy and writing advertising copy for print and broadcast media for various kinds of advertisers. (Prereq Jour major status, 3004, 3241, #, Δ . See **pre-registration note, page 317**. Inquire about graduate credit at the time of registration. Limited to 16)

Fall Qtr Sec 1 **Th**—6-9, MurH 311

★**Jour 5501 COMMUNICATION AND PUBLIC OPINION I.** 4 credits, \$248. (IS)

Theories of communication process and of persuasion and attitude change. Functions of interpersonal and mediated communication in diffusion of information and in opinion formation. (Prereq 16 cr in social science departments; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Inquire about graduate credit at the time of registration. Limited to 72)

Spring Qtr Sec 1 **Th**—6:20-8:50, MurH 308

★**Jour 5721 MASS MEDIA AND U.S. SOCIETY.** 4 credits, \$248.

Economic, political, and social determinants of character and content of mass communications in America. Impact, structure, functioning of mass media. Problems, prospects, and criticism. Professionalism, technology, and reform. (Prereq 16 cr in social science departments; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Inquire about graduate credit at the time of registration. Limited to 72)

Fall Qtr Sec 1 **W**—6:20-8:50, MurH 308

Spring Qtr Sec 2 **T**—6:20-8:50, MurH 308

★**Jour 5801 INTERNATIONAL COMMUNICATION.** 4 credits, \$248.

Global telecommunications, channels, and artifacts of international mass communication. Problems in the free flow of information. Roles of international organizations, journalism. Mass communication in social, political, educations, economic develop-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

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ment; implications for conflict resolution. (Prereq 16 cr in social science departments; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Inquire about graduate credit at the time of registration. Limited to 72)

Spring Qtr Sec 1 M—6:20-8:50, MurH 308

★ Jour 5990 **SPECIAL TOPICS IN MASS COMMUNICATION: ADVERTISING RESEARCH.**
4 credits, \$248.

An introduction to important techniques and concepts used in advertising research. Techniques covered include surveys, tracking studies, test marketing, focus group research, field experiments, and laboratory studies. Topics covered include strategies and important issues in sampling, interviewing techniques, research design, instrument construction, physiological measurement, and analysis. Students should gain an appreciation for the various ways research is used in advertising and its importance in the development of a successful advertising campaign. (Prereq Jour major or minor status, 3004, 3201, #, Δ. **See pre-registration note, page 317.** Inquire about graduate credit at the time of registration. Limited to 30)

Winter Qtr Sec 1 M—6:20-8:50, MurH 308

new

K

Kinesiology (Kin)

(224 Cooke Hall; 625-1007)

College of Education

(School of Kinesiology and Leisure Studies)

Textbooks for most Kin courses are available at the Minnesota Book Center 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: Mary Lampe, Coordinator, Continuing Education for the School of Kinesiology and Leisure Studies, Norris Hall, 172 Pillsbury Drive S.E., University of Minnesota, Minneapolis, MN 55455; or call (612) 625-7816.

Allen Burton, Assistant Professor
Nancy Greer, Assistant Professor
Peter Hancock, Associate Professor
Mary Jo Kane, Associate Professor
March Krotee, Associate Professor
Mary Lampe, Associate Professor

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Robert Serfass, Associate Professor

Lela June Stoner, Professor

Michael Wade, Professor and Director of the School of Kinesiology and Leisure Studies

Diane Wiese, Assistant Professor

Master's Degree

A **Master of Education** degree with a focus on **Kinesiology** is planned through the Kinesiology department beginning **fall quarter 1992** at Capitol View in **Roseville** with interactive television sites at selected locations.

For information, telephone (612) 625-1855.

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, 5151, 5152, and 5980.

★**OKin 3144 ADMINISTRATION.** 2 credits, \$3120, \$146.

Principles, policies, and procedures involved in the coaching of interscholastic sports. **May not be taken S-N by Education students. PEL.** (Prereq kinesiology major, sr. A joint Day/Extension class limited to 15 Extension students)

Spring Qtr Sec 1 **M—4:15-6:15, CookeH 215, Krotee**

★**OKin 5100 TEACHING PHYSICAL EDUCATION FOR THE HANDICAPPED.** 3 credits, \$219.

Introduction to the role of physical education in the education of the handicapped individual emphasizing understanding, principles of organization, administration, curriculum, supervision, and evaluation. **May not be taken S-N by Education students. PEL.** (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—6:15-8:15, (plus 1 hr arr), CookeH 214, Burton**

★**OKin 5101 PHYSICAL EDUCATION ACTIVITIES FOR THE HANDICAPPED.** 3 credits, \$219.

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. **May not be taken S-N by Education students. 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 15 Extension students)

Winter Qtr Sec 1 **M—6:15-8:15 (plus 1 hr arr), CookeH 214, Burton**

★**OKin 5102 PRACTICUM: PHYSICAL EDUCATION FOR THE HANDICAPPED IN AN ADAPTED SETTING.** 1-3 cr (max 3 cr). 3 credits this offering, \$219.

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 10 Extension students)

Spring Qtr Sec 1 **M—6:15-8:45 (plus 1 hr arr), CookeH 214, Burton**

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Kin 5103 PRACTICUM: PHYSICAL EDUCATION FOR THE HANDICAPPED IN A MAINSTREAMED SETTING.** 1-3 cr. This offering 3 credits, \$219.

Teaching in the public school environment, instruction for atypical individuals in a mainstreamed setting; 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 10 Extension students)

Winter Qtr Sec 1 **T**—6:15-8:45 (plus 1 hr arr), CookeH 215, Burton

★**Kin 5120 ADVANCED BIOMECHANICS/KINESIOLOGY.** 4 credits, \$292.

Principles of mechanics applied to human movement, analysis of motor skills, application to individual projects. **May not be taken S-N by Education students. PEL.** (Prereq undergrad biomechanics or Kin 3111, 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 **TTh**—6:15-8:15, NorrisH 3, Greer

★**Kin 5121 CONTRIBUTIONS OF BASIC SCIENCE TO KINESIOLOGY.** 3 credits, \$219.

Recent research in related physical sciences; application in selected areas. **May not be taken S-N by Education students.** (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**—4:15-6:15 (plus 1 hr arr), CookeH 400, Hancock

★**Kin 5122 APPLIED PHYSIOLOGY.** 3 credits, \$219.

Application of concepts in human physiology to exercise physiology, sports training, and physical activities with particular reference to respiratory and cardiovascular systems. **May not be taken S-N by Education students. 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 15 Extension students)

Fall Qtr Sec 1 **M**—6:15-8:15 (plus 1 hr arr), CookeH 215, Serfass

★**Kin 5126 ADVANCED PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY.** 3 credits, \$219.

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. **May not be taken S-N by Education students. PEL.** (Prereq 3126 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 **Th**—4:15-6:45, (plus 1 hr arr), CookeH 215, Wiese

★**Kin 5135 MOTOR LEARNING AND HUMAN PERFORMANCE.** 3 credits, \$5130, \$219.

Mechanisms of human motor skill learning, emphasis on theories of motor learning and control of movement, motor memory, and individual differences. **May not be taken S-N by Education majors. 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 10 Extension students)

Spring Qtr Sec 1 **M**—4:15-6:15 (plus 1 hr arr), CookeH 400, Hancock

★**Kin 5136 PSYCHOLOGY OF COACHING.** 3 credits, \$219.

Psychological aspects of coaching at the elementary, secondary, and college levels.
(continued next page)

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

May not be taken S-N by Education majors. PEL. (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**—4:15-6:15 (plus 1 hr arr), CookeH 400, Wiese

Spring Qtr Sec 2 **T**—4:15-6:45 (plus 1 hr arr), CookeH 215, Wiese

★**Kin 5151 CURRICULUM.** 3 credits, \$219.

new

For students without previous experience in curriculum; objectives, content, organization, evaluation, and trends. **May not be taken S-N by Education students. PEL.** (Prereq sr, 3322, 3323, or #)

Fall Qtr Sec 1 **M**—4:15-6:15 (plus 1 hr arr), CookeH 214

★**Kin 5152 CURRICULUM DEVELOPMENT.** 3 credits, \$219.

Trends, issues, and problems at selected levels of interests: elementary, secondary, junior college; for experienced teachers. **May not be taken S-N by Education majors. PEL.** (Prereq 5151 or equivalent. 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**—4:15-6:15 (plus 1 hr arr), CookeH 214

★**Kin 5163 DEVELOPMENT OF MOTOR ASSESSMENT.** 3 credits, \$219.

new

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. **May not be taken S-N by Education students.** (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**—6:15-8:45 (plus 1 hr arr), CookeH 216, Burton

★**Kin 5371 SOCIOLOGY OF SPORT.** 4 credits, \$Soc 5371, \$292.

Sport within and among societies and nations; social organization: socio-economic development, contemporary structure, personnel, fans; relationship to other institutions: economy, education, family, government, religion; social differentiation: status, ethnicity, sex, age, careers; ethical and social problems; honesty and violence. **Must be taken A-F.** (Prereq 3126 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 **W**—4:15-7:15 (plus 1 hr arr), CookeH 215, Krotee

★**Kin 5387 DETECTION AND PREVENTION OF CORONARY HEART DISEASE.** 4 credits, \$292.

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. **May not be taken S-N by Education majors.** (Prereq 3386 or equivalent 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 **MW**—4:15-6:15, CookeH 214, Serfass

★**Kin 5388 EXERCISE TESTING, CONDITIONING, AND CARDIAC REHABILITATION.** 4 credits, \$292.

new

Administration and interpretation of exercise tests, cardiopulmonary resuscitation, and exercise prescription; survey of exercise programs for apparently healthy adults
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 214, Serfass

★**Kin 5720 TOPICS IN KINESIOLOGY: ISSUES IN YOUTH SPORTS.** 1-12 cr (max 12 cr), \$73 each credit.

Focus is on a number of behavioral and biological issues having important implication for sport participants from early childhood through high school age. Current research pertaining to the social psychology of sport, motor development, teaching sport skills, and training and conditioning for young athletes will provide the basis for class lecture and discussion with an emphasis on translating this research into practical implications for youth sport teachers and coaches. **May not be taken S-N by Education students.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

new

Fall Qtr Sec 1 **W**—4:15-6:15, CookeH 215, Wiese

★**Kin 5720 TOPICS IN KINESIOLOGY: HUMAN FACTORS PHYSIOLOGY.** 1-12 cr (max 12 cr), \$73 each credit.

An in-depth view of the concepts, problems, and issues associated with ergonomic applications to improving the design and operation of human workspace. A critical appraisal and evaluation of existing ergonomic tools and methodologies, and practical hands-on experience in the criticism and redesign of existing systems, and the principles necessary for the design of more efficient future systems. **May not be taken S-N by Education students.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

new

Winter Qtr Sec 2 **Th**—4:15-6:15, CookeH 215, Hancock

★**Kin 5980 RESEARCH METHODOLOGY.** 3 credits, \$Hlth 5980, \$219.

Methods and design for research in health, kinesiology, and recreation. **May not be taken S-N by Education majors. PEL.** (Prereq Hlth 5980, education, 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)

new

Fall Qtr Sec 1 **Th**—4:15-6:45 (plus 1 hr arr), CookeH 206, 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 182 or call 625-6501.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

L

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)

(205 North Hall: 625-8285)

College of Architecture and Landscape Architecture

Textbooks for LA courses on the Minneapolis campus are available at the Minnesota Book Center in Williamson Hall (625-6000); books for courses on the St. Paul campus are available at Books Underground on the St. Paul campus (624-9200)

(See also Architecture; The Compleat Scholar and the Practical Scholar noncredit courses; and Horticultural Science)

Craig Churchward, Lecturer in Landscape Architecture

Bonnie Harper-Lore, Adjunct Assistant Professor of Landscape Architecture

Norman W. Hildrum, Lecturer in Landscape Architecture

Richard T. Murphy, Lecturer in Landscape Architecture

Lance Neckar, 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 professionally oriented Bachelor of Landscape Architecture 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 BLA degree program will receive advanced standing if they have completed LA 1025, 1026, or 3098. For more information on the pre-Landscape Architecture curriculum, call Professor Roger Martin at 625-2739.

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 1021 HISTORY OF ARCHITECTURE.** 4 credits, \$Arch 1021, \$243 plus \$5 course fee. Total \$248 (◆\$121.50 plus \$5 course fee. Total \$126.50).



Introduction to history and theory of architecture. Survey of architecture from ancient through modern periods. (No prereq. Meets concurrently with Arch 1021. Limited to a combined total of 100)

Fall Qtr Sec 1 **Th**—5:30-8:40, Arch 50, Satkowski

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OLA 1022 HISTORY OF LANDSCAPE ARCHITECTURE.** 4 credits, §Arch 1022, \$243 plus \$5 course fee. Total \$248 (◆ \$121.50 plus \$5 course fee. Total \$126.50).

- ◆ Introduction to history and theory of landscape architecture. Survey of landscape architecture from ancient through modern periods. (No prereq. Meets concurrently with Arch 1022. A joint Day/Extension class limited to a combined total of 100)
Spring Qtr Sec 1 **TTh**—5:30-7:20, SmithH 100

★**LA 1023 HISTORY OF CITIES.** 4 credits, §Arch 1023, \$243 plus \$5 course fee. Total \$248 (◆ \$121.50 plus \$5 course fee. Total \$126.50).

- ◆ Introduction to history and theory of urban design. Survey of urban design from ancient through modern periods. (No prereq. Meets concurrently with Arch 1023. Limited to a combined total of 100)
Winter Qtr Sec 1 **Th**—5:30-8:40, Arch 35, Satkowski

LA 1024 THEORY OF LANDSCAPE DESIGN. 4 credits, \$243. (◆ \$121.50)

- ◆ 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, ClaOff B31, StP Campus, Churchward

LA 1025 BASIC VISUALIZATION I. 4 credits, \$243.

Perspective drawing, landscape sketching, visual analysis of landscape materials, presentation techniques for plans, sections, elevations, and diagrams. Recommended for entry level students and for professionals desiring additional graphic skills. (Prereq LA major or #)

Fall Qtr Sec 1 **MW**—6:45-9:30, Arch 10

LA 1026 BASIC VISUALIZATION II. 4 credits, \$243.

Students continue to refine their ability to execute acceptable line drawings developed in 1025 and to develop their own techniques. Continued emphasis on perspective sketching, color sense, psychology of graphic interpretation, mixed media, and printing reproduction processes. Recommended for entry level students and for professionals desiring additional graphic skills. (Prereq 1025)

Spring Qtr Sec 1 **MW**—6:30-9:30, Arch 10

OLA 1031 INTRODUCTION TO LANDSCAPE ARCHITECTURE. 4 credits, \$243.

Design potential of materials of the landscape, exercises in assessment of land developments and detail landscapes; the role of the landscape architect in shaping the natural and cultural environment; brief historical review of site developments. (No prereq. A joint Day/Extension class)

Fall Qtr Sec 1 **MW**—5-6:45, Arch 45

★**LA 3098 LANDSCAPE ARCHITECTURE DESIGN.** 4 credits, \$292.

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, NorH 207, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 5133 DIRECTED STUDIES IN LANDSCAPE ARCHITECTURE TECHNOLOGY: APPLIED PLANT COMMUNITY ECOLOGY. 4 credits, \$292.

Assessment, restoration, and management techniques for the disturbed landscape based on an understanding of regional plant communities. Hands-on field projects. Problem-solving using nature as a model. Applications to parks and preserves, wildlife habitat, roadsides, gravel pits and mines, and residential and commercial sites. Strong graphic skills not required. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:30-7:30, NorH 207, StP Campus, Harper-Lore

LA 5136 GOVERNMENT RECREATION FACILITIES PLANNING. 4 credits, \$292.

Explores policies in regard to the development of specific facilities at federal recreation resource projects. Lectures and discussions will be geared toward recreation professionals and graduate-level students who are interested in exploring large scale park planning, design, operation, and management issues. A weekend field trip in early May is planned to obtain first-hand information on recreation facility development, site design, and project operations and management. A tour will be made of several reservoir areas near Brainerd, Minn. Students will camp at the Corps of Engineers campground at Cross Lake, Minn., on Friday and Saturday nights, returning to St. Paul on Sunday. **Students must attend field trip to receive credit for this course.** More information will be provided at the first class session. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6-8:30, NorH, StP Campus, Hildrum

OLA 5226 PROFESSIONAL PRACTICE. 4 credits, \$292.

Professional ethics, responsibility, and relations in business. Office management, preparation of professional communications, estimates, specifications, and contracts. Lectures, written exercises, and office visits. (No prereq. May not be taken for graduate credit. A joint Day/Extension class)

Winter Qtr Sec 1 **TTh**—6-8, ClaOff B36, StP Campus, Murphy

Languages

(See Languages and Studies in the Index in the back of this Bulletin for a complete listing)

Language Laboratories

(See page 61)

Latin (Lat)

See Classical Studies, page 137.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Latin American Studies

(232 Social Sciences: 624-8543)

College of Liberal Arts

Joint Day/Extension Classes

You may register through Extension for these day school classes scheduled before 4 p.m. in Latin American Studies: 3131, 5101, 5120, 5530, 5970. 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.

LAS 3427 TOPICS: HISTORY OF CUBA AND PUERTO RICO. 4 credits, §AmSt 3920, §Chic 3427, §Hist 3427, \$248. (◆\$124)

- ◆ Historical development of Cuba and Puerto Rico from Spanish conquest to present. Conquest and colonization, slavery, Hispanic Caribbean society and culture, Operation Bootstrap, Cuban revolution. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with AmSt 3920 sec 1, Chic 3427, Hist 3427)

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

LAS 3441 TOPICS: THE SPANISH-MEXICAN BORDERLANDS AND THE CHICANO EXPERIENCE TO 1900. 4 credits, §AmSt 3920, §Chic 3441, §Hist 3441, \$248. (◆\$124)

- ◆ The history of Chicanos to 1900. The Spanish conquest and colonization of the borderlands. Mexican society in the early 19th century, the Mexican-American War and aftermath. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with AmSt 3920 sec 2, Chic 3441, Hist 3441)

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

LAS 3442 TOPICS: SURVEY OF CHICANO HISTORY, 1900 TO PRESENT. 4 credits, §AmSt 3920, §Chic 3442, §Hist 3442, \$248. (◆\$124)

- ◆ Twentieth-century Chicano experience including migration, repatriation, the Bracero program, contemporary Chicano politics, work, society, and culture. *Meets CLA Cultural Pluralism requirement.* (No prereq. Meets concurrently with AmSt 3920 sec 3, Chic 3442, Hist 3442)

Spring Qtr Sec 1 **M**—6:20-8:50, ScottH 4

(See also related courses in Anthropology; Geography; International Relations; History; Political Science; Sociology; Spanish and Portuguese; the Global Campus; Women's Studies; and REX 0234, Missionaries and the Conquest of Honduran Indians)

Law, Business

(See Business Law)

Learning and Academic Skills (LAsK)

(104 Eddy Hall: 624-3323)

College of Liberal Arts

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Rhetoric; General College; CSch 0600, Study Skills; CSch 0640, Rapid Reading and Comprehension; CSch 0620, Grammar Refresher. For information about a free course on how to use University libraries, see page 591)

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.

Susan A. Aase, Associate Education Specialist

David T. Schmit, Instructor, Learning and Academic Skills Center

Joyce D. Weinsheimer, Program Director of Learning and Academic Skills Center

★LASK 1001 BECOMING A MASTER STUDENT. 2 credits. (Credits do not count toward a B.A. degree.) \$121.50 plus \$30 special fee. Total \$151.50.

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. (No prereq. Limited to 30)

Fall Qtr Sec 1 **MWF**—11:15 a.m.-12:05, Phys 157

Sec 2 **MWF**—12:20-1:10, ChDev 216

Sec 3 **M**—6:20-8:50, EddyH 102

Sec 4 **W**—6:20-8:50, EddyH 102

Winter Qtr Sec 5 **MWF**—11:15 a.m.-12:05, JonesH 11

Sec 6 **MWF**—12:20-1:10, JonesH 11

Sec 7 **M**—6:20-8:50, EddyH 102

Sec 8 **W**—6:20-8:50, EddyH 102

Spring Qtr Sec 9 **MWF**—11:15 a.m.-12:05, JonesH 11

Sec 10 **MWF**—12:20-1:10, JonesH 11

Sec 11 **M**—6:20-8:50, EddyH 102

Sec 12 **W**—6:20-8:50, EddyH 102

★LASK 1101 ACADEMIC SUCCESS. 1 credit. (Credit does not count toward a B.A. degree.) \$60.75 plus \$30 special fee. Total \$90.75.

Success strategies in the University community. Students will clarify educational goals and values, learn to assess and modify academic attitudes and behaviors, and become involved with campus resources. Class limited to students on academic probation. **Must be taken S-N.** (Prereq written Δ . Limited to 20)

Fall Qtr Sec 1 **MW**—9:05-9:55 a.m., KoltH S132

Sec 2 **MW**—11:15 a.m.-12:05, BuH 125

Sec 3 **T**—6:30-8:30, EddyH 102

Winter Qtr Sec 4 **MW**—11:15 a.m.-12:05, JonesH 4

Sec 5 **MW**—12:20-1:10, JonesH 4

Spring Qtr Sec 6 **MW**—11:15 a.m.-12:05, JonesH 4

Sec 7 **MW**—12:20-1:10, JonesH 4

★LASK 1301 CAREER PLANNING FOR DISABLED STUDENTS. 2 credits. (Credits do not count toward a B.A. degree.) \$121.50.

Assess interests, values, needs, and learning style as it relates to occupational choices. (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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. (Credits do not count toward a B.A. degree.) \$121.50.

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. (Credits do not count toward a B.A. degree.) \$121.50.

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)

Linguistics (Ling)

(142 Klæber Court: 624-3528)

College of Liberal Arts

Textbooks for most Ling courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also English as a Second Language; Interdepartmental Study; and Engl 3851, The English Language)

Jeanette K. Gundel, Associate Professor of Linguistics

Larry G. Hutchinson, Associate Professor of Linguistics

Michael B. Kac, Professor of Linguistics

Rebecca Root, Adjunct Assistant Professor of Computer Science

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Linguistics. 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.

Ling 1005 LANGUAGE AND SOCIETY. 4 credits, \$243. (◆\$121.50)

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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Ling 3001 INTRODUCTION TO LINGUISTICS. 5 credits, \$3005, 5001, \$310. (◆\$155)

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, 5 meet concurrently with 5001)

Fall Qtr	Sec 1	T —6:20-9:35, Arch 50
	Sec 2	W —6:20-9:35, Arch 40
Winter Qtr	Sec 3	T —6:20-9:35, Arch 50
	Sec 4	W —6:20-9:35, Arch 40
Spring Qtr	Sec 5	T —6:20-9:35, Arch 50
	Sec 6	W —6:20-9:35, Arch 40

Ling 5001 INTRODUCTION TO LINGUISTICS. 5 credits, \$3001, 3005, \$310.

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, 5)

Fall Qtr	Sec 1	T —6:20-9:35, Arch 50
Winter Qtr	Sec 2	T —6:20-9:35, Arch 50
Spring Qtr	Sec 3	T —6:20-9:35, Arch 50

Ling 5401-5402 COMPUTATIONAL LINGUISTICS. 4 credits each quarter, \$248 each quarter.

Methods and issues in computer understanding of natural languages. The LISP and Prolog programming languages, with emphasis on their linguistic applications. Laboratory projects. (Prereq 3001 or 5001 or #; some programming experience helpful. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr 5401	Sec 1	W —6:20-8:50, FolH 334
Spring Qtr 5402	Sec 2	W —6:20-8:50, FolH 312

Logistics Management (LM)

(1235 Management/Economics: 624-5055)

Carlson School of Management

Textbooks for most LM courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Frederick J. Beier, Professor of Logistics Management

Jerry E. Fruin, Associate Professor of Agricultural and Applied Economics

Howard S. Gochberg, Lecturer in Logistics Management

Donald V. Harper, Professor of Logistics Management

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**LM 3000 (formerly Tran 3054) INTRODUCTION TO LOGISTICS MANAGEMENT.** 4 credits, \$Tran 3064, \$Tran 8264, \$275 plus \$16 special fee. Total \$291.

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, AndH 330

Spring Qtr Sec 2 T—5:30-8:30, BlegH 250

LM 5020 (formerly 3020/8020) ADVANCED LOGISTICS MANAGEMENT. 4 credits, \$3020, \$8020, \$Tran 3064, \$Tran 8264. **Tentatively scheduled for 1992-93.**

LM 5030 (formerly 3010/8010) PRINCIPLES OF TRANSPORTATION. 4 credits, \$3010, \$8010, \$Tran 3054, \$Tran 8154, \$275 plus \$16 special fee. Total \$291.

Organizational, economic, and service aspects of the transportation system of the United States including rail, highway, water, pipeline, and air transportation. Decision making in transportation companies. Government promotional and regulatory policy regarding transportation. **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.** Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—5:30-8:30, BlegH 210

M

MacPhail Center Courses

See page 360.

MBA Program

See page 118.

Management (Mgmt)

(835 Management/Economics: 624-5232)

Carlson School of Management

Textbooks for Mgmt courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Phil Anderson, Lecturer

Charles Flaherty, Lecturer/Coordinator of Management

John M. Hasselberg, Adjunct Faculty

Gordon Rands, Teaching Assistant

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Dileep Rao, Adjunct Faculty
 Raoul Schander, Adjunct Faculty
 William Seeley, Adjunct Faculty
 Naren Udayagiri, Teaching Assistant
 Mark Weber, Teaching Assistant

Except for Management 5101 (which may be taken S-N), School of Management degree students must take Management courses A-F.

(See also Business, Government, and Society; Interdepartmental Study; and The Practical Scholar noncredit courses in business and professional development)

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, \$275 plus \$16 special fee. Total \$291. (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. (Prereq at least 90 credits completed or in progress. **May not be taken S-N.** Limited to 125)

Fall Qtr	Sec 1	T —6-8:45, AndH 270, Flaherty
	Sec 2	W —6-8:45, AndH 370, Flaherty
Winter Qtr	Sec 3	M —6-8:45, AndH 370, Flaherty
	Sec 4	W —6-8:45, AndH 330, Flaherty
Spring Qtr	Sec 5	W —6-8:45, AndH 370, Flaherty
	Sec 6	Th —6-8:45, AndH 370, Flaherty

★**Mgmt 3002 PSYCHOLOGY IN MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291. (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. (Prereq at least 90 credits completed or in progress. **May not be taken S-N.** Limited to 36)

Fall Qtr	Sec 1	M —6-8:45, AndH 310
	Sec 2	T —6-8:45, BlegH 250
Winter Qtr	Sec 3	W —6-8:45, FordH 115
	Sec 4	Th —6-8:45, BlegH 205
Spring Qtr	Sec 5	M —6-8:45, AndH 370
	Sec 6	W —6-8:45, BlegH 255

★**Mgmt 3004 BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION.** 5 credits, \$343.75 plus \$16 special fee. Total \$359.75. (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 con-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

cepts, 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. (Prereq senior and completion of business core or final core course. **May not be taken S-N.** Limited to 35)

Fall Qtr	Sec 1	T—5:30-9, BlegH 215
	Sec 2	W—5:30-9, AndH 330
Winter Qtr	Sec 3	M—5:30-9, BlegH 230
	Sec 4	W—5:30-9, BlegH 90, Anderson
Spring Qtr	Sec 5	M—5:30-9, FordH 115
	Sec 6	Th—5:30-9, BlegH 105

★**Mgmt 3008 ENTREPRENEURSHIP AND THE SMALLER ENTERPRISE.** 4 credits, \$275 plus \$16 special fee. Total \$291. (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 36)

Fall Qtr Sec 1 W—6-8:45, BlegH 245, Rao

★**Mgmt 5101 ADVANCED TOPICS IN MANAGEMENT: PERSPECTIVES ON MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 S-N.** (Prereq senior or graduate student and #. May not be taken for graduate credit. Limited to 21)

Fall Qtr Sec 1 W—6-8:45, RarigC 616

Spring Qtr Sec 2 M—6-8:45, RarigC 616

★**Mgmt 5101 ADVANCED TOPICS IN MANAGEMENT: SMALL BUSINESS MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

The course focuses attention on the role of small business, alternative entry strategies, and functional expertise required as the firm competes in its environment. (Prereq at least 90 credits completed or in progress. **May not be taken S-N.** Limited to 36)

Winter Qtr Sec 3 T—6-8:45, HHCtr 60, Flaherty

Management Information Systems (MIS)

(See Information and Decision Sciences, page 304.)

Management Science (MSci)

See Information and Decision Sciences, page 304; and Operations and Management Science, page 364.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Marketing (Mktg)

(1235 Management/Economics: 624-5055)

Carlson School of Management

Textbooks for most Mktg courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Paul Acito, 3M Company

Stowe Badenoch, Assistant Adjunct Professor of Marketing

Emily Child, Food for Thought

John Dahl, 3M Company

John Grubb, ADC Telecommunications

Tedi Anne Hasapopoulos, General Mills, Inc.

Barbara Nemecek, Marketing Department CEE Coordinator

John Nicolay, Crossroads Management Advisors

David Ordos, Northwestern National Life Insurance Company

Paul Riedesel, Leon Tyler Marketing Research

Robert Ruckert, Associate Professor of Marketing

Karl Schmidt, General Mills

Robert Sedlacek, Unisys Corporation

Pam Weisenberger, Minnesota Mutual Life Insurance Co.

Business degree students must take Marketing 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.

★**Mktg 3000 PRINCIPLES OF MARKETING.** 4 credits, \$275 plus \$16 special fee. Total \$291. (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, Richfield HS 143 (Limit 30)

Sec 2 **Th**—5:30-8:30, AndH 210

Winter Qtr Sec 3 **W**—5:30-8:30, AndH 210

Spring Qtr Sec 4 **T**—5:30-8:30, Roseville Area HS 252 (Limit 35)

Sec 5 **Th**—5:30-8:30, AndH 210

★**Mktg 3010 BUYER BEHAVIOR AND MARKETING ANALYSIS.** 4 credits, \$3098, 3095, \$275 plus \$16 special fee. Total \$291.

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 MSCi 1020 or equivalent, and at least 90 credits completed or in progress. Limited to 35)

Fall Qtr Sec 1 **M**—5:30-8:30, BlegH 205

Sec 2 **Th**—5:30-8:30, BlegH 210

Winter Qtr Sec 3 **T**—5:30-8:30, BlegH 225

Sec 4 **Th**—5:30-8:30, BlegH 110

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Spring Qtr Sec 5 **M**—5:30-8:30, BlegH 5
Sec 6 **W**—5:30-8:30, BlegH 120

★Mktg 3020 MARKETING OPERATIONS MANAGEMENT. 4 credits, \$275 plus \$16 special fee. Total \$291.

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 40)

Fall Qtr Sec 1 **M**—5:30-8:30, BlegH 215

Winter Qtr Sec 2 **Th**—5:30-8:30, BlegH 125

Spring Qtr Sec 3 **Th**—5:30-8:30, BlegH 250

★Mktg 3030 SALES AND DISTRIBUTION MANAGEMENT. 4 credits, \$275 plus \$16 special fee. Total \$291.

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 40)

Fall Qtr Sec 1 **Th**—5:30-8:30, BlegH 420

Spring Qtr Sec 2 **Th**—5:30-8:30, RarigC 616

★Mktg 3050 MARKETING COMMUNICATIONS. 4 credits, \$275 plus \$16 special fee. Total \$291.

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 40)

Winter Qtr Sec 1 **M**—5:30-8:30, BlegH 120

Spring Qtr Sec 2 **T**—5:30-8:30, AndH 230

★Mktg 3065 RETAIL MANAGEMENT. 4 credits, \$275 plus \$16 special fee. Total \$291.

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 40)

Fall Qtr Sec 1 **Th**—5:30-8:30, BlegH 230

Spring Qtr Sec 2 **Th**—5:30-8:30, RarigC 610

★Mktg 3090 MARKETING TOPICS: INDUSTRIAL MARKETING. 4 credits (may be repeated for credit), \$275 plus \$16 special fee. Total \$291.

Analysis of industrial markets. Formulation of marketing programs in a variety of industrial marketing situations. Industrial product, price, communication and distribution policies. Implementation of industrial marketing strategy. (Prereq 3010 and at least 90 credits completed or in progress. Limited to 40)

Spring Qtr Sec 1 **T**—5:30-8:30, RarigC 616

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Materials Science and Engineering (MatS)

(151 Amundson Hall: 625-1313)

Institute of Technology

Textbooks for most MatS courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Leonard Laskow, ASM

★MatS 0001C INTRODUCTION TO MATERIALS. 3 certificate credits, \$182.25.

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 the Minnesota Book Center 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 noncredit courses)

Stephen Agard, Associate Professor of Mathematics

Glenn S. Ballard, Lecturer in Mathematics

Jeffery A. Cole, Instructor, Anoka-Ramsey Community College, Lecturer in Mathematics

John Corbett, Lecturer in Mathematics

William A. Dolid, Instructor, Minneapolis Community College, Lecturer in Mathematics

David Frank, Associate Professor of Mathematics

Lawrence F. Gray, Professor of Mathematics

Shamlell Gupta, Associate Professor, College of St. Catherine, Lecturer in Mathematics

Lawrence R. Harper, Associate Professor of Mathematics

Harlan Hewitt, Instructor, North Hennepin Community College, Lecturer in Mathematics

Steve J. Hlusak, Instructor, North Hennepin Community College, Lecturer in Mathematics

Walter James, Lecturer in Mathematics

Howard Jenkins, Associate Professor of Mathematics

Gary B. Kampf, Computer Engineer, Honeywell, Lecturer in Mathematics

Nickolas Konopliv, Lecturer in Mathematics

Richard A. Langlie, Instructor, North Hennepin Community College, Lecturer in Mathematics

Edwin Lundgren, Instructor, Lakewood Community College, Lecturer in Mathematics

Norman Meyers, Professor of Mathematics

Chester L. Miracle, Associate Professor of Mathematics

Robert N. Sackett, Instructor, Normandale Community College, Lecturer in Mathematics

U. Kurt Scholz, Associate Professor of Mathematics, College of St. Thomas, Lecturer in Mathematics

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

William Serbyn, Associate Professor of Mathematics, College of St. Thomas, Lecturer in Mathematics

Yasutaka Sibuya, Professor of Mathematics

Bernard P. Smith, Instructor, Normandale Community College, Lecturer in Mathematics

James G. Swenson, Lecturer in Mathematics

V. C. Varadachari, Instructor, Lakewood Community College, Lecturer in Mathematics

Richard A. Wetzler, Instructor, Lakewood Community College, Lecturer in Mathematics

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 algebra in high school, should register either for 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.

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.

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 Wed., Aug. 14, 1991, in Vincent Hall 207. It is also given at 6 p.m. on Wed., Nov. 6, 1991, in Physics 143, and at 6 p.m. on Wed., Feb. 5, 1992, in Vincent Hall 213. 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 an adviser in CEE Counseling, 625-2500.

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 551.

NOTE: Math 0005 (Arithmetic for Adults), 0006 (Elementary Algebra), 0007 (Plane Geometry), and 0009 (Intermediate Algebra) are no longer being offered through the Department of Mathematics. Students interested in noncredit introductory mathematics courses should see the Preparatory Mathematics Program in the General College section of this bulletin, page 255.

★**Math 1005 INTRODUCTION TO ELEMENTARY MATHEMATICS.** 4 credits, \$243.

For pre-elementary education students. Elementary computer programming (BASIC), progressions, financial mathematics, counting problems, other selected topics. (Prereq 1111 or equivalent or #. Limited to 50)

Winter Qtr Sec 1 **TTh**—6:10-7:50, Arch 45

Math 1006 INTRODUCTION TO ELEMENTARY MATHEMATICS. 4 credits, \$243.

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)

Spring Qtr Sec 1 **TTh**—6:10-7:50, Arch 60

★**Math 1008 TRIGONOMETRY.** 4 credits, \$1201, \$243. (IS)

Analytic trigonometry, identities, equations, properties of trig functions; right and oblique triangles. See **Mathematics prerequisites, page 340.** (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**—6:10-7:50, VinH 301

Sec 2 **TTh**—6:10-7:50, VinH 301

Winter Qtr Sec 3 **MW**—6:10-7:50, VinH 301

Sec 4 **TTh**—6:10-7:50, VinH 301

Spring Qtr Sec 5 **MW**—6:10-7:50, VinH 301

Sec 6 **TTh**—6:10-7:50, VinH 301

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY.** 5 credits, \$1201, \$303.75. (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. **See Mathematics prerequisites, page 340.** (Prereq plane geometry, 2 years high school algebra and mathematics placement score or plane geometry and GC 0631. Limited to 35)

Fall Qtr Sec 1 **MW**—6:10-8:15, VinH 1
Sec 2 **MW**—6:10-8:15, VinH 20
Sec 3 **MW**—5:30-7:35, AkerH 313
Sec 4 **MW**—6:30-8:35, Roseville Area HS 254
Sec 5 **TTh**—6:10-8:15, VinH 1
Sec 6 **TTh**—6:10-8:15, MechE 202
Sec 7 **TTh**—6:30-8:35, Richfield HS 149

Winter Qtr Sec 8 **MW**—6:10-8:15, VinH 6
Sec 9 **MW**—6:10-8:15, VinH 1
Sec 10 **MW**—6:30-8:35, Roseville Area HS 251
Sec 11 **TTh**—6:10-8:15, MechE 202
Sec 12 **TTh**—6:10-8:15, VinH 1

cew

Sec 13 **TTh**—1-3:05, MacP
Offered through Continuing Education for Women

Spring Qtr Sec 14 **MW**—6:10-8:15, VinH 1
Sec 15 **MW**—6:10-8:15, AkerH 313
Sec 16 **MW**—5:30-7:35, Arch 15
Sec 17 **TTh**—6:10-8:15, VinH 6
Sec 18 **TTh**—6:10-8:15, VinH 1

Non-business students interested in the Master of Business Administration degree should take Math 1131.

★**Math 1131 FINITE MATHEMATICS.** 5 credits, \$303.75.

(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 340.** (Prereq 1111 or Mathematics placement score. Limited to 50)

Fall Qtr Sec 1 **TTh**—6:10-8:15, VinH 16

Winter Qtr Sec 2 **MW**—6:10-8:15, VinH 16

Spring Qtr Sec 3 **MW**—6:10-8:15, VinH 16

★**Math 1142 SHORT CALCULUS.** 5 credits, \$1211, \$303.75. (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 340.** (Prereq 1111 or mathematics placement score. Limited to 35)

Fall Qtr Sec 1 **MW**—6:10-8:15, VinH 209

Sec 2 **TTh**—6:10-8:15, VinH 209

Winter Qtr Sec 3 **MW**—6:30-8:35, Roseville Area HS 254

Sec 4 **TTh**—6:10-8:15, VinH 209

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Spring Qtr Sec 5 **MW**—6:10-8:15, VinH 209

Sec 6 **TTh**—6:10-8:15, VinH 209

Sec 7 **TTh**—1-3:05, MacP

CEW

Offered through Continuing Education for Women

★**Math 1201 PRE-CALCULUS.** 5 credits, §1008, 1111, \$303.75. (IS)

Inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, and trigonometric, exponential and logarithmic functions. **See Mathematics prerequisites, page 340.** (Prereq 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**—6:10-8:15, VinH 364

Sec 2 **MW**—5:30-7:35, Arch 15

Sec 3 **MW**—6:30-8:35, Roseville Area HS 252

Sec 4 **TTh**—6:10-8:15, VinH 364

Sec 5 **TTh**—6:30-8:35, Richfield HS 142

Winter Qtr Sec 6 **MW**—6:10-8:15, VinH 20

Sec 7 **MW**—5:30-7:35, Arch 15

Sec 8 **TTh**—6:10-8:15, VinH 364

Spring Qtr Sec 9 **MW**—6:10-8:15, VinH 206

Sec 10 **TTh**—6:10-8:15, VinH 113

★**Math 1211 CALCULUS I.** 5 credits, §1142, 1311, 1611, \$303.75. (IS)

Analytic geometry and calculus of functions of one variable, applications. Infinite series and sequences. **See Mathematics prerequisites, page 340.** (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**—6:10-8:15, AkerH 209

Sec 2 **MW**—6:10-8:15, CivMinE 213

Sec 3 **MW**—6:30-8:35, Roseville Area HS 253

Sec 4 **TTh**—6:10-8:15, VinH 20

Sec 5 **TTh**—6:30-8:35, Richfield HS 146

Winter Qtr Sec 6 **MW**—6:10-8:15, VinH 364

Sec 7 **MW**—6:10-8:15, VinH 206

Sec 8 **MW**—6:30-8:35, Roseville Area HS 253

Sec 9 **TTh**—6:10-8:15, VinH 16

Sec 10 **TTh**—6:30-8:35, Richfield HS 149

Spring Qtr Sec 11 **MW**—6:10-8:15, VinH 364

Sec 12 **MW**—6:10-8:15, Arch 20

Sec 13 **TTh**—6:10-8:15, VinH 20

Sec 14 **TTh**—5:30-7:35, AkerH 313

★**Math 1221 CALCULUS II.** 5 credits, §1321, 1421, \$303.75. (IS)

A continuation of the course described under 1211. (Prereq grade of C or better in 1211. Limited to 35)

Fall Qtr Sec 1 **MW**—6:10-8:15, VinH 16

Sec 2 **MW**—5:30-8:15, VinH 206

Sec 3 **TTh**—6:10-8:15, AkerH 313

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Winter Qtr	Sec 4	MW —6:10-8:15, VinH 209
	Sec 5	MW —6:30-8:35, Roseville Area HS 252
	Sec 6	TTh —6:10-8:15, VinH 20
	Sec 7	TTh —5:30-7:35, Arch 15
Spring Qtr	Sec 8	MW —6:10-8:15, VinH 20
	Sec 9	MW —6:30-8:35, Roseville Area HS 253
	Sec 10	TTh —6:10-8:15, VinH 16
	Sec 11	TTh —6:30-8:35, Richfield HS 142

★Math 1241 LINEAR AND NONLINEAR MULTIVARIABLE ANALYSIS I. 5 credits, \$303.75.

Linear algebra, geometry, and linear transformations in two, three, and more generally n -dimensional space; curves; limits and continuity in the multi-variable setting. (Prereq grade of C or better in 1221. Limited to 35)

Fall Qtr	Sec 1	MW —6:10-8:15, VinH 2
	Sec 2	TTh —6:10-8:15, VinH 2
Winter Qtr	Sec 3	MW —6:10-8:15, VinH 207
	Sec 4	TTh —6:10-8:15, VinH 113
Spring Qtr	Sec 5	MW —5:30-7:35, VinH 6
	Sec 6	MW —6:10-8:15, VinH 314
	Sec 7	TTh —6:10-8:15, VinH 314

Math 3142 INTRODUCTION TO LINEAR ALGEBRA. 4 credits, \$3221, 3511, \$292.

Vectors, systems of linear equations, matrices, determinants, eigenvalues, applications, techniques and some proofs of theorems. (Prereq 2 quarters calculus)

Fall Qtr	Sec 1	M —6:10-8:50, VinH 207
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★Math 3211 MULTIVARIABLE CALCULUS. 5 credits, \$3521, 3611, \$365.

Partial differentiation, chain rule, implicit functions, applications. Multiple integrals in two and three dimensions. (Prereq grade of C or better in 1231 or equivalent. Limited to 40)

Fall Qtr	Sec 1	TTh —6:10-8:15, VinH 6
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Math 3212 VECTOR AND LINEAR ANALYSIS I. 5 credits, \$3231, \$365.

Scalar and vector products, derivatives, space curves, del operator, line and surface integrals, divergence. Green's and Stokes' theorem, first order ordinary differential equations, matrices, determinants, dimension, applications. May be used to replace 3231. (Prereq grade of C or better in 3211 or equivalent)

Fall Qtr	Sec 1	MW —6:10-8:15, VinH 6
Winter Qtr	Sec 2	TTh —6:10-8:15, VinH 6

★Math 3213 VECTOR AND LINEAR ANALYSIS II. 5 credits, \$3066, \$3142, \$3221, \$3511H, \$365.

Linear spaces, linear transformations and eigenvalues, diagonalization, second-order linear ordinary differential equations, variation of parameters, linear systems. (Prereq grade of C or better in 3212 or 3231 or equivalent. Limited to 35)

Winter Qtr	Sec 1	MW —6:10-8:15, VinH 2
Spring Qtr	Sec 2	TTh —6:10-8:15, VinH 2

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Math 3221 INTRODUCTION TO LINEAR ALGEBRA AND LINEAR DIFFERENTIAL EQUATIONS.** 5 credits, \$3066, 3142, 3511, \$365. (IS)

Vectors, systems of linear equations, matrices, determinants, bases, eigenvalues. Linear differential equations and systems with constant coefficients, initial value problem and general solutions, variation of parameters for inhomogeneous equations. May be taken in place of 3213. (Prereq grade of C or better in 1231 or equivalent. Limited to 40)

Fall Qtr Sec 1 **MW**—6:10-8:15, VinH 211

★**Math 3311 LINEAR AND NONLINEAR MULTIVARIABLE ANALYSIS II.** 5 credits, \$365.

Differentiation, extreme values, and integration of functions of several variables. (Prereq grade of C or better in 1241. Limited to 35)

Fall Qtr Sec 1 **MW**—6:10-8:15, VinH 311

Sec 2 **TTh**—6:10-8:15, VinH 311

Winter Qtr Sec 3 **MW**—6:10-8:15, VinH 311

Sec 4 **TTh**—6:10-8:15, VinH 311

Spring Qtr Sec 5 **MW**—6:10-8:15, VinH 311

Sec 6 **TTh**—6:10-8:15, VinH 311

Math 3321 DIFFERENTIAL EQUATIONS AND GENERAL VECTOR SPACES. 5 credits, \$3066, 3142, 3212, 3511H, \$365.

Vector spaces, especially vector spaces of functions; linear transformations and eigenvalues; first order differential equations; linear differential equations and linear differential systems. (Prereq grade of C or better in 1241 or 3311 or equivalent)

Fall Qtr Sec 1 **TTh**—6:10-8:15, VinH 207

Winter Qtr Sec 2 **MW**—6:10-8:15, VinH 211

Sec 3 **TTh**—6:10-8:15, VinH 211

Spring Qtr Sec 4 **MW**—6:10-8:15, VinH 211

Sec 5 **TTh**—6:10-8:15, VinH 211

★**Math 3331 INFINITE SEQUENCES AND SERIES; VECTOR INTEGRAL CALCULUS.** 5 credits, \$1231, \$1431H, \$365.

Convergence issues and calculational techniques for infinite sequences and series; line and surface integrals, the divergence theorem and the theorems of Green and Stokes. (Prereq 3311 or equivalent. Limited to 30)

Winter Qtr Sec 1 **TTh**—6:05-8:15, VinH 2

Spring Qtr Sec 2 **MW**—6:10-8:15, VinH 2

Math 5056 THEORY OF INTEREST. 4 credits, \$292.

Application of compound interest formulas to annuities, sinking funds, bonds, and similar items. Primarily for mathematics and business majors interested in actuarial science. (Prereq 1231 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:10-8:50, VinH 207

★**Math 5081 FUNDAMENTAL TOPICS IN ANALYSIS.** 4 credits, \$292.

Limits; uses of deep property of real numbers; correct uses of term "infinity"; possibly other topics. Proofs by mathematical induction and by contradiction. **No 5xxx-level credit for math majors.** (Prereq 3531 or 3211. 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 **MW**—4:00-5:15, VinH 213

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Math 5082 FUNDAMENTALS OF ALGEBRA.** 4 credits, \$292.

Number theory including fundamental theorem of arithmetic and congruences; at least one general algebraic structure (group ring or field); equivalence relations; possibly other topics. Proofs by mathematical induction and by contradiction. **No 5xxx-level credit for math majors.** (Prereq 3511 or 3142 or 3221 or equivalent. 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 **MW**—4:10-5:25, VinH 207

★**Math 5083 FUNDAMENTALS OF GEOMETRY.** 4 credits, \$292.

Non-Euclidean geometry including attention to axiomatic approach; some topic involving three or more dimensions; some use of transformations; possibly other topics. Proofs by mathematical induction and by contradiction. **No 5xxx-level credit for math majors.** (Prereq 3511 or 3211 and 3221 or 3142 or equivalent. 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 **MW**—4-5:15, VinH 311

★**Math 5090 CALCULUS REFRESHER.** 5 credits, \$365.

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 **MW**—6:10-8:15, VinH 113

Sec 2 **TTh**—6:10-8:15, VinH 113

Winter Qtr Sec 3 **MW**—6:10-8:15, VinH 113

Spring Qtr Sec 4 **MW**—6:10-8:15, VinH 113

Math 5242-5243 LINEAR ALGEBRA WITH APPLICATIONS. 4 credits each quarter, \$292 each quarter.

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 **W**—6:10-8:50, Arch 50

Winter Qtr **5243** Sec 2 **W**—6:10-8:50, Arch 50

Math 5244 GROUP THEORY. 4 credits, \$292.

Permutation groups; groups related to geometrical configuration; invariant subgroups, Jordan-Holder composition theorem, Sylow groups, Abelian groups, elementary divisors, applications. (Prereq 3142 or 3221 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:10-8:50, VinH 207

Math 5567 FOURIER SERIES AND BOUNDARY VALUE PROBLEMS. 4 credits, \$292.

Partial differential equations of theoretical physics. Fourier series, proof of convergence, orthogonal systems, Sturm-Liouville systems, solution of boundary value problems by separation of variables, applications. (Prereq 3211, 3066 or 3221. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:10-8:50, VinH 211

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Math 5606-5607-5608 ADVANCED CALCULUS: A RIGOROUS APPROACH. 4 credits each quarter, \$292 each quarter.

A basic analysis course at a more concrete level than 5612-5613-5614. Foundations of analysis: completeness of the line, limits, convergence, continuity, integration. Analysis on the line and in Euclidean space. Other topics of the instructor's choice. (Prereq 3211-3212-3213 or 3511-3512-3513 or 3411-3421 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	5606	Sec 1	T —6:10-8:50, VinH 211
Winter Qtr	5607	Sec 2	T —6:10-8:50, VinH 207
Spring Qtr	5608	Sec 3	T —6:10-8:50, VinH 207

Math 5679 PROBABILITY. 4 credits, \$5681, \$292.

Elementary principles of probability, total and compound probability, expectation, repeated trials, and topics chosen from the following: Stirling formula, the probability integral, geometrical probability, probability of causes, Bayes theorem, errors of observation, principle of least squares. (Prereq 3211 or equivalent)

Spring Qtr Sec 1 **Th**—6:10-8:50, 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 the Minnesota Book Center in Williamson Hall (625-6000)

Peggy A. House, Professor of Mathematics Education
Robert Jackson, Professor of Mathematics Education
Robert Orton, Associate Professor of Mathematics Education
Thomas Post, Professor of Mathematics Education
James E. Stochl, Professor of Mathematics Education

These courses are subject to frequent changes in time and rooms. Check for correct day, time, and room in a day school class schedule.

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.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

★**MthE 5101 WORKSHOP: ELEMENTARY SCHOOL MATHEMATICS.** 1-12 cr (max 12 cr). This offering 3 credits, \$219.

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, Jackson
Spring Qtr	Sec 2	Th —4:30-7:15, PeikH 385

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**OMthE 5311 TEACHING AND SUPERVISION OF MATHEMATICS IN THE ELEMENTARY SCHOOL.** 3 credits, \$219.

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 4 Extension students)

Fall Qtr Sec 1 **M**—4:30-7:15, PeikH 375, Post

★**OMthE 5312 TEACHING AND SUPERVISION OF MATHEMATICS IN THE SECONDARY SCHOOL.** 3 credits, \$219.

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 tchg exper or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 5311. A joint Day/Extension class limited to 4 Extension students)

Fall Qtr Sec 1 **M**—4:30-7:15, PeikH 375, Post

★**OMthE 5313 TEACHING AND SUPERVISION OF MATHEMATICS IN THE MIDDLE SCHOOL.** 4 credits, \$292.

Mathematics objectives, concepts and principles, skills and processes; instructional alternatives including calculators and microcomputers; applications of mathematics to individual differences; evaluation techniques to improve instruction and learning in middle school. **Must be taken A-F.** (Prereq elementary or secondary school licensure. 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**—4:30-8, PeikH 375, Post

★**OMthE 5322 MATERIALS LABORATORY FOR SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, \$219.

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, House

★**OMthE 5331 CURRENT DEVELOPMENTS IN ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, \$219.

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 4 Extension students)

Spring Qtr Sec 1 **T**—4:30-7:15, PeikH 375, House

★**OMthE 5332 CURRENT TRENDS AND ISSUES IN SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** 3 credits, \$219.

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 4 Extension students)

Spring Qtr Sec 1 **T**—4:30-7:15, PeikH 375, House

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OMthE 5345 MATHEMATICS FOR GIFTED CHILDREN.** 3 credits, \$219.

Curriculum and methods of instruction for academically talented children; development of enrichment units; source material for teachers. **Must be taken A-F.** (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)

Spring Qtr Sec 1 M—4:30-7:15, PeikH 385, Jackson

★**OMthE 5355 MATHEMATICS FOR SLOW LEARNING CHILDREN.** 3 credits, \$219.

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)

Winter Qtr Sec 1 M—4:15-7:15, PeikH 155

★**OMthE 5366 COMPUTER-ASSISTED MATHEMATICS INSTRUCTION.** 3 credits, \$219.

The computer as an instructional resource in the mathematics classroom; programming and problem solving using the computer as a means of teaching and learning concepts, principles, and skills of mathematics; design of lessons; evaluation of software. **Must be taken A-F.** (Prereq 5312 or SeEd 3365; SeEd 3366 or CISy 5006; and one year of calculus or #. 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 T—4:30-7:15, PeikH 355, House

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 182 or call 625-6501.

Mechanical Engineering (ME)

(121 Mechanical Engineering: 625-5842)

Institute of Technology

Textbooks for most ME courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Your attention is called to the Undergraduate Development Certificate in Mechanical Engineering—95 credits, page 676.

Students interested in degrees and certificates in Mechanical Engineering should see the Degrees and Certificates section of this Bulletin.

*Sant Ram Arora, Professor of Mechanical Engineering
Tasfahun Berhe, Teaching Assistant in Mechanical Engineering
Arthur C. Erdman, Professor of Mechanical Engineering
Darrell A. Frohrib, Professor of Mechanical Engineering
Virgil A. Marple, Professor of Mechanical Engineering
Russell Melton, Lecturer in Mechanical Engineering
Richard Pluntz, Lecturer in Mechanical Engineering
J.W. Ramsey, Professor of Mechanical Engineering*

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Charles J. Scott, Associate Professor of Mechanical Engineering
Ephraim M. Sparrow, Professor of Mechanical Engineering

Through registration in Extension Classes, students may earn all but approximately 20-24 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 647.)

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, \$182.25.

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, Arch 60, Pluntz

★ME 1025 (formerly EG 1025) ENGINEERING GRAPHICS. 4 credits, \$EG 1025, \$243. (IS)

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. (Prereq Math 1211 or equivalent. Limited to 50)

Fall Qtr Sec 1 **M**—6:10-9:30, MechE 202, Berhe

Spring Qtr Sec 2 **M**—6:10-9:30, MechE 202, Berhe

★ME 3201 MECHANICAL ENGINEERING SYSTEMS ANALYSIS. 4 credits, \$AEM 3401, \$292.

Determination of response of engineering systems utilizing transfer function representation. Analogies 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, Arch 45

ME 3203 ANALYSIS OF MECHANISM SYSTEMS. 4 credits, \$292.

Diagnostics of the performance of mechanism systems involving linkage, hydraulic,
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, or practicing professional with bachelor's degree in engineering)

Fall Qtr Sec 1 **W**—6:10-9:30, Arch 55

ME 3205 ENGINEERING SYSTEMS DESIGN. 4 credits, \$292.

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 25

★**ME 3301 THERMODYNAMICS.** 4 credits, \$292.

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 1014 or equivalent or Phys 1281 and Math 3221 or equivalent. Limited to 45)

Fall Qtr Sec 1 **T**—6:10-9:30, Arch 10

★**ME 3303 APPLIED THERMODYNAMICS.** 4 credits, \$3305, \$292.

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 55

★**ME 3701-3702 BASIC MEASUREMENTS LABORATORY I AND II.** 2 credits each quarter, \$146 each quarter.

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**—5:30-8:30, MechE 370

3702 Sec 2 **Th**—6:30-9:30, MechE 370

○**ME 3741-3742-3743 INDUSTRIAL ASSIGNMENT.** 2 credits each quarter, \$146 each quarter.

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

3742 Sec 2 **Arr**, Marple

3743 Sec 3 **Arr**, Marple

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Winter Qtr	3741	Sec 4	Arr, Marple
	3742	Sec 5	Arr, Marple
	3743	Sec 6	Arr, Marple
Spring Qtr	3741	Sec 7	Arr, Marple
	3742	Sec 8	Arr, Marple
	3743	Sec 9	Arr, Marple

ME 3900 INTRODUCTION TO ENGINEERING STATISTICS. 4 credits, \$292.

Elements of probability, descriptive statistics, binomial and Poisson distributions; normal distribution, estimation, hypothesis testing, regression analysis and analysis of variance. (Prereq Math 1231 or equivalent)

Fall Qtr Sec 1 **W**—6:10-9:10, MechE 221

ME 5225 FINITE ELEMENTS IN MECHANICAL DESIGN. 4 credits, \$292.

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 1992.**

ME 5342 HEAT TRANSFER. 4 credits, \$292.

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 **M**—6:10-9:30, MechE 221

ME 5344 THERMODYNAMICS OF FLUID FLOW. 4 credits, \$AEM 5201, \$292.

Compressible flow of gases in engineering systems such as nozzles, 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 **M**—6:10-9:30, MechE 221

ME 5603 THERMAL ENVIRONMENTAL ENGINEERING. 4 credits. **Tentatively scheduled for Fall 1992 and alternate years thereafter.**

Thermodynamic properties of moist air; h-W diagram for moist air; solar radiation; heat and water vapor transmission in structures; effects of thermal environments upon people, processes, and materials; thermal loads, thermal environmental control systems. (Prereq 3303 and 5342 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

ME 5712 SOLAR ENERGY UTILIZATION. 4 credits, \$292.

History and potential of solar energy utilization; availability of solar radiation on clear
(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

and cloudy days; incident radiation on horizontal, vertical, and inclined surfaces; flat-plate and concentrating solar collectors; heating and cooling with solar energy; power generation; review of current research. (Prereq 3303, 5342 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6:10-9:10, MechE 221, Ramsey

OME 5741-5742 INDUSTRIAL ASSIGNMENT AND DESIGN PROJECT. 4 credits each quarter, \$292.

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 Sec 1 Arr, Marple

5742 Sec 2 Arr, Marple

Winter Qtr 5741 Sec 3 Arr, Marple

5742 Sec 4 Arr, Marple

Spring Qtr 5741 Sec 5 Arr, Marple

5742 Sec 6 Arr, Marple

ME 5990 TOPICS IN MECHANICAL ENGINEERING: APPLICATIONS OF DESIGN OPTIMIZATION TO MULTI-DEGREE OF FREEDOM SYSTEMS. 4 credits, \$292.

Specialized topics within various areas of mechanical engineering. Emphasis on topics of current interest. Topics vary from quarter to quarter. *May be repeated for credit.* (Prereq submission of approved department permission form, #; IT upper division or grad student. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 MW—4:15-6, MechE 221

Medical Terminology

(See Health Science Units, page 275)

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)

Microbiology (MicB)

(1460 Mayo: 624-6190)

Medical School

Textbooks for most MicB courses are available at the Health Sciences Bookstore (625-8600)

Russell Bey, Associate Professor of Microbiology

Thomas Molitor, Assistant Professor of Large Animal Clinical Sciences

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

MicB 3103 GENERAL MICROBIOLOGY. 5 credits, \$5105, \$Biol 5013, \$VPB 3103. **Not offered 1991-92. Offered alternate years.**

Morphology, physiology, taxonomy, and ecology of bacteria and other microorganisms. General biology of microorganisms. Practical applications of fundamental principles to industry, agriculture and health. (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.]

★**MicB 5125 RECOMBINANT DNA LABORATORY.** 4 credits, \$Biol 5125, \$450.

Introduction to basic recombinant DNA techniques. Methods for growing, isolating, purifying recombinant DNAs and cloning vectors. **Interested parties must submit an application form to the instructor prior to the start of registration. Call the department at 624-6190 for information.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 14)

Spring Qtr Sec 1 **TTh**—4:15-8:15, MoosT 2-252

MicB 5218 IMMUNOLOGY. 3 credits, \$337.50.

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 Biol 5001. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6:15-8:45, MoosT 2-520, Molitor

Middle Eastern Studies

(See page 436)

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 Scholar and The Practical Scholar noncredit courses; and Compleat Scholar Weekends)

Minnesota Extension Service

Minnesota Extension Service (MES) is the outreach arm of the University of Minnesota that offers research-based education to people of all ages throughout the state in cooperation with

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

county, state, federal, and private partners. Its mission is to enable Minnesota citizens to foster full development of selves, families, and communities; to improve the state economy, especially the food and fiber sector; and to provide effective natural resource management.

MES draws on all resources of the University to provide practical research-based programs through its statewide network of county and area agents. Major issues currently addressed by MES include: (1) rural revitalization (community economic development/community leadership, tourism, and natural resource development); (2) water quality education (agricultural practices, safe drinking water, and waste management); and (3) youth and families at risk, including low-income and economically stressed in both urban and rural areas.

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.

Minnesota Studies in International Development (MSID)

See the Global Campus section of this bulletin, page 475, for information on MSID and other study abroad opportunities.

Modern Greek

(See Classical Studies)

Music (Mus)

(100 Ferguson Hall: 624-5740)

College of Liberal Arts

Most textbooks for Mus courses are available at the Harold D. Smith Bookstore on the West Bank campus (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

Peter S. Mensah, Teaching Assistant in Musicology

Stephen Schultz, Associate Professor of Music Education

Rebecca Shockley, Associate Professor of Music

Everett Sutton, Professor of Music

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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, \$121.50 each quarter.

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	T —6:15-8:15, FergH 259
	1051	Sec 2	TTh —3:35-4:25, FergH 259 (Limit 28)
Winter Qtr	1051	Sec 3	M —6:15-8:15, FergH 259
	1052	Sec 4	T —6:15-8:15, FergH 259
Spring Qtr	1051	Sec 5	TTh —3:35-4:25, FergH 259 (Limit 28)
	1051	Sec 6	M —6:15-8:15, FergH 259
	1053	Sec 7	T —6:15-8:15, FergH 259
	1051	Sec 8	TTh —3:35-4:25, FergH 259 (Limit 28)

★Mus 1054-1055-1056 INTERMEDIATE CLASS PIANO FOR NON-MUSIC MAJORS. 2 credits each quarter, \$121.50 each quarter.

A continuation of Mus 1051-1052-1053. Further development of functional skills, such as reading, harmonizing, playing by ear, and improvising, along with technical exercises and study of intermediate repertoire. (Prereq 1053 or # for 1054; 1054 or # for 1055; 1055 or # for 1056. Limited to 16)

Fall Qtr	1054	Sec 1	Th —6:15-8:15, FergH 259
Winter Qtr	1055	Sec 2	Th —6:15-8:15, FergH 259
Spring Qtr	1056	Sec 3	Th —6:15-8:15, FergH 259

★Mus 1151-1152-1153 PIANO: CLASS LESSONS. 2 credits each quarter, \$121.50 each quarter.

Keyboard skills in harmonization, improvisation, sight-reading, accompaniment, repertoire, technique. Group learning. (Prereq music major or #. Limited to 16)

Fall Qtr	1153	Sec 1	W —6:15-8:15, FergH 259
Winter Qtr	1151	Sec 2	W —6:15-8:15, FergH 259
Spring Qtr	1152	Sec 3	W —6:15-8:15, FergH 259

★Mus 1160 VOICE: CLASS LESSONS. 2 credits, \$121.50.

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, FergH 90, Ware
Winter Qtr	Sec 2	M —6:15-8, FergH 90, Ware
Spring Qtr	Sec 3	M —6:15-8, FergH 90, Ware

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Mus 1171-1172-1173 GUITAR: CLASS LESSONS. 2 credits each quarter, \$121.50 each quarter.

Fundamentals for the beginning folk-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 own guitar. (No prereq for 1171; 1171 or # for 1172 and 1173)

Fall Qtr 1171 Sec 1 T—6:15-8:15, FergH 123

Winter Qtr 1172 Sec 2 T—6:15-8:15, FergH 123

Spring Qtr 1173 Sec 3 T—6:15-8:15, FergH 123

(See also MacPhail Center, page 360)

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.

Music theory, history, literature, pedagogy

★**Mus 1001 FUNDAMENTALS OF MUSIC.** 4 credits, \$243.

Study of basic musical symbols, vocabulary, rhythm, design, scale structures, intervals, chords. The development of basic piano skills; the playing of simple accompaniments. Recommended for students interested in a basic introduction to music; not for music majors. (No prereq. Limited to 35)

Fall Qtr Sec 1 M—6:15-9:45, FergH 225

Sec 2 T—6:15-9:45, FergH 225

Sec 3 TTh—7-8:50, FergH 107

Sec 4 Th—6:15-9:45, FergH 225

Winter Qtr Sec 5 M—6:15-9:45, FergH 225

Sec 6 T—6:15-9:45, FergH 225

Sec 7 TTh—7-8:50, FergH 107

Sec 8 Th—6:15-9:45, FergH 225

Spring Qtr Sec 9 M—6:15-9:45, FergH 225

Sec 10 T—6:15-9:45, FergH 225

Sec 11 TTh—7-8:50, FergH 107

Sec 12 Th—6:15-9:45, FergH 225

Mus 1003 INTRODUCTION TO MUSIC THEORY. 2 credits, \$121.50.

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 MW—6:15-7:05, FergH 123

Mus 1004 INTRODUCTION TO EAR TRAINING. 2 credits, \$121.50.

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 MW—7:15-9, FergH 123

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Mus 1507-1508 THEORY REVIEW I-II. 3 credits each quarter, \$182.25 each quarter.

Melodic and harmonic structure. See also *Mus 1531, Theory I*. (Prereq placement exam)

Fall Qtr 1507 Sec 1 MW—7:15-9, FergH 123

Winter Qtr 1508 Sec 2 MW—7:15-9, FergH 149

Mus 1511 EAR-TRAINING AND SIGHT-SINGING I. 1 credit, \$60.75. (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 MW—6:15-7:05, FergH 123

Mus 1517-1518 EAR-TRAINING AND SIGHT-SINGING REVIEW I-II. 1 credit each quarter, \$60.75 each quarter.

Aural skills: sight-singing, interval recognition, melodic and harmonic dictation. See also *Mus 1531, Theory I*. (Prereq placement exam)

Fall Qtr 1517 Sec 1 MW—6:15-7:05, FergH 123

Winter Qtr 1518 Sec 2 MW—6:15-7:05, FergH 149

Mus 1531 THEORY I: FOUNDATIONS OF TONAL THEORY. 3 credits, \$182.25. (◆ \$91.25) (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 Music 1001 or 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 MW—7:15-9, FergH 123

Mus 1804 WORLD MUSIC. 4 credits, \$243. (◆ \$121.50)

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 107, Mensah

Mus 3021 INTRODUCTION TO MUSIC. 5 credits, \$310. (◆ \$155)

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 225, Sutton

Winter Qtr Sec 2 W—6-10, FergH 225

Spring Qtr Sec 3 W—6-10, FergH 225

Mus 3707 AFRICAN MUSIC. 4 credits, \$248. (◆ \$124)

Study of music in various African traditions in social and historical context. Interrelationships between music and society (function, context, structure, gender roles, politics) (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ical considerations). Instruments, life-cycle rites, genres, musical organization, traditional musicians, contemporary popular music. (No prereq)

Spring Qtr Sec 1 **MW**—7:15-9:10, FergH 107, Mensah

★**Mus 5150 BODY AWARENESS IN ACTIVITY: THE ALEXANDER TECHNIQUE FOR MUSICIANS.** 2 credits each quarter, \$124 each quarter.

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 **W**—6:15-8:15, FergH 105

Winter Qtr Sec 2 **W**—6:15-8:15, FergH 105

Spring Qtr Sec 3 **W**—6:15-8:15, FergH 105

⊙**Mus 5321-5322-5323 (replaces 5950) SUZUKI VIOLIN PEDAGOGY.** 2 credits each quarter, \$124 each quarter.

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 MacPhail, 627-4020.** (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**—12:30-2, MacP 311, Bjork

Winter Qtr 5322 Sec 2 **W**—12:30-2, MacP 311, Bjork

Spring Qtr 5323 Sec 3 **W**—12:30-2, MacP 311, Bjork

⊙**Mus 5324-5325-5326 (replaces 5950) ADVANCED SUZUKI VIOLIN PEDAGOGY.** 2 credits each quarter, \$124 each quarter.

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 downtown Minneapolis) and practical teaching experience. **For information about the course, contact Mark Bjork at MacPhail, 627-4020.** (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**—1-2:30, MacP 311, Bjork

Winter Qtr 5325 Sec 2 **M**—1-2:30, MacP 311, Bjork

Spring Qtr 5326 Sec 3 **M**—1-2:30, MacP 311, Bjork

⊙**Mus 5351-5352-5353 PIANO PEDAGOGY I.** 2 credits each quarter, \$124 each quarter.

Demonstration and discussion of teaching techniques, methods, and materials for group and individual instruction at the elementary and early intermediate levels. (Prereq 12 cr in MusA 1201 or 1301 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr 5351 Sec 1 **W**—10:10 a.m.-12:05, FergH 259, Shockley

Winter Qtr 5352 Sec 2 **W**—10:10 a.m.-12:05, FergH 259, Shockley

Spring Qtr 5353 Sec 3 **W**—10:10 a.m.-12:05, FergH 259, Shockley

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Mus 5354-5355-5356 PIANO PEDAGOGY PRACTICUM. 1 credit each quarter, \$62 each quarter.

Application of principles and techniques for group or individual instruction at the elementary, early intermediate, and late intermediate levels in a directed teaching setting. (Prereq ¶5351-5352-5353. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5354 Sec 1 Arr, Shockley

Winter Qtr 5355 Sec 2 Arr, Shockley

Spring Qtr 5356 Sec 3 Arr, Shockley

★**Mus 5950 TOPICS IN MUSIC: COMPUTERIZED MUSIC NOTATION.** 3 credits, \$186.

Fundamentals of music printing and notation utilizing the Macintosh computer, MIDI keyboards, and the Finale software program. Topics to be covered include the preparation of instrumental and vocal scores, part extraction, and page layout. **Note:** An additional course fee will be charged to those students who wish to use the computer outside of regular class time. (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 T—6-9, FergH 113, Schultz

Spring Qtr Sec 3 T—6-9, FergH 113, Schultz

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.**

MacPhail offers classes in piano and many other instruments as well as instruction in speech and singing. Call MacPhail Center at 627-4020 for a copy of their bulletin.

Music Education (MuEd)

(100 Ferguson Hall: 624-5740)

College of Education

Textbooks for most MuEd courses available at the Harold D. Smith Bookstore on the West Bank campus (625-3000).

Robert Borg, Associate Professor

Charles Furman, Associate Professor

Paul Haack, 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.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

●**MuEd 5111 RESEARCH IN MUSIC EDUCATION: BIBLIOGRAPHY.** 3 credits, \$219.

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 M—4:30-6:30, FergH 157, Schultz

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

● **MuEd 5112 RESEARCH IN MUSIC EDUCATION: TECHNIQUES.** 3 credits, \$219.

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**—4:30-6:30, FergH 151, Furman

● **MuEd 5214 PSYCHOLOGICAL FOUNDATIONS.** 3 credits, \$219.

Analysis and interpretation of psychologies of music and education as applied to the teaching of music. **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 **Th**—4:30-6:30, FergH 151, Furman

● **MuEd 5611 TECHNIQUES AND MATERIALS: MUSIC AND RELATED ARTS.** 3 credits, \$219.

Teaching music to reflect the major developments of Western culture. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **M**—4:30-6:30, FergH 107, Haack

● **MuEd 5615 TEACHING MUSIC READING.** 3 credits, \$219.

Objectives; materials, research, teaching procedures, evaluation; class and individual projects; emphasis on general music class approach. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Qtr Sec 1 **M**—4:30-6:30, FergH 107, Borg

● **MuEd 5970 INDEPENDENT STUDY.** 1-4 credits, \$73 each credit.

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, Schultz

Winter Qtr Sec 2 **Arr**, Borg, Furman, Haack, Schultz

Spring Qtr Sec 3 **Arr**, Borg, Furman, Haack, 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. Students interested in classes before 4 p.m. should see the daytime *Class Schedule*.

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.

Also see **MacPhail Center for the Arts courses on page 360.**

N

Naval Science (Nav)

(203 Armory: 625-6677)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 Ancient Near Eastern; Hebrew; Jewish Studies; and South Asian and Middle Eastern Studies)

Neighborhood Centers

(See page 696)

Noncredit Classes

(See the **Noncredit Courses** section, page 489)

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 the Health Sciences Bookstore (625-8600)

Ellen Egan, Associate Professor of Nursing
Marilyne Gustafson, Assistant Professor of Nursing
Muriel B. Ryden, Professor of Nursing
Mariah Snyder, Professor of Nursing
Kathleen Sodergren, Assistant Professor of Nursing

●Nurs 5620 SPECIAL TOPICS: BEHAVIORAL PROBLEMS OF PERSONS WITH DEMENTIA. 3 credits, \$Nurs 8009, \$219.

Offered alternate years. An exploration of the theories and research that contribute to understanding behavioral problems in dementia, and their relationship to clinical management. (Prereq a knowledge of the research process and #. May not be taken for graduate credit. A joint Day/Extension class. Meets concurrently with Nurs 8009)

Spring Qtr Sec 1 T—4:40-7:40, HSUnitF 4-150, Ryden

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Nurs 5640 COMMON RESPONSE PATTERNS TO ILLNESS.** 3 credits, \$219.

Exploration of theoretical and clinical perspectives of selected human response patterns found in disruptions in health. The course will provide students with an opportunity to examine nursing phenomena, such as pain or hopelessness, from the perspective of an advanced nurse practitioner. **May be taken S-N.** (Prereq R.N., nursing student, or graduate nursing student. 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 **T**—4:40-6:35 (plus 1 hr arr), MechE 102, Snyder

★**Nurs 5650 THERAPEUTIC TOUCH: PRACTICE AND RESEARCH.** 2 credits, \$146.

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 R.N., nursing student or graduate nursing student. 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**—4:40-6:35, HSUnitF 4-150, 4-176, Egan, Sodergren

★**Nurs 5711 SPIRITUALITY—PART OF THE WHOLE PERSON.** 2 credits, \$146.

Focuses on spirituality—a part of the whole person, and the relationship of this to the nursing process. (No prereq. May not be taken for graduate credit. A joint Day/Extension class limited to 25 Extension students)

Spring Qtr Sec 1 **W**—4:40-6:35, HSUnitF 4-176, Gustafson

★**Nurs 5738 TRANSCULTURAL NURSING: THEORIES AND ISSUES.** 2 or 3 credits, \$146 or \$219.

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 world-wide. **May be taken S-N.** (Prereq cultural anthropology course or #; R.N. or nursing student or graduate nursing student. 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**—4:40-6:35, MechE 102, Gustafson

●**Nurs 8009 SPECIAL TOPICS: BEHAVIORAL PROBLEMS OF PERSONS WITH DEMENTIA.** 3 credits, \$Nurs 5620, \$408.

Offered alternate years. See description for Nurs 5620. (Prereq a knowledge of the research process and #. Open only to students admitted to the University of Minnesota Graduate School. A joint Day/Extension class. Meets concurrently with Nurs 5620)

Spring Qtr Sec 1 **T**—4:40-7:40, HSUnitF 4-150, Ryden

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.

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

O

Operations and Management Science (OMS)

(332 Management/Economics: 624-7010)

Carlson School of Management

Textbooks for most OMS courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

John C. Anderson, Associate Professor

Rajiv Banker, Professor

P. George Benson, Associate Professor

Norm Chervany, Professor

Gretchen Donahue, Adjunct Professor

Arthur V. Hill, Associate Professor

Thomas R. Hoffmann, Professor

Charles Hunt, Adjunct Professor, Project Coordinator, Alliant Techsystems, Inc.

David Kelton, Associate Professor of Operations and Management Science

Inder Khosla, Assistant Professor of Operations and Management Science

John Knauff, Adjunct Professor, Knauff & Associates, Inc.

Chris Nachtsheim, Associate Professor

Dale Nelson, Adjunct Professor, Manager, Quality Process, ADC Telecommunications, Inc.

John Nicolay, Adjunct Professor, General Manager, MicroAge Computer Stores, Inc.

Robert Schmidt, Assistant Professor

Roger G. Schroeder, Professor

James R. Schroer, Executive Fellow and Adjunct Professor

Howard Strauss, Senior Executive Fellow and Adjunct Professor

Michael Taaffe, Assistant Professor

Lee Wickstrom, Extension Coordinator and Adjunct Professor

Carlson School of Management degree students must take Operations Management courses A-F.

Undergraduate Core

Beginning with admission for Fall Qtr 1988, several lower division and upper division OMS and IDSc (formerly Department of Management Sciences) class changes were implemented by the Carlson School of Management. If you are seeking admission to the Carlson School and you have taken DSci 1050, MIS 3100 and/or MIS 3101, please contact a CEE adviser in 314 Nolte Center, or call 625-2500 for information.

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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OMS 1020 (formerly MSci 1020) DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS.** 4 credits, §MSci 1020, \$243 plus \$16 special fee. Total \$259. (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	W—5:30-8:50, BlegH 130
Winter Qtr	Sec 2	M—5:30-8:50, BlegH 125
	Sec 3	W—5:30-8:50, BlegH 125
Spring Qtr	Sec 4	M—5:30-8:50, BlegH 125
	Sec 5	W—5:30-8:50, BlegH 130

★**OMS 3000 (formerly OM 3000) INTRODUCTION TO OPERATIONS MANAGEMENT.** 4 credits, §OM 3000, \$275 plus \$16 special fee. Total \$291.

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	T—5:30-8:50, BlegH 120
	Sec 2	Th—5:30-8:50, AndH 330
Winter Qtr	Sec 3	M—5:30-8:50, AndH 230
	Sec 4	Th—5:30-8:50, BlegH 250
Spring Qtr	Sec 5	T—5:30-8:50, AndH 370
	Sec 6	W—5:30-8:50, BlegH 5

★**OMS 3041 (formerly OM 3041) PROJECT MANAGEMENT.** 4 credits, §OM 3041, \$275 plus \$16 special fee. Total \$291. (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. (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	Th—5:30-8:50, BlegH 330
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★**OMS 3056 (formerly OM 3056) PRODUCTION AND INVENTORY MANAGEMENT.** 4 credits, §OM 3056, \$275 plus \$16 special fee. Total \$291.

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 210
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**OMS 3059 (formerly OM 3059) QUALITY MANAGEMENT.** 4 credits, \$OM 3059, \$275 plus \$16 special fee. Total \$291.

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, SocSci 1383

★**OMS 3850 TOPICS IN OPERATIONS AND MANAGEMENT SCIENCE: SERVICE OPERATIONS: Strategy, Design, and Delivery.** 4 credits, \$275 plus \$16 special fee. Total \$291.

Perspective on service systems from origins through growth in terms of strategic factors, design, organization, process control, delivery, work force, capacity, and quality management. Delivery of services with high customer interaction are stressed. Improved service productivity and quality are discussed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Fall Qtr Sec 1 **W**—5:30-8:50, HHCtr 20

★**OMS 3850 TOPICS IN OPERATIONS AND MANAGEMENT SCIENCE: INTERNATIONAL OPERATIONS MANAGEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

The 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. (No prereq. 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 2 **M**—5:30-8:50, BlegH 215

★**OMS 5100 MANUFACTURING FOR COMPETITIVE ADVANTAGE.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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)

Fall Qtr Sec 1 **M**—5:30-8:50, Law 3

Spring Qtr Sec 2 **T**—5:30-8:50, BlegH 255

★**OMS 5155 STATISTICAL METHODS FOR QUALITY AND PRODUCTIVITY IMPROVEMENT.** 4 credits, \$275 plus \$16 special fee. Total \$291.

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 MSci 1020 or #. Qualified students may register for graduate credit at the University of Minnesota. **Open to nondegree students with equivalent experience.** Extension class limited to 10 Extension students)

Winter Qtr Sec 1 **Th**—5:30-9, BlegH 335

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

APEX (Academy Practitioner Exchange) Project

APEX PROJECT COURSES. 4 credits (may be repeated for credit). Tuition for APEX Project courses will be \$695 a course.

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.

For further information about courses listed below, contact the course coordinator at (612) 624-7558.

★OMS 5998 MANUFACTURING STRATEGY: Planning, Development, and Implementation.

Teaches you how to develop and implement a manufacturing strategy that will support and strengthen corporate strategy. Participants are encouraged to bring current work cases or difficult problems to the APEX seminar for guided or facilitated group problem solving. An implementation plan will be developed by showing how projects, systems, procedures, and policies support the attainment of strategic objectives. A similar approach can be used for developing strategies for service sector operations. (Limited to 15)

Fall Qtr Sec 1 **Th**—5:30-8:50, Law 3

★OMS 5998 COMPUTER-INTEGRATED ENTERPRISE: Planning and Development.

Shows how to achieve functional and organizational integration of operations and how to develop Computer-Integrated Enterprise (CIE) teams. The class will perform competitive benchmark analysis of collected data. It further covers how to develop a corporate vision and an appropriate CIE architecture. A realistic evolution path to CIE will be derived with the participants. Case studies of early CIE successes will be studied. (Limited to 15)

Winter Qtr Sec 2 **Th**—5:30-8:50, BlegH 350

★OMS 5998 OPERATIONS STRATEGY: Planning, Execution, and Control.

First examines corporate strategy with particular emphasis on various models of strategic planning. Then proceeds to investigate the notion of limited strategic options and the processes for selecting among them. Included in this investigation will be a detailed study of the role of the operations function. Then proceeds to examine how the operations function must plan, execute, and control in a manner so as to make the corporate strategy a functioning reality. Extensive use of guest speakers both corporate and functional. Case studies. (Limited to 15)

Spring Qtr Sec 3 **Th**—5:30-8:50, Law 3

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★OMS 5998 SEMINAR: COMPRESSING THE TIME TO DEVELOP NEW PRODUCTS.

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)

Spring Qtr Sec 4 **Th**—5:30-8:50, SocSci 1383

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)

P

Persian

(See South Asian and Middle Eastern Studies for language or related courses)

Pharmacognosy (Phcg)

(5-110 Health Sciences Unit F: 624-9490)

College of Pharmacy

Textbooks for most Phcg courses are available at the Health Sciences Bookstore (625-8600)

John Staba, Professor of Pharmacognosy

★Phcg 1800 NATURE'S REMEDIES. 3 credits, \$182.25.

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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Pharmacy Practice (Phar)

(5-110 Health Sciences Unit F: 624-9490)

College of Pharmacy

Textbooks for most Phar courses are available at the Health Sciences Bookstore (625-8600)

Barton W. Galle, Jr., Director, Continuing Medical Education

Thomas M. McKennell, Assistant Professor and Director of Pharmacy Continuing Education

Robert E. Yahnke, Associate Professor

Phar 5007 BIOLOGY OF AGING. 2 credits, \$SAHP 5007, \$SHCE 5007, \$Dent 5070, \$HSU 5031, \$153.50.

Comparative biology and aging at molecular and cellular levels in various plants and animal systems. Emphasis on human biology, including pathobiology and theories of aging, nutrition, immunology, and a review of organ systems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5031. A joint Day/Extension class)

Winter Qtr Sec 1 **Th**—4:40-6:25, MoosT 2-580, McKennell

Phar 5008 HUMANITIES AND AGING. 2 credits, \$SAHP 5008, \$SHCE 5008, \$HSU 5030, \$153.50.

An examination of aging—through the perspectives of literature, music, art, philosophy, and history. Discussion will focus on such topics as the historical experience of today's elderly cohort, paternalism, generational conflict, cross-cultural ceremonies of aging, and changing attitudes toward the elderly in America. (No prereq. May not be taken for graduate credit. Meets concurrently with HSU 5030. A joint Day/Extension class)

Spring Qtr Sec 1 **Th**—4:40-6:25, ApH 102, Yahnke

Phar 5009 MULTIDISCIPLINARY PERSPECTIVES ON AGING. 4 credits, \$AdEd 5440, \$SAHP 5009, \$HSU 5009, \$CPsy 5305, \$Educ 5440, \$PA 5414, \$SAHP 5009, \$SW 5024, \$Soc 5960, \$PubH 5520, \$SHCE 5009, \$307.

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; 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, PA 5414, PubH 5520, 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, \$SAHP 5210, \$SHCE 5210, \$HSU 5210, \$153.50.

An independent study course which meets biweekly for tests. Day and time for tests arranged at the beginning of each term. For information, call 624-2442 or go to room 5120 HSUnitF before the first day of the term. Office hours are 8:30 a.m. to 4 p.m. No lectures or formal class sessions other than test periods, but conference hours are available for informal discussion. (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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Phar 5305 HUMANISTIC CASE STUDIES IN HEALTH CARE. 3 credits, §Engl 5920, §SHCE 5305, §SAHP 5305, §HSU 5029, \$230.25.

An exploration of health care issues through their embodiment in such books as *Cancer Ward*, *As We Are*, *The Elephant Man*, and *Love Among the Ruins*. Themes to be investigated include terminal care, the patient-practitioner relationship, the elderly patient, mental health and madness, scientific research, and the politics of health-care institutions. (No prereq. May not be taken for graduate credit. Meets concurrently with HSU 5029.)

Spring Qtr Sec 1 **Th**—4:15-6:30, MoosT 2-690, Galle

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 the Minnesota Book Center in Williamson Hall (625-6000)

(See also English; Humanities; Interdepartmental Study; and The Compleat Scholar noncredit courses)

C. Anthony Anderson, Professor of Philosophy

Carol Bly, Lecturer in English

Norman O. Dahl, Professor of Philosophy

John M. Dolan, Associate Professor of Philosophy

Keith Gunderson, Professor of Philosophy

William Hanson, Professor of Philosophy

Douglas E. Lewis, Professor of Philosophy

Joseph Owens, Associate Professor of Philosophy

John R. Wallace, Professor of Philosophy

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 1002 Introduction to Philosophy

Phil 1001 or 3201, Logic

Phil 3001 and Phil 3003, History of Philosophy

Phil 3105 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)

At least nine four- or five-credit philosophy courses at the 3000 or 5000 level with grades of C or higher (exception: two courses may have grades of S), at least three of which are 5000-level courses, and at least four of which are courses completed at the University of Minnesota.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

Phil 1001 LOGIC. 5 credits, \$303.75. (♦ \$152) (IS)

Application of formal techniques for evaluating arguments. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, FordH 155

Sec 2 **T**—6:20-8:50, FordH 115

♦ **Winter Qtr** Sec 3 **W**—6:20-8:50, Richfield HS 143 (Limit 30)

Sec 4 **Th**—6:20-8:50, FordH 155

Spring Qtr Sec 5 **M**—6:20-8:50, FordH 155

Sec 6 **W**—6:20-8:50, FordH 155

Phil 1002 INTRODUCTION TO PHILOSOPHY. 5 credits, \$303.75. (♦ \$152) (IS)

Problems, principal methods and schools of philosophy; historical and contemporary views. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, FordH 160

Sec 2 **Th**—6:20-8:50, FordH 285

♦ **Winter Qtr** Sec 3 **M**—6:20-8:50, FordH 55

Sec 4 **W**—6:20-8:50, FordH 55

Spring Qtr Sec 5 **T**—6:20-8:50, FordH 55

Phil 1003 ETHICS. 5 credits, \$303.75. (♦ \$152)

Problems that arise when human beings attempt to think systematically about conduct and value. (No prereq)

♦ **Fall Qtr** Sec 1 **W**—9:30 a.m.-12, MacP

Offered through Continuing Education for Women

cew

Winter Qtr Sec 2 **T**—6:20-8:50, FordH 115

Spring Qtr Sec 3 **Th**—6:20-8:50, FordH 175

Phil 3001 GENERAL HISTORY OF WESTERN PHILOSOPHY. 5 credits, \$310. (♦ \$155)

♦ Survey of major developments in Western philosophic thought: Greek philosophy, pre-Socratics, Socrates, Plato, Aristotle. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, Ford 55, Dahl

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- Phil 3003 GENERAL HISTORY OF WESTERN PHILOSOPHY.** 5 credits, \$310. (◆\$155)
 ◆ Survey of major developments in Western philosophic thought: Modern philosophy from Descartes through Hume. (No prereq)
Winter Qtr Sec 1 **T**—6:20-8:50, FordH 160, Lewis
- Phil 3004 GENERAL HISTORY OF WESTERN PHILOSOPHY.** 5 credits, \$310. (◆\$155)
 ◆ Survey of major developments in Western philosophic thought: Kant through 19th century. (No prereq)
Spring Qtr Sec 1 **T**—6:20-8:50, FordH 170, Gunderson
- Phil 3231 INTRODUCTION TO THE PHILOSOPHY OF LANGUAGE.** 4 credits, \$248. (◆\$124)
 ◆ 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 **W**—6:20-8:50, FordH 170, Owens
- Phil 3302 MORAL PROBLEMS OF CONTEMPORARY SOCIETY.** 5 credits, \$310. (◆\$155)
 ◆ Selected problems of current interest. (No prereq)
Fall Qtr Sec 1 **Th**—6:20-8:50, FordH 170, Wallace
- Phil 3305 MEDICAL ETHICS.** 5 credits, \$PubH 5623, \$310. (◆\$155)
 ◆ Moral problems confronting physicians, patients, and others concerned with medical treatment, research, and public health policy. The management of death, genetic engineering, confinement and mental illness, abortion, informed consent and truth telling in physician-patient relationships, and distributive justice in the allocation of scarce medical resources. Relationship between individual decision making and institutional policies. (No prereq)
Spring Qtr Sec 1 **T**—6:20-8:50, FordH 150, Dolan
- Phil 5105 EPISTEMOLOGY.** 4 credits, \$248. (◆\$124)
 ◆ Various theories of the origin, development, reliability, justification, and scope of knowledge. (Prereq 1001 or #. Qualified students may register for graduate credit at the University of Minnesota)
Fall Qtr Sec 1 **W**—6:20-8:50, FordH 130, Anderson
- Phil 5201 SYMBOLIC LOGIC I.** 5 credits, \$310. (◆\$155)
 ◆ 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)
Winter Qtr Sec 1 **W**—6:20-8:50, FordH 150, Hanson
- Phil 5615 MINDS, BODIES, AND MACHINES.** 4 credits, \$248. (◆\$124)
 ◆ 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)
Spring Qtr Sec 1 **M**—6:20-8:50, FordH 170, Owens
- ★**Phil 5760 SELECTED TOPICS IN PHILOSOPHY: ETHICS: Literary and Philosophical Perspectives.** 4 credits, \$248.
 An exploration of ethics which draws on the resources of literature and philosophy.
 (continued next page)

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

Class participants ask how literature enacts moral conflict and employs its peculiar skills—objective correlatives, symbolic narratives, and metaphors—to speak to huge griefs of the present time, corporate malfeasance, large frustrations, and injustices (to humans, to other creatures, and to the earth). A search in literature for some clue to the mystery of why some people seem indifferent to certain virtues and cruelties, while other persons attend to them with passion for years. Turning from the concrete immediacies of literature to the abstract inquiry of philosophy, the class examines standards to which people can appeal when engaged in moral evaluation; the requirements of justice and the deeper underlying moral principles at stake in current debates over such issues as civil disobedience, abortion, euthanasia, and freedom of the press; the moral significance of practices and institutions and of the various roles defined by them (such as citizen, attorney, physician, nurse, judge). Other topics to be explored include the significance of radical moral disagreement; and how society should proceed when there is deep moral disagreement among its citizens. In their work on literature, class participants will read short stories, poems, and essays by Jim Harrison, D. H. Lawrence, Guy de Maupassant, Alice Walker, George Orwell, Michael Dennis Browne, Louis Simpson, Susan Lowell, Alice Munro, and others. Also included are two philosophical papers by John Rawls and one by Ronald Dworkin. **Note:** This is a two-quarter course. Students must begin with Phil 5760, sec 1/Engl 5910, sec 1 (fall quarter) and make a commitment to complete the two-quarter course by following up with Phil 5770, sec 1/Pol 5610, sec 2 (winter quarter). **Preregistration is required;** call 625-3322 for an application and additional information. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Engl 5910, sec 1. Limited to a combined total of 30)

Fall Qtr Sec 1 T—6:30-8:50, LindH 217, Bly, Dolan

★Phil 5770 **SELECTED TOPICS IN PHILOSOPHY: ETHICS, POLITICS, AND PUBLIC POLICY.** 4 credits, \$248.

The central focus is *duties within and beyond borders* and the question, who or what belongs to the moral community of creatures deserving protection and respect? The “borders” within and beyond which we act are to be understood both literally (as legal/political boundaries) and metaphorically, as borders between generations of human beings, as borders between human beings at various stages of development and in different states of health (that is, between the born and the unborn, the healthy and severely ill, the fit and disabled, the young and the old), and as borders between human and non-human animals species. Asking who belongs to the community of those who deserve 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 to the disabled, the unborn, and the vulnerable, and will ask what “freedom” means, what responsibilities are entailed by that freedom, and what legitimate limits might be placed on the freedom to think, 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 Elizabeth Anscombe, Wendell Berry, Noam Chomsky, Ronald Dworkin, Aldo Leopold, Ruth Macklin, John Stuart Mill, Richard John Neuhaus, Paul Ramsey, Peter Singer, and Alexis de Tocqueville. **Note:** This is a two-quarter course. Students must begin with Engl 5910, sec 1/Phil 5760, sec 1 (fall quarter) and make a commitment to complete the two-quarter course by following up with Phil 5770, sec 1/Pol 5610, sec 2 (winter quarter). **Preregistration is required;** call 625-3322 for an application and additional information. (Prereq Engl 5910, sec 1/Phil 5760, sec 1. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Pol 5610, sec 2. Limited to a combined total of 30)

Winter Qtr Sec 1 T—6:20-8:50, FordH 50, Ball, Dolan

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Photography

(See Art History; Studio Arts; General College; The Compleat Scholar noncredit courses; and Compleat Scholar Weekends)

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 the Minnesota Book Center in Williamson Hall (625-6000)

(See also Dance; Kinesiology; and Recreation)

Robert Fusaro, Teaching Specialist in Physical Education

John Holm, Teaching Specialist in Physical Education

Richard Jacobson, Lecturer in Physical Education

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.

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, \$60.75.

Designed for the beginner including aquatic breathing, floating, treading water, finning, human stroke, elementary backstroke, sidestroke, front crawl. (Prereq non-swimmer. Limited to 25)

Fall Qtr Sec 1 **M**—6:10-8:10, NorrisH 51

Winter Qtr Sec 2 **M**—6:10-8:10, NorrisH 51

Spring Qtr Sec 3 **M**—6:10-8:10, NorrisH 51

★PE 1014 CONDITIONING. 1 credit, \$60.75.

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**—6:10-8:10, FieldHse

Winter Qtr Sec 2 **T**—6:10-8:10, FieldHse

Spring Qtr Sec 3 **T**—6-8, FieldHse

Sec 4 **Th**—6-8, FieldHse

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★PE 1015 **WEIGHT TRAINING.** 1 credit, \$60.75.

Fundamentals including techniques, theory, and individualized exercise prescription. (No prereq. Limited to 25)

Fall Qtr Sec 1 **T**—6-8, StadN 205

Winter Qtr Sec 2 **W**—6-8, StadN 205

Spring Qtr Sec 3 **T**—6-8, StadN 205

★PE 1033 **FOIL FENCING.** 1 credit, \$60.75.

Developing necessary physical and perceptual skills. Includes history, rules, and practical bouting experience. (No prereq. Limited to 28)

Fall Qtr Sec 1 **W**—6:10-8:10, PeikH 100, Jacobson

★PE 1035 **KARATE.** 1 credit, \$60.75.

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**—6:10-8:10, StadS 264, Fusaro

Winter Qtr Sec 2 **T**—6:10-8:10, StadS 264, Fusaro

★PE 1036 **RACQUETBALL.** 1 credit, \$60.75.

Basic fundamentals of skills and shots; rules and game strategy. (No prereq. Limited to 22)

Fall Qtr Sec 1 **Sa**—9-11 a.m., StadN 208

Winter Qtr Sec 2 **Sa**—9-11 a.m., StadN 208

Spring Qtr Sec 3 **Sa**—9-11 a.m., StadN 208

★PE 1041 **CYCLING.** 1 credit, \$60.75.

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. 18-May 23, Gym
Classroom, StP Campus
No late fee through Apr. 10

★PE 1044 **SELF DEFENSE.** 1 credit, \$60.75.

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, StadN 207, Holm

Winter Qtr Sec 2 **W**—6-8, StadN 207, Holm

Spring Qtr Sec 3 **W**—6-8, StadN 207, Holm

★PE 1050 **GOLF.** 1 credit, \$60.75.

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, StadS 267, Golf Course

Sec 2 **M**—7:15-8:45, StadS 267, Golf Course

Sec 3 **W**—5:45-7:15, StadS 267, Golf Course

Sec 4 **W**—7:15-8:45, StadS 267, Golf Course

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★PE 1056 **NORDIC (CROSS COUNTRY) SKIING.** 1 credit, \$60.75.

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. 4-Feb. 8, Gym
Classroom, StP Campus

Sec 2 **Sa**—1-4, Jan. 4-Feb. 8, Gym Classroom,
StP Campus

★PE 1074 **VOLLEYBALL.** 1 credit, \$60.75.

Fundamental skills and rules of volleyball; basic team play and strategy. (No prereq. Limited to 26)

Fall Qtr Sec 1 **M**—5-7, NorrisH 151

Winter Qtr Sec 2 **M**—5-7, NorrisH 151

Spring Qtr Sec 3 **M**—5-7, NorrisH 151

Physical Medicine and Rehabilitation (PMed)

(860 Mayo: 626-4050)

Medical School

Textbooks for most PMed courses are available at the Health Sciences Bookstore (625-8600)

(See also Cell Biology and Neuroanatomy; and General College courses)

⊙PMed 5135 **PATHOKINESIOLOGY.** 3 credits, \$243.75.

Lecture course materials and laboratory experiences are designed to develop an understanding of normal and abnormal body movement patterns and capabilities. **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 **TTh**—4:40-5:55, ChRC 208

⊙PMed 5150 **KINESIOLOGICAL ELECTROMYOGRAPHY AND NERVE CONDUCTION.** 3 credits, \$243.75.

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)

Winter Qtr Sec 1 **T**—4:40-6:20, ChRC 204

Th—4:40-7, ChRC 204

★PMed 5182 **FUNCTIONAL NEUROANATOMY AND NEUROPHYSIOLOGY.** 3 credits.
Offered alternate years. Tentatively scheduled for 1992-93.

A study of the neuroanatomic structures as functional systems and the basic neurophysiologic concepts with emphasis on application for understanding and treating physical dysfunction. (Prereq Occupational Therapist, Physical Therapist, Speech Therapist, Nurse, or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 50)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

OPMed 5294 INDEPENDENT STUDY IN PHYSICAL THERAPY. Credit arr, \$81.25 a credit.

Independent reading, and formal and informal discussions on a specific topic, for example, physical therapy for pediatric patients. (Prereq # or registered physical therapy student. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—4:40-6:20 or arr (other topics)

OPMed 5810 ASSESSMENT OF THE ELDERLY. 3 credits, \$243.75.

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 **W**—4:40-6:20 and arr, ChRC 208

OPMed 5841 INSTRUMENTATION AND ANALYSIS TECHNIQUES. 3 credits, \$243.75.

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 **TTh**—4:40-5:55, ChRC 208

Physics (Phys)

(148 Physics: 624-7375)

Institute of Technology

Textbooks for most Phys courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Interdepartmental Study; and The Compleat Scholar noncredit courses in natural and physical sciences)

Robert Cassola, Lecturer in Physics

Semester-Length Courses

All credits listed in the class description are QUARTER credits even though some 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 47 of this bulletin.

Phys 1041-1042 INTRODUCTORY PHYSICS. 4 credits each semester, \$243 each semester.
(♦\$121.50) (IS)

Demonstration lectures, problem sessions on topics in physics. Primarily for students interested in those topics useful in various technical areas, but also for CLA distribution requirements. Topics include mechanics, fluids and gases, heat, waves, electricity and magnetism, light, optical instruments, atoms and spectra, nuclei, radioactivity. **Students who have completed Phys 1031 should take Phys 1041 to complete this series.** (Prereq HS algebra and plane geometry for 1041; 1041 for 1042)

Fall Sem 1041 Sec 1 **T**—6:10-8:40, Phys 133

Spring Sem 1042 Sec 2 **T**—6:10-8:40, Phys 133

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★Phys 1045-1046 **INTRODUCTORY PHYSICS LABORATORY**. 1 credit each quarter, \$60.75 plus \$5 special fee. Total \$65.75 each quarter. (IS)

Laboratory experiments offered in conjunction with 1041-1042. *Rooms to be announced. These courses offered S-N only.* (Prereq 1041 or ¶1041 for 1045, 1042 or ¶1042 for 1046. Limited to 16)

Fall Qtr	1045	Sec 1	W—6:40-8:30, Phys
		Sec 2	Th—6:40-8:30, Phys
		Sec 3	Sa—8-9:50 a.m., Phys
		Sec 4	Sa—10-11:50 a.m., Phys
Spring Qtr	1046	Sec 5	W—6:40-8:30, Phys
		Sec 6	Th—6:40-8:30, Phys
		Sec 7	Sa—8-9:50 a.m., Phys
		Sec 8	Sa—10-11:50 a.m., Phys

Phys 1271 **GENERAL PHYSICS I**. 4 credits, \$243. (♦ \$121.50) (IS)

◆ Calculus-level general physics course. Mechanics. Associated lab is 1275. (Prereq Math 1221 or ¶Math 1221)

Fall Sem Sec 1 T—6:10-9:10, Phys 170, Cassola

★Phys 1275 **GENERAL PHYSICS LABORATORY I**. 1 credit, \$60.75 plus \$5 special fee. Total \$65.75.

Laboratory exercises offered in conjunction with 1271 and 1311-1321. *Rooms to be announced. This course offered S-N only.* (Prereq 1271 or ¶1271 or 1311 or ¶1311. Limited to 16)

Fall Qtr	Sec 1	W—6:40-8:30, Phys
	Sec 2	Th—6:40-8:30, Phys
	Sec 3	Sa—8-9:50 a.m., Phys
	Sec 4	Sa—10-11:50 a.m., Phys

Phys 1281 **GENERAL PHYSICS II**. 4 credits, \$243. (♦ \$121.50) (IS)

◆ Calculus level general physics course. Heat, electricity. Associated lab is 1285. (Prereq 1271 and Math 1241 or ¶Math 1241)

Spring Sem Sec 1 T—6:10-9:10, Phys 170, Cassola

★Phys 1285 **GENERAL PHYSICS LABORATORY II**. 1 credit, \$60.75 plus \$5 special fee. Total \$65.75.

Laboratory exercises offered in conjunction with 1281 and 1331. *Rooms to be announced. This course offered S-N only.* (Prereq 1281 or ¶1281 or 1331 or ¶1331. Limited to 16)

Spring Qtr	Sec 1	W—6:40-8:30, Phys
	Sec 2	Th—6:40-8:30, Phys
	Sec 3	Sa—8-9:50 a.m., Phys
	Sec 4	Sa—10-11:50 a.m., Phys

Phys 1291 **GENERAL PHYSICS III**. 4 credits, \$243. (♦ \$121.50) (IS)

◆ Calculus-level general physics course. Magnetism, optics. Associated lab is 1295. (Prereq 1281)

Fall Sem Sec 1 M—6:10-9:10, Phys 170, Cassola

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★**Phys 1295 GENERAL PHYSICS LABORATORY III.** 1 credit, \$60.75 plus \$5 special fee. Total \$65.75.

Laboratory exercises offered in conjunction with 1291 and 1341. Rooms to be announced. **This course offered S-N only.** (Prereq 1291 or ¶1291 or 1341 or ¶1341. Limited to 16)

Fall Qtr Sec 1 **W**—6:40-8:30, Phys
 Sec 2 **Th**—6:40-8:30, Phys
 Sec 3 **Sa**—8-9:50 a.m., Phys
 Sec 4 **Sa**—10-11:50 a.m., Phys

Phys 3501 MODERN PHYSICS. 4 credits (no credit for physics majors), §3511-3512-3513, \$292. (IS)

Descriptive course in modern physics; relativity, quantum mechanics, hydrogen atom, multielectron atoms, molecular structure, quantum statistics, thermal radiation, solid state physics, nuclear physics. Associated lab is 3515. (Prereq 1291 or 1341 or 1441 or 1106)

Spring Sem Sec 1 **M**—6:10-8:40, Phys 170, Cassola

Phys 5924 HISTORY OF 19TH-CENTURY PHYSICS. 4 credits, §HSci 5924, \$292. (♦\$146)

Conceptual developments in physics in the 19th century (Young, Fresnel, Oersted, Ampère, Faraday, MacCullagh, Maxwell, Hertz, Lorentz, Lavoisier, Rumford, Dalton, Mayer, Joule, Helmholtz, Carnot, Clausius, Kelvin, Boltzmann, Mach, others). Relationships of these developments to social, philosophical, and theological influences. (Prereq general physics or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSci 5924)

Fall Qtr Sec 1 **Th**—6:20-8:50, Phys 210

Plant Biology (PBio)

(220 Biological Science: 625-1234)

College of Biological Sciences

Textbooks for most PBio courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Biol 1103, General Botany; Plant Pathology; and The Compleat Scholar and Practical Scholar noncredit courses)

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.

PBio 1012 (formerly Bot 1012) PLANTS USEFUL TO HUMANS. 4 credits, §Bot 1012, \$243.

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, Botany B6

Spring Qtr Sec 2 **W**—1-4, MacP

Offered through Continuing Education for Women

CEW

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Plant Pathology (PIPa)

(495 Borlaug Hall: 625-8200)

College of Agriculture

Textbooks for most PIPa courses are available at Books Underground on the St. Paul campus (624-9200)

(See also Agriculture; Plant Biology; Horticulture; The Compleat Scholar and Practical Scholar noncredit courses; and Research Explorations (REX))

Thor Kommedahl, Professor Emeritus of Plant Pathology

David H. MacDonald, Professor of Plant Pathology

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.

★PIPa 1000 AN INTRODUCTION TO PLANT PATHOLOGY. 2 credits, \$121.50.
(◆\$60.75)

◆ An introduction to the characteristics of some of the more common diseases affecting annual and perennial ornamentals, foliage plants, fruits and vegetables; the pathogens that cause those diseases and their control. (No prereq. Limited to 25)

Fall Qtr Sec 1 M—6:20-9:20, BorH 365, StP Campus, MacDonald

★OPIPa 5002 INTRODUCTORY PLANT PATHOLOGY FOR ADVANCED STUDENTS. 5 credits, \$3001, \$365. (◆\$182.50)

◆ Biotic and abiotic causes of plant disease. Representative plant diseases of significance in Upper Midwest that illustrate principles of plant pathology. Laboratory and diagnostic techniques. "Plant Disease Situation" problem solving. (Prereq 14 cr plant science or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 7 Extension students)

Winter Qtr Sec 1 TTh—6:20-9:20, BorH 365, 295, StP Campus, MacDonald

PIPa 5200 POISONOUS PLANTS. 2 credits, \$146. (◆\$73)

◆ Plants poisonous to animals and people; plant families and species, symptoms of poisoning, and toxic principles. Lectures and field trips. (Prereq Biol 1011, 3 cr botany. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—5:15-7, BorH 365, StP Campus, Kommedahl

Polish

(See Russian and East European Studies)

Political Science (Pol)

(1414 Social Sciences: 624-4144)

College of Liberal Arts

Textbooks for most Pol courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

(See also International Relations; Interdepartmental Study; History; Interdepartmental Study; The Compleat Scholar and Practical Scholar noncredit courses; and Public Affairs)

Charles Backstrom, Professor of Political Science
 Terence W. Ball, Professor of Political Science
 Lisa Disch, Assistant Professor of Political Science
 Raymond Duvall, Professor of Political Science
 Scott Erb, Teaching Assistant in Political Science
 William Flanigan, Professor of Political Science
 John Freeman, Professor of Political Science
 Virginia Gray, Professor of Political Science
 Sandra Healy, Teaching Assistant in Political Science
 Scott Hvizdos, Teaching Assistant in Political Science
 Lawrence Jacobs, Assistant Professor of Political Science
 Mark Mattern, Teaching Assistant in Political Science
 Greg McAvoy, Teaching Assistant in Political Science
 August H. Nitz, Jr., Associate Professor of Political Science
 Eric Selbin, Teaching Assistant in Political Science
 W. Phillips Shively, Professor of Political Science
 Ron Steiner, Teaching Assistant in Political Science
 Jutta Weldes, Teaching Assistant in Political Science

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/V 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, 624-4144, 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.

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

New 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, \$303.75.

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 30. Meets concurrently with Econ 1102, sec 30. Limited to a combined total of 28)

Spring Qtr Sec 4 **TTh**—6:20-9:20, HHHctr 20, Dalgaard,
Freeman, Green

★**Econ 1102 PRINCIPLES OF ECONOMICS: MACRO-ECONOMICS.** 4 credits, \$243.

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 4. Meets concurrently with Pol 1001, sec 4. Limited to a combined total of 28)

Spring Qtr Sec 30 **TTh**—6:20-9:20, HHHctr 20, Dalgaard,
Freeman, Green

(About the instructors: Bruce R. Dalgaard is Professor and Director, Center for Economic Education; John R. Freeman is Professor of Political Science; and George D. Green is Associate Professor of History)

General Education

Pol 1001 AMERICAN GOVERNMENT AND POLITICS. 5 credits, \$303.75. (◆ \$152) (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 **Th**—6:30-9:45 BlegH 115, McAvoy

Winter Qtr Sec 2 **M**—6:30-9:45, AndH 350

Spring Qtr Sec 3 **W**—6:30-9:45, AndH 330

Pol 1025 WORLD POLITICS. 4 credits, \$243. (◆ \$121.50)

◆ Contemporary international relations; forms of state interaction; problems of conflict and cooperation. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 150, Duvall

Winter Qtr Sec 2 **T**—6:20-8:50, AndH 210, Hvizdos

cew **Spring Qtr** Sec 3 **T**—9:30 a.m.-12, MacP

Offered through Continuing Education for Women

Pol 1026 AMERICAN FOREIGN POLICY. 4 credits, \$243. (◆ \$121.50)

◆ 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)

Spring Qtr Sec 1 **Th**—6:20-8:50, AndH 350

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Pol 1041 CONTEMPORARY POLITICAL IDEOLOGIES. 4 credits, \$243. (◆\$121.50)

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)

Winter Qtr Sec 1 **W**—6:20-8:50, AmundH B75, Mattern

Pol 1054 INTRODUCTION TO COMPARATIVE POLITICS. 4 credits, \$243. (◆\$121.50)

Politics of democratic, communist, and third world nations; examines the causes and consequences of different forms of political life. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, BlegH 235

Pol 1061 INTRODUCTION TO POLITICAL THOUGHT. 4 credits, \$243. (◆\$121.50)

Central issues in politics—justice, freedom, authority, order, conflict, and revolution—are examined through readings of major texts in Western political thought. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, Phys 143

Pol 3051 (formerly 1051) INTRODUCTION TO POLITICAL ANALYSIS. 5 credits, \$1051, \$310. (◆\$155)

Formation of political communities, political participation, policymaking, compliance, legitimacy, political development, types of political systems. Empirical and normative problems. Comparisons among major countries. (No prereq)

Fall Qtr Sec 1 **M**—6:30-9:45, AndH 330, Weldes

Political Theory

Pol 3659 AMERICAN POLITICAL THOUGHT. 4 credits, \$248. (◆\$124)

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)

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 155, Steiner

Pol 5610 TOPICS IN POLITICAL THEORY: FEMINIST POLITICAL THEORY. 4 credits, \$248. (◆\$124)

Gender: a difference that doesn't make a difference—or does it? What difference does it make to be a woman in this society? Is it possible to discuss this question without breathing new life into old stereotypes that perpetuate gender inequality? Is it possible to transform the social institution of gender without mentioning difference—not only with reference to differences between men and women, but also to the differences among the diverse groups of women that feminism purports to represent? This course charts the emergence of arguments for liberal, participatory, and social democracy within feminist theory through texts drawn from a variety of disciplines including political theory, anthropology, history, philosophy, psychology, and literature. Authors include Virginia Woolf, Michelle Rosaldo, Susan Okin, Marilyn Frye, Joan Scott, bell hooks, Martha Minow, Elizabeth Spelman, and Toni Morrison. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-8:50, BlegH 155, Disch

★Pol 5610 TOPICS IN POLITICAL THEORY: ETHICS, POLITICS, AND PUBLIC POLICY. 4 credits, \$248.

The central focus is *duties within and beyond borders* and the question, who or what
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

belongs to the moral community of creatures deserving protection and respect? The "borders" within and beyond which we act are to be understood both literally (as legal/political boundaries) and metaphorically, as borders between generations of human beings, as borders between human beings at various stages of development and in different states of health (that is, between the born and the unborn, the healthy and severely ill, the fit and disabled, the young and the old), and as borders between human and non-human animal species. Asking who belongs to the community of those who deserve 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 to the disabled, the unborn, and the vulnerable, and will ask what "freedom" means, what responsibilities are entailed by that freedom, and what legitimate limits might be placed on the freedom to think, 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 Elizabeth Anscombe, Wendell Berry, Noam Chomsky, Ronald Dworkin, Aldo Leopold, Ruth Macklin, John Stuart Mill, Richard John Neuhaus, Paul Ramsey, Peter Singer, and Alexis de Tocqueville. **Note:** *This is a two-quarter course. Students must begin with Engl 5910, sec 1/Phil 5760, sec 1 (fall quarter) and make a commitment to complete the two-quarter course by following up with Pol 5610, sec 2/Phil 5770, sec 1 (winter quarter).* **Preregistration is required;** call 625-3322 for an application and additional information. (Prereq Engl 5910, sec 1/Phil 5760, sec 1. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Phil 5770, sec 1. Limited to a combined total of 30)

Winter Qtr Sec 2 T—6:20-8:50, FordH 50, Ball, Dolan

Comparative Government and Politics

Pol 3477 (formerly 3773) POLITICAL DEVELOPMENT. 4 credits, \$248. (◆\$124)

◆ 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 #)

Winter Qtr Sec 1 M—6:20-8:50, AndH 330

Pol 5461 (formerly 5441) WESTERN EUROPEAN GOVERNMENT AND POLITICS. 5 credits, \$310.

Political institutions in their social settings; power and responsibility; governmental stability; political decision making, government and economic order. (Prereq 3051 or non-political science grad student or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6:30-9:45, AndH 230, Shively

⊙ **Pol 5478 GOVERNMENT AND POLITICS OF AFRICAN COUNTRIES.** 4 credits, \$248.

Political institutions and behavior in sub-Saharan African countries in their social and cultural settings; class and tribal structure; parties and elections; source and nature of ideologies; economic and social policies. (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)

Spring Qtr Sec 1 T—6:20-8:50, BlegH 155, Nimitz

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

International Relations

Pol 3835 THE INTERNATIONAL SYSTEM. 4 credits, \$248. (◆\$124)

- ◆ Structure of international system; balance of power, bipolar and other international systems; theories of stability, change, conflict, and cooperation. (No prereq)

Spring Qtr Sec 1 **Th**—6:20-8:50, AndH 270

Pol 3836 FOREIGN POLICY DECISION MAKING. 4 credits, \$248.

Theories and examples of foreign policy decision-making processes, including policy formulation and implementation. Examples drawn from various foreign policy issues. (No prereq)

Winter Qtr Sec 1 **Th**—6:20-8:50, AndH 350

Politics and Behavior

Pol 3739 POLITICS OF ETHNIC COMMUNITIES. 4 credits, \$248. (◆\$124)

- ◆ 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)

Winter Qtr Sec 1 **T**—6:20-8:50, AndH 330, NimtZ

American Governmental Systems and Processes

Pol 3310 TOPICS IN AMERICAN POLITICS: PRESIDENTIAL PRIMARY ELECTIONS OF 1992. 4 credits, \$248. (◆\$124)

- ◆ A survey of Democratic and Republican primaries in the presidential nominating process; impact of candidate images and issues on vote choice; media impact; campaign organizations and activities. (No prereq)

Spring Qtr Sec 1 **T**—6:20-8:50, AndH 270, Flanigan

Pol 3331 MINNESOTA GOVERNMENT AND POLITICS. 4 credits, \$248. (◆\$124)

- ◆ The Minnesota political system; demographic and cultural setting, political and governmental processes, contemporary policies. (No prereq; 1001 recommended)

Fall Qtr Sec 1 **T**—6:20-8:50, AmundH 116, Backstrom

OPol 5303 THE AMERICAN DEMOCRACY. 4 credits, \$248.

The American political system, its institutions and processes. Political decision making, influence and elites. Ideals and reality of democracy in the United States. (Prereq 1001 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 245, Jacobs

OPol 5322 AMERICAN SOCIAL POLICY. 4 credits, \$248.

American government actions affecting the distribution of social benefits such as health care, education, and housing; social burdens such as taxation and regulation of social conduct. Relationships between government action and social problems; possibilities for change. (Prereq 1001 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**—6:20-8:50, BlegH 155, Gray

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Public Law

★Pol 3323 **CIVIL LIBERTIES IN AMERICA.** 4 credits, \$248. (♦ \$124)

◆ Political importance of civil liberties in American society. Tolerance as a social phenomenon; issues such as free speech, media control, and effects of campaigning. (Prereq 1001 or equivalent or #. Limited to 80)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 155, Healy

Portuguese

(34 Folwell Hall: 625-5858)

Spanish and Portuguese

College of Liberal Arts

Textbooks for most Port courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Port 1001-1002-1003 not offered 1991-92.

★Port 3002 **INTENSIVE PORTUGUESE.** 5 credits, \$310.

Emphasis on listening and reading, although writing and speaking will also be practiced. Overview of basic grammar. Aspects of Portuguese language cultures. (Prereq knowledge of another romance language. Limited to 25)

Fall Qtr Sec 1 MW—6:10-8:15, FolH 114

Port 3014 **CONVERSATION AND COMPOSITION.** 5 credits, \$310.

Speaking and writing skills. Cultural comparisons, current events. Grammar review. Writing workshops. (Prereq 1006 or equivalent)

Winter Qtr Sec 1 W—6:10-8:40, FolH 218

★Port 3502 **LUSO-BRAZILIAN CIVILIZATION II.** 5 credits, \$310.

Portuguese-language civilization from Napoleonic invasion to present. Social developments in Portugal and Brazil; their reflection in philosophy and the arts. (Prereq Port 1006. Limited to 20)

Spring Qtr Sec 1 M—6:10-8:40, FolH 326

Practical Scholar

(See page 489)

Psychology (Psy)

(N21B Elliott Hall: 625-4042)

College of Liberal Arts

Textbooks for most Psy courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Child Psychology; Educational Psychology; General College; Interdepartmental Study; The Compleat Scholar and Practical Scholar noncredit courses; and Women's Studies)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

William C. Iacono, Professor of Psychology
Mary Ann Mattoon, Clinical Professor
Mary J. Meadow, Clinical Professor
Gail B. Peterson, Associate Professor of Psychology
Auke Tellegen, Professor of Psychology

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 Development (double psychology-child psychology majors are not permitted).

MINOR SEQUENCE—GENERAL PSYCHOLOGY

Required Preparatory Courses—1001, 3801 or Stat 3011 or equivalent

Minor Requirements—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

Required Preparatory Courses—1001, 3801 or Stat 3011 or equivalent

Major Requirements—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.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

Psy 1001 INTRODUCTION TO PSYCHOLOGY. 5 credits, \$303.75. (♦\$152) (IS)

Introduction to the study of human behavior. Prerequisite for all advanced courses in psychology. (No prereq)



Fall Qtr Sec 1 **MW**—6:20-8:15, SmithH 231

Sec 2 **MW**—6:20-8:15, Phys 131

Sec 3 **MW**—10 a.m.-12, MacP (Limit 45)

cew

Offered through Continuing Education for Women

★Sec 4 **MW**—7-8:55, Richfield HS 145 (Limit 30)

Sec 5 **TTh**—6:20-8:15, Phys 131

Sec 6 **TTh**—6:20-8:15, Phys 166

Winter Qtr Sec 7 **MW**—6:20-8:15, SmithH 231

Sec 8 **MW**—6:20-8:15, Phys 210

Sec 9 **TTh**—6:20-8:15, Phys 131

Sec 10 **TTh**—6:20-8:15, Phys 210

★Sec 11 **TTh**—7-8:55, Roseville Area HS 250 (Limit 35)

Spring Qtr Sec 12 **MW**—6:20-8:15, Phys 131

Sec 13 **MW**—6:20-8:15, Phys 133

Sec 14 **TTh**—6:20-8:15, Phys 166

Sec 15 **TTh**—6:20-8:15, Phys 131

Psy 1003 APPLICATION OF PSYCHOLOGY TO LIVING. 4 credits, \$243. (♦\$121.50)

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 45

Winter Qtr Sec 2 **M**—6:20-8:50, EltH N119

Spring Qtr Sec 3 **M**—6:20-8:50, Arch 45

(See also GC 1282, Psychology Applied to Human Affairs)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Psy 1004-1005† INTRODUCTORY LABORATORY PSYCHOLOGY.** 4 credits each quarter, \$243 each quarter.

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
	1004	Sec 2	T —6:20-8:50, EltH 50-60
Winter Qtr	1004	Sec 3	T —6:20-8:50, EltH 50-60
	1005	Sec 4	Th —6:20-8:50, EltH 50-60
Spring Qtr	1005	Sec 5	M —6:20-8:50, EltH 50-60

Psy 3011 INTRODUCTION TO THE PSYCHOLOGY OF LEARNING. 4 credits, \$248. (◆\$124)

◆ Basic methods. Fundamental concepts and principles governing the learning process. (Prereq 1005 or #)

Fall Qtr	Sec 1	M —6:20-8:50, Phys 210, Peterson
Spring Qtr	Sec 2	M —6:20-8:50, Phys 210, Peterson

Psy 3014 INTRODUCTION TO APPLIED PSYCHOLOGY. 4 credits, \$248. (◆\$124)

◆ 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, Phys 143
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Psy 3031 SENSATION AND PERCEPTION. 4 credits, \$248. (◆\$124)

◆ 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, WullH 230
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Psy 3051 INTRODUCTION TO COGNITIVE PSYCHOLOGY. 4 credits, \$248. (◆\$124)

◆ 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, SmithH 111
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Psy 3101 INTRODUCTION TO PERSONALITY. 4 credits, \$5101, \$248. (◆\$124) (IS)

◆ Concepts and issues in personality theory, personality research, and personality assessment. (Prereq 1001)

CEW	Fall Qtr	Sec 1	T —6:20-8:50, Phys 210, Tellegen
	Spring Qtr	★Sec 2	M —1-3:30, MacP (Limit 45) <i>Offered through Continuing Education for Women</i>
		Sec 3	T —6:20-8:50, Phys 210

Psy 3135 (replaces 3124) INTRODUCTION TO INDIVIDUAL DIFFERENCES. 4 credits, \$5135, \$248. (◆\$124)

◆ 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
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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Psy 3201 INTRODUCTION TO SOCIAL PSYCHOLOGY. 4 credits, \$248. (◆\$124)

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, WullH 130

Spring Qtr ★Sec 2 **M**—6:20-8:50, Roseville Area HS 254 (Limit 35)

Psy 3604 INTRODUCTION TO ABNORMAL PSYCHOLOGY. 4 credits, \$5604, \$248. (◆\$124) (IS)

The field of abnormal psychology. Etiologies of behavior disorders; discussion of available treatments. (Prereq 1001)

◆ **Fall Qtr** ★Sec 1 **T**—6:30-9, Roseville Area HS 250 (Limit 35)

Sec 2 **M**—6:20-8:50, Phys 133

Winter Qtr Sec 3 **M**—6:20-8:50, Phys 133, Iacono

Sec 4 **T**—6:20-8:50, SmithH 331

Spring Qtr Sec 5 **M**—6:20-8:50, SmithH 331

Sec 6 **W**—6:20-8:50, WullH 230

★Sec 7 **T**—7-9:30, Richfield HS 143 (Limit 35)

Psy 3607 SURVEY OF CLINICAL INTERVENTION METHODS. 4 credits, \$248. (◆\$124)

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, ChDev 218

Psy 3617 INTRODUCTION TO CLINICAL PSYCHOLOGY. 4 credits, \$248. (◆\$124)

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, WullH 230

Psy 3801 INTRODUCTION TO STATISTICAL METHODS. 4 credits, \$248. (◆\$124)

Quantification in research problems in psychology. Descriptive and inferential statistics, hypothesis testing, nonparametric statistics. Examples from various areas of psychology. (Prereq 1001, Math 0009 or equiv)

Fall Qtr Sec 1 **M**—6:20-8:50, NichH 213

Sec 2 **Th**—6:20-8:50, EltH N119

◆ **Winter Qtr** Sec 3 **T**—6:20-8:50, SmithH 231

Sec 4 **W**—6:20-8:50, WullH 230

Sec 5 **Th**—6:20-8:50, WullH 230

Spring Qtr Sec 6 **M**—6:20-8:50, WullH 230

Sec 7 **T**—6:20-8:50, EltH N119

Sec 8 **W**—6:20-8:50, EltH N119

★Psy 3902 MAJOR PROJECT IN PSYCHOLOGY. 4 credits, \$248.

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, WullH 130

Spring Qtr Sec 2 **T**—7:05-8:50, NichH 201

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Psy 3911 PSYCHOLOGY OF RELIGION. 4 credits, \$248. (◆\$124) (IS)

◆ Topical approach to the study of religious behavior. Areas covered include guilt, alienation, transcendence, altered states of consciousness, impulse control, conscience, values and beliefs, symbolic behavior, self-actualization, psychopathology, and the psychological interpretation of religious scriptures. (Prereq 1001 or #)

Spring Qtr Sec 1 **M**—6:20-8:50, EltH N119, Meadow

(See also Religious Studies)

Psy 5105 THE ANALYTICAL PSYCHOLOGY OF C.G. JUNG. 4 credits, \$248. (◆\$124)

◆ 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)

Winter Qtr Sec 1 **T**—6:20-8:50, NichH 201, 209A, 213, Mattoon

Psy 5141 PSYCHOLOGY OF WOMEN. 4 credits, \$248. (◆\$124)

◆ 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, FordH 175

Spring Qtr Sec 2 **M**—5:30-8, FordH 130

Psy 5202 ATTITUDES AND SOCIAL BEHAVIOR. 4 credits, \$248. (◆\$124)

◆ 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, EltH N119

Psy 5205 (formerly 3206) APPLIED SOCIAL PSYCHOLOGY. 4 credits, \$3206, \$248. (◆\$124)

◆ Overview of field. Applications of social psychological theories to such areas as jury selection, media, behavioral medicine, desegregation, advertising, victimology, juvenile delinquency, and energy conservation programs. (Prereq 1001 and 3201. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6:20-8:50, WullH 130

Psy 5501 VOCATIONAL PSYCHOLOGY. 4 credits, \$248. (◆\$124)

◆ Individual differences analysis of the work personality and the work environment; vocational development and vocational choice; work adjustment; work motivation and performance; work satisfaction and satisfactoriness; psychological problems connected with work. (Prereq 3801 or equivalent. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:20-8:50, NichH 109

Psy 5701 PERSONNEL AND INDUSTRIAL PSYCHOLOGY. 4 credits, \$248. (◆\$124)

◆ Application of principles of individual differences and psychological measurement to problems of recruiting, selecting, evaluating, and training members of ongoing orga-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

nizations. 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, \$248. (♦\$124)

◆ Theories, methods, and research findings regarding improving the performance of individuals, groups, and organizations; individual training and development; group work methods and problem solving strategies; methods of organizational development. (Prereq 3801 or equivalent, 8 cr in psychology or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—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)

(230 Humphrey Center: 625-9505)

Humphrey Institute of Public Affairs

Textbooks for most PA courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

(See also The Compleat Scholar and Practical Scholar noncredit courses; Economics; Interdepartmental Study; Political Science; International Relations; Sociology; and General College)

Babak Armajani, Deputy Commissioner of Finance, State of Minnesota

Richard S. Bolan, Professor of Planning and Public Affairs

John Brandl, Professor of Public Affairs and Planning

John M. Bryson, Associate Professor of Planning and Public Affairs

Candace Campbell, Research Fellow

Paul Light, Associate Dean, and Professor of Public Affairs and Planning

Lee Munnich, Senior Fellow

Joe Nathan, Senior Fellow

Sharon K. Patten, Senior Fellow

Julius Smith, Large-Scale Real Estate and Public/Governmental Affairs

Tom Stinson, Professor of Agricultural and Applied Economics, Minnesota State Economist

Robert Terry, Professor of Public Affairs and Planning

Tom Triplett, former Commissioner of Finance, State of Minnesota

Theresa VanHoomissen, Adjunct Faculty

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Affairs. 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 abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OPA 5102 LEGAL ENVIRONMENT OF PUBLIC AFFAIRS.** 3 credits, \$186.

The legal context of public policy and decision making role of the courts in public participation, policy making, and administration. Introduction to legal reasoning and the use of law and legal resources in resolving policy issues and in managing administrative processes. (Prereq # or upper division status. 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—6:15-8:45, HHHctr 30

★**OPA 5113 PUBLIC SERVICES REDESIGN.** 3 credits, \$186.

Study of the theory, strategy, politics, and some of the practical mechanics required to adapt the public service system, given the constraints on resources and a continuing pressure for effectiveness and equity. In-class and out-of-class interviews of persons involved in redesign. (Prereq written #. 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—7-9:30, HHHctr 30, Brandl

★**OPA 5191 PUBLIC FINANCE.** 3 credits, \$186.

Students of public policy, planning, and management must have an understanding of how governments finance themselves. This course, taught by two outstanding practitioners, will examine fundamentals of public finance, including tax policy, revenue forecasting, alternative sources of income, as well as basic questions of where and when to use specific financing mechanisms. (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—6:15-8:45, HHHctr 25, Stinson, Triplett

★**OPA 5192 CASES IN PUBLIC MANAGEMENT.** 3 credits, \$186

Designed to give students advanced work on a series of cases dealing with effective public management. Among the areas to be addressed are personnel, procurement, organizational design, implementation of new programs, innovations, enterprise management, and strategic planning. Each week students will read and discuss a specific case in one or more of these areas. (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)

Spring Qtr Sec 1 W—6:15-8:45, HHHctr 60, Armajani

★**OPA 5194 THE THEORY OF NONPROFITS.** 3 credits, \$186.

Designed to give students a firm grasp of the role of nonprofits in our society. The course will examine theories of nonprofits, the behavior of nonprofits, compensation policy in nonprofits, and public policy toward nonprofits. Students who take this course will emerge with a greater understanding of why and how nonprofits exist. (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, HHHctr 20, VanHoomissen

★**OPA 5197 POLICIES AND PRACTICES OF PHILANTHROPY.** 3 credits, \$186.

An examination of the policies and practices of philanthropy as they affect the purposes and programs of nonprofit organizations. Almost all nonprofits have funding relationships with private philanthropy, but few nonprofits have an in-depth understanding of these relationships.

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

standing of many issues which constitute such relationships. This course will look at many of these issues including: (1) the social and political context of philanthropy; (2) the kinds and interests of grantmaking organizations; (3) how grantmaking policies are established; (4) a review of basic grantmaking practices and how they affect nonprofits; (5) the central policy and program debates between nonprofits and grantmakers; and (6) practical, effective ways to improve relationships between nonprofits and grantmakers. This course will include readings, discussions, guest speakers, case studies/role plays, and action research which would encourage students to visit with nonprofits and grantmakers. (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**—7-9:30, HHCtr 25

★**OPA 5200 INTRODUCTION TO PLANNING.** 3 credits, \$186.

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**—7-9:30, HHCtr 25

★**OPA 5230 STRATEGIC PLANNING AND MANAGEMENT.** 3 credits, \$186.

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 20 Extension students)

Fall Qtr Sec 1 **T**—7-9:30, HHCtr 25, Bryson

★**OPA 5231 STRATEGY AND TACTICS IN PROJECT PLANNING.** 3 credits, \$186.

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 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 30, Bolan

★**OPA 5241 POLICY PLANNING STRATEGY.** 3 credits. **Not offered 1991-92.**

Planning strategies, plan format and content, and plan preparation; how these change with time and context. Relation to public attitudes and issues; to work with elected officials, citizens, private sector, and implementing; and to planning agency capabilities. State, regional, and local 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)

★**OPA 5291 TRANSPORTATION POLICY AND PLANNING.** 3 credits, \$186.

Covers subjects such as transportation policy formulation, transit and municipal model planning, transportation and land use relationships, transportation systems analysis and design, financing transportation systems, and the interactions of these elements in the political decision-making process. (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, HHCtr 30

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★PA 5292 TOPICS IN PLANNING: TRANSPORTATION PLANNING AND SYSTEMS COMPUTER LABORATORY. 4 credits, \$248.

Covers applications of transportation planning; population, economic, and land use forecasts that input transportation models along with computer analysis using state-of-the-art microcomputer packages such as EMME2, TranPlan, Saturn, Volvo, and IGTDS, an analysis of the model's resulting output. Students will use the planning principles and computer packages to solve one to two real-world transportation problems. An emphasis will be placed on analyzing software applications, capabilities, and limitations. Limited enrollment allows for one-on-one computer assistance and training. **Must be taken A-F.** (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with CE 5098. Limited to a combined total of 15 Extension students)

Winter Qtr Sec 1 T—6:40-10, CivMinE 210, Stephanedes

★OPA 5293 TRANSPORTATION SEMINAR/WORKSHOP. 3 credits, \$186.

This seminar/workshop utilizes guest lecturers and transportation professionals to discuss real-world transportation problems and processes used to solve them. The real-world problems will be selected to represent a variety of situations and modes including transit, highways, rail, and air. Students will engage in interactive discussions with the lecturer and between themselves to develop alternative solutions and processes for similar situations. In addition, students will conduct a team-based study of a real-world transportation problem. Each team will be assigned to a client and will be expected to utilize theories and techniques learned in previous courses to develop potential solutions. (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—7-9:30, HHHctr 30

OPA 5414 MULTIDISCIPLINARY PERSPECTIVES ON AGING. 4 credits, \$AdEd 5440, \$CPsy 5305, \$Educ 5440, \$HSU 5009, \$Phar 5009, \$SAHP 5009, \$PubH 5737, \$Soc 5960, \$SW 5024, \$248.

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. (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, PubH 5737, SW 5024, Soc 5960. 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

★OPA 5433 SOCIAL WELFARE REFORM AND INCOME SUPPORT POLICY. 3 credits, \$186.

Analysis of major issues including poverty, income redistribution, equality, criteria for evaluating programs, development and impact of current income maintenance systems; analysis of selected existing or proposed programs; and policy alternatives and their related consequences. Papers in memorandum form emphasizing analytical skills required. (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—6:15-8:45, BlegH 255, Patten

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★OPA 5491 MULTISECTOR COLLABORATION AND COMMUNITY EMPOWERMENT.
3 credits, \$186.

An examination of theories and practices of multisector (public, private, nonprofit) collaboration and their applications to the problems and opportunities of disadvantaged communities. In order to establish a context for the use of collaborative initiatives, the course will analyze major issues of concern to disadvantaged communities, particularly in urban areas. Theories and strategies for organizing significant changes with and for these communities will be discussed, including the radical decentralization of human services and community organizing for empowerment. In addition, the philosophical basis for collaboration will be examined in discussions of ideas about "the common good" of a society. The nature and types of collaborative initiatives will be reviewed as well as policy issues generated by the integration of practices. A model for empowering disadvantaged communities through collaborative initiatives will be presented as well as opportunities for a class and individual projects in the design of models for multisector collaboration. (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**—7-9:30, HHCtr 30

★OPA 5492 TOPICS IN SOCIAL POLICY: EDUCATION POLICY. 3 credits, \$186.

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**—6:15-8:45, HHCtr 60, Nathan

★OPA 5493 POLICIES AND PRACTICES IN NONPROFIT GOVERNANCE. 3 credits, \$186.

An examination of several basic issues: (1) the general social and political trends in which nonprofit boards now operate and will likely face in the future; (2) the kinds of policies that nonprofit boards must establish to be effective with attention to distinctions between board (policy) and staff (management) functions; and (3) the kinds of practices that are most likely to increase or limit the effectiveness of nonprofit boards and their management and program staff. In the practices areas, topics include analysis and review of the responsibilities of board members such as knowing the nonprofit's mission and purposes; selecting a chief executive and monitoring his or her performance; ensuring effective organizational planning and resources, monitoring program results; communicating with the larger community; and enhancing the organization's public image. Includes readings, discussions, guest speakers, case studies/role plays, and action research that encourages students to visit with board members of community nonprofit groups. (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**—7-9:30, HHCtr 25

★OPA 5494 THE IMPACT OF RACIAL PROTESTS ON SOCIAL POLICY. 3 credits. **Not offered 1991-92.**

Race has been a major factor in U.S. public policy since before the signing of the
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Declaration of Independence. The U.S. Constitution and several amendments to the Constitution recognize the significance of race in shaping public policy. This course will examine the role of racial protest in public policy decision making. Acts of social, economic, and legal protest from the Dred Scott case to the 1955 Montgomery Bus Boycott to the 1989 Wisconsin Chippewa Fishing Rights challenges will be reviewed and discussed in class. The course will conclude with a recent case study of the Minneapolis policy and Ad Hoc Committee Against Police Brutality. (Prereq grad, adult special or written #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 15 Extension students)

★**OPA 5594 TOPICS IN ECONOMIC AND COMMUNITY DEVELOPMENT: TOOLS AND TECHNIQUES.** 3 credits, \$186.

Prepares students to engage in active roles in community economic development. Students explore the theory and appropriate applications of various tools and techniques in community and economic development, including market analysis, feasibility studies, and industrial targeting. (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, HHHctr 60, Campbell

★**OPA 5621 PRIVATE SECTOR DEVELOPMENT.** 3 credits, \$186.

One of the most significant responsibilities of local government is the support and regulation of private sector development. This course, taught by a leading expert on development, is structured to help students understand the mechanics as well as creative demands involved in private sector development. (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**—6:15-8:45, BlegH 255, Smith

★**OPA 5966 ETHICS AND PUBLIC POLICY.** 3 credits, \$186.

Public officials face enormous pressures today to make the "right" decision, and are often forced to balance competing interests and goals. Ultimately, these decisions involve a sense of public purpose and ethics. This course is designed to help students appreciate these ethical and leadership dilemmas. (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**—6:15-8:45, HHHctr 215, Terry

Public Health (PubH)

(A302 Mayo: 624-6669)

School of Public Health

Textbooks for most PubH courses are available at the Health Sciences Bookstore (625-8600)

Greg Alexander, Associate Professor, Maternal and Child Health

Mila Aroskar, Associate Professor, Health Services Administration

Linda H. Bearinger, Instructor, School of Nursing

Rondell S. Berkeland, Assistant Professor, Occupational Therapy Program

Lester E. Block, Associate Professor, Public Health Administration

Earl Burger, Assistant Professor of Mortuary Science

David Garloff, Assistant Professor, Community Health Education, Health Sciences Learning Resources Center

Judith Garrard, Professor, Health Services Research and Policy

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

John Hung, Adjunct Assistant Professor, Epidemiology; Psychologist, Neurosurgery, Health Psychology
 U. Beate Krinke, Instructor, Public Health Nutrition
 Betty Lia-Hoagberg, Public Health Specialist, Maternal and Child Health
 Daniel McInerney, Adjunct Associate Professor, Public Health Administration
 William A. O'Brien, Clinical Professor, Community Health Education
 Sharon Ostwald, Assistant Professor, Public Health Administration
 Joseph S. Quigley, Instructor Emeritus, College of Veterinary Medicine
 Michael D. Resnick, Associate Professor, Hospital and Health Care Administration
 R. A. Robinson, Professor, College of Veterinary Medicine
 James Rothenberger, Instructor, Community Health Education
 Stanton Shanedling, Assistant Professor, Maternal and Child Health
 Rexford D. Singer, Associate Professor, Environmental and Occupational Health
 Barbara A. Spradley, Associate Professor, Public Health Administration
 Mary Story, Assistant Professor, Public Health Nutrition
 Maura Sullivan, Instructor, School of Social Work
 Robert ten Bensel, Professor, Maternal and Child Health
 Fay Thompson, Assistant Professor, Environmental and Occupational Health; Assistant Director and Hazardous Waste Officer, Environmental Health and Safety
 William A. Toscano, Jr., Associate Professor, Environmental and Occupational Health
 Robert Veninga, Professor, Public Health Administration
 J. Pamela Weiner, Instructor, Maternal and Child Health

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public 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.

(See also Alcohol and Drug Counseling listing with Family Social Science; Health Science Units; and General College)

Public Health Categories

Community Health Education (begins page 399)

- 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
- 5012 Fundamentals of Health Behavior Change
- 5013 Interdisciplinary Team Training in Health Services Delivery
- 5014 Behavioral Medicine I: Theory, Research, and Practice
- 5040 Dying and Death in Contemporary Society
- 5044 Topics in Alcohol and Drug Problems
- 5064 The Teaching-Learning Process in the Health Care Setting

Environmental and Occupational Health (begins page 401)

- 5151 Environmental Health
- 5253 Introduction: Hazardous Waste Management
- 5261 General Environmental Toxicology

Epidemiology (begins page 402)

- 3301/5301 Perspectives: Interrelationships of People and Animals in Society Today

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Health Services Research and Policy (begins page 403)

- 5806 Principles of Public Health Research
5852 Program Evaluation in Health and Mental Health Settings

Maternal and Child Health (begins page 404)

- 5610 Principles of Maternal and Child Health
5616 Rights of Children and Youth: Abuse and Neglect
5622 Women's Health: Issues and Controversies
5630 Reproductive Health
5637 Seminar: Cross-Cultural Health Issues in Minnesota
5639 Prevention: Theory, Practice, and Application in Public Health Services

Public Health Administration (begins page 405)

- 5710 Regulation and Health
5711 Public Health Law
5722 Interpersonal Behavior in Health Organizations
5727 Health Leadership and Effecting Change
5732 Competition in the Delivery of Health Services—A Public Health Perspective
5734 Ethical Dimensions of Public Health
5737 Multidisciplinary Perspectives on Aging

Public Health Nutrition (begins page 407)

- 5932 Nutrition: Adults and the Elderly
5935 Adolescent and Child Nutrition

Public Health Workshops (begins page 402)

- 5640 Child Abuse and Neglect
5634 Topics: Licit and Illicit Drugs and Pregnancy
5635 Prevention of Child Maltreatment
5650 Teenage Pregnancy and Parenting: Models for Intervention

Community health education**Joint Day/Extension Classes**

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Health Community Health 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.

PubH 3001 PERSONAL AND COMMUNITY HEALTH. 3 credits, \$3004, \$243.75.

Fundamental principles of health conservation and disease prevention. (No prereq.)

Winter Qtr Sec 1 **M**—7-9:30, MoosT 2-530, O'Brien

Spring Qtr ★Sec 2 **M**—7-9:30, Richfield HS 146, O'Brien (Limit 35)

PubH 3003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. 2 credits, \$3004, HSU 3003, 5032, \$162.50.

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 2-520, Rothenberger

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

PubH 5003 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. 2 credits, \$PubH 3003, HSU 3003, 5032, \$162.50.

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 2-520, Rothenberger

PubH 5010 PUBLIC HEALTH APPROACHES TO AIDS. 3 credits, \$HSU 5010, \$243.75.

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 **M**—4:40-6:25, MoosT 2-520, Rothenberger
W—4:40-5:30, MoosT 2-520, Rothenberger

Spring Qtr Sec 2 **M**—4:40-6:25, MoosT 2-520, Rothenberger
W—4:40-5:30, MoosT 2-520, Rothenberger

(See also Anth 5920, Anthropology of AIDS and CSc 0540, The Biology of AIDS)

PubH 5012 (formerly 5804) FUNDAMENTALS OF HEALTH BEHAVIOR CHANGE. 3 credits, \$5804, \$243.75.

Principles, applications, and translation of early and existing paradigms and theories of learning into principles of health behavior change. Role of motivation, specific behavior change approaches (e.g., self-reinforcement, contingency contracting, modeling, biofeedback, and self-regulation). **Must be taken A-F.** (Prereq Public Health grad student, grad student or #. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—4:40-7:10, Mayo A270, Hung

PubH 5013 INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. 3 credits, \$HSU 5001, \$SW 5013, \$243.75.

Interdisciplinary team development with application to public health, human service projects, didactic content, experiential methods, activities to develop attitudes, skills essential to effective team goal setting, decision making, problem-solving, and task accomplishment. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5001, SW 5013. A joint Day/Extension class limited to a combined total of 12 Extension students from health or helping professions)

Spring Qtr Sec 1 **W**—5:45-8:45, MoosT 2-585, 2-571, Sullivan, Berkeland

PubH 5014 (formerly 5853) BEHAVIORAL MEDICINE I: THEORY, RESEARCH AND PRACTICE. 3 credits, \$5853, \$243.75.

Survey of the history of and current issues in behavioral medicine and health psychology. Emphasis on stress and its management, life-style intervention, preventive measures for public health, psychology of health and illness behaviors, self-management and health education. (Prereq Psychology grad student, professional in health-related discipline, or health sciences grad student or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—4:40-7:10, Mayo A270, Hung

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

- PubH 5040 DYING AND DEATH IN CONTEMPORARY SOCIETY.** 3 credits, \$HSU 5040, Mort 5040, \$243.75.

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. A joint Day/Extension class)

Winter Qtr Sec 1 **M**—4:40-6:25, JacH 2135, Burger, Rothenberger
W—4:40-5:30, JacH 2135

- PubH 5044 TOPICS IN ALCOHOL AND DRUG PROBLEMS.** 1 credit, \$HSU 5039, \$81.25.

A basic course on recognizing and dealing with alcohol and other drug abuse problems in patients and peers: Awareness, diagnosis, intervention, treatment options, prevention, peer assistance, and professional licensure are discussed in a retreat setting with professional role models. (Prereq written #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with HSU 5039. A joint Day/Extension class)

Spring Spec Term Sec 1 **FSaSu**—Apr. 1992, Time and dates arr
(call 625-7100 for information)

- ★●**PubH 5064 THE TEACHING-LEARNING PROCESS IN THE HEALTH CARE SETTING.** 3 credits, \$HSU 5011, \$243.75.

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

Environmental and occupational health

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Health Environmental and Occupational 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.

- PubH 5151 ENVIRONMENTAL HEALTH.** 3 credits, \$243.75. (◆ \$122)

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 5253 INTRODUCTION: HAZARDOUS WASTE MANAGEMENT.** 3 credits, \$243.75.

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, HSUnitF 2120, 2130, Thompson

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

PubH 5261 GENERAL ENVIRONMENTAL TOXICOLOGY. 3 credits, \$243.75.

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, HSUnitF 2-110, 2-140, Toscano

Epidemiology

PubH 3301 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. 2 or 3 credits, \$5301, 5303, 5304, \$CVM 3100, \$162.50 or \$243.75. (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 5301 and CVM 3100. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—4-5:40, AnScVM 125, StP Campus, Robinson, Quigley

PubH 5301 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. 2 or 3 credits, \$3301, 5303, 5304, \$CVM 3100, \$162.50 or \$243.75.

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, Quigley

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.

★PubH 5640 CHILD ABUSE AND NEGLECT. 1 credit, \$81.25 plus \$15 special fee. Total \$96.25. (◆ \$40.75 plus \$15 special fee. Total \$55.75)

Designed to assist mandated reporters in the areas of education, social work, health professions, and others in regard to the history of child abuse and neglect, definitions of child abuse and neglect, dynamics, outcomes, and intervention. The course material includes approximately seven hours of instruction time devoted to these issues. An interdisciplinary panel of the course which will address legal reporting and intervention by police and social services. The materials have been updated to reflect current laws in the State of Minnesota. **NOTE:** This workshop (or permission of the instructor) is a prerequisite for PubH 5649. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Winter Spec Term Sec 1 **Sa**—8 a.m.-4:30, Feb. 15, MoosT 2-520, ten Bensel

No late fee through Feb. 7

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**PubH 5634 LICIT AND ILLICIT DRUGS AND PREGNANCY.** 1 credit, \$81.25 plus \$15 special fee. Total \$96.25. (◆\$40.75 plus \$15 special fee. Total \$55.75.)

Current understanding 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, Oct. 12, MoosT 2-520
ten Bensel

No late fee through Oct. 4

- ★**PubH 5635 PREVENTION OF CHILD MALTREATMENT.** 1 credit, \$81.25 plus \$15 special fee. Total \$96.25. (◆\$40.75 plus \$15 special fee. Total \$55.75)

Major theories of child maltreatment causation, definitions of prevention, health promotion, and various paradigms used in prevention interventions. Small groups will design a prevention program. Critical thinking regarding program evaluation will be stressed. (Prereq 5616 or 5640 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)



Spring Spec Term Sec 1 **Sa**—8 a.m.-4:30, Apr. 4, 1992, MoosT 2-520,
ten Bensel, Shanedling

- ★**PubH 5650 TEENAGE PREGNANCY AND PARENTING: MODELS FOR INTERVENTION.** 1 credit, \$81.25 plus \$15 special fee. Total \$96.25. (◆\$40.75 plus \$15 special fee. Total \$55.75)

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, Nov. 16, MoosT 2-520,
Resnick, Bearinger

No late fee through Nov. 8

Health services research and policy

- PubH 5806 PRINCIPLES OF PUBLIC HEALTH RESEARCH.** 3 credits, \$243.75.

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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★●PubH 5852 PROGRAM EVALUATION IN HEALTH AND MENTAL HEALTH SETTINGS. 4 credits, §HSU 5026, \$325.

For advanced undergraduate and graduate students in fields related to health or mental health. Topics include an overview of evaluation, models of evaluation, objectives of an evaluation study, sampling of subjects, methods of data collection, methodological designs, interpretation of data, preparation of final report, and ethical and political considerations in conducting an evaluation study. (Prereq 5806 or equivalent research methods and basic statistics courses. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 7 Extension students)

Winter Qtr Sec 1 **MW**—2:30-4:25, MoosT 2-571, 2-585, Garrard

Maternal and child health

(See also Child Psychology; Child and Adolescent Psychiatry; and Youth Studies)

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Health Maternal and Child 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.

★●PubH 5610 PRINCIPLES OF MATERNAL AND CHILD HEALTH. 3 credits, \$243.75.

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. (No prereq. 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 **W**—4:40-7, MoosT 2-620, ten Bensel

★●PubH 5616 RIGHTS OF CHILDREN AND YOUTH: ABUSE AND NEGLECT. 4 credits. §HSU 5019, \$325. (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, MechE 212, ten Bensel

★PubH 5622 WOMEN'S HEALTH: ISSUES AND CONTROVERSIES. 4 credits, \$325.

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**—5:30-8:50, MoosT 2-571, 2-585, Weiner

(See also Women's Studies)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

●PubH 5630 **REPRODUCTIVE HEALTH.** 3 credits, \$243.75.

Family planning and related issues and their relationship to maternal and child health. Family decision making and problem solving. Students have opportunity to analyze issues and determine policy. (Prereq Health Science student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **W**—3:35-6:35, Mayo A270, Lia-Hoagberg

★PubH 5637 **SEMINAR: CROSS-CULTURAL HEALTH ISSUES IN MINNESOTA.** 3 credits, \$243.75 (♦\$122)

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 A269, Alexander

★PubH 5639 **PREVENTION: THEORY, PRACTICE AND APPLICATION IN PUBLIC HEALTH SERVICES.** 4 credits, \$325.

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, MechE 102, Shanedling

Public health administration

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Health Administration. 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.

★PubH 5710 **REGULATION AND HEALTH.** 3 credits. **Tentatively scheduled for Fall 1992.**

★●PubH 5711 **PUBLIC HEALTH LAW.** 4 credits, \$325.

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 C381, McInerney

●PubH 5722 **INTERPERSONAL BEHAVIOR IN HEALTH ORGANIZATIONS.** 4 credits, \$5059, \$325.

Research and theory from the social sciences applied to organizational problems in
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

hospitals and public health agencies. Organizational behavior and what health professionals can do in improving organizational performance. Leadership behavior, conflict resolution strategies, committee effectiveness, and the management of change. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **MW**—3:35-5:15, MoosT 2-580, Veninga

★**PubH 5727 HEALTH LEADERSHIP AND EFFECTING CHANGE.** 3 credits, §HSU 5007, \$243.75.

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 #. 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, HSUnitF 2-110, 2-140, Spradley

★**PubH 5732 COMPETITION IN THE DELIVERY OF HEALTH SERVICES—A PUBLIC HEALTH PERSPECTIVE.** 3 credits, \$243.75.

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, \$81.25.

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)

Fall Spec Term Sec 1 **W**—4:40-6:25, Sept. 25, Oct. 2, 16, 30, Nov. 6, PWB 5-206, Aroskar

★**PubH 5737 (formerly 5520) MULTIDISCIPLINARY PERSPECTIVES ON AGING.** 4 credits, §AdEd 5440, §CPsy 5305, §Educ 5440, §PubH 5520, §PA 5414, §SW 5010, §Soc 5960, §SAHP 5009, \$325.

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, SAHP 5009. Limited to a combined total of 37 Extension students)

Fall Qtr **○** Sec 1 **MW**—4:40-6:25, MoosT 2-690, Ostwald, 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)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Public health nutrition

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Public Health Nutrition. 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.

● **PubH 5932 NUTRITION: ADULTS AND THE ELDERLY.** 3 credits, \$243.75.

Review of current literature and research on nutrient needs and factors affecting nutritional status of adults and the elderly; emphasis on selected population groups; programs to meet special needs. (Prereq 3000-level nutrition course or equivalent or #. A joint Day/Extension class)

Spring Qtr Sec 1 **MW**—4-5:15, MechE 102, Krinke

★● **PubH 5935 CHILD AND ADOLESCENT NUTRITION.** 3 credits, \$243.75.

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 limited to 8 Extension students)

Winter Qtr Sec 1 **M**—3:35-6:35, Mayo A270, Story

Public Policy

(See courses in Public Affairs, History, The Compleat Scholar and Practical Scholar noncredit courses, and Political Science.)

R

Real Estate

Real Estate courses, formerly offered by the University, are now offered by the Minnesota Center for Real Estate and Housing Education, College of Business, St. Cloud State University. All

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

courses are held in the University Technology Center, 1313 Fifth Street S.E., Minneapolis, MN 55414.

For further 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 the Minnesota Book Center in Williamson Hall (625-6000).

Bruce D. Anderson, Associate Professor of Recreation, Park, and Leisure Studies

Mary Jo Kane, Assistant Professor of Recreation, Park, and Leisure Studies

Leo McAvoy, Jr., Professor of Recreation, Park and Leisure Studies

Stuart Schleien, Associate Professor of Recreation, Park and Leisure Studies

John Schultz, Associate Professor of Recreation, Park and Leisure Studies

Caroline Weiss, Associate Professor of Recreation, Park and Leisure Studies

★○Rec 5100 FOUNDATIONS OF RECREATION. 3 credits, \$219.

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**—6:30-8:30, CookeH 206, Schultz

★○Rec 5160 CONSERVATION OF PARK RESOURCES. 3 credits, \$219.

Environmental considerations in relation to recreation and leisure services. **Must be taken A-F.** (Prereq 1520 or 5100 or Δ. 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**—4:15-6:45, CookeH 206, McAvoy

★○Rec 5210 INTRODUCTION TO THERAPEUTIC RECREATION. 3 credits, \$219.

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**—4:15-6:15, CookeH 109, Weiss

★○Rec 5255 LEISURE EDUCATION FOR SPECIAL POPULATIONS. 3 credits, \$219.

Instruction, counseling, and other methods of education for awareness of leisure, self-in-leisure, leisure-related problem solving and decision making, and access to leisure services. **Must be taken A-F.** (Prereq 5220, PsyS 5110 or EPsy 5260 or # and Δ. 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 **T**—4:15-6:30, CookeH 206, Weiss

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★○Rec 5270 **COMMUNITY LEISURE SERVICES AND PERSONS WITH DISABILITIES.** 4 credits, \$292.

Exploration and application of concepts and techniques of normalization and least restrictive environment strategies to leisure services delivery in community settings for a range of individuals with disabilities. **Must be taken A-F.** (Prereq 1520, rec and park major, or Δ. 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 5299 **CLIENT ASSESSMENT AND PROGRAM EVALUATION IN THERAPEUTIC RECREATION.** 4 credits, \$292.

In-depth study and application of approaches to therapeutic recreation, client assessment, and program evaluation. **Must be taken A-F.** (Prereq 5220 or Δ. 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 **W**—4:15-7:30, CookeH 206, Schleien

★○Rec 5310 **PROGRAMMING OUTDOOR EDUCATION.** 4 credits, \$292.

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),
CookeH 206, McAvoy

★○Rec 5455 **RECREATIONAL SPORTS.** 3 credits, \$PE 5255, \$219.

In-depth analysis of the process 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. A joint Day/Extension class limited to 10 Extension students)

Spring Qtr Sec 1 **M**—4:15-6:30, CookeH 206, Anderson

★○Rec 5900 **CONTEMPORARY ISSUES IN LEISURE SERVICES: GRANT WRITING AND FUNDRAISING IN LEISURE SERVICES.** (12 cr max) 3 credits this offering, \$219.

Strategies in identifying, developing, and procuring financial assistance including proposal preparation for private foundations and governmental agencies. **Must be taken A-F.** (Prereq Δ. 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**—5:30-8, Eisenhower Community Center,
1001 Hwy. 7, Hopkins

★○Rec 5900 **CONTEMPORARY ISSUES IN LEISURE SERVICES: PROJECT WILD ENVIRONMENTAL EDUCATION CURRICULUM.** (12 cr max) 1 credit this offering, \$73 plus \$8 course fee. Total \$81.

Project WILD is a supplementary, interdisciplinary K-12 curriculum which teaches environmental concepts through studying wildlife issues. Identifies and demonstrates a number of teaching strategies and specific curriculum activities that can be used in a variety of educational and leisure settings. **Must be taken A-F.** (Prereq Δ. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 20 Extension students)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Spring Spec Term Sec 2 **Sa**—9 a.m.-4, Apr. 18, 1992,
Wood Lake Nature Center,
735 Lake Shore Dr., Richfield, and
T—6-9, Apr. 21, 1992, Wood Lake Nature Center,
735 Lake Shore Dr., Richfield, McAvoy, Van Norman
No late fee through Apr. 10

Religious Studies (ReIS)

(183 Klaeber Court: 624-4094)

College of Liberal Arts

Textbooks for most ReIS courses are available at the Minnesota Book Center 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 and Practical Scholar noncredit courses; and Philosophy)

Caesar Farah, Professor of History

Stephen Feinstein, Professor of Classical and Near Eastern Studies

Indira Junghare, Professor of South Asian and Middle Eastern Studies

William Malandra, Associate Professor of Classical and Near Eastern Studies and South Asian and Middle Eastern Studies

Jonathan Paradise, Associate Professor of Classical and Near Eastern Studies

Daniel Reisman, Associate Professor of Classical and Near Eastern Studies

Philip Sellev, Associate Professor of Classical and Near Eastern Studies

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.

ReIS 1001 INTRODUCTION TO RELIGIOUS STUDIES. 4 credits, \$5001, \$243.
(♦ \$121.50)

- ♦ 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 **Th**—6:20-8:50, FolH 208, Malandra

ReIS 1031 INTRODUCTION TO THE RELIGIONS OF SOUTH ASIA. 4 credits, \$ReIS 3031, 5031, \$SoAs 1504, 3031, 5031, \$243. (♦ \$121.50) (IS)

- ♦ Introduction to Hinduism, Buddhism, and Jainism. (No prereq. Meets concurrently with SoAS 1504)

Winter Qtr Sec 1 **M**—6:20-8:50, FolH 208, Malandra

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ReIS 1034 INTRODUCTION TO JUDAISM. 4 credits, \$3034, \$JwSt 1034, 3034, \$243.
(♦ \$121.50)

- ◆ 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 ReIS 3034, JwSt 1034, 3034)

Winter Qtr Sec 1 **M**—6:20-8:50, Arch 50, Zahavy

ReIS 1036 THE RELIGION OF ISLAM. 4 credits, \$MidE 1536, \$243. (♦ \$121.50)

- ◆ The rise of Islam. 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 MidE 1536)

Winter Qtr Sec 1 **Th**—6:20-8:50, BlegH 5, Farah

ReIS 3034 INTRODUCTION TO JUDAISM. 4 credits, \$1034, \$JwSt 1034, 3034, \$248. (IS)

See course description for ReIS 1034. (No prereq. Meets concurrently with ReIS 1034, JwSt 1034, 3034)

Winter Qtr Sec 1 **M**—6:20-8:50, Arch 50, Zahavy

ReIS 3035 CHRISTIAN RELIGIOUS TRADITIONS. 4 credits, \$1035, 5035, \$248. (♦ \$124)

- ◆ Historical structures, themes, persons examined in Christianity's transition from minor Jewish sect to martyrdom to dominant religion to modern pluralism. In modern period, focus on problematic situations of racism, nationalism, democracy, capitalism, imperialism, war, sexism, Marxism, secularization. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, FordH 120, Tapp

ReIS 3072 THE NEW TESTAMENT. 4 credits, \$5072, \$Clas 3072, 5072, \$248. (♦ \$124)

- ◆ First-century Israel under Roman rule. Jesus of Nazareth. Earliest Christian communities, Jewish Christianity. Mission to Gentiles. Paul the apostle. Beginnings of New Testament. (Prereq junior standing. Meets concurrently with 5072, Clas 3072, 5072)

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 208, Sellw

ReIS 3103 RELIGIONS OF THE AMERICAN PEOPLE. 4 credits, \$248. (♦ \$124)

- ◆ Religious perspective on American experience. Religious traditions, Western and non-Western, examined developmentally, descriptively, and chronologically. 1890-present. (No prereq)

Spring Qtr Sec 1 **T**—6:20-8:50, AmundH 120

ReIS 3117 THE DEAD SEA SCROLLS: THE INTER-TESTAMENTAL PERIOD. 4 credits, \$ANE 3117, \$248. (♦ \$124)

- ◆ Jewish sectarianism in the pre-Christian period; position of the Dead Sea sect. Qumran texts in English; communal organization, modes of worship, theology, and Messiah concept as a precursor to later religious developments. Knowledge of Hebrew not required. (No prereq. Meets concurrently with ANE 3117)

Fall Qtr Sec 1 **Th**—6:05-8:35, Talmud Torah of Mpls, 8300 W.
33 St., St. Louis Park (free parking), Zahavy

ReIS 3203 THE BIBLE: WISDOM, POETRY, AND APOCALYPTIC. 4 credits, \$ANE 1003, 3003, \$248.

Survey of books of Psalms, Proverbs, Job, Song of Songs, Lamentations, Ecclesiastes
(continued next page)

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

(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 **M**—6:20-8:50, NichH 213, Zahavy

ReIS 3251 THE MODERN STUDY OF THE OLD TESTAMENT. 4 credits, §ANE 3251, \$248. (◆\$124)

◆ Methods employed in the study of the Old Testament, including textual criticism, the anthropological approach, form criticism, the sociological approach, the history of religion, and the uses of archaeology in interpreting the text. (No prereq. Meets concurrently with ANE 3251)

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 208, Reisman

★**ReIS 3412 HINDUISM.** 4 credits, §ReIS 5412, §SoAS 3412, 5412, \$248.

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 MidE 1504 or 3411 or ReIS 1031 or #. Meets concurrently with ReIS 5412 and SoAS 3412, 5412. ReIS 3412 and 5412 are limited to a combined total of 15)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 318, Junghare

★**ReIS 3413 BUDDHISM.** 4 credits, §ReIS 5413, §SoAS 3413, 5413, \$248.

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 and SoAS 3413, 5413. ReIS 3413 and 5413 are limited to a combined total of 15)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 240, Junghare

ReIS 3501 ANCIENT ISRAEL. 4 credits, §ANE 3501, \$248. (◆\$124)

◆ History of Israel and development of its religion from earliest times through inter-testamental period. The foundation of the Hebrew people; patriarchal period; development of Israelite religious and legal institutions; conquest of Canaan; development of the monarchy and the united kingdom. (No prereq. Meets concurrently with ANE 3501)

Fall Qtr Sec 1 **W**—6:20-8:50, FolH 138, Reisman

ReIS 3502 ANCIENT ISRAEL. 4 credits, §ANE 3502, \$248. (◆\$124)

◆ History of Israel and development of its religion from earliest times through inter-testamental period. The divided kingdom; classical prophecy, destruction, exile and restoration. (No prereq. Meets concurrently with ANE 3502)

Winter Qtr Sec 1 **W**—6:20-8:50, FolH 138, Paradise

ReIS 3541 THE HOLOCAUST. 4 credits, §JwSt 3521, \$248. (◆\$124)

new ◆ 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)

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 148, Feinstein, Zahavy

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

RelS 3960 AMERICAN INDIAN RELIGIONS. 4 credits, \$248. (◆\$124)

new

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 60

RelS 3960 CURRENT ISSUES IN SCIENCE AND RELIGION. 4 credits, \$248. (◆\$124)

new

Considers specific topics about the place of religion in an age of science: the ways science and technology challenge the relevance of religion in scholarly and popular thought. The contribution of religion to ethical thinking about the uses of technology, as in genetic engineering or the environment. How biological and cultural evolution (including religion) affect views about the basis of morality. And how the sciences and religion influence understanding of what it means to be human. (No prereq)

Winter Qtr Sec 2 **T**—6:20-8:50, FordH 130

RelS 3960 CHRISTIAN MYSTICISM, MEDIEVAL ENGLAND. 4 credits, \$248. (◆\$124)

new

Focuses on one of the most personal and experiential aspects of medieval religion. After reviewing the devotional traditions of the High Middle Ages, the course will focus on selected English mystics: Richard Rolle, Dame Julian of Norwich, the anonymous author of *The Cloud of Unknowing*, and Margery Kempe. These will illustrate how, in the fourteenth century, the advanced and intimate prayer practices of monasteries achieved popularity among lay persons of varied occupations and educational levels. (No prereq)

Spring Qtr Sec 3 **W**—6:20-8:50, FordH 170

RelS 5072 THE NEW TESTAMENT. 4 credits, §3072, §Clas 3072, 5072, \$248. (◆\$124)

See course description for RelS 3072. (Prereq junior standing. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3072, Clas 3072, 5072)

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 208, Sellev

RelS 5089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY. 4 credits, §Clas 5089, \$248.

new

Archaeological data relevant to the Jewish scriptures and the New Testament; major sites in the Holy Land and 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. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Clas 5089)

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 148, Sellev

★RelS 5412 HINDUISM. 4 credits, §RelS 3412, §SoAS 3412, 5412, \$248.

See course description for RelS 3412. (Prereq MidE 1504 or 3411 or RelS 1031 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with RelS 3412 and SoAS 3412, 5412. RelS 5412 and 3412 are limited to a combined total of 15)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 318, Junghare

★RelS 5413 BUDDHISM. 4 credits, §RelS 3413, §SoAS 3413, 5413, \$248.

See course description for RelS 3413. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with RelS 3413 and SoAS 3413, 5413. RelS 5413 and 3413 are limited to a combined total of 15)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 240, Junghare

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Research Explorations

(See page 596)

Rhetoric (Rhet)

(202 Haecker Hall: 624-3445)

College of Agriculture

(Technical Communication Program)

Textbooks for Rhet courses on the Minneapolis campus and at neighborhood centers are available at the Minnesota Book Center in Williamson Hall (625-6000); books for courses on the St. Paul campus are available at Books Underground on the St. Paul campus (624-9200)

(See also Learning and Academic Skills; General College; English; Composition and Communication; The Compleat Scholar and Practical Scholar noncredit courses. For a free course on how to use University libraries, see page 591)

J. Michael Bennett, Associate Professor of Rhetoric

James E. Connolly, Professor of Rhetoric

Richard W. Ferguson, Associate Professor of Rhetoric

Warren Gore, Assistant Professor of Rhetoric

Earl E. McDowell, Professor of Rhetoric

L. David Schuelke, Professor of Rhetoric

John M. Sperbeck, 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, \$243.

Students investigate and write about subjects related to their majors. Emphasis on gathering, evaluating, synthesizing, and summarizing information, adapting it for various audiences. The criterion of appropriateness: good writing meets the expectation of readers and the conventions of a particular form. Assignments include literature review, abstract, fact sheet, instructions, and feature article. (Prereq 1104 [College of Natural Resources students only: FR 1104 or ForP 1104 or FW 1104], completion of freshman communication requirements, sophomore. Limited to 23)

Fall Qtr Sec 1 **M**—6:20-8:50, HckrH 111, StP Campus

Spring Qtr Sec 2 **W**—6:20-8:50, HckrH 111, StP Campus

★Rhet 1160 COLLEGE READING. 3 credits, \$5160, \$182.25 plus \$3 course fee. Total \$185.25. (IS)

Factors for successful college reading: application of psycholinguistic and cognitive reading theories; opportunities for developing expertise in reading comprehension and retention, rapid reading, vocabulary power, and communication skills. Not a basic course. A suggested follow-up for LASk 1001, How to Study. (No prereq. Meets concurrently with 5160. Limited to 40)

Fall Qtr Sec 1 **W**—6:30-9, FordH 120, Bennett

Spring Qtr Sec 2 **W**—6:30-9, FordH 120, Bennett

(See also Psch 0640, Rapid Reading and Comprehension)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Rhet 1220 **PRINCIPLES OF HUMAN COMMUNICATION.** 4 credits, \$243.

Introduction to the elements and contexts of human communication. Readings, discussions, lectures, and experiential assignments; focus on communication that affects interpersonal gatherings and that entertains, persuades, and instructs public audiences. (No prereq. Limited to 30)

Spring Qtr Sec 1 **Th**—6:20-9:40, HckrH 210, StP Campus, Connolly

★Rhet 1222 **PUBLIC SPEAKING.** 4 credits, \$243.

Practical course in fundamentals of speechmaking. Emphasis on researching and organizing a speech and communicating with an audience. (Prereq freshman communication requirement. Limited to 20)

Winter Qtr Sec 1 **T**—6:20-9:40, HckrH 222, StP Campus, Gore

Sec 2 **W**—6:30-9:50, CentLib 4, StP Campus, Bennett

Spring Qtr Sec 3 **T**—6:20-9:40, HckrH 222, StP Campus, Gore

Sec 4 **Th**—6:20-9:40, CentLib 6, StP Campus

(See also Speech-Communication)

★Rhet 1251 **EFFECTIVE LISTENING.** 3 credits, \$182.25.

Designed to increase listening comprehension by developing four central abilities. Readings, research, theory, and practice. (No prereq. Limited to 30)

Fall Qtr Sec 1 **T**—6:20-8:50, HckrH 222, StP Campus, Gore

★Rhet 3562 **WRITING IN YOUR PROFESSION.** 4 credits, \$292. (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 appreciation, and resumés. **Winter and spring sections 2 and 3 are computer-assisted instruction and require a microcomputer lab card.** (Prereq freshman communication requirement, 1151, junior status. Limited to 20)

Fall Qtr Sec 1 **T**—6:20-8:50, HckrH 312, StP Campus, Ferguson (limit 22)

Winter Qtr Sec 2 **T**—6:20-8:50, HckrH 302, StP Campus

Spring Qtr Sec 3 **M**—6:20-8:50, HckrH 302, StP Campus

★Rhet 3565 **WRITING FOR PUBLICATION.** 4 credits, \$292.

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 and requires a microcomputer lab card.** (Prereq 3562, #. Limited to 20)

Winter Qtr Sec 1 **M**—5:30-8, HckrH 302, StP Campus, Sperbeck

★Rhet 5160 **ADVANCED COLLEGE READING.** 4 credits, \$1160, \$292 plus \$3 course fee. Total \$295.

Examination and application of adult reading theories and teaching practices. Observe and participate in Rhet 1160 class, and an additional 10 hours of seminar meetings. Prepare a research paper and a teaching module for college reading. (Prereq Rhet 1160 or equivalent or #; grad status. Meets concurrently with Rhet 1160. Qualified students may register for graduate credit at the University of Minnesota. Limited to 10)

Fall Qtr Sec 1 **W**—6:30-9:50, FordH 120, Bennett

Spring Qtr Sec 2 **W**—6:30-9:50, FordH 120, Bennett

(See also PSch 0640, Rapid Reading and Comprehension)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Rhet 5165 STUDIES IN ORGANIZATIONAL COMMUNICATION, CONFLICT, AND CHANGE. 4 credits, \$292.

The roles of internal and external organizational communication, conflict-problem identification, and change processes. Contemporary theory and research in organizational development. Methods of problem identification and diagnosis. Change processes and applications to actual organizational settings. (Prereq freshman communication or equivalent or grad status. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr Sec 1 **W**—6:20-9:40, HckrH 209, StP Campus, Schuelke

★Rhet 5257 SCIENTIFIC AND TECHNICAL PRESENTATIONS. 4 credits, \$292.

Presentations for specific situations related to technical or scientific topics. Audience analysis and adaptation, techniques of support and visualization, organization for clarity and accuracy, and techniques of interpreting and answering questions. Students will make and evaluate technical and scientific presentations. Emphasis on seminar reports and professional conference papers. (Prereq 1222, 3562 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Winter Qtr Sec 1 **W**—6:30-9:50, HckrH 209, StP Campus, Connolly

Spring Qtr ○ Sec 2 **T**—3-5:30, HckrH 209, StP Campus, Connolly

(A joint Day/Extension class limited to 9 Extension students)

★Rhet 5258 INTERVIEWING: DYNAMICS OF FACE-TO-FACE COMMUNICATION. 4 credits, \$292.

Designed to improve 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 **W**—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 5400 DISSEMINATION AND UTILIZATION OF INFORMATION. 4 credits, \$292.

Methods and processes of using specialized information. Study of cases and development of materials for application in professional fields. Emphasis on channels for dissemination and utilization. (Prereq junior, senior, or graduate standing. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Fall Qtr Sec 1 **W**—6:20-9:40, HckrH 312, StP Campus, Schuelke

Winter Qtr ○ Sec 2 **M**—3-6:20, HckrH 301, StP Campus, Schuelke

(A joint Day/Extension class limited to 8 Extension students)

★ORhet 5500 RESEARCH IN COMMUNICATION STRATEGIES. 4 credits, \$292.

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. Qual-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

ified 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**—4-7:20, HckrH 222, StP Campus, McDowell

Spring Qtr Sec 2 **Th**—4-7:20, HckrH 222, StP Campus, McDowell

★ **ORhet 5572 PROCEDURES AND POLICIES MANUAL.** 2 credits, \$146.

Problem analysis, process management, gathering information, writing procedures, verification, constructing the finished manual. (Prereq technical communication major or minor, freshman communication, 3562 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 7 Extension students)

Spring Spec Term Sec 1 **W**—4:30-6:10, Apr. 1-29, HckrH 312, StP Campus, Ferguson

Russian and East European Studies

(253 Elliott Hall: 625-9870)

College of Liberal Arts

Textbooks for most courses in this department are available at the Minnesota Book Center in Williamson Hall (625-6000)

Irina Corten, Assistant Professor of Slavic Languages and Literatures

Adele Donchenko, Associate Professor of Slavic Languages and Literatures

Gary Jahn, Associate Professor of Slavic Languages and Literatures

Leonard A. Polakiewicz, Associate Professor of Slavic Languages and Literatures

Ivancica Schrunck, Lecturer in Slavic Languages and Literature

(See also History; CSch 0200, Poland: The Last Decade; CSch 0207, The Soviet Union and Eastern Europe: Reform and Revolution; and CSch 0209, The Changing World of The Soviet Union)

Read about language laboratories on page 61.

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Russian and East European 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.

Polish (Plsh)

Plsh 1101-1102-1103 BEGINNING POLISH. 5 credits each quarter, \$303.75 each quarter.

Speaking, understanding, and reading basic Polish. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr **1101** Sec 1 **T**—6:10-9:30, FolH 104, Polakiewicz

Winter Qtr **1102** Sec 2 **T**—6:10-9:30, FolH 104, Polakiewicz

Spring Qtr **1103** Sec 3 **T**—6:10-9:30, FolH 104, Polakiewicz

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Pish 1104-1105-1106 INTERMEDIATE POLISH. 4 credits each quarter, \$303.75 each quarter.

Grammar review; advanced texts, practice in speaking. (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106)

Fall Qtr 1104 Sec 1 **M**—6:10-8:50, FolH 104, Polakiewicz

Winter Qtr 1105 Sec 2 **M**—6:10-8:50, FolH 104

Spring Qtr 1106 Sec 3 **M**—6:10-8:50, FolH 104

Pish 5900 TOPICS: TO BE ANNOUNCED. 4 credits, \$248. (◆\$124)

◆ (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6:20-8:50, FolH 240

Russian (Russ)

Russ 1101-1102-1103 BEGINNING RUSSIAN. 5 credits each quarter, \$303.75 each quarter. (IS)

Grammar, pronunciation, reading, and practice in speaking. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr 1101 Sec 1 **M**—6:10-9:30, FolH 306, Jahn

cew **1101** Sec 2 **Th**—8:40 a.m.-12, MacP

Offered through Continuing Education for Women

Winter Qtr 1102 Sec 3 **M**—6:10-9:30, WullH 130, Jahn

Spring Qtr 1103 Sec 4 **M**—6:10-9:30, FolH 134, Polakiewicz

Russ 1104-1105-1106 INTERMEDIATE RUSSIAN. 4 credits each quarter, \$243 each quarter.

Expansion of experience in speaking, reading, and understanding Russian; reading contemporary texts. (Prereq 1103 or equivalent for 1104; 1104 or equivalent for 1105; 1105 or equivalent for 1106)

Fall Qtr 1104 Sec 1 **T**—6:10-8:50, FolH 246, Jahn

Winter Qtr 1105 Sec 2 **T**—6:10-8:50, SmithH 111, Jahn

Spring Qtr 1106 Sec 3 **T**—6:10-8:50, SmithH 111, Jahn

Russ 5401 DOSTOEVSKY IN TRANSLATION. 4 credits, \$248. (◆\$124)

◆ Novels. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 334, Jahn

Russ 5409 THE 19TH-CENTURY RUSSIAN NOVEL IN TRANSLATION. 4 credits, \$248. (◆\$124)

new ◆ The Russian realistic novel from origin to decline; social, political, and intellectual circumstances that led to its emergence as the dominant genre of the "age of realism" in Russia. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, FolH 326, Polakiewicz

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Serbo-Croatian (Serb)

Serb 1101-1102-1103 BEGINNING SERBO-CROATIAN. 5 credits each quarter, \$303.75 each quarter.

The development of fundamental skills of speaking, listening, reading, and writing by active use of the language in a cultural context. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

Fall Qtr 1101 Sec 1 T—6:20-9, EltH 249, Schrunk

Winter Qtr 1102 Sec 2 T—6:20-9, EltH 249, Schrunk

Spring Qtr 1103 Sec 3 T—6:20-9, EltH 249, Schrunk

Serb 3511 YUGOSLAV CULTURAL DIVERSITY: PAST AND PRESENT. 4 credits, \$248. (♦ \$124)

- ◆ Understanding the roots of cultural and ethnic diversity in Yugoslavia; the study of the processes which shaped it from the beginnings to the present. (No prereq)

Fall Qtr Sec 1 Th—6:20-8:50, FolH 246, Schrunk

S

Scandinavian Languages

(200 Folwell Hall: 625-9887)

College of Liberal Arts

Textbooks for most Scan courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

David Cooperman, Professor of Sociology

William Mishler, Associate Professor of Scandinavian

Tuulikki Sinks, Teaching Specialist, Scandinavian Studies

Göran Stockenström, Professor of Scandinavian

Read about language laboratories on page 61.

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.

Finnish (Fin)

Fin 1101-1102-1103 BEGINNING FINNISH. 5 credits each quarter, \$303.75 each quarter.

Intended for students who have little or no previous knowledge of Finnish. Stresse
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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 40)

Fall Qtr	1101	Sec 1	W —6:20-10:05, FolH 116, Sinks
Winter Qtr	1102	Sec 2	W —6:20-10:05, FolH 116, Sinks
Spring Qtr	1103	Sec 3	W —6:20-10:05, FolH 116, Sinks

Norwegian (Nor)

★Nor 1101-1102-1103 **BEGINNING NORWEGIAN**. 5 credits each quarter, \$303.75 each quarter. (IS 1101, 1102)

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 30)

Fall Qtr	1101	Sec 1	T —6:10-10:05, FolH 138
Winter Qtr	1102	Sec 2	T —6:10-10:05, FolH 138 (Limit 25)
Spring Qtr	1103	Sec 3	T —6:10-10:05, FolH 138 (Limit 20)

★Nor 1104-1105-1106 **INTERMEDIATE NORWEGIAN**, 5 credits each quarter, \$303.75. (IS 1104, 1105)

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 344
Winter Qtr	1105	Sec 2	W —6:10-10:05, FolH 344
Spring Qtr	1106	Sec 3	W —6:10-10:05, FolH 344 (Limit 20)

Scandinavian (Scan)

Scan 3602 **SCANDINAVIAN FAIRY TALES AS LITERATURE**. 4 credits, \$248. (♦\$124) (IS)

Examined in context of German Romanticism. Emphasis on H.C. Andersen and 20th-century authors who write in this tradition. (No prereq)

Fall Qtr	Sec 1	M —6:20-8:50, FolH 134, Mishler
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Swedish (Swed)

★Swed 1101-1102-1103 **BEGINNING SWEDISH**. 5 credits each quarter, \$303.75 each quarter. (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. Limited to 30)

Fall Qtr	1101	Sec 1	T —6:10-10:05, FolH 218, Stockenström
Winter Qtr	1102	Sec 2	T —6:10-10:05, FolH 218, Stockenström (Limit 25)
Spring Qtr	1103	Sec 3	T —6:10-10:05, FolH 218, Stockenström (Limit 20)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★Swed 1104-1105-1106 **INTERMEDIATE SWEDISH.** 5 credits each quarter, \$303.75. (IS 1104, 1105)

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 **Th**—6:10-10:05, FolH 218, Stockenström

Winter Qtr 1105 Sec 2 **Th**—6:10-10:05, FolH 218, Stockenström

Spring Qtr 1106 Sec 3 **Th**—6:10-10:05, FolH 218, Stockenström

Secondary Education (SeEd)

(125 Peik Hall: 625-6372)

College of Education

(Department of Curriculum and Instruction)

Textbooks for most SeEd courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Patricia G. Avery, Assistant Professor

Richard Beach, Professor

Charles Bruning, Associate Professor

Fred N. Finley, Associate Professor

Eugene D. Gennaro, Professor

Michael F. Graves, Professor

Patricia A. Heller, Assistant Professor

Peggy A. House, Professor

Helen L. Jorstad, Associate Professor

Stanley B. Kegler, Professor

Dale L. Lange, Professor

James D. Mackey, Professor

R. Michael Paige, Associate Professor

Diane J. Tedick, Assistant Professor

Constance L. Walker, Associate Professor

Study Abroad for Teachers

Teachers of Spanish will find a study abroad program designed especially for them offered by the Global Campus. See page 475 for further information on study abroad opportunities.

Master's Degree

A **Master of Education** degree with a focus on **Second Languages and Cultures** will be available through SeEd beginning **fall quarter 1991** at Capitol View in **Roseville** with interactive television sites at **Spring Lake Park High School** and **Stillwater High school**. Degree completion will be possible within three years.

For information on the degree program, telephone (612) 625-1855.

These courses are subject to frequent changes in time and rooms. Check for correct day, time, and room in a day school class schedule.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

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.

See page 24 for information regarding reopenings that may occur prior to the start of the term.

★OSeEd 5122 TEACHING CULTURE: THEORY AND APPLICATION. 4 credits, \$292.

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)

Spring Qtr Sec 1 **T**—4:15-8, PeikH 155, Walker

★OSeEd 5145 CLASSROOM MANAGEMENT. 3 credits, \$Elem 5145, \$219.

For teachers, administrators, and support staff working in secondary school programs: focus on management of student behavior, of instruction as it relates to student behavior, and of teacher organizational tasks in the classroom. **Must be taken A-F.** (Prereq secondary teaching or administrative 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**—4:40-7:15, PeikH 165, Bruning

★OSeEd 5150 ADVANCED METHODS OF TEACHING THE SOCIAL STUDIES. 3 credits, \$219.

Advanced methods for social studies teachers; prerequisite to other graduate-level courses in social studies 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 12 Extension students)

Spring Qtr Sec 1 **T**—4:30-7, PeikH 165, Avery

★OSeEd 5152 TECHNIQUES OF INSTRUCTION IN SOCIAL STUDIES. 3 credits, \$219.

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 M.A., M.Ed., and Ph.D. candidates. **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 165, Mackey

★OSeEd 5175 SECONDARY REMEDIAL READING INSTRUCTION. 3 credits, \$219.

Principles and techniques for developing and conducting programs for secondary students seriously deficient in reading skills. **Must be taken A-F.** (Prereq 5344 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 **W**—4:30-7:15, PeikH 46, Graves

★OSeEd 5186 ALTERNATIVES IN SECOND LANGUAGE EDUCATION. 3 credits, \$219.

Overview of curricula and instruction in various settings: elementary, secondary, open, free, suburban, and center city schools; bilingual programs, colleges, community colleges, universities, and adult programs including teacher preparation. (Inter-

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

active 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)

Fall Qtr Sec 1 **Arr off campus, Jorstad**

★**SeEd 5189 PLANNING AND ASSESSING SECOND LANGUAGE CURRICULUM.** 4 credits, \$292.

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. (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)

Fall Qtr Sec 1 **Th—3:35-7:30, Arr off campus, Tedick**

★**SeEd 5191 WORKSHOP: TEACHING OF SECOND LANGUAGES.** 1-10 credits (maximum 10 cr). 3 credits this offering, \$219.

Topic to be announced. Related specifically to the needs of the in-service teacher; topics, location, and duration will be highly flexible. (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 **Arr off campus**

★**SeEd 5217 PROGRAMS AND CURRICULA IN BILINGUAL EDUCATION.** 4 credits, \$292.

Current curricular strategies to instruct language minority students in the U.S. and selected international settings; analysis of styles by program and individual student learning goals; materials for instruction and content focusing on non-English language curriculum; typologies and models of instructional programs; operational variables affecting curricular patterns and program goals. **Must be taken A-F.** (Prereq 5216 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—3:35-7, PeikH 31, Walker**

★**SeEd 5218 ASSESSMENT OF LEARNERS WITH LIMITED ENGLISH PROFICIENCY.** 4 credits, \$292.

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 **Th—3:35-7:05, PeikH 215, Walker**

★**SeEd 5219 TEACHING READING TO SECOND LANGUAGE LEARNERS.** 4 credits, \$292.

Reading process in second language; relationship between first and second languages and implications for reading; comprehension development; skill building; assessing second language reading; materials and resources for different languages and levels. (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)

Spring Qtr Sec 1 **Arr off campus, Tedick**

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**SeEd 5320 LITERATURE FOR ADOLESCENTS.** 3 credits, \$219.

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)

Winter Spec Term Sec 1 **Sa**—9 a.m.-2, Jan. 11, 25, Feb. 8, 22, Mar. 7,
(5 meetings), PeikH 40, Beach

★**SeEd 5321 TEACHING LITERATURE IN SECONDARY SCHOOLS.** 3 credits, \$219.

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)

Spring Qtr Sec 1 **M**—4:30-7:15, PeikH 46, Beach

★**SeEd 5326 TEACHING FILM AND TELEVISION.** 3 credits, \$219.

Current theory and methods of teaching critical response to film and television; techniques, genres, history, economics; integration and use of short film and Super-8 film-making with English and social studies teaching in the classroom. **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**—4:30-7:15, PeikH 46, Beach

★**SeEd 5344 TEACHING READING IN CONTENT AREAS.** 3 credits, \$219.

Methods of accommodating student abilities and facilitating reading in regular content classes. **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 **W**—4:30-7:15, ChDev 218, Graves

★**SeEd 5382 SECOND LANGUAGE TESTING, ASSESSMENT, AND EVALUATION.** 3 credits, \$219.

Language proficiency assessment, English as a second language, bilingual education; oral interviews; testing communicative abilities; standardized language measures; building test items; evaluating programs; aptitude and attitude measurement. **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 **Th**—3:35-6:30, PeikH 225, Tedick

★**SeEd 5385 PLANNING AND ASSESSING SECOND LANGUAGE INSTRUCTION.** 4 credits, \$292.

Methods of teaching language as communication in oral and written modes; planning student interaction; classroom organization for learning and acquisition. Students plan and teach example lessons for analysis. **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.-12:30, PeikH 215, Jorstad

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**OSeEd 5390 CURRENT DEVELOPMENTS IN SECONDARY SCHOOL SCIENCE TEACHING.** 3 credits, \$219.

Curricula, methods, materials of instruction, evaluation. **Must be taken A-F.** (Prereq 3356, 3357 or equivalent undergrad courses or experience in teaching science. 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**—4:30-7:15, PeikH 365, Gennaro

★**OSeEd 5394 WORKSHOP: SCIENCE EDUCATION.** 1-12 credits (maximum 12 cr). 3 credits each offering, \$219.

Analysis of issues, materials, and instructional techniques on current topics of relevance to secondary school and college science teachers. Each offering will focus on a single topic for varying credit. Focus sec 1: *To be arranged.* **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 **W**—6-9, PeikH 365, Finley

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 182 or call 625-6501.

Sign Language, American

See Educational Psychology, page 191

Social and Behavioral Sciences

(See General College)

Social and Philosophical Foundations of Education

See Educational Policy and Administration, page 183

Social Work (SW)

(400 Ford Hall: 624-5888)

College of Human Ecology

Textbooks for most SW courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Sociology; General College; Public Health; Education; Health Science Units; and Social, Administrative and Hospital Pharmacy)

Rondell S. Berkeland, Director of Occupational Therapy

Irl Carter, Associate Professor of Social Work

Kendra Garrett, Lecturer in Social Work

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

C. David Hollister, Director and Professor of Social Work
Rama Pandey, Professor of Social Work
Marilyn Peterson, Lecturer in Social Work
Jean Quam, Associate Professor of Social Work
Annalee Stewart, Assistant Professor of Social Work
Sara Taber, Assistant Professor of Social Work

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.

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 624-5888.

SW 1001 INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES. 5 credits, \$303.75. (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 **M**—6-9:30, FordH 349

Winter Qtr Sec 2 **T**—6-9:30, FordH 349, Hollister

Spring Qtr Sec 3 **W**—5-8:30, FordH 175

SW 3201 INTERVENTIONS WITH INDIVIDUALS AND GROUPS. 4 credits, \$292.

Application of social work skills and values to work with individuals and small groups using an ecological framework. (No prereq)

Winter Qtr Sec 1 **W**—6-9:30, FordH 160

SW 3202 INTERVENTIONS IN COMMUNITY AND SOCIAL POLICY. 4 credits, \$292.

Application of social work skills and values to community organization, social action, and social problems, using an ecological framework. (No prereq)

Spring Qtr Sec 1 **M**—6-9:30, FordH 150

SW 5010 SEMINAR: SPECIAL TOPICS—CLINICAL WORK WITH CHILDREN. 3 credits, \$219.

Identifies ages/stages of development to address the theoretical processes involved; to illustrate behavioral manifestations, both in terms of the child's inner psychological experience and of the object-relationship needs; and to explore clinical interventions. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—7-10, FordH 160

★SW 5010 SEMINAR: SPECIAL TOPICS—STRATEGIES OF FAMILY INTERVENTION. 3 credits, \$219.

Seminar in methods and strategies of helping families cope with family problems. (Prereq 8402, or 69 cr MSW student. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Winter Qtr Sec 2 **M**—4:15-7, FordH 175, Peterson

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★SW 5010 SEMINAR: SPECIAL TOPICS—SUPERVISION AND CONSULTATION. 3 credits, \$219.

Examination of principles and practice of the three aspects of first-line supervision in direct practice systems—administration, education, and support. Consideration of principles and methods of consultation and staff development. (Prereq 8402, or 69 cr MSW student. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Winter Qtr Sec 3 **T**—6-9:30, FordH 70

SW 5010 SEMINAR: SPECIAL TOPICS—SOCIAL GROUP WORK. 3 credits, \$219.

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)

Winter Qtr Sec 4 **W**—6-9:30, FordH 170

SW 5010 SEMINAR: SPECIAL TOPICS—SOCIAL WORK IN THE SCHOOLS. 3 credits, \$219.

A course designed to prepare 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 5 **Th**—4:15-7, FordH 50, Garret

★SW 5010 SEMINAR: SPECIAL TOPICS—SOCIO-CULTURAL PERSPECTIVES ON SOCIAL WORK WITH FAMILIES. 3 credits, \$219.

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 6 **Th**—4:15-7, FordH 115, Taber

★SW 5010 SEMINAR: SPECIAL TOPICS—CASE MANAGEMENT: Trends and Practices in Serving Persons with Developmental Disabilities. 3 credits, \$219.

Current case management policies and practices designed to support children and adults with exceptional needs in home and community life. Generic and population-specific strategies. Course is designed for both pre-service and practicing professionals. Practical applications are emphasized in class discussions and assignments. The question, "Can a caring and committed professional find happiness as a case manager?" will be addressed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with EPsy 5704, sec 4. Limited to a combined total of 30)

Spring Qtr Sec 7 **Th**—4:15-7, FordH 349

★OSW 5013 INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. 3 credits, \$PubH 5003, 5013, \$HSU 5001, \$219.

Interdisciplinary team development with application to public health, human service projects, didactic content, experiential methods, activities to develop attitudes, skills essential to effective team goal setting, decision making, problem solving, and task accomplishment. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with PubH 5013, Hsu 5001. A joint Day/Extension class limited to a combined total of 12 Extension students from health and helping professions)

Spring Qtr Sec 1 **W**—5:45-8:45, MoosT 2-571, 2-585, Berkeland, Sullivan

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

- OSW 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, \$292.

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

- SW 5111 CONTEMPORARY POLICY AND PROGRAMS IN SOCIAL WELFARE.** 3 credits for graduate students, \$219; 4 credits for undergraduates, \$292.

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)

Winter Qtr Sec 1 **T**—7-10, FordH 170, Pandey

- SW 5211 ADVANCED THEORIES OF HUMAN GROWTH AND CHANGE.** 3 credits for graduate students, \$219; 4 credits for undergraduates, \$292.

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)

Spring Qtr Sec 1 **T**—7-10, FordH 175, Carter

- ★SW 5601 ETHNO-CULTURAL CONCEPTS IN SOCIAL WORK PRACTICE.** 3 credits for graduate students, \$219; 4 credits for undergraduates, \$292.

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 intra-group relationships with the social service delivery system will be discussed. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Qtr Sec 1 **M**—7-10, FordH 160, Stewart

Sociology (Soc)

(909 Social Sciences: 624-4300)

College of Liberal Arts

Textbooks for most Soc courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

(See also General College courses in social and behavioral sciences; Family Social Science; Political Science; Social Work; and The Compleat Scholar and Practical Scholar noncredit courses)

William Brustein, Associate Professor of Sociology

Robert Fulton, Professor of Sociology

Li Jin, Visiting Lecturer in Sociology

Arthur Johnson, Professor Emeritus of Sociology

Donald McTavish, Professor of Sociology

Dario Menanteau, Associate Professor of Rural Sociology, Associate in Sociology

Joel Nelson, Professor of Sociology

Joanne Oreskovich, Instructor in Sociology

Joel Samaha, Professor of History, Associate in Sociology

A MAJOR IN SOCIOLOGY CAN BE COMPLETED IN THE EVENING.

Those courses required in the major are offered yearly or every other year. Interested students should discuss plans with a CEE adviser (625-2500), or with the sociology department academic adviser (624-4300).

B.A. Major Sequence, General Option

Major Requirements

1001, 3201 or 3201H, 3401 or 3401H

3801, 3802, 3803 (should be taken soph yr)

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 coursework and upper division composition course are completed

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 as soon as possible)

5701 or 5703 or 5705 or 5711

3101, 3102

Three courses chosen from 5101, 5102, 5104, 5105, 5107, 5108, 5111, 5114, 5125, 5135, 5141, 5142, 5147, 5148, 5161, 5162

4 credits of major project after all required major coursework and upper division composition course are completed

B.S. Major Sequence

Required Preparatory Course: 1001

Major Requirements

3801, 3802, 3803, 3201, 3401

One of the following: 5701, 5703, 5705, 5711

16 credits of 3000- or 5000-level sociology electives

6-8 credits of required research design in sociology

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)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

General Information

Check with the Undergraduate Advisor for possible major requirement changes. Majors must submit a program proposal, prepared after meeting with the Sociology Undergraduate Advising Office.

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 early as possible in their academic careers for 3801, 3802, and 3803.

The Department of Sociology offers an honors degree 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, however.

You need not be majoring in Sociology to register for these classes.

A minor in Sociology is also available. Interested students should call CEE Counseling, 625-2500.

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 and not in Extension, an exception may be granted for the Extension student to take the day school offering. 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.

Soc 1001 INTRODUCTION TO SOCIOLOGY. 4 credits, \$243. (♦\$121.50) (IS)

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
Sec 2 **Th**—6:20-8:50, AndH 370
- Winter Qtr** Sec 3 **T**—6:20-8:50, BlegH 150
Sec 4 **Th**—6:20-8:50, BlegH 215
- Spring Qtr** Sec 5 **M**—6:20-8:50, BlegH 10
Sec 6 **T**—6:20-8:50, BlegH 10

Soc 1003 SOCIAL PROBLEMS. 4 credits, \$243. (♦\$121.50)

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)

- ◆ **Spring Qtr** Sec 1 **Th**—6:20-8:50, BlegH 135

Soc 1004 AMERICAN RACE RELATIONS. 4 credits, \$243. (♦\$121.50)

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)

- ◆ **Winter Qtr** Sec 1 **W**—6:20-8:50, BlegH 250

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Soc 3101 (formerly CJS 3101) INTRODUCTION TO AMERICAN CRIMINAL JUSTICE. 4 credits, \$248. (◆\$124) (IS)

- ◆ Components and dynamics of the criminal justice system as well as its philosophical underpinnings. (No prereq)

Fall Qtr Sec 1 **M**—6-8:30, HHHctr 25, Samaha

(Soc 3101 is also offered as a spring radio course through CEE Independent Study. See page 51)

Soc 3102 INTRODUCTION TO CRIMINAL BEHAVIOR AND SOCIAL CONTROL. 4 credits, \$248. (◆\$124)

- ◆ Introduction to the basic issues in criminology and the sociology of law and social control organizations. (Prereq 3101 or equivalent)

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 245

★Soc 3201 PRINCIPLES OF SOCIAL PSYCHOLOGY. 5 credits, \$3506, \$310. (◆\$155)

- ◆ Ideas and findings related to social psychology; experience in developing empirically based knowledge in social science. (Prereq 1001 or equivalent. Limited to 40)

Winter Qtr Sec 1 **M**—**Lect**, 6-8:30, BlegH 135

W—**Lab**, 6:15-8, BlegH 135

Soc 3315 (formerly 5315) LATIN AMERICAN SOCIETIES IN TRANSITION. 4 credits, \$248. (◆\$124)

- ◆ Relationship of population, technology, and organization structure to levels of modernization among Latin American nations. Differentiation, diffusion, innovation, and social conflict as precipitants of social change. (Prereq 8 cr in sociology, economics, anthropology or political science or #)

Fall Qtr Sec 1 **T**—6:20-8:50, ClaOff B36, StP Campus, Menanteau
Buy books at *Books Underground on the St. Paul campus*
(624-9200)

(See also related courses in History)

★Soc 3401 PRINCIPLES OF SOCIAL ORGANIZATION. 5 credits, \$3505, \$310.

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 40)

Fall Qtr Sec 1 **M**—**Lect**, 6-8:30, BlegH 135

W—**Lab**, 6:15-8, BlegH 135

Soc 3405 INEQUALITY: INTRODUCTION TO STRATIFICATION. 4 credits, \$248. (◆\$124)

new

- ◆ Inequality—causes, dimensions, and consequences. Inequality in American society—class, gender, and race; cross-national patterns of inequality; relationship between economic and political inequality; role of schools in transmission of inequality; public policies affecting inequality. (Prereq 1001)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 135

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Soc 3501 THE FAMILY SYSTEM. 4 credits, \$248. (◆\$124) (IS)

- ◆ 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 225

Winter Qtr Sec 2 **Th**—9:30 a.m.-12, MacP

cew

Offered through Continuing Education for Women

Soc 3503 SEX, ROMANCE AND RELATIONSHIPS. 4 credits, \$248. (◆\$124)

- ◆ Sociological, historical, and feminist perspectives on gender relationships and personal life; ideas of masculinity and femininity; the social and historical construction of love and romance, intimacy, emotional and personal life, and sexuality. (Prereq 1001)

Winter Qtr Sec 1 **M**—6:20-8:50, BlegH 245

(See also PSch 0845, You Talk Man, I'll Talk Woman—Bridging the Communication Gap; PSch 0815, Identity and Intimacy in Close Relationships)

Soc 3551 WORLD POPULATION PROBLEMS. 4 credits, \$248. (◆\$124) (IS)

- new** ◆ Population growth and natural resources, population dynamics, fertility and mortality in less developed nations, population forecasts, population policies to reduce fertility. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 150

Soc 3601 URBAN COMMUNITY. 4 credits, \$248. (◆\$124)

- new** ◆ Urban community patterns. Comparison of social interaction in neighborhood, city, and metropolis. Community studies. Urban power structures. Settlement patterns, organization of social life and urban problems. (Prereq 1001 or 1002)

Spring Qtr Sec 1 **T**—6:20-8:50, AndH 210

Soc 3671 COMPARATIVE RURAL SOCIETIES: LATIN AMERICA. 4 credits, \$248. (◆\$124)

- ◆ Social and cultural change in Latin America. Demographic and ecological characteristics, institutional structure and its accompanying associations; linkages with outside and world views. (Prereq 8 cr in sociology, anthropology, economics, or political science or #)

Spring Qtr Sec 1 **T**—6:20-8:50, ClaOff B36, StP Campus, Menanteau

(See also related courses in History)

NOTE: Soc 3801, 3802, and 3803 may not be offered during 1992-93.

★Soc 3801 SOCIOLOGICAL METHODS I: DESCRIPTIVE STATISTICS. 5 credits, \$310 (◆\$155).

- ◆ 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 50)

Fall Qtr Sec 1 **TTh—Lect**, 6:10-8:20, BlegH 145

TTh—Lab, 8:30-9:30, BlegH 90

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Soc 3802 **SOCIOLOGICAL METHODS II: STATISTICAL INFERENCE.** 5 credits, \$310
(◆\$155)

- ◆ Statistical inferences, probability, hypothesis tests, use of statistical reasoning in analysis of sociological data. (Prereq 3801 or equivalent. Limited to 50)

Winter Qtr Sec 1 TTh—Lect, 6:10-8:20, BlegH 220
TTh—Lab, 8:30-9:30, BlegH 90

★Soc 3803 **SOCIOLOGICAL METHODS III: RESEARCH METHODS.** 5 credits, \$310
(◆\$155)

- ◆ 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 50)

Spring Qtr Sec 1 TTh—Lect, 6:10-8:20, BlegH 220
TTh—Lab, 8:30-9:30, BlegH 90

Soc 3954 **SOCIOLOGICAL PERSPECTIVES ON RACE, CLASS, AND GENDER.** 4 credits,
\$248. (◆\$124)

- ◆ 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)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 5

Soc 3960 **TOPICS IN SOCIOLOGY: POPULATION PROBLEMS IN ASIAN COUNTRIES.**
4 credits, \$248. (◆\$124)

- new** ◆ The necessity and significance of studying the population problems of Asian countries. The current situation of Asian population and population problems. The solution to Asian population problems. (Prereq 1001 or #)

Fall Qtr Sec 1 Th—6:20-8:50, BlegH 105, Jin

★Soc 3966 **MAJOR PROJECT SEMINAR.** 4 credits, \$248.

Designed to assist sociology majors in preparing research reports that satisfy the major project requirement. Provides guidance and direction in defining a research problem, collecting or selecting data, analyzing data, and writing a sociology research paper. (Prereq completion of all other required sociology course work and Comp 3014 or #; no registration permitted without written Δ ; see Department of Sociology, Soc Sci 909, 624-4300. Limited to 25)

Spring Qtr Sec 1 Th—6:20-8:50, BlegH 125, Nelson

Soc 5141 **JUVENILE DELINQUENCY.** 4 credits, \$248. (◆\$124)

- new** ◆ Advanced study of juvenile delinquency and societal response to it through regulatory agencies; special characteristics of juvenile justice institutions. (Prereq 3101, 3102 or #. 5161, 5162 recommended. May not be taken for graduate credit)

Fall Qtr Sec 1 M—6:20-8:50, AndH 210, Oreskovich

Soc 5151 **RELIGION AS A SOCIAL INSTITUTION.** 4 credits, \$248. (◆\$124)

- new** ◆ Structure and function of religious organizations in various types of societies; nature of religious leadership, type of religious participation; relationship of religion to other social institutions. (Prereq 8 cr in social sciences or #. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 125, Johnson

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Soc 5161 CRIMINAL LAW (formerly CJS 5101). 4 credits, \$CJS 5101, \$248. (◆\$124)

- ◆ An examination of the purposes and basic principles of criminal law; the proper limits of the criminal sanction and suggested reforms in existing criminal law. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6-8:30, HHHCtr 25, Samaha

Soc 5162 CRIMINAL PROCEDURE IN AMERICAN SOCIETY. 4 credits, \$CJS 5102, \$248. (◆\$124)

- ◆ Power of the state to intrude into lives of citizens and deprive them of life, liberty, and property in order to enforce criminal laws; topics such as arrest, search and seizure, pretrial practices, and prisoners' rights. Suggested limits on discretionary power of police, prosecutors, judges, and corrections authorities. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6-8:30, HHHCtr 25, Samaha

Soc 5705 BACKGROUNDS OF MODERN SOCIAL THOUGHT. 4 credits, \$248. (◆\$124)

new

- ◆ 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)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 245, Brustein

OSoc 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, \$248.

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

Soc 5960 TOPICS IN SOCIOLOGY: AIDS: A Sociological Perspective. 4 credits, \$248. (◆\$124)

- ◆ AIDS is a social crisis. It is a medical emergency that embraces both private problems and public issues which demand sociological attention. The course will explore the multi-sided character of the disease and its impact on contemporary American society and the world. The instructor and persons knowledgeable in different AIDS-related concerns will address the many-sided issues and problems that AIDS currently presents. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 3 **Th**—6:20-8:50, BlegH 150, Fulton

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Soil Science (Soil)

(439 Borlaug Hall: 625-1244)

College of Agriculture

Textbooks for most Soil courses are available at Books Underground on the St. Paul campus (624-9200)

(See also Horticulture)

Russell S. Adams, Jr., Professor of Soil Science

James L. Anderson, Associate Professor of Soil Science

Paul R. Bloom, Professor of Soil Science

Terence Cooper, Associate Professor of Soil Science

★**Soil 1020 THE SOIL RESOURCE.** 5 credits, \$5022, \$303.75.

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 20)

Fall Qtr Sec 1 **TTh**—6:20-9:20, BorH 365, StP Campus, Cooper

(See also ID 5525-5526, Garbage, Government, and the Globe)

○**Soil 3118 SEMINAR: SOIL AND WATER POLLUTION AND PUBLIC POLICY.** 1 credit (maximum 3 cr), \$73.

Speakers from the University, the public, and state and federal agencies address a current rural soil and water environmental issue, with emphasis on policies and pertinent technical concerns. A new topic examined each time offered. **Must be taken S-N.** (No prereq. A joint Day/Extension class)

Winter Qtr Sec 1 **T**—6:20-8:20, EE/CSci 3230, Adams

(See also REX 0121, Impact of Agricultural Chemicals on Groundwater)

★**Soil 5022 INTRODUCTORY SOIL SCIENCE FOR TEACHERS.** 4 credits, \$1020, \$292.

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 10)

Fall Qtr Sec 1 **TTh**—6:20-9:20, BorH 365, StP Campus, Cooper

○**Soil 5310 SOIL CHEMISTRY.** 3 credits, \$219.

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 5560 INTERPRETATION OF LAND RESOURCES.** 3 credits, \$219.

Techniques used in preparing soil maps of varying scales. Information available from soil maps and accompanying reports evaluated for use in agriculture, engineering, waste treatment, forestry, and land planning. How soil survey information can be

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

used to the fullest extent by both laypersons and the scientific community. (Prereq 3520 or #. 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, BorH 375, StP Campus, Anderson

South Asian and Middle Eastern Studies

(192 Klæber Court: 624-7030)

College of Liberal Arts

Textbooks for most MidE, Hindi, and Pers courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

Teirab AshShareef, Assistant Professor of Middle Eastern Studies

Caesar Farah, Lecturer in History and Middle Eastern Studies

Irmgard Farah, Lecturer in Middle Eastern Studies

Indira Junghare, Professor of South Asian Studies

William Malandra, Associate Professor of Classical and Near Eastern Studies and South Asian Studies

Paul Staneslow, Assistant Professor of South Asian Studies

Study Abroad

For information about Minnesota Studies in International Development (MSID) internships in India or Morocco and other study abroad opportunities, see the Global Campus section of this bulletin, page 475.

Arabic (Arab)

See **Afro-American and African Studies**, page 75, for the following Arabic courses:

Arab 1201-1202-1203 Colloquial Arabic

Arab 3302, 5502 The Arabic Novel in Translation

Arab 3303, 5503 Arabic Drama in Translation

Arab 5001 Introduction to Research in Arabic Studies

Middle Eastern Studies (MidE)

MidE 1536 THE RELIGION OF ISLAM. 4 credits, §ReIS 1036, \$243. (◆\$121.50)

◆ 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 **Th**—6:20-8:50, BlegH 5, C Farah

★MidE 3302 THE ARABIC NOVEL IN TRANSLATION. 4 credits, §5502, §Arab 3302, 5502, \$248.

The novel as a new literary genre in Arabic literature. Different trends discussed: Realist, psychological, Existentialist, Feminist, Post-modernist/Fantastic/Experimentalist. Emphasis on major novelists: Mahfouz, Ghanem, Salih, Jabra, Kanafani, El Sa'dawi,

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

al-Shaykh, Munif, Habibi, al-Qa'id, al-Ghitany, and Khouri. Novels discussed in cultural and historical context. Discursive writing, theoretical and critical essays. All readings in English. (No prereq. Meets concurrently with 5502 and Arab 3302, 5502. Limited to a combined total of 30)

Spring Qtr Sec 1 **M**—4:15-7, BlegH 260, AshShareef

★**MidE 3303 ARABIC DRAMA IN TRANSLATION.** 4 credits, \$5503, \$Arab 3303, 5503, \$248.

Emergence and development of drama as a new genre in Arabic literature under influence of European drama. Different trends studied. "Theater of the Mind," Social Realist, Existentialist, Absurdist, Experimentalist, Epic, and Verse Drama. Emphasis on major playwrights representing each trend: al-Hakim, Abd-al-Sabur, Diyab, Salem, Faraj, Idris, al-Maghut, al-'Ani, Wannus, and al-Madani. Plays discussed in cultural and historical context. Discursive writing, theoretical and critical essays. All readings in English. (No prereq. Meets concurrently with 5503 and Arab 3303, 5503. Limited to a combined total of 30)

Fall Qtr Sec 1 **Th**—4:15-7, BlegH 245, AshShareef

new

MidE 3505 SURVEY OF THE MIDDLE EAST. 4 credits, \$Hist 3505, \$248. (◆\$124)

Lands and peoples of the Middle East, historical evolution of Middle East civilizations and societies, the status of Middle East countries in world affairs. (No prereq. Meets concurrently with Hist 3505)

Fall Qtr Sec 1 **Th**—6:20-8:50, BlegH 5, I Farah

MidE 3541 HISTORY OF THE ARABS: 500-800. 4 credits, \$Hist 3541, \$248. (◆\$124)

Arabia on eve of Islam. Muhammed and Islam. The Caliphal era-Orthodox Umayyad and early Abbasid. Establishment of Islam as religion, ideology, and way of life. Political and cultural achievements. Empire of the Arabs. (No prereq. Meets concurrently with Hist 3541)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 5, C Farah

new

MidE 3544 THE ARAB WORLD IN RECENT TIMES. 4 credits, \$Hist 3544, \$248. (◆\$124)

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)

Spring Qtr Sec 1 **W**—6:20-8:50, AndH 230

★**MidE 5502 THE ARABIC NOVEL IN TRANSLATION.** 4 credits, \$3302, \$Arab 3302, 5502, \$248.

See course description for MidE 3302. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3302 and Arab 3302, 5502. Limited to a combined total of 30)

Spring Qtr Sec 1 **M**—4:15-7, BlegH 260, AshShareef

new

★**MidE 5503 ARABIC DRAMA IN TRANSLATION.** 4 credits, \$3303, \$Arab 3303, 5503, \$248.

See course description for MidE 3303. (No prereq. Meets concurrently with 3303 and Arab 3303, 5503. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 30)

Fall Qtr Sec 1 **Th**—4:15-7, BlegH 245, AshShareef

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

MidE 5525 THE MIDDLE EAST IN WORLD AFFAIRS: THE ARAB WORLD, TURKEY, AND IRAN, 1915 TO THE PRESENT. 4 credits, §Hist 5200. \$248.

Struggle for independence; rise of Turkey and Iran; problems of social, cultural, economic, and political development; modernizing trends; role in international affairs. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with Hist 5200)

Spring Qtr Sec 1 **Th**—6:20-8:50, BlegH 5, C Farah

Study Abroad Courses and Internships

A variety of Arabic, Middle Eastern Studies, and Southeast Asian Studies courses and internships may be arranged in the *Minnesota Studies in International Development* (MSID) program in Morocco or India. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

Persian (Per)

No courses offered 1991-92.

South Asian Studies (SoAS)

SoAS 1504 INTRODUCTION TO THE RELIGIONS OF SOUTH ASIA. 4 credits, §RelS 1031, 3031, 5031, \$243. (♦ \$121.50)

♦ Introduction to Hinduism, Buddhism, and Jainism. (No prereq. Meets concurrently with RelS 1031)

Winter Qtr Sec 1 **M**—6:20-8:50, FolH 208, Malandra

★SoAS 3412 HINDUISM. 4 credits, §RelS 3412, 5412, \$248.

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 RelS 1031 or #. Meets concurrently with 5412 and RelS 3412, 5412. Limited to 15)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 318, Junghare

★SoAS 3413 BUDDHISM. 4 credits, §5413 and §RelS 3413, 5413, \$248.

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. (No prereq. Meets concurrently with 5413 and RelS 3413, 5413. Limited to 15)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 240, Junghare

SoAS 3501 THE HERITAGE OF INDIA. 4 credits, \$248. (♦ \$124)

♦ Contemporary civilization in light of its development. Social, cultural, economic, and political life. Hindu, Muslim, and Buddhist contributions. (No prereq)

Winter Qtr Sec 1 **T**—6:20-8:50, FolH 318, Staneslow

★SoAS 5412 HINDUISM. 4 credits, §3412, RelS 3412, 5412, \$248.

See description for SoAs 3412. (Prereq 3411 or RelS 1031 or #. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3412 and RelS 3412, 5412. Limited to 5)

Fall Qtr Sec 1 **M**—6:20-8:50, FolH 318, Junghare

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★SoAS 5413 **BUDDHISM**. 4 credits, \$3413, ReIS 3413, 5413, \$248.

See description for SoAS 3413. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3413 and ReIS 3413, 5413. Limited to 5)

Spring Qtr Sec 1 **M**—6:20-8:50, FolH 240, Junghare

Turkish (Turk)

Turk 1101-1102-1103 BEGINNING TURKISH. 5 credits each quarter, \$303.75 each quarter.

Learn Turkish by speaking and reading Turkish. This introductory course will teach basic sentence structure and vocabulary through an interactive, student-oriented approach. *1102 and 1103 will be offered only if there is sufficient enrollment in 1101.* (No prereq for 1101; 1101 for 1102; 1102 for 1103)

Fall Qtr 1101 Sec 1 **TTh**—5-7:30, KoltH S132

Winter Qtr 1102 Sec 2 **TTh**—5-7:30, FolH 426

Spring Qtr 1103 Sec 3 **TTh**—5-7:30, FolH 426

Turk 3011-3012-3013 INTERMEDIATE TURKISH. 5 credits each quarter, \$310 each quarter.

Continued emphasis on proficiency according to the national ACTFL system with an emphasis on Turkish culture to increase student awareness and understanding of cultural differences. All four language modalities (listening, reading, speaking, writing) at the intermediate and advanced levels on the ACTFL scale. *3012 and 3013 will be offered only if there is sufficient enrollment in 3011.* (Prereq 1106 or # for 3011; 3011 for 3012; 3012 for 3013)

Fall Qtr 3011 Sec 1 **MW**—6:20-8:50, KoltH S132

Winter Qtr 3012 Sec 2 **MW**—6:20-8:50, FolH 426

Spring Qtr 3013 Sec 3 **MW**—6:20-8:50, FolH 426

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 the Minnesota Book Center in Williamson Hall (625-6000)

(See also Portuguese, page 386; PSch 0980, Spanish for Travelers; and History)

René Jara, Professor of Spanish

Ruth E. Jones, Associate Professor of Spanish

Carol Klee, Associate Professor of Spanish

Francisco Ocampo, Assistant Professor of Spanish

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Joanna O'Connell, Assistant Professor of Spanish
 Antonio Ramos, Professor of Spanish
 Roberto Reis, Associate Professor of Portuguese
 Ronald Sousa, Professor of Spanish and Portuguese
 Nicholas Spadaccini, Professor of Spanish
 Constance Sullivan, Associate Professor of Spanish
 Hernán Vidal, Professor of Spanish
 Anthony N. Zahareas, Professor of Spanish

Spanish (Span)

Students who enter CLA Fall 1988 or later who would like CLA credit for their Extension coursework should keep in mind that no CLA credit will be given for Span 1101, 1102, 1103, 1201, 1202, 1203, 1204, and 1205. Those 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 Department of Spanish and Portuguese for details on testing dates (625-5858)

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.

BEGINNING SPANISH: MODIFIED ORAL APPROACH, Span 1201-1202-1203-1204-1205, carrying 3 degree credits per unit. This sequence is recommended for those who desire a general introduction to the language, but who wish to proceed at a slower pace than required for the standard 5-credit units. Students wishing further Spanish after completing 1205, register for 1104.

Read about language laboratories fees on page 61.

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.

★**Span 1101-1102-1103 BEGINNING SPANISH**. 5 credits each quarter, \$303.75 each quarter. (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, FordH 150
		Sec 2	MW —6:10-8:15, Phys 236A
		Sec 3	MW —6:10-8:15, AkerH 215, AmundH 162 (Limit 50)
		Sec 4	TTh —6:10-8:15, AmundH 162
		Sec 5	TTh —6:10-8:15, AmundH 104
		Sec 6	TTh —6:10-8:15, JonesH 2
		Sec 7	TTh —6:10-8:15, FordH 70, 160 (Limit 50)

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Winter Qtr	1101	Sec 8	TTh —6:10-8:15, AmundH 116, 120 (Limit 50)
	1102	Sec 9	MW —6:10-8:15, Phys 236A
		Sec 10	MW —6:10-8:15, FordH 120, SmithH 121 (Limit 50)
		Sec 11	TTh —6:10-8:15, Phys 236A
		Sec 12	TTh —6:10-8:15, SmithH 121
Spring Qtr	1102	Sec 13	TTh —6:10-8:15, AmundH 124, 156 (Limit 50)
		Sec 14	MW —6:10-8:15, AmundH 116, 156 (Limit 50)
		Sec 15	TTh —6:10-8:15, AmundH 156
	1103	Sec 16	MW —6:10-8:15, Phys 236A
		Sec 17	MW —6:10-8:15, KoltH S135, SmithH 121 (Limit 50)
		Sec 18	TTh —6:10-8:15, Phys 236A
		Sec 19	TTh —6:10-8:15, AmundH 116, 158 (Limit 50)

★**Span 1104 INTERMEDIATE SPANISH.** 5 credits, \$303.75. (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 208
	Sec 2	TTh —6:10-8:15, Phys 236A
Spring Qtr	Sec 3	MW —6:10-8:15, AmundH 158

★**Span 1105 INTERMEDIATE SPANISH.** 5 credits, \$303.75. (IS)

For description, see 1104. (Prereq 1104 or #. Limited to 25)

Fall Qtr	Sec 1	TTh —6:10-8:15, AmundH 120
Winter Qtr	Sec 2	TTh —6:10-8:15, KoltH S133
	Sec 3	MW —6:10-8:15, KoltH S135

★**Span 1106 INTERMEDIATE SPANISH.** 5 credits, \$303.75.

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, KoltH S134
Spring Qtr	Sec 2	MW —6:10-8:15, KoltH S134
	Sec 3	TTh —6:10-8:15, KoltH S133

★**Span 1201-1202-1203-1204-1205 BEGINNING SPANISH: MODIFIED ORAL APPROACH.** 3 credits each quarter (except for new CLA students), \$182.25 each quarter.

Comprehension, speaking, reading and practice in pronunciation. See note above for details of this modified course. (No prereq for 1201; 1201 or # for 1202; 1202 or # for 1203; 1203 or # for 1204; 1204 or # for 1205. Limited to 30)

Fall Qtr	1201	Sec 1	T —6:10-8:40, KoltH S137
	1204	Sec 2	T —6:10-8:40, KoltH S138
Winter Qtr	1202	Sec 3	T —6:10-8:40, KoltH S137
	1205	Sec 4	T —6:10-8:40, KoltH S136
Spring Qtr	1203	Sec 5	T —6:10-8:40, KoltH S137

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Study Abroad Opportunities

A wide variety of Spanish courses, including internships, are offered in several Spanish-speaking countries through the Global Campus. See the Global Campus section of this bulletin, page 475, for further information.

Span 1503 CULTURE, CIVILIZATION OF MODERN LATIN AMERICA: SOCIETIES IN CHANGE. 4 credits, \$243. (♦ \$121.50)

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, FolH 144

★Span 3002 READING FOR SPEED AND COMPREHENSION. 4 credits, \$248.

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 240

Winter Qtr Sec 2 **Th**—6:10-8:40, FolH 240

★Span 3004 WRITTEN COMMUNICATION: FORMAL AND INFORMAL. 4 credits, \$248.

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 142

★Span 3005 ORAL COMMUNICATION: SPEAKING AND LISTENING. 4 credits, \$248.

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)

Winter Qtr Sec 1 **T**—6:10-8:40, FolH 142

★Span 3022 BUSINESS SPANISH. 4 credits, \$248.

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 246

★Span 3104 THE ART OF READING LITERARY TEXTS. 4 credits, \$248. (♦ \$124)

◆
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)

Spring Qtr Sec 1 **Th**—6:10-8:40, FolH 142

★Span 3605 POLITICS IN SPANISH AND LATIN AMERICAN LITERATURE. 4 credits, \$248.

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**—6:10-8:50, FolH 208

(See also History)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Span 3614 DON QUIJOTE: STUDY OF LOST ILLUSIONS.** 4 credits, \$248.

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, 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, \$243. (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—6:20-8:50, FolH 240

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 the Minnesota Book Center in Williamson Hall (625-6000)

Ronald Sousa, Professor of Spanish and Portuguese

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.

No SpPt courses offered 1991-92.

Speech-Communication (Spch)

(317 Folwell Hall: 624-5800)

College of Liberal Arts

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Textbooks for most Spch courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also English; General College; The Compleat Scholar and Practical Scholar noncredit courses; Linguistics; Journalism; and Rhetoric)

Donald R. Browne, Professor of Speech-Communication

Sheldon Goldstein, Professor of Speech-Communication

James Hayes, Lecturer in Speech-Communication

Dean Hewes, Professor of Speech-Communication

Becky Kroll, Assistant Professor of Speech-Communication

Patricia Palmerton, Assistant Professor of Speech-Communication

Scott Poole, Professor of Speech-Communication

George L. Shapiro, Professor of Speech-Communication

Judith Van Putten, Lecturer in Speech-Communication

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 (Beginning 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.

In order to qualify for major status, students must first take Spch 1102, 3211, 3401 and 3601, with an overall GPA of 2.50. Students wishing to emphasize speech-communication in IBIM, BIS, UWW, and other individually designed programs must obtain a 2.50 in any two of those courses.

The program must be planned in conference with and approved by a departmental major adviser.

Although sufficient 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.

You must attend the entire first Spch class session or your space in that class will be forfeited.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Spch 0001C **BEGINNING SPEECH-COMMUNICATION.** 3 certificate credits, \$182.25 plus \$5.50 special fee. Total \$187.75.

Designed particularly for the adult student who wants a practical application of speech-communication techniques to his professional business and social needs. Planned to develop confidence and effectiveness in day-to-day speaking situations. Individual attention is given to every student. Each student speaks before the class each meeting. When possible, a session before live television cameras is provided each student. (No prereq. Limited to 18)

Fall Qtr Sec 1 M—6-9, FolH 240

Winter Qtr Sec 2 M—6-9, FolH 318

Spring Qtr Sec 3 M—6-9, FolH 312

★Spch 1101 **FUNDAMENTALS OF SPEECH-COMMUNICATION: ORAL COMMUNICATION.** 4 credits, \$243.

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 Th—6-9, FolH 419

Winter Qtr Sec 2 M—6-9, FolH 419

Spring Qtr Sec 3 T—6-9, FolH 246

Sec 4 Th—6-9, FolH 334

Spch 1102 **FUNDAMENTALS OF SPEECH-COMMUNICATION: COMMUNICATION PROCESS.** 4 credits, \$243. (◆\$121.50)

◆ Introduction to the identification and analysis of variables in intrapersonal, interpersonal, and group communication. (No prereq.)

Winter Qtr Sec 1 W—6-9, Arch 5

Spring Qtr Sec 2 W—6-9, FolH 306

★Spch 1313 **ANALYSIS OF ORAL ARGUMENT.** 4 credits, \$243.

Strategies for analyzing and evaluating arguments received aurally. Problems in listening and responding to argument. (No prereq. Limited to 18)

Fall Qtr Sec 1 W—6-9, FolH 312

Winter Qtr Sec 2 W—6-9, FolH 318

Spring Qtr Sec 3 T—6-9, FolH 318

★Spch 3111 **LEADERSHIP COMMUNICATION.** 4 credits, \$Air 3302, \$248. (◆\$124 sec 1 and 2 only)

◆ 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 W—6-9, FolH 218

Winter Qtr Sec 2 M—6-9, FolH 326

Spring Qtr ● Sec 3 MW—4-6, FolH 419, Shapiro

(A joint Day/Extension class limited to 4 Extension students)

★Spch 3201 **INTRODUCTION TO BROADCASTING PRODUCTION.** 4 credits, \$248 plus \$4 special fee. Total \$252.

Fundamentals of practice and theory in radio and television. Emphasis on projects and exercises in performance and scripting; introduction to studio equipment and procedures. Historical and sociological aspects of broadcasting. (No prereq. Limited to 18)

Winter Qtr Sec 1 TTh—6-9, RarigC 616

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Spch 3211 **DETERMINANTS OF BROADCAST PROGRAMMING.** 4 credits, \$248.
(◆\$124)

◆ 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)

Winter Qtr Sec 1 **W**—6-9, FolH 306, Browne

★Spch 3401 **THEORIES OF PERSON TO PERSON COMMUNICATION.** 4 credits, \$248.

Theories of interpersonal communication and their usefulness for particular purposes. (Prereq 1102 or #, Psy 1001. Limited to 100)

Spring Qtr Sec 1 **M**—6-9, FolH 306, Kroll

★Spch 3402 **COMMUNICATION IN RELATIONSHIPS.** 4 credits, \$248.

A discussion of the effects of communication on the definition and development of friendships and romantic relationships. (Prereq 1102. Limited to 45)

Winter Qtr Sec 1 **T**—6-9, FolH 419, Hewes

★Spch 3411 **SMALL GROUP COMMUNICATION PROCESSES.** 4 credits, \$248.

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 318

Winter Qtr Sec 2 **W**—6-9, FolH 312

Spring Qtr Sec 3 **T**—6-9, FolH 419

★Spch 3431 **THE ROLE OF PERSUASION IN THE MODERN WORLD.** 4 credits, \$248.

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, Hayes

Winter Qtr Sec 2 **W**—9:30 a.m.-12, MacP, Hayes

cew

Offered through Continuing Education for Women

Spring Qtr Sec 3 **Th**—6-9, FolH 326, Hayes

★Spch 3441 **COMMUNICATING IN ORGANIZATIONS.** 4 credits, \$248.

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 30)

Winter Qtr Sec 1 **Th**—6-9, FolH 208

Spring Qtr Sec 2 **W**—6-9, FolH 208

★Spch 3451 **INTERCULTURAL COMMUNICATION: THEORY AND PRACTICE.** 4 credits, \$UC 3701, \$248.

Theories of and factors influencing intercultural communication. Development of effective intercultural communication skills. (Prereq planning an intercultural experience. Limited to 20)

Fall Qtr Sec 1 **M**—6-9, FolH 326

Spring Qtr Sec 2 **W**—6-9, FolH 334

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Spch 3501 **INTRODUCTION TO COMMUNICATION RESEARCH METHODS.** 4 credits, \$248.

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)

Spring Qtr Sec 1 **T**—6-9, NichH 213, Poole

★Spch 3601 **APPROACHES TO PUBLIC DISCOURSE.** 4 credits, \$248.

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)

Fall Qtr Sec 1 **T**—6-9, FolH 306, Palmerton

★Spch 5222 **EDUCATIONAL TELEVISION PROGRAMMING AND ADMINISTRATION.** 4 credits, \$248.

Television applied to educational needs; current practices; significant research findings; relative effectiveness of differing types of television utilization; impact of various modes of transmission on programming and administrative concepts. (Prereq 3211 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class limited to 4 Extension students)

Winter Qtr Sec 1 **MW**—4-6, RarigC 616, Goldstein

★Spch 5402 **PROBLEMS IN INTERPERSONAL COMMUNICATION.** 4 credits, \$248.

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)

Winter Qtr Sec 1 **TTh**—4-6, FolH 340, Shapiro

★Spch 5422 **INTERVIEWING AND COMMUNICATION.** 4 credits, \$248.

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 #. **May not be taken for graduate credit.** Limited to 24)

Fall Qtr Sec 1 **W**—6-9, FolH 419, Van Putten

Spring Qtr Sec 2 **M**—6:20-8:50, FolH 419

(See also Rhet 5258, Interviewing: Dynamics of Face-to-Face Communication)

★Spch 5441 **COMMUNICATION IN HUMAN ORGANIZATIONS.** 4 credits, \$248.

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 ① Sec 1 **MW**—4-6, FolH 318, Kroll (A joint Day/Extension class limited to 4 Extension students)

Winter Qtr Sec 2 **T**—6-9, FolH 208

① Sec 3 **TTh**—4-6, FolH 318, Shapiro

(A joint Day/Extension class limited to 4 Extension students)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Statistics (Stat)

(270a Vincent Hall: 625-8046)

College of Liberal Arts

Textbooks for Stat courses on the St. Paul campus are available at Books Underground on the St. Paul campus (624-9200); books for courses on the Minneapolis campus are available at the Minnesota Book Center in Williamson Hall (625-6000)

Douglas Hawkins, Professor of Statistics

Kinley Larntz, 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.

(See also PSch 0664, Basic Concepts of Statistics: Preparing for College Level; and GC 1454, Statistics)

★Stat 1001 INTRODUCTION TO IDEAS OF STATISTICS. 4 credits, \$243. (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, Arch 40
	Sec 2	T —6:20-8:50, ClaOff B25, StP Campus
Winter Qtr	Sec 3	M —6:20-8:50, Arch 40
	Sec 4	T —6:20-8:50, ClaOff B42, StP Campus
Spring Qtr	Sec 5	M —6:20-8:50, Arch 40 (Limit 60)

★Stat 3011-3012 STATISTICAL METHODS. 4 credits each quarter, \$248 each quarter.

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, AkerH 211 (Limit 40)
	3011	Sec 2	Th —6:20-8:50, AkerH 211 (Limit 40)
Winter Qtr	3011	Sec 3	T —6:20-8:50, Arch 30 (Limit 50)
	3012	Sec 4	W —6:20-8:50, VinH 203
	3012	Sec 5	Th —6:20-8:50, VinH 203
Spring Qtr	3012	Sec 6	T —6:20-8:50, VinH 203
	3012	Sec 7	W —6:20-8:50, VinH 203

★Stat 3091 INTRODUCTION TO PROBABILITY AND STATISTICS. 4 credits, \$5121, \$5131, \$248.

Elementary probability and probability distributions, sampling and elements of statistical inference. (Prereq differential and integral calculus. Limited to 60)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Qtr	Sec 1	W —6:20-8:50, AkerH 309
Winter Qtr	Sec 2	W —6:20-8:50, Arch 45
Spring Qtr	Sec 3	W —6:20-8:50, Arch 55

★**Stat 5021 STATISTICAL ANALYSIS I.** 5 credits, \$3012, \$310.

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 B36, StP Campus

★**Stat 5301 DESIGNING EXPERIMENTS.** 5 credits, \$5163, \$310.

Control of variation, construction, and analysis of complete and incomplete block, split plot, factorial, and other groups of similar experiments. Confounding, crossover, and optimum seeking designs. (Prereq 3012 or 5021 or 5133 or #. 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, \$310.

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 Arts, Studio)

Student Project for Amity Among Nations (SPAN)

SPAN provides an opportunity for undergraduate and graduate students to pursue their own research interests in another country. SPAN involves intensive advance study of a foreign culture (including language where appropriate), a summer abroad to gather information on an individual project, and preparation of a research paper upon return to campus. Upon completion of the projects, students are awarded 12 credits. In the summer of 1992, four groups, each with an academic adviser who is an expert in the country, will go to Botswana, Italy, Thailand, or Turkey. Countries for the summer of 1993 will be announced in February 1992. Participants are selected a year prior to their summer abroad and enter a nine-month orientation program in the fall in the language and culture of their selected country. For further information, contact SPAN, 107 Nicholson Hall, University of Minnesota, Minneapolis, MN 55455 (626-1083). Language courses offered by SPAN are listed under Foreign Studies.

Study Abroad

(See page 475)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Study Skills

(See Learning and Academic Skills)

Swedish

(See Scandinavian Languages)

T

Textiles and Clothing (TexC)

(240 McNeal Hall: 624-9700)

College of Human Ecology

(Department of Design, Housing, and Apparel)

Textbooks for most TexC courses are available at Books Underground on the St. Paul campus (624-9200)

Vern Lovstad, Teaching Specialist in Textiles and Clothing

★**TexC 1602 FITTING THE HUMAN SUBJECT.** 2 credits, \$121.50.

Analysis of a variety of body forms. Use and modification of sizing systems. Relation of fabric to the human body. (Prereq sewing experience necessary. Limited to 20)

Fall Qtr Sec 1 **M**—6:10-8:45, McNH 205, 212, 216, StP Campus

 Sec 2 **W**—6:10-8:45, McNH 205, 212, 216, StP Campus

Winter Qtr Sec 3 **T**—6:10-8:45, McNH 205, 212, 216, StP Campus

Spring Qtr Sec 4 **M**—6:10-8:45, McNH 205, 212, 216, StP Campus

TexC 1603 ADVANCED PRINCIPLES OF APPAREL PRODUCTION. 2 credits, \$121.50

Problem solving approach to apparel construction. Analysis of materials, labor cost, and production techniques. (Prereq 1602 or ¶1602)

Fall Qtr Sec 1 **T**—6:10-8:45, McNH 205, 212, 216, StP Campus

Winter Qtr Sec 2 **Th**—6:10-8:45, McNH 205, 216, StP Campus

TexC 1643 APPAREL INDUSTRIES. 4 credits, \$243.

Structure, operation, and problems of domestic and foreign apparel industries including ready-to-wear, couture, and auxiliary fashion sector. Interrelationships with the textile industry and distributors. (Prereq Econ 1002 or AgEc 1030)

Fall Qtr Sec 1 **TTh**—6:10-8:05, McNH 316, StP Campus

★**TexC 3601 TAILORING.** 4 credits, \$292.

Principles of structuring tailored garments. Analysis of hand, machine, and fusing methods. (Prereq 1603 or #. Limited to 20)

Fall Qtr Sec 1 **MW**—4-6:30, McNH 205, 212, 216, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**TexC 3646 RETAIL SUPERVISION.** 3 credits, \$219.

Techniques of management, motivation, and supervision with specific attention to retailing environment. Participation through case study in discussion of management by objectives and participative management approach to retail supervision. (Prereq Mgmt 3001, Mgmt 3002 or #. Limited to 30)

Fall Qtr Sec 1 **Th**—6:30-8:45, McNH 180, StP Campus, Lovstad

TexC 3647 RETAIL OCCUPATIONAL SEARCH. 1 credit, \$73.

Development of employment search techniques to identify and locate specific retail and related employment opportunity. **Must be taken S-N.** (Prereq sr, 400 hours approved selling experience)

Spring Qtr Sec 1 **Th**—6:30-7:15, McNH 316, StP Campus, Lovstad

★**TexC 3660 SPECIAL TOPICS IN APPAREL: COMPUTER LAB.** 4 credits, \$292 plus \$7.50 special fee. Total \$299.50.

(No prereq. Limited to 19)

Winter Qtr Sec 1 **TTh**—6:10-8:30, McNH 305 (IBM Lab), StP Campus

Spring Qtr Sec 2 **MW**—3:30-5:45, McNH 305 (IBM Lab), StP Campus

★**TexC 3664 FASHION TREND ANALYSIS.** 4 credits, \$292.

Factors that influence the acceptance or rejection of apparel and other textile products at the consumer level. Analysis of current trends and future projections. (Prereq junior, senior, Soc 1001, Psy 1001. Limited to 40)

Spring Qtr Sec 1 **MW**—6:10-8:10, McNH 180, StP Campus

Theatre Arts (Th)

(208 Middlebrook Hall: 625-6699)

College of Liberal Arts

Textbooks for most Th courses are available at the Harold D. Smith Bookstore on the West Bank campus (625-3000)

(See also English; The Compleat Scholar and Practical Scholar noncredit courses)

C. Lance Brockman, Professor of Theatre Arts.

Barbara Field, Lecturer in Theatre Arts

Kent Neely, Lecturer in Theatre Arts

Charles Nolte, Professor of Theatre Arts

James Norwood, Assistant Professor of Theatre Arts

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, \$243. (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

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★Th 1102 **DRAMA AND THE MEDIA.** 4 credits, \$243.

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)

Winter Qtr Sec 1 **M**—6:20-8:50, RarigC 190, Neely

Spring Qtr Sec 2 **M**—6:20-8:50, RarigC 190, Neely

★Th 1301 **ACTING FOR NON-THEATRE MAJORS.** 4 credits, \$243.

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

★Th 1321 **BEGINNING ACTING.** 4 credits, \$243.

new Beginning techniques and exercises leading to performance, monologues, and scenes. (Prereq 1101, 1504. Limited to 16 students)

Spring Qtr Sec 1 **Sa**—9 a.m.-12, RarigC 10, Norwood

★Th 1805 **AMERICAN ETHNIC LITERATURE IN PERFORMANCE.** 4 credits, \$243.

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, HHCtr 60

Winter Qtr Sec 2 **W**—6:20-8:50, HHCtr 60

Spring Qtr Sec 3 **W**—6:20-8:50, Law 1

Courses and Internships in London

Students interested in drama courses and internships will find a study abroad program designed especially for them offered by the Global Campus. See the Global Campus section of this bulletin, page 475, for further information on study abroad opportunities.

★Th 3115 **INTRODUCTION TO PLAYWRITING.** 4 credits, \$EngW 3110, \$248.

Introduction to forms of playwriting. (Prereq #. Sec 1 meets concurrently with EngW 3110. Limited to 16)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 245, Field
(Limited to a combined total of 16)

Spring Qtr Sec 2 **T**—6:20-8:50, BlegH 350, Field

★Th 3803 **PLATFORM PERFORMANCE.** 4 credits, \$248.

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, PeikG 55

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Th 5115 ADVANCED PLAYWRITING I.** 4 credits, \$EngW 5204, \$248. (IS)

Students with established competence in the well-made play move to more experimental forms. One-act play. (Prereq written #. Qualified 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 440

★**Th 5540 SCENE PAINTING TECHNIQUES.** 4 credits, \$248.

new

Materials, layout, and painting techniques used in theatre. Painting styles and texturing techniques. (Prereq 3513 or #. Limited to 10 students)

Winter Qtr Sec 1 **Th**—6:30-10:30, RarigC 130, Brockman

★**Th 5950 READING AS PLAYWRIGHTS: CONTEMPORARY DRAMA.** 4 credits, \$248.

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 4. A joint Day/Extension class limited to a combined total of 7 Extension students)

Fall Qtr Sec 1 **W**—4:15-6:45, LindH 340, Chamberlain

Training and Development

See Vocational Education

U

University College (UC)

(See the Degrees and Certificates section of this Bulletin)

Urban Affairs

(See Civil Engineering; The Compleat Scholar 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 the Harold D. Smith Bookstore on the West Bank campus (625-3000)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

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.

V

Veterinary Medicine, College of (CVM)

(455 Veterinary Teaching Hospitals: 624-9227)

Textbooks for most CVM courses are available at Books Underground on the St. Paul campus (624-9200)

Joseph S. Quigley, Clinical Instructor Emeritus, Epidemiology, Veterinary Public Health

(See also REX 0131, Clinical Veterinary Microbiology)

OCVM 3100 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. 2 or 3 credits, \$215.50 or \$323.25.

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, Quigley

Vocabulary Building

(See General College communication skills; and The Practical Scholar noncredit courses)

Vocational Education

(210 Vocational/Technical Building: 624-1221)

College of Education

(Vocational and Technical Education)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Joint Day/Extension Classes

You may register through Extension for certain day school classes scheduled before 4 p.m. in Vocational 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. Also see the section beginning on page 182 of this bulletin.

Other off-campus courses are also available through the department's Office of Special Services. For information, telephone (612) 624-1700.

See the listings for **Joint Day/Extension** classes in *Business and Marketing Education*; *Home Economics Education*; *Industrial Education*, and *Vocational Education* beginning page 460 in this bulletin.

Contact Vocational and Technical Education to request additional information about course offerings for vocational licensure and degrees in the following programs:

- Agricultural Education
- Business and Marketing Education
- Home Economics Education
- Industrial Education
- Training and Development
- Vocational Education

Textbooks for most BME, HEEd, Ind, and VoEd courses are available at Books Underground on the St. Paul campus (624-9200)

D. Bjorkquist, Professor of Vocational and Technical Education

James M. Brown, Associate Professor of Industrial Education/Vocational and Technical Education

J. Conbere, Teaching Assistant in Vocational and Technical Education

George Copa, Professor of Agriculture Education/Vocational and Technical Education

Susan Damme, Teaching Assistant in Vocational and Technical Education

Susan DeVogel, Teaching Assistant in Vocational and Technical Education

Charles Gagel, Teaching Assistant in Vocational and Technical Education

John Hansen, Teaching Assistant in Vocational and Technical Education

Charles R. Hopkins, Professor of Business Education/Vocational and Technical Education

Qetler Jensrud, Teaching Assistant in Vocational and Technical Education

M. Kenfield, Lecturer in Vocational and Technical Education

Charles T. Krueger, Lecturer in Vocational and Technical Education

Judith Lambrecht, Professor of Business Education/Vocational and Technical Education

Gary Leske, Associate Professor of Agriculture Education/Vocational and Technical Education

Theodore Lewis, Assistant Professor of Industrial Education/Vocational and Technical Education

Jerry McClelland, Associate Professor of Home Economics Education/Vocational and Technical Education

Gary N. McLean, Professor of Business Education/Vocational and Technical Education

Jerome Moss, Jr., Professor of Industrial Education/Vocational and Technical Education

Gina Nilsen, Teaching Assistant in Vocational and Technical Education

Jane Plihal, Associate Professor of Home Economics Education/Vocational and Technical Education

David Pucel, Professor of Industrial Education/Vocational and Technical Education

John Reardon, Lecturer in Vocational and Technical Education

Marilyn Rossmann, Associate Professor of Home Economics Education/Vocational and Technical Education

Sherry Schwartz, Assistant Professor of Business Education/Vocational and Technical Education

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

M. Simon, Lecturer in Vocational and Technical Education
 Catherine Sleezer, Teaching Assistant in Vocational and Technical Education
 Mary Ann Smith, Assistant Professor in Vocational and Technical Education
 Susan Stanek, Teaching Assistant in Vocational and Technical Education
 James Stone, III, Associate Professor of Marketing Education/Vocational and Technical Education
 Roland Sullivan, Lecturer in Vocational and Technical Education
 Richard Swanson, Professor of Industrial Education/Vocational and Technical Education
 Ruth Thomas, Associate Professor of Home Economics Education/Vocational and Technical Education
 Hana Tomasek, Lecturer in Vocational and Technical Education
 R. Torracco, Teaching Assistant in Vocational and Technical Education
 B. Tracy, Lecturer in Vocational and Technical Education
 C. S. Turner, Assistant Professor of Vocational and Technical Education
 George Wardlow, Associate Professor of Agriculture Education/Vocational and Technical Education
 K. Zurcher, Associate Professor, Minnesota Extension Service

Training and Development (VoEd)

A focus is available in training and development (VoEd). The training and development focus prepares professionals to serve in a variety of education, training, and development settings in industry and business. These settings include three types of training (skills and technical, management, and motivational) and six specific training and development job roles (instructor, media producer, designer, organization developer, manager, and researcher). For a brochure and 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).

Training and Development (VoEd) Courses:

★●VoEd 5286 **MARKETING OF EDUCATION AND TRAINING PROGRAMS.** 3 credits, \$219.

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 Spec Term Sec 1 **F**—6-9:15, Sept. 27, Oct. 11, 25, VoTech R285, StP Campus, Stone
Sa—8:30 a.m.-1, Sept. 28, Oct. 12, 26, Nov. 9, VoTech R285, StP Campus, Stone

★●VoEd 5340 **PRINCIPLES OF SUPERVISORY MANAGEMENT.** 3 credits, \$219.

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)

Fall Qtr Sec 1 **Th**—4:05-6:50, VoTech R370, Rossmann

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★VoEd 5750 **TRAINING IN INDUSTRY AND BUSINESS.** 3 or 4 credits. 4 credits this offering, \$292.

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 **Th**—6:30-10:05, VoTech R280, StP Campus

Winter Qtr Sec 2 **Th**—6:30-10:05, VoTech R385, StP Campus, Torraco

★VoEd 5760 **ORGANIZATION DEVELOPMENT IN INDUSTRY AND BUSINESS.** 3 or 4 credits. 4 credits this offering, \$292.

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)

Winter Qtr Sec 1 **W**—6:30-10:05, VoTech R220, StP Campus, DeVogel

Spring Qtr Sec 2 **M**—6:30-10:05, VoTech R285, StP Campus, Damme

★VoEd 5762 **MANAGEMENT OF CONFLICT.** 2 credits, \$146.

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. Limited to 25)

Fall Spec Term Sec 1 **Sa**—8 a.m.-12:25, Oct. 5, 19, Nov. 2, 16,
(4 meetings), VoTech R285, StP Campus, Conbere
No late fee through Sept. 27

Spring Qtr ● Sec 2 **W**—6:30-8:10, VoTech 220, StP Campus, Smith
(A joint Day/Extension class limited to
5 Extension students)

VoEd 5770 **TRAINING AND DEVELOPMENT: INTERNATIONAL TRAINING AND DEVELOPMENT.** 4 credits, \$292.

Developments related to problems; practices; programs; methodologies in training and development. *Focus this offering:* Training and organization development in industry and business as practiced internationally and in cross-cultural settings. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:30-10:05, VoTech R285, McLean

★VoEd 5770 **TRAINING AND DEVELOPMENT: CURRENT ISSUES IN TRAINING AND DEVELOPMENT.** 4 credits, \$292.

Developments related to problems; practices; programs; methodologies in training and development. *Focus this offering:* Issues currently confronting practitioners in training and organization development, with examination of conflicting viewpoints and resolution options. **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 2 **W**—6:30-10:05, VoTech R285, StP Campus, Simon

★VoEd 5770 **TRAINING AND DEVELOPMENT: QUALITY AND PRODUCTIVITY THEORIES AND PRACTICES.** 4 credits, \$292.

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

Developments related to problems; practices; programs; methodologies in training and development. This course offering will focus on an examination of leading 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. **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 3 **Th**—6:30-10:05, VoTech R285, StP Campus, Kenfield

★VoEd 5770 **TRAINING AND DEVELOPMENT: MANAGEMENT TRAINING PRACTICES.** 1-4 credits. 4 credits this offering, \$292.

Developments related to problems; practices; programs, methodologies in training and development. *Focus this offering:* issues relating to the training of managers, including needed competencies, needs assessment, delivery modes, and evaluation; includes on-site visits and critiques. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Qtr Sec 4 **M**—6:30-10:05, VoTech 220, StP Campus, Stanek

★VoEd 5770 **TRAINING AND DEVELOPMENT: USING TEAM BUILDING IN BUSINESS AND INDUSTRY.** 1-4 credits. 3 credits this offering, \$219.

Developments related to problems; practices; programs; methodologies in training and development. *Focus this offering:* Introduction to the theory and techniques of building effective work teams. Skills development in facilitating team-building activities. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Qtr Sec 5 **M**—6:30-9:15, VoTech R385, Zurcher

Spring Qtr Sec 6 **Th**—6:30-9:15, VoTech R285, StP Campus, DeVogel

★VoEd 5770 **TRAINING AND DEVELOPMENT: WELLNESS AS AN ORGANIZATIONAL DEVELOPMENT INTERVENTION.** 1-4 credits. 3 credits this offering, \$219

Developments related to problems; practices; programs, methodologies in training and development. *Focus this offering:* identifying key issues related to the perception of individual health and organizational well-being in business and industry, and developing creative interventions to maximize organizational potential and effect positive cultural change. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Qtr Sec 7 **T**—6:30-9:15, VoTech 220, StP Campus, Reardon

★VoEd 5770 **TRAINING AND DEVELOPMENT: CRITICAL REVIEW OF RESEARCH IN TRAINING AND DEVELOPMENT.** 1-4 credits. 4 credits this offering, \$292.

Developments related to problems; practices; programs, methodologies in training and development. *Focus this offering:* the critical review of the employee training and organization development research with emphasis on the theories and practices of the field. The major perspectives of human development theory and human capital theory are used for classifying the research findings. **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 8 **W**—6:30-10:05, VoTech R275, StP Campus, Stone

★VoEd 5770 **TRAINING AND DEVELOPMENT: MANAGING TRAINING AND DEVELOPMENT.** 1-4 credits. 1 credit this offering, \$73.

A basic overview of managing training and development in industry and business. (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Emphasis is on training systems, missions, resources, and measures of effectiveness. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Spec Term Sec 9 **Sa**—8 a.m.-12:25, Jan. 25, Feb. 8,
VoTech R285, StP Campus, Tracy
No late fee through Jan. 17

★VoEd 5770 **TRAINING AND DEVELOPMENT: PRACTICES AND INFLUENCES IN JAPAN.** 1-4 credits. 4 credits this offering, \$292.

Developments related to problems; practices; programs; methodologies in training and development. Focuses on the political, economic, and social factors influencing such practices. Students will travel to Japan as a group for on-site experiences. Students will be responsible for travel costs and expenses in addition to tuition. **Dates in Japan: Mar. 17-29, 1992.** *Contact instructor before Dec. 31, 1991, if you plan to enroll.* **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Winter Spec Term Sec 10 **Sa**—9 a.m.-12, 1-4 p.m., Feb. 15, Mar. 7, Apr. 4,
(3 meetings plus trip to Japan Mar. 17-29),
VoTech R420c, Swanson
No late fee through Feb. 7

★VoEd 5770 **TRAINING AND DEVELOPMENT: ADVANCED TRAINING SEMINAR.** 4 credits, \$292.

Developments related to problems; practices; programs; methodologies in training and development. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Qtr Sec 11 **M**—6:30-10:05, VoTech 220

★VoEd 5770 **TRAINING AND DEVELOPMENT: SEMINAR IN ADVANCED OD.** 4 credits, \$292.

Developments related to problems; practices; programs; methodologies in training and development. *Focus this offering:* Personal organization development competencies to enhance skill and knowledge in helping individuals, groups, and organizations achieve excellence. Individual learning contracts and learning experiences will be designed in collaboration with the instructor/other students. In-depth exploration of competency domains may include computers in OD, empowerment, and action research. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Qtr Sec 12 **T**—6:30-10:05, VoTech R285, McLean

★VoEd 5770 **TRAINING AND DEVELOPMENT: ETHICS IN TRAINING AND DEVELOPMENT.** 1-4 credits. 2 credits this offering, \$146.

Developments related to problems; practices; programs; methodologies in training and development. *Focus this offering:* Developments related to problems; practices; programs; methodologies in training and development. Focuses on crisis management, anticipatory management, and getting at the student's own ethical assumptions in working in organizations. The class will study cases for crisis management, strategies for anticipatory ethical issues and dealing with them in advance, and ways to assess individual ethical perspectives and provide a framework and disciplines for doing that. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Spec Term Sec 13 **Sa**—8 a.m.-12:25, Apr. 4, 18, May 2, 16,
VoTech R285, StP Campus
No late fee through Mar. 27

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

★VoEd 5770 **TRAINING AND DEVELOPMENT: CONSULTING IN BUSINESS AND INDUSTRY.** 1-4 credits. 2 credits this offering, \$146.

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. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Spec Term Sec 14 **Sa**—8 a.m.-5, Apr. 11; 12:35-5, Apr. 25, May 9,
VoTech R285, StP Campus, Tomasek
No late fee through Apr. 3

★VoEd 5770 **TRAINING AND DEVELOPMENT: COST BENEFIT ANALYSIS.** 1 credit, \$73.

Developments related to problems; practices; programs; methodologies in training and development. This one-credit course will focus on the use of cost benefit analysis for training and development programs in industry and business including the application of forecasting and evaluation models. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spring Spec Term Sec 15 **Sa**—12:35-5:15, Apr. 4, 18, VoTech R285,
StP Campus, Torracco
No late fee through Mar. 27

★○VoEd 5780 **INTERNSHIP: TRAINING AND DEVELOPMENT.** Credits arr (maximum 15 cr), \$73 a credit.

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. **Must be taken A-F.** (Prereq 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**, McLean

Winter Qtr Sec 2 **Arr**, McLean

Spring Qtr Sec 3 **Arr**, McLean

Note: See other VoEd courses beginning page 467.

Business and Marketing Education (BME)

(420 Vocational/Technical Building: 624-7799)

★OBME 3159 **WORD/INFORMATION PROCESSING CONCEPTS AND MANAGEMENT.** 3 credits, \$BME 5159, \$219.

Personnel and organization in industry; input and output hardware, implementation of word processing systems. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr Sec 1 **W**—3:30-6:15, VoTech 220, StP Campus

★OBME 3300 **TEACHING TYPEWRITING/KEYBOARDING.** 3 credits, \$219.

Objectives, content, methods, materials, and evaluation. **Must be taken A-F.** (Prereq intermediate keyboarding or equivalent, SeEd 3155. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr Sec 1 **T**—3:30-6:15, VoTech 240, StP Campus, McLean

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**OBME 3302 TEACHING BASIC BUSINESS SUBJECTS.** 3 credits, \$BDE 3302, \$219.
 Developments in content and methods of teaching nonvocational business subjects. **Must be taken A-F.** (Prereq SeEd 3155. A joint Day/Extension class limited to 5 Extension students)
Fall Qtr Sec 1 **W**—3:30-6:15, VoTech 240, StP Campus
- ★**OBME 3303 TEACHING ACCOUNTING AND DATA PROCESSING.** 3 credits, \$219.
 Methods, materials, curriculum, and principles of learning pertinent to accounting and data processing. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)
Winter Qtr Sec 1 **M**—3:30-6:15, VoTech 230, 240, StP Campus
- ★**OBME 3310 INTRODUCTION TO MICROCOMPUTER APPLICATIONS IN BUSINESS AND MARKETING EDUCATION.** 3 credits, \$BME 5310, \$219.
 Instructional uses of microcomputers and representative business and marketing education applications, including word processing, data base, spreadsheets, and graphics. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)
Fall Qtr Sec 1 **Th**—3:45-6:30, VoTech 230, StP Campus
Winter Qtr Sec 2 **W**—6:30-9:15, VoTech 230, StP Campus
- ★**OBME 5151 RESEARCH AND METHODS IN TEACHING TYPEWRITING/KEYBOARDING.** 3 credits, \$BDE 5151, \$219.
 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**—3:30-6:15, VoTech 240, StP Campus, McLean
- ★**OBME 5152 RESEARCH AND METHODS IN TEACHING THE BASIC BUSINESS SUBJECTS.** 3 credits, \$BDE 5152, \$219.
 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**—3:30-6:15, VoTech 240, StP Campus
- ★**OBME 5157 MATERIALS AND METHODS IN OFFICE EDUCATION.** 3 credits, \$BDE 5157, \$219.
 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 **T**—5:10-7:55, VoTech 230, 240, StP Campus, Lambrecht
- ★**OBME 5160 ADVANCED WORD PROCESSING PRACTICUM.** 3 credits, \$219.
 Completion of projects using advanced editing and printing capabilities. **Must be taken A-F.** (Prereq BME 1101 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**—3:30-6:15, VoTech 230, StP Campus

Read about abbreviations, symbols, and maps on page 64.
 Courses and sections in red have limits on enrollment. See page 20.

★**OBME 5162 RESEARCH AND METHODS IN TEACHING ACCOUNTING AND DATA PROCESSING.** 4 credits, \$BDE 5150, \$292.

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**—3:30-6:15, VoTech 230, StP Campus

★**OBME 5201 CLINICAL METHODS IN MARKETING EDUCATION.** 4 credits, \$BDE 3304, \$BME 5304, \$292.

Application of learning theories to practice. Field-based observation and discussion of applied learning theories observed; unit and lesson plan development; demonstrating specific teaching methods pertinent to marketing 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**—3:30-6:35, VoTech 220, StP Campus, Schwartz

★**OBME 5252 TEACHING PROMOTION.** 3 credits, \$BDE 5252, \$219.

Identifying materials and methods for teaching visual merchandising, sales promotion, advertising, public relations, and promotion planning. **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 5 Extension students)

Spring Qtr Sec 1 **Th**—3:30-6:15, VoTech 220, StP Campus, Schwartz

★**OBME 5253 SUPERVISORY TRAINING.** 3 credits, \$BDE 5253, \$219.

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)

Fall Qtr Sec 1 **T**—6:30-9:15, VoTech R285, StP Campus, Stone

★**OBME 5261 SALES TRAINING.** 3 credits, \$219.

Introduction to strategies and techniques useful in developing effective sales people. **Must be taken A-F.** (Prereq BME 5353, BME 3260. 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**—6:30-9:15, VoTech R285, StP Campus, Stone

★**OBME 5305 METHODS IN BUSINESS AND MARKETING EDUCATION.** 4 credits, \$292.

Practical application of instructional strategies for delivering training and education in business and marketing settings; design and delivery of instructional units focusing on developing business and/or marketing 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 limited to 5 Extension students)

Spring Qtr Sec 1 **T**—4:05-7:40, VoTech 220, StP Campus, Schwartz

★**OBME 5330 SPREADSHEET ANALYSIS USING MICROCOMPUTERS IN BUSINESS AND MARKETING EDUCATION.** 3 credits, \$219.

Introduction to use of spreadsheet 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)

Winter Qtr Sec 1 **W**—3:30-6:15, VoTech 230, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

- ★**OBME 5335 TEACHING MICROCOMPUTER BUSINESS GRAPHICS.** 3 credits, \$219.
 Representative microcomputer-based business graphics software packages; use for making instructional presentations; use of simulated projects to teach applications in business and marketing classrooms. **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)
Fall Qtr Sec 1 **W**—6:30-9:15, VoTech 230, StP Campus
- ★**OBME 5340 TRENDS AND ISSUES IN BUSINESS AND MARKETING EDUCATION.** 3 credits, \$BDE 5155, \$BDE 5250, \$219.
 Identification, analysis, and discussion of recent issues and trends. **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**—3:30-6:15, VoTech R285, StP Campus, Hopkins
- ★**OBME 5345 DATA BASE MICROCOMPUTER APPLICATIONS.** 3 credits, \$219.
 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**—3:30-6:15, VoTech 230, StP Campus
- ★**OBME 5353 CURRICULUM CONSTRUCTION IN BUSINESS AND MARKETING EDUCATION.** 4 credits, \$BDE 5353, \$292.
 Content identification, program organization, preparation of instructional objectives, guidelines for selection and development of instructional 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 limited to 5 Extension students)
Fall Qtr Sec 1 **M**—6:30-10:05, VoTech 220, StP Campus, Schwartz
- ★**OBME 5355 ADULT BUSINESS AND MARKETING EDUCATION PROGRAMS.** 3 credits, \$BDE 5355, \$219.
 Identifying and training instructors to teach adults in business and marketing classes serving adult clientele in technical colleges, extension programs, community colleges, and private sector training programs; course and program evaluation, planning, and promoting classes. **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**—6:30-9:15, VoTech 220, StP Campus
- ★**OBME 5360 PROGRAM DEVELOPMENTS IN BUSINESS AND MARKETING EDUCATION: TEACHING KEYBOARDING IN ELEMENTARY AND MIDDLE SCHOOLS.** 1-6 credits. 3 credits this offering, \$219.
 Implementation of computer keyboarding and word processing in elementary and middle schools; effective teaching strategies; expected learner outcomes for various grade levels; evaluation methods; criteria for selecting hardware and software; management and organization of computer labs. **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**—3:30-6:15, VoTech 230, StP Campus, McLean

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★OBME 5365 INTEGRATED MICROCOMPUTER APPLICATIONS IN BUSINESS AND MARKETING EDUCATION. 3 credits, \$219.

Advanced business and marketing computer applications integrating business word processing, spreadsheets, business graphics, and data base software. **Must be taken A-F.** (Prereq BME 3310, BME 5160, BME 5330, BME 5335, and BME 5345 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**—3:30-6:15, VoTech 230, StP Campus

★OBME 5370 SPECIAL TOPICS IN INSTRUCTION: TEACHING DESKTOP PUBLISHING. 1-6 credits. 3 credits this offering, \$219.

Designed to provide in-depth study of desktop publishing. Participants will continue to develop their competence for teaching specific desktop publishing courses or incorporating DTP activities into other courses. **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**—3:30-6:15, VoTech 230, StP Campus

★OBME 5380 SPECIAL TOPICS IN CURRICULUM: CUSTOMER SERVICE TRAINING. 1-6 credits. 3 credits this offering, \$219.

Understanding of the customer service competencies required by successful marketing employees; development of effective technical units of instruction for customer service training; and development of skill in materials for customer service 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 5 Extension students)

Winter Qtr Sec 1 **M**—6:30-9:15, VoTech R285, StP Campus

Home Economics Education (HEEd)

(325 Vocational/Technical Building; 624-3010)

OHED 3910 EDUCATIONAL METHODS FOR HOME ECONOMICS AND RELATED PROFESSIONALS. 3 credits, \$219.

For home economists and related professionals whose work includes educating people; development of skills necessary to organize, implement, and evaluate presentations and programs for individual clients as well as groups. **May be taken S-N.** (Prereq jr and non-home economics education majors. A joint Day/Extension class)

Spring Qtr Sec 1 **W**—4:05-6:50, VoTech R380, StP Campus

OHED 5001 SPECIAL TOPICS: LIBERATION PEDAGOGY AND FAMILY LIFE EDUCATION. 1 credit, \$73.

Examination of the meaning of liberation pedagogy; exploration of teaching and learning about family life from a liberation perspective. **May be taken S-N.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Winter Spec Term Sec 1 **Th**—4:05-6:50, Jan. 9-Feb. 6, VoTech R370, StP Campus, McClelland

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**HEED 5300 HOME ECONOMICS CURRICULUM.** 3 credits, \$219.

Examination of research and literature; development of units of study and programs at elementary and secondary levels; production 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 limited to 5 Extension students)

Fall Qtr Sec 1 **T**—4:05-6:50, VoTech R380, StP Campus, Thomas

HEED 5310 METHODS IN TEACHING HOME ECONOMICS: ATTITUDES, VALUES, AND KNOWLEDGE. 3 credits, \$219.

Derivation of theory for educational method from relevant research; application to educational objectives, strategies, and student motivation. **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**—4:05-6:50, VoTech R370, StP Campus, McClelland

HEED 5315 EVALUATION: THEORETICAL AND TECHNICAL ASPECTS. 3 credits, \$219.

Collecting and interpreting evidence related to achievement of objectives, emphasizing higher levels of cognition and affective behaviors. **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 **W**—4:05-6:50, VoTech R370, StP Campus

★**HEED 5407 FAMILY LIFE EDUCATION.** 3 credits, \$219.

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**—4:05-6:50, VoTech R280, StP Campus, Rossmann

HEED 5500 PROSEMINAR: HOME ECONOMICS EDUCATION. 2 credits, \$146.

Relation of the processes and standards of rational thought to professional competence and the goals of a graduate program of study. **Must be taken A-F.** (Prereq required of all new grads. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **W**—4:05-6, VoTech R370, StP Campus, Plihal

HEED 5512 CLINICAL SEMINAR: THE SCHOOL SETTING. 4 credits, \$Ind 5512, \$292.

Examination of and experience with the school as a social-political setting, the relation between adolescent development and curriculum, and the patterns of organizational and interpersonal communication within the school. **Must be taken S-N.** (Prereq post-B.A. student or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Fall Qtr Sec 1 **T**—4:05-6, VoTech R370, StP Campus, Plihal

HEED 5514 CLINICAL SEMINAR: TEACHING. 12 credits, \$Ind 5512, \$876.

Teaching experience in a public school setting. **Must be taken S-N.** (Prereq HEEd/Ind 5512, 5513 or #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—4:05-6:50, VoTech R380, StP Campus

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Industrial Education (Ind)

(425 Vocational/Technical Building: 624-3004)

★●Ind 1110 **INTRODUCTION TO PRODUCTION SYSTEMS.** 4 credits, \$243.

An introduction to the principles, methods, materials, and processes of industrial production. Laboratory experience in the processing, production, and testing of industrial materials and products. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr Sec 1 **MW**—4:30-7:30, VoTech 120, StP Campus.

★●Ind 1120 **COMMUNICATION TECHNOLOGY.** 3 credits, \$182.25.

Instruction and laboratory experiences in communication technology, including photography, video, wire communication, recording and storage systems, printing, and computer applications to communication. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Fall Qtr Sec 1 **MW**—4:30-7:30, VoTech 110, StP Campus, Nilsen

★●Ind 1130 **PRINCIPLES OF ENERGY AND POWER.** 4 credits, \$243.

Instruction and laboratory investigations in the fundamentals of mechanical, fluid, and electrical power. **Must be taken A-F.** (No prereq. A joint Day/Extension class limited to 5 Extension students)

Spring Qtr Sec 1 **MW**—4:30-7:30, VoTech 139, StP Campus, Hansen

★●Ind 5300 **INDUSTRIAL SURVEYS.** 3 credits, \$219.

Practices and techniques for studying instructional needs to establish or improve industrial courses in schools and industry. **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**—4:05-6:50, VoTech R280, StP Campus, Bjorkquist

●Ind 5301 **TESTS IN INDUSTRIAL SUBJECTS.** 3 credits, \$219.

Development, performance evaluations, work attitude evaluations, student 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**—4:05-6:50, VoTech R280, StP Campus, Pucel

●Ind 5303 **INSTRUCTIONAL AIDS.** 3 credits, \$219.

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)

Winter Qtr Sec 1 **W**—4:05-6:50, VoTech R250, StP Campus, Gagel

●Ind 5330 **INDUSTRIAL COURSE CONSTRUCTION.** 3 credits, \$219.

Principles and techniques; experience in planning, organizing, and building a teaching guide. **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)

Fall Qtr Sec 1 **T**—4:05-6:50, VoTech R280, StP Campus, Moss

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**Ind 5360 INDUSTRIAL INSTRUCTION.** 3 credits, \$219.

Concepts and techniques of instruction in the industrial arts, trade and industrial schools and classes, and training-within-industry 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 5 Extension students)

Winter Qtr Sec 1 T—4:05-6:50, VoTech R270, StP Campus, Swanson

Vocational Education (VoEd)

(210 Vocational/Technical Building: 624-1221)

VoEd 5200 EVALUATION OF LOCAL VOCATIONAL EDUCATION PROGRAMS. 3 credits, \$219.

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)

Fall Qtr Sec 1 M—3:15-6, VoTech R385, StP Campus, Krueger

VoEd 5300 PHILOSOPHY AND PRACTICE OF VOCATIONAL EDUCATION. 3 credits, \$219.

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)

Winter Qtr Sec 1 W—4:05-6:50, VoTech R385, StP Campus, Wardlow

★**VoEd 5340 PRINCIPLES OF SUPERVISORY MANAGEMENT.** See page 456 for course description and meeting times.

VoEd 5500 INTRODUCTION TO VOCATIONAL EDUCATION ADMINISTRATION. 3 credits, \$219.

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)

Spring Qtr Sec 1 M—4:05-6:50, VoTech R380, StP Campus

★**VoEd 5800 WORKING WITH SPECIAL NEEDS STUDENTS.** 3 credits, \$219.

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)

Spring Qtr Sec 1 W—4:05-6:50, VoTech R280, StP Campus, Brown

★**VoEd 5900 USING VOCATIONAL EDUCATION RESEARCH.** 3 credits, \$219.

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 #. A joint Day/Extension class limited to 5 Extension students)

Winter Qtr Sec 1 T—4:05-6:50, VoTech R370, StP Campus, Leske

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

W

Women's Studies (WoSt)

(492 Ford Hall: 624-6006)

College of Liberal Arts

Textbooks for most WoSt courses are available at the Minnesota Book Center in Williamson Hall (625-6000)

(See also Psychology; English; Study and Travel Adventures; Compleat Scholar and Practical Scholar noncredit courses; and REX 0327, Evaluating the Effectiveness of OB/GYN Instructional Sites)

Lisa Albrecht, Assistant Professor in Women's Studies

S. D. Elliot, Teaching Specialist in Women's Studies

Patricia S. Faunce, Professor of Psychology and Women's Studies

Susan Geiger, Associate Professor of Women's Studies

Juanita Garcigodoy, Teaching Assistant in Women's Studies

Judith Katz, Lecturer in Women's Studies

Amy Kaminsky, Assistant Professor of Women's Studies

April Knutson, Lecturer in Women's Studies

Susan Kollin, Teaching Assistant in Women's Studies

Mahnaz Kousha, Adjunct Assistant Professor in Women's Studies

Dorothy Loeffler, Associate Professor in Educational Psychology

Patty Lynch, Lecturer in Women's Studies

Doris Marquit, Assistant Professor of Women's Studies

Sheryl McCurdy, Lecturer in Women's Studies

Pamela Olano, Lecturer in Women's Studies

Julia Robinson, Associate Professor of Architecture

Naomi B. Scheman, Associate Professor of Women's Studies

Marcia Soderman-Olson, Lecturer in Women's Studies

Denise Walen, Teaching Assistant in Women's Studies

Jacquelyn Zita, Assistant Professor of Women's Studies

(For related courses of interest, also see the following departments in this Bulletin: Architecture; English; Family Social Science; General College; History; Humanities; The Compleat Scholar and The Practical Scholar noncredit courses; Psychology; Rhetoric; Social Work; Sociology; CSW 0803, Women and Sexuality: Dialogues Across the Divide; and CSW 0801, An Anthropological Approach to Women and Power)

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.

A minor is available in Women's Studies. Interested students should call CEE Counseling, 625-2500, for details.

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

WoSt 1001 (formerly 1005) INTRODUCTION TO WOMEN'S STUDIES. 4 credits, \$243.
(♦\$121.50)

◆ Women's Studies as a discipline; brief history of feminism; overview of issues related to the current and rapidly changing role and status of women. (No prereq)

cew Winter Qtr Sec 1 M—9:30 a.m.-12, MacP

Offered through Continuing Education for Women

★○**WoSt 1003 (formerly 1155) WOMEN IN WORLD CULTURES.** 4 credits, \$243.

The lives of women in non-Western societies including their economic, political, and social contributions, familial roles, and status in society. (No prereq. A joint Day/Extension class limited to 45 Extension students)

Spring Qtr Sec 1 T—4:15-6:45, FordH 155, Geiger

★○**WoSt 3102 FEMINIST THOUGHT AND THEORY.** 4 credits, \$248. (♦\$124)

◆ Representative feminist theories and their relations to political action. (No prereq. A joint Day/Extension class limited to 30 Extension students)

Fall Qtr Sec 1 T—6:20-8:50, FordH 155, Scheman

WoSt 3200 TOPICS IN WOMEN'S STUDIES: POLITICS OF BODY IMAGE. 4 credits (12 cr max), \$248. (♦\$124)

◆ Examines the myths and meanings of body image, the social constructions of beauty, and their personal, social, and cultural implications of body image. (No prereq)

Spring Qtr Sec 1 Th—6:20-8:50, FordH 40, Elliot

★○**WoSt 3202 (formerly 3001) BIOLOGY OF WOMEN.** 4 credits, \$248.

Physiology, anatomy, and endocrine chemistry relevant to women's lifecycles and reproductive functioning. (Prereq Biol 1011 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

WoSt 3204 (formerly 3005) SEXUALITY AND SELF-IMAGE. 4 credits, \$248. (♦\$124)

◆ Social attitudes toward sexuality and how they influence our sense of ourselves. Focus on art, pornography, rape, the economy, psychosexual development and the family. (Prereq 1001, 1002 or #)

Winter Qtr Sec 1 M—6:20-8:50, FordH 160, Scheman

★**WoSt 3205 (formerly 3301) WOMAN: A SENSE OF IDENTITY.** 4 credits, \$5205, \$248.

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 as-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 116, Loeffler

Sec 2 Th—1:15-4:15, Armory 205, Loeffler

Winter Qtr Sec 3 T—6:10-9:10, Armory 116, Loeffler

Sec 4 Th—1:15-4:15, Armory 205, Loeffler

Spring Qtr Sec 5 T—6:10-9:10, Armory 116, Loeffler

Sec 6 Th—1:15-4:15, Armory 205, Loeffler

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

WoSt 3300 TOPICS IN WOMEN'S STUDIES: MOTHERS, MADONNAS, AND MONSTERS: Women in Drama. 4 credits (12 cr max), \$248. (♦ \$124)

- Using play scripts, productions, essays, and movies, the instructor will engage students in an exploration of the roles and scenarios for women characters in drama. High and pop culture are mixed to create a visceral, as well as literary, understanding of the subject. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, FordH 175, Lynch

WoSt 3300 TOPICS IN WOMEN'S STUDIES: WOMEN IN LOVE: Romances, Gothics, and "The Soaps." 4 credits (12 cr max), \$248. (♦ \$124)

- A multi-media course considering women in love from a popular culture perspective: Harlequin Romances, Gothic novels, television, and cinematic soap operas. Readings include early gothic works, "pulp" romances, lesbian fiction, and multi-racial/ethnic narratives. The video component of the course investigates daytime and prime time soap operas, as well as Hollywood presentations. (No prereq)

Winter Qtr Sec 2 **W**—6:20-8:50, FordH 175, Olano

WoSt 3300 TOPICS IN WOMEN'S STUDIES: CONTEMPORARY AMERICAN WOMEN PLAYWRIGHTS. 4 credits (12 cr max), \$248. (♦ \$124)

- Focuses on the plays of contemporary American women playwrights and serves as an introduction to women in the theatre. Playwrights to be studied closely include Ntozake Shange, Emily Mann, Jane Chambers, and Wendy Wasserstein, among others. (No prereq)

Spring Qtr Sec 3 **Th**—6:20-8:50, FordH 60, Walen

WoSt 3303 WOMEN AND LITERATURE. 4 credits, \$248. (♦ \$124)

- Women writers and critics of literature about women. Usually limited to Western literature. (Prereq introductory work in literature)

Spring Qtr Sec 1 **W**—6:20-8:50, FordH 160, Kollin

★WoSt 3304 WOMEN AND THE ARTS. 4 credits, \$248.

- Explores women's place in art from several perspectives: women as artists and the imagery they have created, and women as the subject of imagery and the attitudes that imagery conveys. (No prereq. Limited to 40)

cew

Fall Qtr Sec 1 **T**—1-3:30, MacP, Soderman-Olson

Offered through Continuing Education for Women

WoSt 3307 MODERN FEMINIST NOVEL. 4 credits, \$248. (♦ \$124)

- Analysis of fiction written by women that addresses questions of women's identity and the diversity of women's experience. (Prereq English composition or equivalent)

Fall Qtr Sec 1 **Th**—6:20-8:50, FordH 40, Marquit

Spring Qtr Sec 2 **M**—9:30 a.m.-12, MacP, Knutson

cew

Offered through Continuing Education for Women

WoSt 3400 TOPICS IN WOMEN'S STUDIES: LATIN AMERICAN WOMEN'S LIVES: Quest for Identity. 4 credits (12 cr max), \$248.

- An examination of five novels and a work of creative non-fiction in which the central female characters, living in sexist societies, construct their identities by telling their stories. Students ask as they read, discuss, and write about these texts: "In what sense are our voices our selves?" (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, FordH 40, Garcimagodoy

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★**WoSt 3400 TOPICS IN WOMEN'S STUDIES: SEXUALITY, HEALTH, AND PUBLIC POLICY: A Historical Overview.** 4 credits (12 cr max), \$248.

An introduction to the theory and history of women's health and medical care. Readings are designed to provide a brief historical overview of the development of attitudes and ideas about sexuality, gender, and medicine in the United States and England. (No prereq. Limited to 40)

Fall Qtr Sec 2 **Th**—6:20-8:50, FordH 175, McCurdy

WoSt 3400 TOPICS IN WOMEN'S STUDIES: WOMEN AND SPORTS. 4 credits (12 cr max), \$248. (◆\$124)

Feminist analysis of women's involvement in sport and physical activity. Particular emphasis will be given to such topics as the social-psychological construction of the female athlete as gendered body; media images of female athletes as mechanisms of social control; and the neglected study of ethnicity, social class, and sexuality as they influence the female sport experience. (No prereq)

Winter Qtr Sec 3 **Th**—6:20-8:50, FordH 40, Kane

WoSt 3400 TOPICS IN WOMEN'S STUDIES: INTRODUCTION TO LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES. 4 credits (12 cr max), \$248. (◆\$124)

A study of the history, theory, and construction of sexuality and sexual identity, with a special focus on gay, lesbian, bisexual, and transgender politics and experience. (No prereq)

Spring Qtr Sec 4 **M**—6:20-8:50, FordH 349, Zita

WoSt 5203 WOMEN, FEMINISM, AND POWER. 4 credits, \$248.

Exploration and development of feminist conceptualizations of power, including personal power, empowerment, spirituality, networking, civil disobedience, holism, and utopias. (Prereq 12 cr in women's studies or #. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **T**—5:30-8, FordH 175, Faunce

★**WoSt 5205 (formerly 5301) WOMAN: A SENSE OF IDENTITY.** 4 credits, \$3205, \$248.

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)

cew

Fall Qtr Sec 1 **T**—6:10-9:10, Armory 116, Loeffler

Sec 2 **Th**—1:15-4:15, Armory 205, Loeffler

Winter Qtr Sec 3 **T**—6:10-9:10, Armory 116, Loeffler

Sec 4 **Th**—1:15-4:15, Armory 205, Loeffler

Spring Qtr Sec 5 **T**—6:10-9:10, Armory 116, Loeffler

Sec 6 **Th**—1:15-4:15, Armory 205, Loeffler

WoSt 5950 TOPICS IN WOMEN'S STUDIES: FEMINIST APPROACHES TO ARCHITECTURE. 4 credits, \$Arch 5951, \$248. (◆\$124)

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 of architecture, view of the architect, attitude toward the user and society, and ideas about context, nature,

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

and materials. Primarily for upper-level undergraduate and graduate students. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6:10-9:20, Arch 40, Robinson

Y

Youth Development and Research (YoSt)

(386 McNeal Hall: 624-3700)

College of Human Ecology

(School of Social Work)

Textbooks for most YoSt courses are available at Books Underground on the St. Paul campus (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 of Youth Studies

Jerome Beker, Professor of Youth Studies

Mary K. Burnison, Instructor in Youth Studies

F. B. Rick Hebert, Visiting Professor of Youth Studies

James Kielsmeier, Assistant Professor of Youth Studies

Richard O. Kimball, Visiting Professor of Youth Studies

Ira M. Lourie, Visiting Professor of Youth Studies

Jan Mandell, Lecturer in Youth Studies

Penny Parry, Visiting Professor of Youth Studies

Howard Polsky, Visiting Professor of Youth Studies

Anthony Richards, Visiting Professor of Youth Studies

Byron J. Schneider, Associate Professor of Youth Studies

YoSt 5120 INDEPENDENT STUDY IN YOUTH STUDIES. Cr arr. (maximum 12 cr), \$73 a credit.

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, staff

Winter Qtr Sec 2 **Arr**—Baizerman, Beker, staff

Spring Qtr Sec 3 **Arr**—Baizerman, Beker, staff

★**YoSt 5130 SPECIAL TOPICS: EXPERIENTIAL EDUCATION FOR CITIZEN DEVELOPMENT: National Youth Service.** 3 credits, \$219.

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 the developing Minnesota Youth Service (continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

vice Initiative and on within-school service learning models. One-day outdoor practicum experience on Saturday. (Prereq 6 cr in social sciences, experience in youth work, and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Winter Spec Term Sec 1 **FSaM**—8 a.m.-4:30, Feb. 7, 8, 10, 1992,
McNH 386A, StP Campus, Kielsmeier
No late fee through Jan. 31

(James Kielsmeier, Ph.D., is president of the National Youth Leadership Council and past president of the Association of Experiential Education)

★YoSt 5130 SPECIAL TOPICS: EXPERIENTIAL LEARNING: Theatre Activities in Youth Work and Education. 3 credits, \$219.

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, and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Spring Spec Term Sec 2 **FSa**—8:30 a.m.-4:30, Apr. 10, 11, May 16, 1992,
McNH 386A, StP Campus
No late fee through Apr. 3

★YoSt 5130 SPECIAL TOPICS: PERSONAL DEVELOPMENT AND EXPERIENTIAL EDUCATION: High Intensity Outdoor Adventure. 3 credits, \$219 plus \$25 course fee. Total \$244.

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, and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 18)

Spring Spec Term Sec 3 **FSaM**—8 a.m.-4:30, Apr. 24, 25, 27, 1992,
McNH 386A, StP Campus, Richards
No late fee through Apr. 17

◎YoSt 5132 EXPERIENTIAL LEARNING. 3 credits, \$219.

Course will cover (1) rationale for and purposes of experiential learning in schools and youth-serving agencies, (2) development and implementation of programs in which adolescents serve their communities, and (3) evaluation of experiential-learning programs. Each student will develop a plan for experiential program for teenagers. (Prereq CPsy 3303 and #. Qualified students may register for graduate credit at the University of Minnesota. A joint Day/Extension class)

Spring Qtr Sec 1 **T**—6:30-9, McNH 386, StP Campus

★YoSt 5230 WORK WITH YOUTH—INDIVIDUAL. 3 credits, \$219.

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, and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

(continued next page)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

- Fall Spec Term** Sec 1 **FSaM**—8:30 a.m.-4:30, Sept. 27, 28, 30, 1991,
McNH 386A, StP Campus, Hebert
No late fee through Sept. 20
- Spring Spec Term** Sec 2 **FSaM**—8:30 a.m.-4:30, Apr. 10, 11, 13, 1992,
McNH 386A, StP Campus, Hebert
No late fee through Apr. 3

★**YoSt 5231 WORK WITH YOUTH—FAMILIES.** 3 credits, \$219.

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, and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Fall Spec Term Sec 1 **FSaM**—8:30 a.m.-4:30, Nov. 15, 16, 18, 1991
McNH 386A, StP Campus, Lourie
No late fee through Nov. 8

Winter Spec Term Sec 2 **FSaM**—8:30 a.m.-4:30, Feb. 21, 22, 24, 1992,
McNH 386A, StP Campus, Lourie
No late fee through Feb. 14

★**YoSt 5232 WORK WITH YOUTH—GROUPS.** 3 credits, \$219.

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 process; 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 and #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Winter Spec Term Sec 1 **FSaM**—8:30 a.m.-4:30, Jan. 24, 25, 27, 1992,
McNH 386A, StP Campus, Polsky
No late fee through Jan. 17

Spring Spec Term Sec 2 **FSaM**—8:30 a.m.-4:30, May 8, 9, 11, 1992,
McNH 386A, StP Campus, Parry
No late fee through May 1

★**YoSt 5331 YOUTH AGENCIES, ORGANIZATIONS AND YOUTH SERVICE SYSTEM.** 3 credits, \$219.

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 15)

Winter Qtr Sec 1 **Th**—6:30-9, McNH 386A, StP Campus

THE GLOBAL CAMPUS

"Study abroad is the single most effective and dramatic experience students can have to broaden their international and intercultural awareness."

Approximately 800 students each year earn University of Minnesota credits by living and studying in a foreign country on Global Campus study abroad programs. There are many reasons why you should consider a study abroad experience.

Personal Growth

The Global Campus expands your classroom to include the historic sites and daily scenes of another country. Programs combine academic learning with the excitement of a foreign environment and opportunities for travel. In addition, through cross-cultural interaction you will gain new insights into your own culture, your studies, and yourself.

Academic and Career Development

Study abroad can benefit your academic and professional career. The variety of Global Campus programs offer diverse development opportunities. Language programs provide you with the classes you need to fulfill second language requirements, and give you greater fluency and confidence in the language of study. Theme programs, such as Literature and Theatre in London, give extra depth and meaning to your major, area of special interest, and career. Internship opportunities, such as the Minnesota Studies in International Development program, combine work and research experience in another country. The skills you gain through study abroad are practical and valuable in our increasingly global business world.

Student Services

Global Campus programs are accessible and affordable. You need not be enrolled in a degree program to apply to most programs. Program fees are comparable with the cost of full-time tuition, room, and board here on campus, and financial aid may apply. Experienced Global Campus staff assist you with pre-departure details, while orientation sessions on campus and on-site prepare you for a successful study abroad experience.

Global Campus programs are designed to provide World Class Learning opportunities to life-long learners—like you. Read on for more information.



MISSION AND PROGRAM INDEX

The mission of the Global Campus is to offer programs abroad which provide students with opportunities:

- to study the people and culture of foreign lands as unique topics of intrinsic interest;
- to facilitate the growth of a less parochial world view and international understanding;
- to gain a new perspective on their own society and culture; and
- to enrich the disciplines with comparative perspectives.

The following index will assist you in finding a program in the language or academic area that interests you. See specific program descriptions for course offerings and prerequisites.

Second Language Programs

- French in Montpellier
- German & Austrian Studies in Graz
- Spanish in Cuernavaca
- International Program in Toledo, Spain

Theme Programs

- Literature and Theatre in London
- Quincentennial Summer Program for Spanish Teachers
- Architecture in China or Europe
- Interior Design in Europe

Internship Programs

- Minnesota Studies in International Development (MSID) in Ecuador, India, Jamaica, Kenya, Morocco, or Senegal

GENERAL INFORMATION

Application and Registration

Global Campus programs are designed to meet the needs of a variety of students. Anyone is eligible to apply, you need not be enrolled in a degree program. Apply early, as program enrollments are limited. You may request Global Campus application materials by calling (612) 625-3379.

The Global Campus application includes an application form, current transcript, two recommendations, supplementary information as required by specific programs, and application fee. You must have a cumulative GPA of at least 2.50, a B average in the language or discipline of the program, and meet other stated program requirements. See program descriptions for more information.

After acceptance, you will register for your study abroad program through the Global Campus, Department of Extension Classes. Graduate credit and directed studies may be available for some programs. All study abroad credits appear on a University of Minnesota transcript.

Financial Aid

You may apply regular campus-based financial aid to Global Campus programs, according to eligibility. In addition, several programs have limited scholarship opportunities. If you are planning on using financial aid for studying abroad, apply for aid well in advance of your study abroad program—four to six months prior to departure is recommended. Preliminary information on financial aid may be obtained from staff at the Extension Counseling Office, 314 Nolte Center, (612) 625-2500.

Orientation

The Global Campus will provide pre-departure materials and an orientation session to assist you in preparing for your study abroad experience. This session also provides you with an opportunity to meet other program participants.

Information Meetings and Other Study Abroad Opportunities

Travel fairs, information meetings, and slide shows are scheduled throughout the year to acquaint you with the many study abroad opportunities available through the University of Minnesota. Contact the International Study and Travel Center at (612) 626-9000 for more information.

Cancellations

In the event of cancellation, refunds of any Global Campus payments beyond the non-refundable application fee and confirmation deposit are based on recoverable costs. Cancellation must be made in writing to avoid responsibility for program fees.

FRENCH IN MONTPELLIER



Program Terms: Fall, winter, spring terms; two term enrollment possible winter/spring
Application Deadlines: May 15 for fall, October 15 for winter, December 15 for spring
Program Fee: \$3,150 per quarter plus \$35 application fee

Improve your French language skills in Montpellier, a lively city with a quarter million inhabitants, located just ten miles from the Mediterranean coast. The Montpellier program integrates intensive intermediate and advanced language and culture courses with the experience of living with a French family. Excursions to locations of cultural and historic importance are included in the program fee. The program is offered collaboratively by the Department of French and Italian and The Global Campus, Department of Extension Classes.

Academic Program

Students register for two intensive language courses which are taken concurrently, and an additional 3000 level course (12-14 credits). Courses may be applied to second language requirements, or French major or minor requirements.

Fren 1104-1105-1106 Intermediate French. 5 credits each.

Second year French. Literary and cultural readings. Grammar review and development of writing skills. (Prereq 1103)

Fren 3015-3016 French Composition, Conversation. 4 credits each.

Emphasis on writing, development of communication skills. Based on a consolidation of grammar. (Prereq 1106)

Fren 3020 French Communication. 4 or 8 credits.

Intended to increase active command of the language. Recommended for students planning to use the language in a French milieu. (Prereq 3015)

Fren 3299 Themes in French Literature. 4 credits.

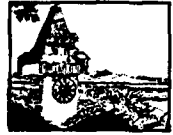
Literature of and about the Provence and Languedoc regions of southern France. Taught in French by UM faculty. Spring term only. (Prereq 3101, 3103)

Fren 3550 Topics in French Civilization in Translation: Civilization and Culture of the Languedoc and Provence. 4 credits.

Approach to civilization and regions of southern France through study of history, arts, music, literature, gastronomy, media, and civics. Includes excursions, discussion, journal writing. Taught in French by UM faculty.

Completion of at least Fren 1103 is required. You must be admitted to the French in Montpellier program to register for these courses. Program enrollment is limited to 25 students each term. Call 625-3379 for a French in Montpellier brochure and application.

GERMAN AND AUSTRIAN STUDIES IN GRAZ



Program Terms: Winter or spring term; two term enrollment possible
Application Deadlines: October 15 for winter, December 15 for spring
Program Fee: \$3,150 per quarter plus \$35 application fee

Become acquainted with the Austrian people and culture in Graz, a charming and modern city of over a quarter million inhabitants, famous for its inviting parks, town square, and clock tower. The Graz program integrates intensive intermediate or advanced language and culture courses with the cross-cultural experience of living with an Austrian family. Excursions to locations of cultural and historic importance are included in the program fee. Spring internship or research projects are another opportunity for two-term students. The program is offered collaboratively by the Department of German, Center for Austrian Studies, and The Global Campus, Department of Extension Classes.

Academic Program

Students register for two intensive language courses which are taken consecutively, and an additional 3000 level course (12-14 credits). Courses may be applied to second language requirements and German major or minor requirements.

Ger 1105-1106 Intermediate German. 5 credits each.

Second year German. Emphasis on proficiency. Listening, reading, speaking, writing. Taught by UM faculty. (Prereq 1104)

Ger 3011-3012-3013 Conversation and Composition. 4 credits each.

Spoken German; composition; development of vocabulary; grammar review. (Prereq 1106)

Ger 3442 or 3443 20th-Century Literature. 4 credits each.

Austrian literature from 1918 to 1933 (winter), or 1933 to the present (spring). (Prereq 3104, 3105)

Ger 3590 Directed Studies. 4 credits.

Internship or research project for students enrolled in both quarters of the program, offered spring only. (Prereq #)

Hist 3747 Hapsburg Austria from 1526 to World War I. 4 credits.

Hist 3748 The Austrian Republic from World War I to Present. 4 credits.

Historical surveys of Austria. Hist 3748 is offered winter quarter, Hist 3747 is offered spring quarter. Taught in English. May be applied to German major.

Completion of at least Ger 1104 is required. You must be admitted to the German and Austrian Studies in Graz program to register for these courses. Program enrollment is limited to 25 students each term. Call 625-3379 for a German and Austrian Studies in Graz brochure and application.

LITERATURE AND THEATRE IN LONDON



Program Terms: Spring term
Application Deadline: January 1
Program Fee: \$3,150 plus \$35 application fee

Devote a quarter to English drama and literature in bustling London. Literature and Theatre in London offers students a unique perspective on English literature and theatre, as the program integrates literary history, geography, cultural perspectives, theatre productions and internship opportunities with the experience of living in London. A highlight of the program is a visit to Shakespeare's Stratford-upon-Avon, where students attend and discuss performances of the Royal Shakespearean Theatre. The program is offered collaboratively by the Departments of English, Theatre Arts, and The Global Campus, Department of Extension Classes.

Academic Program

Program participants must have some previous course work in literature or theatre. Students register for three courses (12-14 credits). Graduate credit information is available.

Engl 3970 Directed Studies. 2 credits.

Symposium on the Cultural Resources of London, Past and Present. Meets once weekly and requires keeping a journal. (Offered S/N only. Required of all Literature in London program participants)

Engl 3940 Figures in English Literature. 4-8 credits.

Intensive Shakespeare. (Meets concurrently with 5240)

Engl 3910/5910 Topics in English Literature. 4-8 credits.

Topics specified in program brochure. (Prereq #. 5000 level requires extensive advanced study and a research paper)

Engl 5240 Advanced Shakespeare. 4-8 credits.

Intensive study of plays with extensive supplementary readings and one or more research papers. (Prereq grad student or 2 previous Shakespeare courses. Meets concurrently with Engl 3940)

Th 5970 Directed Study. 4 credits.

Internship experience with London Fringe Theatre companies. (Previous theatre experience required. Limited to 12)

You must be admitted to the Literature and Theatre in London program to register for these courses. Program enrollment is limited to 30. Call 625-3379 for a Literature and Theatre in London brochure and application.

SPANISH IN CUERNAVACA



Program Terms: Fall, winter, or spring term; two term enrollment possible
Application deadlines: June 15 for fall, October 15 for winter, December 15 for spring
Program Fee: \$2,250 fall quarter, \$2,450 for winter or spring term plus \$35 application fee

Discover Mexico's rich culture and friendly people in sunny Cuernavaca, the *City of Eternal Spring*. The Cuernavaca program integrates intensive beginning language and culture courses with the experience of living with a Mexican family. Language classes are limited to five students, to ensure personal instruction and development of Spanish language skills through listening and speaking. Travel opportunities, crafts seminars and studios, and the option to temporarily transfer studies to a traditional Mexican village are also available. The program is offered collaboratively by the Department of Spanish and Portuguese and The Global Campus, Department of Extension Classes.

Academic Program

This is one of the few language programs that requires no previous Spanish language study. Students register for three language courses, or two language courses and the Mexican culture course. Courses may be applied to second language requirements.

Span 1101-1102-1103 Beginning Spanish. 5 credits each.

First year Spanish. Span 1101 is intended for participants with no prior Spanish language instruction.

Span 1104-1105-1106 Intermediate Spanish. 5 credits each.

Second year Spanish. Speaking and comprehension. (Prereq 1103)

Span 3620 Mexico in the 20th Century. 4 credits.

Mexican culture course examines how a vigorous people won back their country from their conquerors. Study of the Mexican revolution and social, political, and economic developments arising out of that pivotal historic event. Discussion and analysis of past, present, and future, relations between the U.S. and Mexico. Taught in English by Cemanahuac instructors.

You must be admitted to the Spanish in Cuernavaca program to register for these courses. Program enrollment is limited to 30 each term. Call 625-3379 for a Spanish in Cuernavaca brochure and application.

INTERNATIONAL PROGRAM IN TOLEDO, SPAIN



Program Terms: Fall semester (early September to mid-December), spring semester (mid-January to early June), academic year, or summer (mid June to late July)
Application Deadlines: July 15 for fall or year, December 1 for spring, April 15 for summer
Program Fee: Approximately \$5,969 semester; \$2,480 summer plus \$35 application fee

Enrich your Spanish language skills in beautiful Toledo, where Spanish culture and history are revealed among its maze of narrow cobblestone streets. Located in central Spain near cosmopolitan Madrid, Toledo is a welcoming city with a population of 55,000. The Toledo program combines advanced Spanish language study, courses in the humanities and social sciences, the choice of dormitory or home-stay living arrangements, and an international student body which includes participants from across the U.S., Japan, and many Latin American countries. Day trips are included in the program fee and an optional four-day tour is arranged for participants. The program is offered jointly by José Ortega y Gasset Foundation and The Global Campus, Department of Extension Classes.

Academic Program

Students register for four or five courses (12-18 semester credits) per term, or two or three classes (6-9 semester credits) for the summer session. Spanish language courses require one year of college Spanish or the equivalent; other courses require two years of college Spanish or the equivalent. Graduate credit information is available.

Courses are offered in the following subject areas:

Anthropology and Archaeology	Culture
Art History	Linguistics
Economics	Literature
Geography	Political Science
Interdisciplinary Studies	Spanish Language

Students may enroll for a full year, fall or spring semester, or the summer session program. Call 626-7138 for the International Program in Toledo, Spain brochure, course listings, and an application.

QUINCENTENNIAL SUMMER PROGRAM FOR SPANISH TEACHERS

Program Term: Summer (early July to early August)

Application Deadline: April 30. Applications are reviewed from November 1 to June 1

Program Fee: Approximately \$3,345; fellowship recipients pay approximately \$1,800 plus \$50 application fee

Expand your Spanish classroom through this unique program for teachers. The Quincentennial program in Madrid is specifically designed for U.S. teachers of Spanish to familiarize them with the social and cultural reality of contemporary Spain and to increase their command of the Spanish language. Day trips in and around Madrid and a week-length cultural excursion to other regions of Spain are included in the program fee. Up to 300 King Juan Carlos Fellowships are awarded to qualified applicants. The Quincentennial program is offered jointly by José Ortega y Gasset Foundation, Sociedad del Quinto Centenario, and The Global Campus, Department of Extension Classes.

Academic Program

Program participants must be licensed U.S. Spanish teachers in secondary, elementary, or college-level education, or graduate students currently working towards a career in one of these areas. Participants register for the culture course and one or two other courses (up to 9 semester or 13.5 quarter credits). Graduate credit information is available.

SeEd 5191 Workshop: Teaching of Second Languages and Cultures. 3 semester or 4.5 quarter credits.

Span 5011 Spanish Stylistics. 3 semester or 4.5 quarter credits.

Span 5012 Advanced Problems in the Spanish Language. 3 semester or 4.5 quarter credits.

Span 5800 Spanish Culture and Society in 20th Century Spain. 3 semester or 4.5 quarter credits.

Span 5990 Directed Research. 3 semester or 4.5 quarter credits.

You must be admitted to the Quincentennial Program to register for these courses. Program enrollment is limited to 300; participants will be placed in classes of approximately 25 students each. Call 626-7138 for a Quincentennial brochure and application.

MINNESOTA STUDIES IN INTERNATIONAL DEVELOPMENT



Internships in Ecuador, India, Jamaica, Kenya, Morocco, and Senegal

Program Term: Academic year: fall quarter on campus, winter and spring terms in-country

Application Deadline: May 1, February 15 early admission deadline for most countries

Program Fee: Varies by country, approximately \$3,175 plus \$35 application fee

Gain deeper intercultural understanding and new perspectives on the U.S. through a grass-roots internship in a city or village in Ecuador, India, Jamaica, Kenya, Morocco, or Senegal. Minnesota Studies in International Development (MSID) seeks to raise the awareness of participating students and faculty, the academic community, and the public in regard to the challenges of development in both the Third World and our own society. MSID consists of three stages: fall quarter pre-departure courses and orientation on the University of Minnesota campus; winter and spring term internship and academic research overseas; and outreach activities following return to the U.S. The program is offered by The Global Campus, Department of Extension Classes.

Academic Program

MSID is intended for students and community members with an interest in development. Students register through the Global Campus for two fall pre-departure courses (8-9 credits), and winter and spring internship and directed study courses (8-13 credits each term). Graduate credit information is available.

IntR 5701 Theories of International Development. 4 or 5 degree credits, \$248 or \$310.

Interdisciplinary approaches to understanding contemporary development theory and practice. Presentation of selected theoretical frameworks and case studies illustrating complexities of development planning and implementation. (Ecuador, Morocco, and Senegal interns must register for an additional one-credit foreign language section.)

Fall Quarter	5701	Sec 700	TTh 1:25-3:00 And H 270
	5701x	Sec 701	Arr (Ecuador interns only)
	5701x	Sec 702	Arr (Morocco, Senegal interns only)

IntR 5931 MSID Seminar. 4 credits, \$248.

This course includes area studies, intercultural communication, culture-specific training, and individual work on conceptualizing academic projects to be developed in connection with the overseas internships. Six sections meet separately for country-specific topics and together in Nicholson 213 for common topics.

Fall Quarter	5931	Sec 700-Ecuador	TTh 3:35-5:30 Nich 213
		Sec 701-India	TTh 3:35-5:30 Nich 109
		Sec 702-Jamaica	TTh 3:35-5:30 Nich 122
		Sec 703-Kenya	TTh 3:35-5:30 Lind 203
		Sec 704-Morocco	TTh 3:35-5:30 Lind 303
		Sec 705-Senegal	TTh 3:35-5:30 Lind 315

You must be admitted to the MSID program to register for these courses. Program enrollment is limited and varies by country, averaging ten students per country. Call 626-2234 for an MSID brochure, country-specific information, and an application.

INTERIOR DESIGN IN EUROPE



Program Term: Summer, mid-June to mid-July

Application Deadline: January 15

Program Fee: Approximately \$2,300 plus \$35 application fee

In this exciting program, the classroom is replaced by the palaces, cathedrals, historic homes, and museums of Europe. Students will visit historic cities in England, France, Luxembourg, Italy, and Germany to examine the design of interiors, architecture, and decorative arts within the unique cultural framework of each city. The program is co-directed by Dr. Denise Guerin, Associate Professor of Interior Design, University of Minnesota; and Bonnie Mason, Curator of Education at the Miami University Art Museum. Ten students from each university will participate in the Interior Design program.

Academic Program

Students with a variety of backgrounds in design may participate in the program. Spring pre-departure sessions orient students to the scope and focus of overseas study.

Dsgn 5582 Field Experience Abroad. 8 credits.

Each student will research and prepare an introductory presentation for a selected city before departure for Europe. Daily journal entries, synthesis papers focusing on design themes of each city, and a final exam are also required.

This program is intended for students in the Department of Design, Housing, and Apparel. You must be admitted to the Interior Design program to register for this course. Call The Global Campus at 625-3379 for an Interior Design brochure and application.

ARCHITECTURE IN CHINA OR EUROPE



Program Term: Spring quarter

Application Deadline: To be announced

Program Fee: Approximately \$950 Global Campus registration fee

Students of Architecture and Landscape Architecture may take advantage of the opportunity to study analytical and architectural design in either China or Europe with the guidance of a University faculty member. The College of Architecture and Landscape Architecture coordinates the program.

Academic Program

Students take a planning seminar for two credits during winter quarter and may register for up to 14 credits during spring quarter.

Arch 5113 Architectural Design. 6 credits.

Advanced architectural problems of complex requirements, involving thorough study and detailed solution. An analytic studio that will focus on the issue of the creation of scale and order in architecture as delineated in pre vs. post 1800 buildings. Graduate credit information available. (Prereq 5112, IT architecture major)

Arch 5950 Topics in Architecture. 1-4 credits.

Special topics of concern to the field of architecture. Graduate credit information available. (Prereq 3093 or #)

You must have departmental permission to register for these courses. This program is intended for students enrolled in the College of Architecture and Landscape Architecture. Call the College of Architecture and Landscape Architecture at 624-7866 for more information regarding the Architecture program.

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 offers women noncredit courses to meet their needs and interests in an ever-changing society. Noncredit CSch and PSch classes designed around women's needs and interests are identified by a CEW symbol in the left margin next to the course description or section. *CSch and PSch courses begin on page 497.*

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 65.

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 1991:

AmSt 3112	Sec 1	American Everyday Life
Arth 1001	Sec 1	Introduction to the Visual Arts
Comp 1011	Sec 8	Writing Practice I
Engl 3455	Sec 1	American Short Story
GC 0631	Sec 3	Intermediate Algebra, Part II
Hum 1301	Sec 1	Discourse and Society
Jour 1001	Sec 1	Introduction to Mass Communication
Phil 1003	Sec 1	Ethics
Psy 1001	Sec 3	Introduction to Psychology
Russ 1101	Sec 2	Beginning Russian
WoSt 3304	Sec 1	Women and the Arts: Women's Images and Images of Women
WoSt 3205	Sec 1, 2	Woman: A Sense of Identity
WoSt 5205	Sec 1, 2	Woman: A Sense of Identity

Winter Quarter 1992:

Anth 1102	Sec 3	Introduction to Social and Cultural Anthropology
Arth 3162	Sec 1	Roman Art and Archaeology
Clas 1042	Sec 2	Greek and Roman Mythology
Clas 3162	Sec 1	Roman Art and Archaeology
Engl 3851	Sec 2	The English Language
GC 1551	Sec 2	Marketing: Introduction
Hist 1301	Sec 2	American History
Math 1111	Sec 13	College Algebra and Analytic Geometry
Soc 3501	Sec 2	The Family System
Spch 3431	Sec 2	The Role of Persuasion in the Modern World

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 1992:

Engl 1016	Sec 2	Introduction to American Literature
EngW 1102	Sec 4	Introduction to Fiction Writing
Hum 1003	Sec 1	Humanities in the Modern World III
Math 1142	Sec 7	Short Calculus
PBio 1012	Sec 2	Plants Useful to Humans
Pol 1025	Sec 3	World Politics
Psy 3101	Sec 2	Introduction to Personality
WoSt 3307	Sec 2	Modern Feminist Novel
WoSt 3205	Sec 5, 6	Woman: A Sense of Identity
WoSt 5205	Sec 5, 6	Woman: A Sense of Identity

Noncredit Programs

The Compleat Scholar

Telephone 624-8880 for information.

The Compleat Scholar (CSch) is a program of noncredit liberal arts courses. The title is adapted from Isaak Walton's "The Compleat Angler," and is used here to mean the educated person of eclectic taste. However, you don't need a college degree to enjoy CSch courses; anyone may register. The only admission requirement is the desire to learn. There are no exams to study for or papers to write.

Compleat Scholar courses celebrate the world of ideas by exploring topics ranging from astronomy and physics to philosophy and the humanities. In classes taught by University faculty and staff, participants have an opportunity to pursue a new interest or return to an idea previously studied.

Stimulating and challenging learning is offered in a wide variety of formats including lecture, discussion, and field trips. Some classes are held over a weekend in a retreat-type setting. CSch courses are offered in the daytime, early evenings, or on Saturdays. Some are held at convenient neighborhood locations such as public libraries, others on the University campus.

See the following pages for more information about Compleat Scholar courses.

The Practical Scholar

Telephone 624-8880 for information.

The Practical Scholar (PSch) is a program of noncredit courses that address common practical problems and develop specific skills. PSch courses use the research and teaching expertise of the University to help people solve problems they face in their personal, academic, and work life. Topics explored in PSch courses range from *Starting and Building a Successful Consulting Business* to *Designing Your Urban Wildlife Garden*. You can also find language courses, courses on personal finance or parenting, and courses which enhance your study skills.

Like the Compleat Scholar, Practical Scholar courses are offered in a wide variety of formats, in convenient locations, and at different times of the day. Anyone may register for a course; there are no admission or entrance requirements. Students need only a desire to learn.

See the following pages for more information about the Practical Scholar.

The Compleat Scholar and Practical Scholar Registration

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 25. Late registration dates are listed with course descriptions for each noncredit class.

Many University credit Extension classes also may be taken for no credit. They are indicated in the Credit Courses section of this Bulletin by a diamond symbol (◆). Credit classes begin on page 65.

Books for The Compleat Scholar and Practical Scholar Courses

In some cases students will be expected to purchase texts for classes. When the purchase of books is advised, those books will usually be available at the Minnesota Book Center in Williamson Hall on the East Bank campus of the University. See bookstore hours on page 30.

Tuition for The Compleat Scholar and Practical Scholar Courses

See course descriptions below for tuition charges for each course.

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 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.

Persons 62 and older receive a \$10 discount on all noncredit classes that have a minimum tuition of \$50 (see individual course descriptions for tuition). Participants pay course fees and special fees, if any.

Note: There are no tuition discounts for Compleat Scholar Weekends.

Refunds

The Compleat Scholar/Practical Scholar refund policy follows the Extension Classes policy described on page 59 of this bulletin, except for one- or two-day classes or seminars. Refund requests for one- or two-day classes or seminars must be received in writing or in person at The Compleat Scholar/Practical Scholar office (206 Westbrook Hall) three (3) working days in advance of the class. Registrants who fail to attend or to cancel properly are liable for the entire fee.

Options

Since 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 also are 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 or a location convenient to you.

Morning Classes

- CSch 0299 Plants in Legend and Literature (Woman's Club)
- CSch 0203 The Age of Aristocracy: England in the 18th Century (MacPhail)
- CSch 0448 The Magic Mountain: Masterpiece of Literature or Crashing Bore? (Walker Library)

Afternoon Classes

- CSch 0102 Site Specific Sculpture (Walker Art Center)
- CSch 0204 European Social History Through Literature: 18th to 20th Century (Walker Library)
- PSch 0800 Assertiveness Training (Highland Park Library)

Early Evening Classes

- CSch 0120 The Art of Urban Building (campus)
- CSch 0124 The Evolving House (campus)
- CSch 0540 The Biology of Aids (campus)

Saturday Classes

- CSch 0310 Pepper Pods and Dragonflies: A Poetry Workshop with Michael Dennis Browne (Earle Brown Center)
- CSch 0530 Sharks: Realities and Myths (Minnesota Zoo)
- PSch 0860 The Young Child's Companions: Friends and Foes (Earle Brown Center)

Courses with Field Trips

- CSch 0150 Art and Connoisseurship: What is Quality in Today's Art Scene (MacPhail)
- CSch 0222 What's Wrong with Indiana Jones: Popular Archaeology (campus)

Weekend Courses

- CSW 0902 Sisters in Literature and Life (Wilder Forest)
- CSW 0903 Current Blessings, Current Grievs: A Weekend of Short Stories (Riverwood Conference Center)
- CSW 0700 Spring Wildflowers of Southeastern Minnesota (Mrs. B's, Lanesboro)



Weekend Courses

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 retreat 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.

Fall

CSW 0902 *Sisters in Literature and Life*

Winter

CSW 0801 *An Anthropological Approach to Women and Power*

CSW 0803 *Women and Sexuality: Dialogues Across the Divide*

Spring

CSW 0903 *Current Blessings, Current Grievs: A Weekend of Short Story Discussions*

CSW 0700 *Spring Wildflowers of Southeastern Minnesota*

CSW 0701 *A Weekend with Plants*

Mind and Muse

Mind and Muse is a special series of long-weekend retreats in the arts and humanities offering opportunities to combine intellectual exploration with hands-on artistic experimentation. Mind and Muse allows both non-artists and artists to expand their knowledge of their world and themselves while exploring their creativity in a supportive atmosphere.

Retreats focus on a variety of topics—from areas of current interest to themes which have fascinated people for ages. Each retreat is led by a team of outstanding scholars and artists from the University of Minnesota faculty and from across the state, and each takes place at a specially selected setting.

Fall

MiMu 0001 *Images of the Prairie*

Winter

MiMu 0002 *Tsim Layb'n! Jewish Arts and Culture of Eastern Europe*

Spring

MiMu 0003 *The Word, The Eye, The Hand: Native American Art*



Women's Lives, Women's History

Changes in women's lives and the impact of these changes on society are important and ongoing. A new mixing is happening within our work, family, and personal lives. We are discovering more about our past, present, and future. These courses offer women a sense of their own history and breadth of experience. Explore the accomplishments, philosophies, histories, roles, and issues of women through a Compleat Scholar noncredit course.

Fall

- CSch 0141 Lost Chords and Missing Measures: Women Composers
- CSch 0403 Women in Literature: The Portrayal of Women in Novels
- PSch 0808 Women's Development: Define Yourself
- PSch 0828 Career Planning for Women Who Work
- PSch 0703 Management Skills for Women
- PSch 0745 Barriers to Risk Taking for Career Women

Winter

- CSch 0280 Public Faces, Private Lives: Contemporary Women in Traditional Religion
- CSch 0403 Women in Literature: The Portrayal of Women in Novels
- CSW 0801 An Anthropological Approach to Women and Power
- CSW 0803 Women and Sexuality: Dialogues Across the Divide

Spring

- CSch 0100 Women Artists: Past and Present
- CSch 0131 Women and Performance: From the Mainstream to the Outer Limits
- CSch 0403 Women in Literature: The Portrayal of Women in Novels

Art in the Twin Cities



Minneapolis and St. Paul are rich soil for the arts. Our nationally recognized arts institutions both produce and draw compelling exhibits and performances. Heighten your listening and viewing enjoyment of the music and arts highlights in the Twin Cities during the 1991-92 season. Attend classes at the Walker Arts Center, participate in lectures and discussions focusing on recent exhibitions at the Minneapolis Institute of Arts, preview new productions of the Minnesota Opera, or take a walking tour of historic Summit Avenue in St. Paul.

Fall

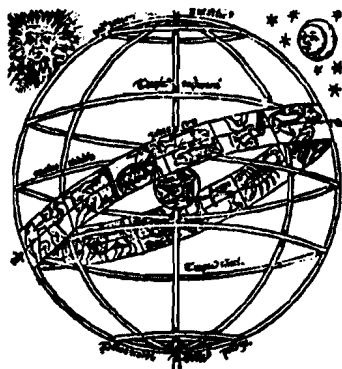
- CSch 0130 The Theatrical Art in History and Culture
- CSch 0143 Minnesota Opera Series: Tosca
- CSch 0105 Imperial Silks of the Ching Dynasty (1644-1911) (Mpls Institute of Arts)
- CSch 0138 Mozart, the Composer and the Man

Winter

- CSch 0134 A History of Jazz in America
- CSch 0101 Public Art: Redefining Art, Artist and Spectator (Walker)
- CSch 0106 Interrogating Identity: The Question of Black Art (Walker)
- CSch 0103 The American Vision and the Realist Tradition 1776-1945 (Mpls Institute of Arts)

Spring

- CSch 0144 Minnesota Opera Series: The Marriage of Figaro
- CSch 0147 Understanding Movies (Walker)
- CSch 0146 MTV: The Postmodern Pied Piper
- CSch 0137 Russian Orchestral Music and Opera of the 19th and 20th Centuries



Natural and Physical Sciences

Courses in the sciences help us understand ourselves as biological organisms and to see our place in the web of life. We can derive satisfaction and joy from observing the underlying order and beauty of the natural world.

Courses in this category include popular natural history courses (many at the Bell Museum, some at the Minnesota Zoo or the Minnesota Valley National Wildlife Refuge); courses which examine the social and political implications of scientific progress (pressures on endangered species, evaluating environmental movements, understanding the biology of AIDS); and courses in physics and astronomy (20th-century physics, nuclear physics, chaos, exploring the planets).

Fall

- CSch 0522 Isn't That Just Ducky? Waterfowl and Their Behavior
- CSch 0560 Quarks to Quasars: 20th-Century Physics
- CSch 0582 Rainbow Warriors or Ecoterrorists: How Best To Save the Planet
- CSch 0565 Visits to Small Planets and Large: The View from the Other End of the Telescope

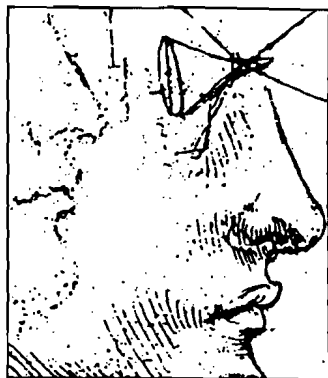
Winter

- CSch 0580 The Uncommon Ones: Pressures on Rare and Endangered Species
- CSch 0528 Introduction to Plants: Botany for Beginners
- CSch 0561 Early Days of Nuclear Physics and the Bomb: A Personal Reflection
- CSch 0530 Sharks—Realities and Myths

Spring

- CSch 0524 Basically Birds: Early Spring Ornithology
- CSch 0529 Marine Mammals: Biology and Behavior
- CSch 0570 The Science of Chaos
- CSch 0554 Minnesota's Streams and Rivers

Mind, Self, and Society



Classes grouped in this Compleat Scholar category come from a wide range of disciplines including philosophy, psychology, anthropology, and women's studies. The element linking them is their focus on human relationships—with others, with the parts of the self, and with a purpose beyond ourselves.

Fall

- CSch 0242 Mona Lisa Meets Batman: The Social Production of Art
CSch 0222 What's Wrong with Indiana Jones: Popular Archaeology
CSch 0212 The Middle East in World Politics

Winter

- CSch 0208 Lessons of the Holocaust
CSch 0230 Trust and Trustworthiness
CSch 0218 Millennium: A Journey of the Mind

Spring

- CSch 0214 The New Deal in American Society
CSch 0215 Minnesota Culture
CSch 0295 Family Images, American Dreams

The Community of Learners

Sometimes you want a little more from a class.

You want time to discuss, read, and reflect on those questions for which there are no easy answers.

Community of Learners courses bring together people who value learning to examine relevant and challenging topics. They are designed to allow time for a thoughtful consideration of the ideas and for the evolution of a personal viewpoint about important issues. Participants and faculty are actively involved in discussing the topic, raising the questions, and giving shape to the methods of answering the questions. **Community of Learners** courses in 1991-92 are:

Fall

- CSch 0293 Social Justice and Community Service

Spring

- CSch 0294 The State of our Schools: Educational Debate and the American Dream

The Compleat Scholar course offerings

The Arts

★CSch 0100 **WOMEN ARTISTS: PAST AND PRESENT.** No credit, \$78 (age 62 and MIA members, \$68).

Examination of works produced by a selection of women artists from the Renaissance to the present. Begins with an overview of the problems confronting women artists historically and proceeds to an analysis of works by period. Course format consists of slide presentation, lecture, and discussion of assigned reading. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 30)

new

cew

Spring Spec Term Sec 1 **Th**—6-8, Apr. 9-May 14 (6 meetings),
Mpls Institute of Arts, Room 305, 2400 3 Ave. S., Briggs
No late fee through Apr. 2

(Patricia Briggs is an advanced graduate student in the Department of Art History at the University of Minnesota. She has taught art history and women's studies courses)

★CSch 0101 **PUBLIC ART: REDEFINING ART, ARTIST, AND SPECTATOR.** No credit, \$71 (age 62 and WAC members, \$61).

What does public art have in common with Quattrocento Florence, Russian constructivism, the WPA, and the Minneapolis Sculpture Garden? Why is the "public" in public art a revolutionary idea? From an artist's viewpoint, examine what public art is and why it is unlike any other historical art phenomenon, noting the distinction between public art and art in public places. Using a socio-political-cultural context, follow public art from the late sixties to its surge into prominence in the eighties and nineties, and explore why so many women artists see public art as a viable strategy. Investigate the wide range of artists involved from Siah Armajani to performance artist Laurie Anderson. Explore public art as a bastion of idealism, redefining art, artist, and spectator in late 20th-century America, and why it is a meaningful direction for art in the 21st century. Students will view slides and tour the Minneapolis Sculpture Garden and the General Mills grounds. (Offered in cooperation with Walker Art Center. Limited to 70)

new

Winter Spec Term Sec 1 **Th**—6-8, Jan. 9-Feb. 6 (5 meetings),
Walker Art Center, Lecture Room, Vineland Pl.,
Mpls, Benning
No late fee through Jan. 2

(Pat Benning is a public artist currently working on the Whitewater Skylight in the new judicial building on the State Capitol grounds. She has an M.F.A. and has taught at the Minneapolis College of Art and Design)

★CSch 0102 **SITE-SPECIFIC SCULPTURE.** No credit, \$58 (age 62 and WAC members, \$48).

"Doing installation is like getting dressed in public: you don't just make something in a studio and then plop it into a space. It's my experience in the space that dictates the form a piece takes." This description of site-specific sculpture offered by Ann Hamilton will be examined as part of a course dealing with art made for designated spaces. During the period of this course, Hamilton's work will be seen in an exhibition at Walker Art Center. A brief survey of the movement and the artists involved (Walter DeMaria, Christo, James Turrell, and more) will be included. (Offered in cooperation with Walker Art Center. Limited to 70)

new

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noncredit courses

Spring Spec Term Sec 1 **Th**—1-3, May 7-28 (4 meetings),
Walker Art Center, Lecture Room, Vineland Pl.,
Mpls, Furtak
No late fee through Apr. 30

(Rosemary Furtak, former assistant professor of art history at St. Mary's College, is librarian and gallery lecturer at Walker Art Center)

★**CSch 0103 THE AMERICAN VISION AND THE REALIST TRADITION, 1776-1945.** No credit, \$71 (age 62 and MIA members, \$61).

The touring exhibition "Masterpieces of American Painting" at the Minneapolis Institute of Arts features many of the greatest realist painters in American history. Discuss the social and personal issues that inform the vision of these artists and explore the adaptability and diversity of the realist style. See the struggling new nation through the eyes of John Singleton Copley, the scientific imagination of Charles Willson Peale, and explore the landscapes of manifest destiny through Frederick Church and others. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Complete Scholar will accept registrations. Limited to a combined total of 30)

new

Winter Spec Term Sec 1 **Th**—6-8, Feb. 13-Mar. 12 (5 meetings),
Mpls Institute of Arts, Room 305, 2400 3 Ave. S.,
Haddow
No late fee through Feb. 6

(Robert Haddow is a doctoral student in the Department of Art History at the University of Minnesota. American art and culture are the focus of his studies)

★**CSch 0104 JENNY HOLZER AND THE ART OF LANGUAGE.** No credit, \$45 (no discount for persons 62 and older). \$40 for WAC members.

Over the past decade, Jenny Holzer has become internationally known for her confrontational public artworks, which pair pungent, aphoristic texts with public media such as posters, billboards, LED signs, television, T-shirts, and baseball caps. The texts, part poetry and part dogma, express Holzer's anger and despair, as well as her fear that "my nightmares have become news stories." Offered in conjunction with a Walker Art Center exhibition based upon Holzer's 1990 "Venice Biennale" installation. Focus on Holzer's use of language, her special approach to public art and political issues, and her relation to other important contemporary figures such as Barbara Kruger, Edgar Heap of Birds, and Dennis Adams. (Offered in cooperation with Walker Art Center. Limited to 70)

new

Fall Spec Term Sec 1 **W**—6-8, Oct. 2-16 (3 meetings), Walker Art Center,
Lecture Room, Vineland Pl., Mpls, Silberman
No late fee through Sept. 25

(Robert Silberman is an associate professor in the Department of Art History and director of film studies at the University of Minnesota. He is the art critic for City Pages)

★**CSch 0105 IMPERIAL SILKS OF THE CH'ING DYNASTY (1644-1911).** No credit, \$73 (age 62 and MIA members, \$63).

A survey of Chinese silk textiles spanning 2,000 years with an emphasis on Ch'ing dynasty (1644-1911) costumes to be shown in a major exhibition at the Minneapolis Institute of Arts. Lectures examine the historical development of Chinese silk, fabrication techniques, symbolic content, and use of court robes, ecclesiastical garments, opera costume, costume accessories, decorative furnishings, and pictorial hangings. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Complete Scholar will accept registrations. Limited to a combined total of 30)

new

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noncredit courses

Fall Spec Term Sec 1 **W**—10:15 a.m.-12:15, Oct. 16-Nov. 13
(5 meetings), Mpls Institute of Arts, Room 305,
2400 3 Ave. S., Jacobsen
No late fee through Oct. 9

(Dr. Robert Jacobsen is curator of Asian art at the Minneapolis Institute of Arts and adjunct professor in the Department of Art History at the University of Minnesota. A Chinese specialist, he is currently completing a major catalog of Ch'ing dynasty textiles and has organized an important exhibition of this material for the fall of 1991)

★**CSch 0106 INTERROGATING IDENTITY: THE QUESTION OF BLACK ART.** No credit, \$84 (age 62) and WAC members, \$74).

new

Examine the question of "identity" in African-American visual art from the colonial period to the contemporary art of today. Highlighting the course will be a closer look at the Harlem Renaissance of the 1920s—its artists, writers, music, films, and photography. The 1960s, another decade which spawned a rebirth of identity for African-Americans, will also be explored. How society, racism, culture, and politics have shaped the art of African-Americans over the centuries will be a central focus of the course. (Offered in cooperation with Walker Art Center. Limited to 70)

Winter Spec Term Sec 1 **W**—1-3, Jan. 8-Feb. 12 (6 meetings),
Walker Art Center, Lecture Room, Vineland Pl.,
Mpls, Copeland
No late fee through Jan. 2

(Jacqueline Copeland, an educator and art historian, is currently a member of the education staff of Walker Art Center. A college lecturer for several years in Illinois, she has prepared educational materials on "African-American Art in the 20th Century" and "Interrogating Identity" for Walker Art Center)

★**CSch 0120 THE ART OF THE URBAN BUILDING.** No credit, \$84 (age 62, \$74).

new

A city is more than a collection of buildings, streets, and people. It is an active, evolving place made up of layers of historical events. The individual urban building, as it represents a specific point in time, acts as an historical marker within the evolution of the city. Studied together, these individual buildings form a map filled with clues to the city's history. While some of these buildings persist over time and become icons for the city itself, others have a more ephemeral role and are quickly replaced. The form of the urban building reflects its role and meaning within the city, and its history can be studied to gain a greater understanding of our cities today. Slide lectures cite specific buildings and urban projects, focusing on those from the Renaissance to the present day. Discussions explore social and political events which affect the form of the city and the iconography of its architecture. (Limited to 30)

Spring Spec Term Sec 1 **T**—6-8, Apr. 7-May 12 (6 meetings), Arch 45, Miller
No late fee through Mar. 31

(Nancy Miller is an advanced graduate student in architecture at the University of Minnesota. She is interested in the history of art and architecture)

★**CSch 0121 WHITHER AMERICAN DOWNTOWNS?** No credit, \$58 (age 62 and WAC members, \$48).

new

Rallying around downtown was a prime city activity of the 1980s. Enormous financial, political, and design resources were poured into American downtowns in a frenzied effort to improve their images and shore up their commercial bases. Examine a number of local and national downtown improvement efforts, taking into account the varied constituencies for downtown spaces. Contrast the current situation of U.S. downtowns with downtowns of the past, and with selected examples from other

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noncredit courses

countries. (Offered in cooperation with Walker Art Center. Limited to 70)

Spring Spec Term Sec 1 **Th**—6-8, Apr. 2-23 (4 meetings),
Walker Art Center, Lecture Room, Vineland Pl.,
Mpls, Martin
No late fee through Mar. 26

(Judith A. Martin is the director of urban studies and an associate professor of geography at the University of Minnesota. She is the author of many books and articles concerning urban development)

CSch 0124 THE EVOLVING HOUSE. No credit, \$51 (age 62, \$41).

The concept of the ideal house has evolved over time in response to many issues, both societal and technological. Explore the assumptions underlying housing standards of the past, then use this insight to examine how we shape our homes today, and how our homes, in turn, shape us. Includes lectures, discussion groups, and a hands-on session to design one's own ideal home.

new

Fall Spec Term Sec 1 **W**—6:30-9, Oct. 2-16 (3 meetings),
FordH 70, Mahady
No late fee through Sept. 25

(Michaela Mahady is an associate architect with Mulfinger and Susanka Architects, a lecturer in the College of Architecture and Landscape Architecture at the University of Minnesota, and a designer of architectural glasswork for Pegasus Studios. Her glasswork and residential architectural work have been widely published)

CSch 0130 THEATRICAL ART IN HISTORY AND CULTURE. No credit, \$54 (age 62, \$44).

Tuition does not include theatre tickets.

Theatre has defined, reflected, challenged, and created culture throughout the course of Western history. Examine four historical contexts in which theatre has played a vital role: the festival tragedies of 5th-century B.C. Athens, the courts and public theatres of Elizabethan England, *fin de siècle* European avant-garde movements, and 20th-century performance art and media genres. Current theories on narrative, multi-culturalism, and mimesis provide a framework for understanding theatrical environments of the past. Readings in philosophy, art, history, and theatrical production will provide a context for understanding how theatre functioned in various historical settings. Course includes attending a Twin Cities area theatre performance on an agreed upon date (ticket cost not included). This performance will be discussed and evaluated in class according to its relationship to the current culture of the Twin Cities.

new

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-22 (4 meetings plus 1 theatre performance), AmundH 156, Kulhawy
No late fee through Sept. 24

(DonnaLee Kulhawy is an advanced graduate student in theatre arts at the University of Minnesota. Ms. Kulhawy has extensive experience in the theatre, including dramatic coaching and dramaturg work)

CSch 0131 WOMEN AND PERFORMANCE: FROM THE MAINSTREAM TO THE OUTER LIMITS. No credit, \$54 (age 62, \$44). *Tuition does not include theatre tickets.*

Examine the myriad contributions of American women to the field of performance in the 20th century. What is performance? What determines success? Is it possible to define a "woman playwright"? How are issues of class, race, age, feminism, and sexuality addressed in their works? Discuss three Pulitzer Prize-winning plays by women, *Crimes of the Heart*, *night Mother*, and *The Heidi Chronicles* and explore how the characters and story lines are influenced by the apparatus of commercial theatres. Study successful women playwrights including Jane Wagner (*Search for Signs of Intel-*

new

cew

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noncredit courses

ligent *Life in the Universe*) and Marsha Norman (*Getting Out*). Toward the conclusion of the course, innovative theatre on the outer edges of performance will be probed. Attend and critique a local performance.

Spring Spec Term Sec 1 **T**—6-8, Apr. 7-28 (4 meetings plus 1 theatre performance), AmundH 124, Basting
No late fee through Mar. 31

(Anne Basting is an advanced graduate student in theatre arts at the University of Minnesota. Her research interests include contemporary American theatre, women playwrights, and images of elderly women in pop culture)

★CSch 0132 CONTEMPORARY JAPANESE THEATRE: SHAKESPEARE'S PLAYS IN JAPAN.
No credit, \$41 (no discount for persons 62 and older).

In the professional Japanese theatre, Shakespeare's plays are among the most popular. This appreciation began over 100 years ago, and even now most major theatre companies include at least one Shakespeare play in their repertory every year. Examine the history of Japanese productions of Shakespeare's plays in the 19th and 20th centuries, focusing on *Ninagawa Macbeth*, directed by Yukio Ninagawa and performed last year in New York City. Ninagawa has been internationally recognized for mixing Japanese and Western culture in his adaptations of Western drama. His production will be analyzed from the perspective of performance in relation to cultural pluralism in Japanese and Western cultures. Course format includes lecture, video presentation (*Ninagawa Macbeth*), and class discussion. (Limited to 25)

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-29 (3 meetings), AmundH 158, Motoyama
No late fee through Jan. 8

(Kiyoko Motoyama is an advanced graduate student in the Department of Theatre Arts and Dance at the University of Minnesota. Ms. Motoyama received her B.A. from Japan's Women's University, where she concentrated in American theatre)

CSch 0133 19TH-CENTURY FRENCH ART SONG. No credit, \$53 (age 62, \$43).

Explore the development of the art song in France from the Restoration to World War I and its evolution from *salon* entertainment to high art. Examine the ideological, intellectual, and social context of the music's production and performance. Composers to be studied include Niedermeyer, Berlioz, Gounod, Massenet, Chausson, and Fauré. Become familiar with the music through performance by the instructors. Those who would like to perform will have the opportunity to do so.

Winter Spec Term Sec 1 **Th**—6:15-7:45, Jan. 16-Feb. 13 (5 meetings), FergH 203, Robinson, Houtz
No late fee through Jan. 9

(Peter Robinson is an associate professor in the Department of French and Italian at the University of Minnesota. Stephen Houtz is an advanced graduate student in the School of Music)

CSch 0134 A HISTORY OF JAZZ IN AMERICA. No credit, \$70 (age 62, \$60).

Trace the important development of jazz in America with special attention given to the black perspective. Identify characteristics of jazz as they relate to African and European music, learn techniques used in jazz performance, explore jazz as it relates to black history, and find out how jazz has become an international music. Class will include lecture, demonstrations, videos, and listening to many forms of jazz.

Winter Spec Term Sec 1 **T**—6:15-8:15, Jan. 14-Feb. 11 (5 meetings), FergH 203, McCurdy
No late fee through Jan. 7

(Ron McCurdy is an associate professor in both the School of Music and the Department of Afro-American and African Studies, and is director of the jazz studies program at the University of Minnesota)

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noncredit courses

★CSch 0135 THE MINNEAPOLIS SOUND: FROM THE SUICIDE COMMANDOES TO BABES IN TOYLAND. No credit, \$71 (age 62, \$61).

Since the 1980s, Minneapolis has maintained a strong national reputation for its lively rock music scene. Prince, Morris Day and the Time, Alexander O'Neil, the Replacements, Suburbs, Hüsker Dü, Soul Asylum, and the Gear Daddies are just a few of the critically acclaimed bands with roots in Minnesota. Trace the development of the Minneapolis sound from the late seventies to its heyday in the mid-eighties, and explore contemporary bands on the local scene. Class sessions will feature panel discussions with Minnesota rock critics, musicians, club owners, and record producers. Class participants will take part in panel discussions, listen to a wide range of Minnesota music, and attend and review two local concerts. (Limited to 40)

new

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-29 (5 meetings), Mpls Public Library, Room 253, 300 Nicollet Mall, Gillen
No late fee through Sept. 24

(Shawn Gillen has an M.A. in creative writing and is currently an advanced graduate student in English literature at the University of Minnesota. He is a free-lance writer and music critic for City Pages and the Minnesota Daily)

★CSch 0136 RUSSIAN ORCHESTRAL MUSIC AND OPERA OF THE 19TH AND 20TH CENTURIES. No credit, \$84 (age 62, \$74).

An exploration of Russian musical currents and styles, beginning with the 19th-century nationalist school of composers led by Glinka and Rimsky-Korsakov and continuing through the works of Prokofiev, Shostakovich, and Stravinsky. The goal is to enhance the listener's enjoyment of the bright orchestral colors, lively rhythms, and Eastern-flavored melodies of Russian music. Music is played in class. A central topic is the development of a distinctively Russian musical idiom influenced by history, folklore, and folk music, and its opposition by composers with a more Western attitude. (Limited to 40)

new

Spring Spec Term Sec 1 **Th**—10 a.m.-12, Apr. 9-May 14 (6 meetings), MacP, Gustafson
No late fee through Apr. 2

(DonnaMae Gustafson is a doctoral candidate in the School of Music at the University of Minnesota. She has taught courses in chamber music and given previews for St. Paul Chamber Orchestra audiences. Her research interests include 16th-century Italian music and theatre)

CSch 0137 AMERICAN POPULAR MUSIC: RAGTIME. No credit, \$70 (age 62, \$60).

Ragtime music is an original black American art form for the piano. During the late 1890s, a group of creative composers for the piano—namely, Turpin, Joplin, Scott, and Lamb—took traditional black materials as a point of departure and created a permanent, written, and new art form. It became a conscious aesthetic construction showing the voracious creativity and inspiration of a new black man, a new black pianist playing a new black music for America and the world. Course will discuss what ragtime is; the impact of ragtime publishing and performance on jazz; classic ragtime composers and ragtime's second line; ragtime songs and dances; ragtime style and performance; Scott Joplin's *Treemonisha*; the acceptance of ragtime music as an independent and new form of piano music of the 20th century; and Butch Thompson, a midwestern pioneer of polished and brilliant ragtime playing and editing.

new

Fall Spec Term Sec 1 **M**—6:15-8:15, Oct. 7-Nov. 4 (5 meetings), FergH 203, Riedel
No late fee through Sept. 30

(Johannes Riedel is a professor emeritus of music at the University of Minnesota, where he was the director of graduate studies in music from 1960 to 1980. Among his numerous publications are The Art of Ragtime, which he co-authored with William J. Schafer in 1973, and Soul Music, Black and White: The Influence of Black Music in the Churches)

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★CSch 0138 **MOZART: THE COMPOSER AND THE MAN.** No credit, \$84 (age 62, \$74).

new

Presented in commemoration of the 200th anniversary of the death of Wolfgang Amadeus Mozart. Examples from his operas, symphonies, concertos, chamber pieces, and sacred works are played and discussed in class, with special emphasis on their original social and historical context. Readings from Mozart's letters, family recollections, and early biographies show how his personality, childhood musical experiences, travels, and Viennese court life contributed to his musical development. Portions of the film *Amadeus* will be shown in class. Intended to honor Mozart by demonstrating his wide range of musical skills and by promoting fuller understanding of his stature as a composer. (Limited to 40)

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct 3-31 (5 meetings),
MacP, Gustafson
No late fee through Sept. 26

(DonnaMae Gustafson is a doctoral candidate in the School of Music at the University of Minnesota. She has taught courses in chamber music and given previews for St. Paul Chamber Orchestra audiences. Her research interests include 16th-century Italian music and theatre)

CSch 0139 **20TH-CENTURY POPULAR MUSIC: PERFORMING STYLES—FROM THE MINSTRELS TO THE BEATLES.** No credit, \$70 (age 62, \$60).

new

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 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 and composers. Discover the context, styles, influences, and trends of the various styles of music so popular throughout the century up to the 1960s.

Spring Spec Term Sec 1 **T**—6:15-8:15, Apr. 7-May 5 (5 meetings),
FergH 203, Fogel
No late fee through Mar. 31

(Arne Fogel is a singer, musician, actor, composer, writer, producer, and entertainment historian. He has produced and sung music jingles for Twin Cities area companies. He received a degree in theatre education from the University of Minnesota)

★CSch 0140 **FUNDAMENTALS OF MUSIC.** No credit, \$84 (age 62, \$74).

new

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. Participants find out how to listen to music perceptively and critically, and will 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. Music will be discussed and analyzed in terms of its constructive elements (melody, harmony, rhythm, timbre, medium) as well as its syntactical, structural, and formal concepts (tonality, texture, form). Pieces that are representative of a variety of forms, historical styles, media, and social functions will be studied by means of lectures, demonstrations, class discussion, and recorded music. The class focuses on the classical music traditions between the baroque and the present, but also includes musical excursions into popular and non-Western music. No previous musical experience is required. (Limited to 30)

Winter Spec Term Sec 1 **T**—10 a.m.-12, Jan. 14-Feb. 18 (6 meetings),
MacP, Malsky
No late fee through Jan. 7

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noncredit courses

(Matthew Malsky has taught music at DePaul University, Columbia College, and the University of Chicago Office of Continuing Education. He has a Ph.D. in composition from the University of Chicago)

CSch 0141 LOST CHORDS AND MISSING MEASURES: WOMEN COMPOSERS. No credit, \$70 (age 62, \$60).

cew

Women have composed and improvised music throughout history, but they have usually been invisible. Explore the lives of composers from the Middle Ages (Hildegard), the baroque period (Leonarda, Jacquet de la Guerre), the classical period (Paradis), romantic songs (Schumann, Mendelssohn), the early 20th century (Beach, Boulanger), and the present (Zwilich, Larsen). Read and discuss issues concerning the education, support systems, and performance opportunities of successful women composers. Class sessions will include listening to recordings of vocal and instrumental genres. No previous musical experience required.

Fall Spec Term Sec 1 **M**—10 a.m.-12, Sept. 30-Oct. 28 (5 meetings),
MacP, Howe
No late fee through Sept. 23

(Dr. Sondra Howe has a Ph.D. in music from the University of Minnesota. She has previously taught *Women Musicians: The Middle Ages to the 1980s*)

CSch 0142 THE BLUES: AN OVERVIEW OF THE ROOTS OF AMERICAN MUSIC. No credit, \$70 (age 62, \$60).

new

Starting with work songs, field hollers, and early rural blues pieces, explore in layman'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 **T**—6:15-8:15, Apr. 7-May 5 (5 meetings),
FergH 205, Granias
No late fee through Mar. 31

(Chris Granias is an advanced graduate student in the Department of Music at the University of Minnesota. He is the division head for class and ensemble instruction and an instructor of composition at the MacPhail Center for the Arts. He has conducted workshops on jazz rock, blues, jazz, and rags)

CSch 0143 MINNESOTA OPERA SERIES: TOSCA. No credit, \$50 (age 62, \$40).

new

Preview the Minnesota Opera's production of *Tosca*, Puccini's dramatic masterpiece. Familiarize yourself with the life of Puccini and the world he inhabited. Discover why some critics consider this to be a masterpiece of verismo and others call it a "shabby little shocker." Students will be given an overview of the opera through recorded examples. Emphasis will be placed on performance practices, both from the original productions and the current production by the Minnesota Opera. Course does not include attending a performance.

Fall Spec Term Sec 1 **W**—6:15-8:15, Oct. 2-23 (4 meetings),
FergH 203, Houtz
No late fee through Sept. 25

(Stephen Houtz is a graduate student in the School of Music at the University of Minnesota. Active as a composer, pianist, and lecturer, he is currently composer/educator and program consultant for the Minnesota Opera)

CSch 0144 MINNESOTA OPERA SERIES: THE MARRIAGE OF FIGARO. No credit, \$50 (age 62, \$40).

new

Preview the Minnesota Opera's production of *The Marriage of Figaro*, Mozart's comic

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noncredit courses

masterpiece. Familiarize yourself with the life of Mozart and the world he inhabited. Discover why the play Mozart used as his source was banned, and how he got around the censors. Students will be given an overview of the opera through recorded examples. Emphasis will be placed on performance practices, both from the original productions and the current production by the Minnesota Opera. Course does not include attending a performance.

Spring Spec Term Sec 1 **W**—6:15-8:15, Apr. 8-29 (4 meetings),
FergH 203, Houtz
No late fee through Apr. 1

(Stephen Houtz is a graduate student in the School of Music at the University of Minnesota. Active as a composer, pianist, and lecturer, he is currently composer/educator and program consultant for the Minnesota Opera)

CSch 0145 FRAME BY FRAME BY FRAME: ANIMATION AS ART AND HISTORY. No credit, \$88 (age 62, \$78).

new

Survey all that animation has to offer. An art form older than film, and always pushing the envelopes of form, animation today goes far beyond simple cartoons. Covers classic American character animation (Felix, Bugs, Betty, Mickey) as an introduction to the form; subsequent lectures present works with allegorical or abstract intentions, animation made by unusual techniques, and "modernist" works which both honor and analyze the medium's long history. The result is a full, expansive portrait of the art form in all its possibilities and uses.

Fall Spec Term Sec 1 **T**—6:15-8:45, Oct. 1-29 (5 meetings),
Arch 30, Anderson
No late fee through Sept. 24

(Phil Anderson has been teaching at the Minneapolis College of Art and Design since 1979. He is a film and video critic for City Pages, and his free-lance work has been published in numerous local, regional, and national magazines)

★**CSch 0146 MTV: THE POST-MODERN PIED PIPER.** No credit, \$70 plus \$2 special fee. Total \$72 (age 62, \$60 plus \$2 special fee. Total \$62).

new

Is MTV the pied piper of modern youth? Is it a place only for those under thirty? Is music video subversive, destructive, instructive, constructive, or discursive? Has music really changed (or changed at all) through the fifties, the sixties, the seventies, and the eighties? How has the addition of visual images to lyrics transformed the experience of music for us all? Is MTV all hype, sex, and violence? Rap, rock, and rebellion? This is an invitation to enter the world of MTV, to explore the messages in the medium through intriguing readings and viewing sessions. MTV will be approached as a popular culture phenomenon and studied from several angles: gender issues and music, musical fragmentation and the crisis of the imagination, hearing the message—banning the image, an audio-visual dilemma. MTV is an excellent resource for a "deconstructive project"—MTV does not exist in a vacuum; therefore, we can unpack the images and lay bare the influences of history, politics, social consciousness, and environmental awareness on the music industry. (Limited to 25)

Spring Spec Term Sec 1 **T**—6-8, Apr. 7-May 5 (5 meetings),
FordH 60, Olano
No late fee through Mar. 31

(Pamela Olano is an instructor in composition and women's studies at the University of Minnesota. Her work investigates the impact of the "visual" on consumers of images, the archaeology of knowledge related to gender assignments, and the cultural unconscious)

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noncredit courses

- ★CSch 0147 **INSIDE MOVIES: UNDERSTANDING CINEMA.** No credit, \$88 (age 62 and WAC members, \$78).

new

Despite the accessibility of the film experience—everyone is an expert on the movies—the cinema involves a complex mix of audio-visual technologies, appropriations from popular culture and other artistic disciplines (theatre, literature, the fine arts), and a peculiar dreamlike engagement with its audience. Examine the inner workings of this hybrid art form with a focus on film technique, the development of the classic studio style, and forays into such alternative forms as animation, the documentary, and experimental film. (Offered in cooperation with Walker Art Center. Limited to 70)

Spring Spec Term Sec 1 **W**—6:30-9, Apr. 8-May 6 (5 meetings), Walker Art Center, Lecture Room, Vineland Pl., Mpls, Jenkins
No late fee through Apr. 1

(Bruce Jenkins lectures on film in the Department of Art History at the University of Minnesota. He earned a doctorate in cinema studies from Northwestern University, and since mid-1985, he has been film/video curator at Walker Art Center)

- ★CSch 0148 **THE ART OF LAUREL AND HARDY.** No credit, \$70 (age 62, \$60).

new

Stan Laurel (1890-1965) and Oliver Hardy (1892-1957) were the most cinematic of all the classic movie comedy teams. Unlike Abbott and Costello, Martin and Lewis, or the Marx Brothers, Laurel and Hardy each were experienced film actors (Laurel was also a writer and director) before they started appearing in films together. They slowly evolved over several years into the comedy characters that we've known and cherished for 60 years. Study that evolution, and the essential relationship of the "Stan and Ollie" characters to each other and to the rest of the world within their films. Study the ways in which the team used character, timing, brilliant performance/skills, a unique and peculiar world view, and a deep understanding of the motion picture medium in the creation of their films. Extensive viewing of films and discussion of Laurel and Hardy's lives and career history round out the course. (Limited to 25)

Winter Spec Term Sec 1 **T**—6:15-8:15, Jan. 14-Feb. 11 (5 meetings), AmundH 162, Fogel
No late fee through Jan. 7

(Arne Fogel is an actor, singer, writer, broadcaster, and entertainment historian. He has appeared as an actor in several local and national TV commercials, and has written and directed many commercials for local advertisers. He received a degree in theater education from the University of Minnesota)

- ★CSch 0150 **ART AND CONNOISSEURSHIP: WHAT IS QUALITY IN TODAY'S ART SCENE?** No credit, \$78 (age 62, \$68).

Recently, the contemporary arts community has experienced considerable controversy concerning the funding and content of certain artists' work. This controversy has involved such highly esteemed organizations as the National Endowment for the Arts and the Corcoran Gallery. As a result, the arts community is re-examining the question: what is quality art? Without established guidelines for viewing contemporary art, how can the viewing public make informed aesthetic judgments? Are we simply at the mercy of the dictates of gallery dealers and the artistic elite? Do master works from history offer us criteria? View master works from history as well as contemporary works by artists from around the world, including the Twin Cities. Discuss contemporary art within the contexts of philosophy of aesthetics, formal organization, social and political action, and art history, and tour local art galleries in the Minneapolis warehouse district. (Limited to 25)

Spring Spec Term Sec 1 **W**—1-3, Apr. 8-May 13 (6 meetings), MacP, Soderman-Olson
No late fee through Apr. 1

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noncredit courses

(Marcia Soderman-Olson is a professional artist with an M.A. in art history. She is an adjunct faculty member of the Hamline University Graduate School and a lecturer in women's studies at the University of Minnesota. She has served as a museum professional for the Minnesota Museum of Art and the Minneapolis Institute of Arts)

★CSch 0155 PHOTOGRAPHY: ART AND THE CAMERA. No credit, \$69 (age 62, \$59).

An opportunity for people with little or no experience with cameras who want to learn more about photography. Includes a demonstration of equipment, films, and processing. In addition, there will be 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**—6-8, Oct. 8-Nov. 12 (6 meetings),
MacP 5, Millikan
No late fee through Oct. 1

Spring Spec Term Sec 2 **Th**—6:30-8:30, Apr. 9-May 14 (6 meetings),
Woodbury Library, 2150 Radio Dr., Woodbury,
Husom
No late fee through Apr. 2

(Jeff Millikan is a lecturer in the Division of Arts, Communication, and Philosophy in the General College at the University of Minnesota. His award-winning photography has been exhibited internationally. David Husom, lecturer in photography for the Department of Studio Arts, is a fine arts photographer with over 60 exhibits throughout the U.S. and Japan. He is also a successful commercial photographer, working with both local and national clients and appearing regularly in regional magazines and publications)

★CSch 0156 BASIC PHOTOGRAPHY I. No credit, \$98 plus \$7 special fee. Total \$105 (age 62, \$88 plus \$7 special fee. Total \$95).

Learn how to develop and print your own black and white photographs in MacPhail Center's darkroom. The darkroom will also be available for student use outside of class time. In addition, the class will cover camera usage; bring your camera to the first class. (Limited to 24)

Fall Spec Term Sec 1 **T**—6-9:45, Oct. 1-29 (5 meetings),
MacP 5, Husom
No late fee through Sept. 24

Winter Spec Term Sec 2 **T**—6-9:45, Jan. 7-Feb. 4 (5 meetings),
MacP 5, Husom
No late fee through Dec. 31

Spring Spec Term Sec 3 **W**—6-9:45, Mar. 25-Apr. 22 (5 meetings),
MacP 5, Millikan
No late fee through Mar. 18

(David Husom, lecturer in photography for the Department of Studio Arts at the University of Minnesota, is a fine arts photographer with over 60 exhibits throughout the U.S. and Japan. He is also a successful commercial photographer, working with both local and national clients and appearing regularly in regional magazines and publications. Jeff Millikan is a lecturer in the Division of Arts, Communication, and Philosophy in the General College. His award-winning photography has been exhibited internationally)

★CSch 0157 BASIC PHOTOGRAPHY II. No credit, \$98 plus \$7 special fee. Total \$105. (age 62, \$88 plus \$7 special fee. Total \$95).

Exposure to advanced darkroom techniques including pushing film, dodging and
(continued next page)

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noncredit courses

burning, contrast control, toners, hand coloring, and matting and framing. Students have access to the MacPhail darkroom both in and outside of class. This is also a good refresher course for those who wish to get back into photography. Bring black and white film to develop or negatives and paper to print to the first class. (Prereq CSch 0156 or previous darkroom experience. Limited to 24)

Fall Spec Term Sec 1 T—6-9:45, Nov. 5-Dec. 3 (5 meetings),
MacP 5, Husom
No late fee through Oct. 29

Winter Spec Term Sec 2 T—6-9:45, Feb. 11-Mar. 10 (5 meetings),
MacP 5, Husom
No late fee through Feb. 4

Spring Spec Term Sec 3 W—6-9:45, Apr. 29-May 27 (5 meetings),
MacP 5, Millikan
No late fee through Apr. 22

(David Husom, lecturer in photography for the Department of Studio Arts at the University of Minnesota, is a fine arts photographer with over 60 exhibits throughout the U.S. and Japan. He is also a successful commercial photographer, working with both local and national clients and appearing regularly in regional magazines and publications. Jeff Millikan is a lecturer in the Division of Arts, Communication, and Philosophy in the General College. His award-winning photography has been exhibited internationally)

★CSch 0158 OUTDOOR PHOTOGRAPHY. No credit, \$89 (age 62, \$79).

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 Saturday field trip (**May 2**). Suggested text: *Nature Photography* by John Shaw. (Limited to 20)

Spring Spec Term Sec 1 T—7-9, Mar. 31, Apr. 14, 28, May 12, 26
(5 meetings), CentLib 4, StP Campus, Breneman
No late fee through Mar. 24

(Don Breneman is an associate professor in the College of Agriculture at the University of Minnesota, and photographer for the Minnesota Extension Service. His work has been published in Minnesota Volunteer, Minnesota Calls, Big Sky magazine, as well as in calendars, brochures, and postcards)

★CSch 0159 ON-LOCATION PHOTOGRAPHY WORKSHOP. No credit, \$90 (age 62, \$80).

Covers the techniques and equipment necessary to meet the challenges of photographing on location for yourself, your employer, or commercial clients. Combines demonstrations, discussions, hands-on experience, and critiques of shooting under fluorescent and tungsten lighting, mixed flash/daylight, and night photography. Students will learn to shoot architectural interiors, portraits, and corporate communication type situations. Other topics include film types and formats, metering, shooting for reproduction, and the logistics of working on location and traveling with equipment. A firm basic knowledge of camera usage is required. (Limited to 25)

Spring Spec Term Sec 1 W—6:30-9:30, May 6-27 (4 meetings), MacP, Husom
No late fee through Apr. 29

(David Husom, lecturer in photography for the Department of Studio Arts at the University of Minnesota, has worked as a fine arts photographer with over 60 exhibits throughout the U.S. and Japan. He is also a successful commercial photographer, working for both local and national clients and appearing regularly in regional magazines and publications)

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noncredit courses

- ★CSch 0165 **INTRODUCTION TO PRINTMAKING.** No credit, \$115 plus \$25 course fee. Total \$140 (age 62, \$105 plus \$25 course fee. Total \$130).

Learn printing techniques for two major print mediums—intaglio and relief/photo etching. Designed for beginning students with an emphasis on the development of personal expression in each medium. Includes discussion of both technical and aesthetic considerations in creating a print, and explores different ways of approaching printmaking through examination of works in collected archives. Students are required to purchase paper and tools at an additional cost of approximately \$25. (Limited to 15)

Winter Spec Term Sec 1 **Sa**—9:30 a.m.-12:30, Jan. 11-Feb. 22
(7 meetings), ArtB 170b, Brodish
No late fee through Jan. 3

(Jerry Brodish is an advanced graduate student in the Department of Studio Arts at the University of Minnesota. He specializes in multiple-plate etching and related photo processes)

- ★CSch 0166 **CREATIVE DRAWING.** No credit, \$74 (age 62, \$64).

Learn to use the creative part of your mind and to apply the principles of design to the art of drawing. Using your 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. Course is open to all levels of drawing skill. (Limited to 25)

Spring Spec Term Sec 1 **T**—7-9, Mar. 31-May 5 (6 meetings),
JonesH 10, Kubik
No late fee through Mar. 24

(Mary Kubik is an advanced graduate student in the Department of Design, Housing, and Apparel at the University of Minnesota)

- ★CSch 0170 **STUDIO ART PAINTING IN OILS AND ACRYLICS.** No credit, \$125 (age 62, \$115).

For those interested in the enjoyment and technique of painting. Work on making personal ideas artistically satisfying by improving skills. Painting can be in acrylics or oils. Demonstrations, critiques, and discussions are included in class meetings. Instruction is varied to benefit the more advanced student as well as the beginner. Students should 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. 30-Nov. 18 (8 meetings),
ArtB 161, Safer
No late fee through Sept. 23

(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, \$125 (age 62, \$115).

Learn the basic steps in portrait painting. Disciplines in drawing, color, rendering, and creative interpretation, among others, will be covered so that the participant can acquire a firm foundation for portraiture. Work may be done 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 **W**—6:30-9, Apr. 8-May 27 (8 meetings),
ArtB 161, Safer
No late fee through Apr. 1

(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)

new

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noncredit courses

★CSch 0172 **PAINTING IN WATERCOLOR.** No credit, \$80 (age 62, \$70).

The soft pastels of watercolor blend and flow to create a dreamlike image. Learn 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. Each painter receives individual attention to encourage creativity, and group critiques help to refine your skill. (Limited to 20)

Fall Spec Term Sec 1 **W**—6:30-9, Oct. 2-30 (5 meetings),
ArtB 161, Netz
No late fee through Sept. 25

(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, \$80 (age 62, \$70)

new

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. Some experience with watercolor painting is desirable. (Limited to 20)

Spring Spec Term Sec 1 **T**—6:30-9, Apr. 7-May 5 (5 meetings),
ArtB 161, Netz
No late fee through Mar. 31

(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 0179 **THE ART OF COLOR: HANDKNITTING IN THE NINETIES.** No credit, \$63 (age 62, \$53).

The art of color handknitting has captivated the public, whether it be the trademark sweaters of the "Cosby Show" or the Kaffe Fassett shawl recently acquired by the Minneapolis Institute of Arts. Yet the combination of color and pattern has been an integral part of the handknitting tradition for over 2,000 years. Explore the evolution of color and patterning from Renaissance knitted silk waistcoats to Fair Isle jerseys to wearable knitted art of today. Lectures are complemented by technical instruction in color-knitting techniques and applied color and design theory. Basic-level knitting skills are necessary. (Limited to 25)

Fall Spec Term Sec 1 **W**—10 a.m.-12, Oct. 2-30 (5 meetings),
StCen 110, StP Campus, Hemmis
No late fee through Sept. 25

(Pat Hemmis, advanced graduate student in the Department of Design, Housing, and Apparel at the University of Minnesota, is researching the concept of "taste" in late 19th-century American life. Ms. Hemmis is a designer of wearable handknit art, some of which has been sold in the Twin Cities. She is a design historian and has taught knitting for the past twelve years)

★CSch 0180 **TRADITIONS IN HANDKNITTING: YESTERDAY AND NOW.** No credit, \$63 (age 62, \$53).

The quiet craft of handknitting is in the midst of a revolution and the dust hasn't settled yet. Explore the handknitting traditions of yesterday and their role in the revitalization
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noncredit courses

of the craft today. Slide lectures illustrate topics as varied as 19th-century lace knitting of the Shetland Isles, the knitting movie stars of the 1930s, and the "Great British Knitters," such as Kaffe Fassett and Susan Duckworth. Lectures are accompanied by hands-on demonstrations of past and present knitting techniques. Take a new look at this exciting, yet sometimes underestimated, craft. Basic-level knitting skills necessary. Bring yarn and needles. (Limited to 25)

Spring Spec Term Sec 1 **Th**—6-8, Apr. 2-30 (5 meetings),

FolH 246, Hemmis

No late fee through Mar. 26

(Pat Hemmis, advanced graduate student in the Department of Design, Housing, and Apparel at the University of Minnesota, is researching the concept of "taste" in late 19th-century American life. Ms. Hemmis is a designer of wearable handknit art, some of which has been sold in the Twin Cities. She is a design historian and has taught knitting for the past 12 years)

★**CSch 0183 THE ART OF WEAVING.** No credit, \$109 (age 62, \$99).

Experience the gentle and therapeutic art of weaving. Learn basic weaving techniques and simple patterns. Experiment with table and floor looms, and become familiar with a variety of fibers. Weave several samples of your own. While there is ample time allowed to learn floor loom techniques, students will share looms. It is important that every participant attend the first meeting. (Limited to 20)

Fall Spec Term Sec 1 **Sa**—9-11:30 a.m., Oct. 5-Nov. 23

(8 meetings), WullH 110, Smits

No late fee through Sept. 27

(Anna Smits, now retired, is a former instructor in art education at the University of Minnesota. She has a special interest in the art of weaving)

★**CSch 0190 HISTORIC MINNEAPOLIS: A WALKING TOUR.** No credit, \$27 (no discount for persons 62 and older).

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 less than 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 the following Saturday. (Limited to 25)

Spring Spec Term Sec 1 **Sa**—1-4:30, May 16 (1 meeting),

meet at Nicollet Island Park, Martin

No late fee through May 8

(Judith Martin is the coordinator of urban studies at the University of Minnesota. Her research interests include contemporary urban development and urban design, historic preservation, and urban history. She was the instructor for the the University of Minnesota Independent Study television course The Meanings of Place, and has published articles on Twin Cities festival markets)

★**CSch 0191 HISTORIC ST. PAUL: A WALKING TOUR.** No credit, \$27 (no discount for persons 62 and older).

This tour of the historic core of St. Paul, covering both downtown and Lowertown, starts and ends at the Landmark Center. We examine why the city is located where it is, how it relates not only to the residential neighborhoods ringing it but to Min-

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noncredit courses

neapolis and the world beyond. Topics we consider include the strong influence of river and railroad transportation on the original growth and landscaping of the city; the survival of the physical fabric of the city during the period of decline from the 1890s through the 1940s; the positive results of the massive federal urban renewal investment of the 1950s and 1960s; and the state of the city today. Since the mid-1970s, St. Paul has become a lively urban center with a dramatic new skyline, born of a rejuvenated spirit of civic leadership and cooperation. Wear comfortable walking shoes. Midpoint during the tour we take a break at Galtier Plaza. In case of inclement weather, the tour will be postponed to the following Saturday. (Limited to 25)

Spring Spec Term Sec 1 **Sa**—1-4:30, May 30 (1 meeting), meet at Landmark Center, Room 326, Lanegran
No late fee through May 22

(David A. Lanegran, professor of geography at Macalester College, has written several books and articles on the Twin Cities. He served for ten years on the St. Paul City Planning Commission and is president of Minnesota Landmarks, the organization that restored and operates Landmark Center)

★**CSch 0192 HISTORIC SUMMIT AVENUE: A WALKING TOUR.** No credit, \$27 (no discount for persons 62 and older).

The mansions that line lower Summit Avenue in St. Paul represent a superb collection of diverse architectural styles from the late 19th and early 20th centuries. Ranging from high Victorian to postmodern design, the houses reflect the changing tastes of their owners. This walking tour discusses the architectural style and history of the mansions along the avenue. The tour begins at the College of Associated Arts and proceeds up Summit Avenue to Dale Street. Wear comfortable walking shoes. Midpoint during the tour we take a break (location to be announced). In case of inclement weather, the tour will be postponed to Sunday, May 31. (Limited to 25)

Spring Spec Term Sec 1 **Su**—1-4:30, May 17 (1 meeting), meet at the College of Associated Arts, 344 Summit Ave., StP, Lammers
No late fee through May 8

(James Lammers is an architect/educator and former chair of the American Institute of Architects Public Education Committee. He teaches architecture for educators at the University of Minnesota)

Mind, Self, and Society

Community of Learners

Sometimes you want a little more from a class.

You want time to discuss, read, and reflect on those questions for which there are no easy answers. You want to grow in your thinking, to be surrounded by people who challenge the ordinary and look beyond the surface.

The Compleat Scholar program presents the Community of Learners, courses which bring together people who value learning to examine relevant and challenging topics. They are designed to allow time for a thoughtful consideration of ideas, and for the evolution and development of a personal viewpoint about important issues. Participants and faculty are actively involved in discussing the topic, raising the questions, and giving shape to the methods of answering the questions.

★**CSch 0293 SOCIAL JUSTICE AND COMMUNITY SERVICE.** No credit, \$98 (age 62, \$88).

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new

Can citizens' service contribute to the renewal of American society? Even before the recent profound changes in Eastern Europe and the Soviet Union, leaders in this country had begun to advocate new policies to encourage citizens to involve themselves in service to the community. President Bush's "Thousand Points of Light" initiative is complemented by the National and Community Service Act of 1990, which Congress passed with strong majorities from both sides of the aisle. The new proposals draw on ideas from the Civilian Conservation Corps (1930s), the G.I. Bill (1940s and 1950s), and the Peace Corps (1960s to the present). They add an important element of cooperation between the generations, so that young people who are serving may be mentored and coached by retired citizens. The changes in Eastern Europe and the Soviet Union open up possibilities for reductions of military expenditures and for renewal of American society that make new policies for citizens' service especially timely and important. Reflect on policy proposals for citizens' service from perspectives of history, literature, philosophy, and the social sciences. Authors to be studied include Jane Addams, Dorothy Day, W.E.B. DuBois, William James, Tillie Olsen, and C. Vann Woodward. An opportunity to engage in dialogue with students and recent college graduates who are leading a resurgence of service on college campuses. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 20)

Fall Spec Term Sec 1 **M**—10 a.m.-12, Oct. 7-Nov. 25 (6 meetings—no class Nov. 4, 18), Woman's Club of Mpls, 410 Oak Grove, Wallace
No late fee through Sept. 30

(John Wallace is a professor of philosophy at the University of Minnesota. His research and teaching are in the areas of political philosophy and the philosophy of language. He is active in community service and chairs the board of the Campus Outreach Opportunity League, a national nonprofit organization directed by recent college graduates to foster student involvement in community service)

★CSch 0294 THE STATE OF OUR SCHOOLS: EDUCATIONAL DEBATE AND THE AMERICAN DREAM. No credit, \$148 (age 62, \$138).

new

Investigate in detail the debates currently occurring over secondary and university education in America. Examine conservative, liberal, and "radical" conceptions of post-secondary education including the role of education in democratic societies; literacy, including the debates centered on "cultural literacy"; cultural pluralism; the place of teachers in defining educational goals; the shape of the humanities and social sciences curricula; the so-called "hidden curriculum"; the relation between classroom pedagogy and the development of critical thinking. There will be a course reader (photocopies of journal essays and book chapters) and one text: *Educational Debate and the American Dream: Conservatives, Liberals & Radicals Debate the Future of Education* (Harvey Holz et al., eds., 1989). Professor Richard Leppert will serve as instructor/discussion leader; several sessions may include an additional discussion leader. (Limited to 20)

Spring Spec Term Sec 1 **T**—6-8:30, Apr. 14-May 26 (7 meetings), FordH 40, Leppert
No late fee through Apr. 7

(Richard Leppert is a professor of humanities at the University of Minnesota whose work focuses on the social construction of music and visual representation and the ways that these discourses in turn mediate sociocultural formation. He also has broad interests in educational theory, pedagogy, and cultural studies)

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noncredit courses

CSch 0200 POLAND: THE LAST DECADE. No credit, \$73 (age 62, \$63).

Examine the major political, economic, social, and cultural forces as well as the principal players who helped to transform Poland over the last decade.

new **Spring Spec Term** Sec 1 **W**—6-8, Apr. 8-May 6 (5 meetings), KoltH S137
Polakiewicz
No late fee through Apr. 1

(Leonard Polakiewicz is an associate professor in the Department of Russian and East European Studies at the University of Minnesota)

★CSch 0203 THE AGE OF ARISTOCRACY: ENGLAND IN THE 18TH CENTURY. No credit, \$79 (age 62, \$69).

The 1700s were exuberant years in England, a period of economic and colonial expansion abroad and political stability at home. The aristocracy, a small group of men much interrelated by marriage, ran the government on behalf of king and commons. They also led popular taste in art, music, literature, and especially architecture, interior design, and landscape gardening, for the Georgian period was the great age of the Palladian country house, Chippendale furniture, and Adam rooms. Music could be as sublime as Handel's *Messiah* or as vulgar as Gay's *Beggar's Opera*. It was also an age of great literary figures—Swift, Pope, Sterne, Fielding, Defoe, Johnson, Richardson, Austen. If you have read their novels, poems, and essays, and wondered about the political, social, and cultural background that influenced these authors, this is an opportunity to indulge that curiosity through lectures, illustrations, and class discussions. (Limited to 25)

new

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct. 3-Nov. 7 (6 meetings),
MacP, Kulisheck
No late fee through Sept. 26

(Patricia Kulisheck is an advanced graduate student in the Department of History at the University of Minnesota. Her master's thesis dealt with the gentrification of an English village. She has lived in England while doing research, most recently for her doctoral dissertation on the life and career of an aristocratic 18th-century politician)

★CSch 0204 EUROPEAN SOCIAL HISTORY THROUGH LITERATURE: 18TH TO 20TH CENTURY. No credit, \$104 (age 62, \$94).

Examine major themes in modern social history by looking at novels, short stories, and plays. Includes the effects of the transition from traditional peasant society to modern urban life; social movements; and changes in the marriage, family, sexuality, and attitudes toward children. (Limited to 30)

new

Fall Spec Term Sec 1 **M**—1-3, Sept. 30-Nov. 11 (7 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Rudolph
No late fee through Sept. 23

(Richard Rudolph is a professor in the Department of History at the University of Minnesota. His special interest is European social history, a topic on which he has written widely)

★CSch 0205 EUROPEAN SOCIAL HISTORY THROUGH LITERATURE: 20TH CENTURY. No credit, \$104 (age 62, \$94).

Examine major themes in 20th-century social history by looking at novels, short stories, and plays. Includes social movements and revolution (e.g., fascism, communism, nationalism, racism), changes in the family, gender relations, and sexuality. (Limited to 30)

new

Spring Spec Term Sec 1 **M**—1-3, Apr. 6-May 18 (7 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Rudolph
No late fee through Mar. 30

(Richard Rudolph is a professor in the Department of History at the University of Minnesota. His special interest is European social history, a topic on which he has written widely)

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CSch 0206 POSTINDUSTRIAL SOCIETIES: TECHNOLOGICAL INNOVATION. No credit, \$64 (age 62, \$54).

new

Postindustrial societies are new social orders resulting from radical technological innovation. These societies are characterized by a sharp break with an industrial past, a break paralleling in magnitude the changes brought about by the industrial revolution. Prophecies of an emergent postindustrial society are commonplace nowadays. Topics to be covered include discussion of the social and ideological meanings of postindustrial societies as well as the way institutional life can be affected by broad sweeping technological change, how theories of postindustrial society can be alternatives to simply and haphazardly extrapolating and forecasting future trends, and what postindustrial societies are and the ways in which they differ from advanced or mature industrial societies.

Fall Spec Term Sec 1 **W**—6-8, Oct. 9-30 (4 meetings),
Law 3, Nelson
No late fee through Oct. 2

(Joel Nelson is a professor of sociology at the University of Minnesota. His teaching and research interests focus on inequality and industrial development)

CSch 0207 THE SOVIET UNION AND EASTERN EUROPE: REFORM AND REVOLUTION. No credit, \$87 (age 62, \$77).

The end of the 1980s witnessed a radical reform movement that started in Moscow with Mikhail Gorbachev's glasnost and intensified into a revolutionary fervor across all Eastern Europe. Go behind the events of this radical transformation to witness the revolutionary forces common to all the east European countries today. It will also take a more in-depth view of the experiences of each. Our six presentations will explore the following: (1) From Perestroika to Crisis in the USSR; (2) Poland From WW II to the Triumph of Solidarity; (3) Hungary From the Revolution of 1956 to Democracy in the 1990s; (4) Czechoslovakia from 1968 to the Velvet Revolution; (5) The Other Soviets—Ethnic Tensions and Nationalities; and (6) Eastern Europe in the 21st Century. Format includes lecture with audio-visual background and informal discussion.

Fall Spec Term Sec 1 **W**—7-9, Oct. 2-Nov. 6 (6 meetings),
FolH 246, Hayes
No late fee through Sept. 25

(Nick Hayes is an author, television journalist, and professor of Soviet history and international relations at Hamline University and the University of Minnesota)

CSch 0208 LESSONS OF THE HOLOCAUST. No credit, \$89 (age 62, \$79).

new

What is the meaning of the Holocaust in the modern world? Was the Nazi destruction of the Jews a unique event, an aberration, or was it the ultimate symbol of the destructiveness of the 20th century? Examine salient issues related to the Holocaust: historic and contemporary anti-Semitism; racism and genocide; the medical factor—complicity of doctors and industry; problems and rescue, with particular attention to the American position and its meaning for contemporary immigration; the Holocaust and other massacres. Features a session with a survivor of the Holocaust.

Winter Spec Term Sec 1 **T**—6:15-8:15, Jan. 14-Feb. 18 (6 meetings),
Arch 60, Feinstein
No late fee through Jan. 7

(Stephen Feinstein is a professor of history at the University of Wisconsin, River Falls, and an adjunct professor of Jewish studies at the University of Minnesota)

★CSch 0209 THE CHANGING WORLD OF THE SOVIET UNION. No credit, \$98 (age 62, \$88).

new

The crumbling of Communism within the Soviet empire is one of the most significant developments in the 20th century. In preparation for a study of the rapid sweep of
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

change in that country, students will first take a glimpse at the historical backdrop and basic power structure of the U.S.S.R. Then the class will look in detail at the basic problems the Soviet Union has been facing for the past two decades—problems that were at the heart of the recent changes. Fundamental to this issue are the responses to these problems, both by the rulers and by the Soviet people. In recounting the actual crumbling of Communism in the U.S.S.R., we are really asking the question: what happens to a Communist society when the restraints imposed by the control system are suddenly lifted or eased? The final phase of the study tries to fit the faltering of Communism in the Soviet Union within the framework of changing events in other parts of the Communist world. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct. 3-Nov. 7 (6 meetings),
Woman's Club of Mpls, 410 Oak Grove, Turner
No late fee through Sept. 26

(John Turner is a Regents' Professor Emeritus of Political Science at the University of Minnesota. He is a former executive director of the International Studies Association, and he is author or co-author of nine books and numerous contributed chapters and articles in scholarly journals)

★CSch 0210 INTRODUCTION TO SOUTHEAST ASIAN HISTORY AND CULTURES. No credit, \$86 (age 62, \$76).

Southeast Asians present a varied picture to Americans: Vietnamese gangs developing in the inner cities, a Cambodian Buddhist temple organizing in St. Paul, Hmong organic farming in northern Minnesota, and a Lao Parent Teacher Association in South High School combating racial tensions. Approach these cultures from a lively anthropological perspective, focusing on traditional life as it was known prior to 1960 and as it has been maintained by refugee communities in Minnesota and other parts of the U.S. Emphasis is on religion and healing; family life, art, food, and celebrations; and attempts to preserve culture in modern America. (Limited to 40)

new

Winter Spec Term Sec 1 **M**—10 a.m.-12, Jan. 27-Mar. 2 (6 meetings),
MacP, Moore
No late fee through Jan. 21

(Willard Moore is director of the Center for Refugee Ethnography where, with members of the Southeast Asian communities, he has co-taught courses on Southeast Asian history, languages, and cultures. He has been studying Southeast Asian refugee communities in the Twin Cities since 1985)

★CSch 0211 FLASHBACKS: THE VIETNAM WAR, FILM, AND REPRESENTATION. No credit, \$86 (age 62, \$76).

Although the fall of Saigon in 1975 officially ended the Vietnam War, American culture still exhibits signs of post-traumatic stress over it. The trauma of Vietnam can be seen in the numerous films produced about the war. Students will rent videotapes of these films and discuss them as a class. By viewing these films, analyzing how they represent war and how film productions convey ideological meanings, the class will attempt to understand how American culture has grappled with this longest and most troubling American war. (Limited to 25)

new

Fall Spec Term Sec 1 **W**—6:15-8:15, Oct 9-Nov. 13 (6 meetings),
FordH 349, Bibby
No late fee through Oct. 2

(Michael Bibby is a Ph.D. candidate in the Department of English at the University of Minnesota. His research is in poetic representations of the Vietnam War)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★CSch 0212 THE MIDDLE EAST IN WORLD POLITICS. No credit, \$98 (age 62, \$88).

new

With the war in the Persian Gulf now over, world attention is riveted on achieving stability and peace. Examine the background information on how we got there by dipping into the historical record of ignored and unredressed festering problems of the area, with the war being one of the culminating points and a catalyst to force a resolution of these problems. (Limited to 50)

Fall Spec Term Sec 1 **W**—6-8, Oct. 2-Nov. 6 (6 meetings),
AmundH 124, Farah
No late fee through Sept. 25

(Caesar Farah is chair of South Asian and Middle Eastern Studies at the University of Minnesota, and also associated with the history and religious studies departments. He has written and edited seven books on Islamic and Middle East topics. In addition, he has lectured in almost every university in the Arab world from Morocco to Iraq)

CSch 0213 A VOLATILE MIX: POLITICS AND RELIGION IN THE MIDDLE EAST. No credit, \$78 (age 62, \$68).

new

While some continued to believe that politics and religion have become fully separate spheres, late 20th-century cases such as the ongoing crises in the Middle East show that the relationship between the two continues to be of great importance. The Iranian Revolution of 1978-79, a turning point in Middle Eastern government and politics, is the most dramatic and perhaps the most fascinating example, and provides a good opportunity to explore how such relationships work. Although the period during which Iran was ruled by the Pahlavi Shahs (1925-1979) was one of rapid secularization in many spheres of life, the religious reaction to Pahlavi policies indicates the abiding power of religiously inspired ideas and movements. Examine elements of the social history of the early, medieval, and modern Islamic communities, and discover the impact of the past on the present situation in the Middle East.

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-Feb. 19 (6 meetings),
FolH 38, Azodanloo
No late fee through Jan. 8

(Heidar Azodanloo is a Ph.D. candidate in the Department of Comparative Studies in Discourse and Society at the University of Minnesota. The topic of his dissertation is "Discourses of Mobilization in Post-Revolutionary Iran")

★CSch 0214 THE NEW DEAL IN AMERICAN SOCIETY. No credit, \$89 (age 62, \$79).

Examine the way in which the New Deal has changed American society and its continuing viability in American life. The first two sessions concentrate on the various ways that the New Deal reforms changed the rules of the public game in relation to welfare, labor, and economic policy. The New Deal political consensus and its meaning are discussed as a means of understanding the nature of American interest groups politics and public policy. The challenges to the New Deal consensus during the 1950s and the 1970s constitute the subject matter of the second two sessions. From Dwight D. Eisenhower and Modern Republicanism to Richard Nixon and New Federalism, the successive challenges to the Roosevelt Revolution are examined and evaluated. The final two sessions focus on the attempts of the neoconservatives and the Reagan and Bush administrations to dismantle the New Deal edifice and to replace it with a revived free market ideology and program. What the future holds and an evaluation of the fifty-year experience with the modified welfare-warfare state conclude the course. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Spring Spec Term Sec 1 **Th**—10 a.m.-12, Apr. 2-May 7 (6 meetings),
Woman's Club of Mpls, 410 Oak Grove, Berman
No late fee through Mar. 26

Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

(Hyman Berman is a professor in the Department of History at the University of Minnesota. He is an historian of American labor and has written on the subject matter of this course in a number of books and articles. His commentaries on contemporary labor and historical problems have appeared on the editorial pages of the Minneapolis StarTribune and on the airwaves of Minnesota Public Radio and KTCA's "Almanac")

CSch 0215 MINNESOTA CULTURE. No credit, \$86 (age 62, \$76).

Telling Iowa jokes. Fishing. Going to the lake. Making hotdish. Giving standing ovations at Orchestra Hall. Electing honest politicians. At one time or another, each of these activities has been seen as an aspect of Minnesota culture, the set of beliefs and behavior characteristics of those who live in this state. Is there such a thing as Minnesota culture? If so, where does it come from and where is it going? Who identifies with it, who gets left out, and who owns it? Although Minnesota's boundaries are in many ways arbitrary, the creation of the state in 1858 affected the beliefs and behavior of those who lived here. The people who called themselves Minnesotans, influenced by climate, natural surroundings, and their own ethnic origins, gradually evolved new patterns of living their lives. Considering the diversity within our state, and the cultural characteristics Minnesotans share with other North Americans, participants explore what it means to be a part of Minnesota culture.

new

Spring Spec Term Sec 1 **M**—6-8, Apr. 6-May 11 (6 meetings),
FordH 70, Doherty, White
No late fee through Mar. 30

(Sharon Doherty is a Ph.D. candidate in cultural anthropology at the University of Minnesota. Her research interests are U.S. cultural diversity, feminist anthropology, and education. Bruce White has an M.A. in history from McGill University in Montreal and is currently a Ph.D. candidate in anthropology at the University of Minnesota. His major interests is in the ways in which Minnesotans of various backgrounds have given cultural meanings to the Minnesota environment)

***CSch 0218 MILLENIUM: A JOURNEY OF THE MIND.** No credit, \$58 (age 62, \$48).

Approaching the year 2000, we are in the final decade of a thousand years of human history. Most attempts to understand this history do so from the safety of our modern perspective, seeing events as preparation for our present way of living. Here is an alternative which seeks to better understand ourselves by imaginatively passing over into the everyday realities of other times and places within this millenium. Examine what it meant to be human, throughout the world, in 1750, in 1500, in 1250, and in 1000 A.D. Discover the ways in which we are similar to or different from those who lived earlier, and reflect both on what we may have gained and what we may have lost during the 40 generations which have lived during this period. (Limited to 35)

Winter Spec Term Sec 1 **Th**—10:15 a.m.-12:15, Jan. 16-Feb. 6 (4 meetings),
Lutheran Church of the Good Shepherd,
Red Lecture Room, 4801 France Ave. S., Edina
(park in lot south of the church and enter through
doors from parking lot), Shupe
No late fee through Jan. 9

(Dr. David A. Shupe is a program director in Extension Classes at the University of Minnesota. He has a Ph.D. in religion and culture from Syracuse University)

CSch 0220 NEW DISCOVERIES IN OLD WORLD ARCHAEOLOGY. No credit, \$85 (age 62, \$75).

new

New discoveries and new perspectives in the archaeology of Africa, Asia, and Europe are changing our ideas about the human past. Among the subjects this series of lec-
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Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

tures will explore are the significance of new discoveries of earliest humans in Africa, new evidence for the emergence of cities in the Near East, the uncovering of emperors' tombs in China, and the ways in which large-scale excavations in European cities are changing our understanding of life in the Middle Ages.

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-29 (5 meetings),
FolH 224, Wells
No late fee through Sept. 24

(Peter Wells is a professor of anthropology and director of the Center for Ancient Studies at the University of Minnesota. He is interested in recognition and treatment of modern problems through lessons of the past)

CSch 0221 ARCHAEOLOGY: WHAT IS AN ARCHAEOLOGICAL LABORATORY? No credit, \$32 (no discount for persons 62 and older).

Each summer thousands of people throughout the United States are involved in excavating a variety of archaeological sites. However, the excavation of a site is only the first step in studying the life of a people at any given place. It is in the archaeological laboratory that many of the questions that intrigue archaeologists are finally answered. This introduction to many of the methods used in archaeological laboratory work is for those with no previous involvement in archaeology. Half of the class is spent in lecture and discussion while the remainder is spent actually handling archaeological materials from several sites in Minnesota.

Winter Spec Term Sec 1 **W**—7-8:30, Jan. 8-22 (3 meetings),
Institute for Minnesota Archaeology,
3300 University Ave. S.E., Tierney Bros. Bldg,
Suite 202, Mpls, Dobbs
No late fee through Dec. 31

(Clark Dobbs, senior research archaeologist at the Institute for Minnesota Archaeology, has worked on a variety of archaeological projects throughout eastern North America. Since 1978, he has specialized in the late prehistory of southern Minnesota. Most recently, he has directed investigations at the Energy Park site near Red Wing)

CSch 0222 WHAT'S WRONG WITH INDIANA JONES: POPULAR ARCHAEOLOGY. No credit, \$65 (age 62, \$55).

Examine how archaeology and prehistory are portrayed in popular books, movies, and television as well as at museums and other public sites, and consider how and why perceptions, impressions, and stereotypes are formed. Discuss perceptions of archaeology and what archaeologists do. View excerpts from several movies and television programs. Visit an archaeological exhibit at the Science Museum of Minnesota and evaluate how the museum presents information. Includes a two-hour Saturday field trip (**Oct. 19**) to historic Fort Snelling, a site interpreted for the public on the basis of archaeological and other research. Students discuss and compare popular books or novels read during the course.

Fall Spec Term Sec 1 **T**—6:30-8:30, Oct. 1-29 (5 meetings plus 1 field trip),
AmundH 124, Withrow
No late fee through Sept. 24

(Barbara Withrow is a Ph.D. candidate in anthropology at the University of Minnesota)

CSch 0223 MENTAL DISORDER AND MENTAL HEALTH: AN ANTHROPOLOGICAL PERSPECTIVE. No credit, \$76 (age 62, \$66).

A business man becomes depressed. A young woman achieves sainthood through self-starvation in 16th-century Italy. A young Malaysian man runs amok. A woman of

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noncredit courses

the Sudan is afflicted with spirit possession. These and other examples pose interesting questions about mental disorder and its relation to society and culture. Is the Western way of cataloging and understanding mental disorder useful in historical or non-Western settings? How is mental disorder related to human nature on the one hand, and to particular cultural and social conditions on the other? Lectures and readings explore these questions, but also the nature of mental health. Examine Western and non-Western ideas about the human predicament and the quest for emotional and mental maturity.

Spring Spec Term Sec 1 **M**—6-8, Apr. 6-May 4 (5 meetings),
FordH 15, Ingham
No late fee through Mar. 30

(John Ingham is an associate professor in the Department of Anthropology at the University of Minnesota. He regularly gives seminars in psychological anthropology and has written an ethnographic monograph and various articles on Mexican folk culture)

CSch 0227 THE OCCULT TRADITION AND INTELLECTUAL HISTORY. No credit, \$65 (age 62, \$55).

new

What is the actual place of magic and occultism in Western intellectual tradition? Are the mystical and the magical exclusive property of the Orient? What legitimate connections might be made between magic and science? Read and discuss Umberto Eco's best selling novel *Foucault's Pendulum*, which illustrates the existence of an occultist intellectual tradition in tandem with the Western tradition of scientific and philosophic thought. Explore more fully the history of Western occultism and its historical and philosophical importance.

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-29 (5 meetings),
AmundH 158, Skeen
No late fee through Sept. 24

(Bradley Skeen is a graduate student in the Department of Classics and Near Eastern Studies at the University of Minnesota. His research interests include mysticism and the study of Western religion from Plato to Descartes)

★CSch 0230 TRUST AND TRUSTWORTHINESS. No credit, \$79 (age 62, \$69).

new

Drawing upon a variety of sources including philosophy, literature, feminist writers, political theorists, and students' experiences, participants examine theoretical and practical questions: When is trusting a virtue wise, and when is it wiser to distrust? What makes trust possible? What impedes trust? What counts as a betrayal of trust and why? What does it mean to be trustworthy? How can trustworthiness be determined? What are our responsibilities as moral agents with regard to trusting others and being trustworthy, and how are those responsibilities variously affected by our different positions relative to power and privilege? Students actively engage in critical analysis and reflection concerning ways in which both trusting others and being trustworthy are affected by power, privilege, and oppression. (Limited to 30)

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-Feb. 19 (6 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Potter
No late fee through Jan. 8

(Nancy Potter is an advanced graduate student in the Department of Philosophy at the University of Minnesota. Her areas of specialization are moral and political philosophy, and her research interests are currently trust and relations of power)

★CSch 0231 PRACTICAL SKILLS TO HELP EVALUATE EVERYDAY ARGUMENTS. No credit, \$92 (age 62, \$82).

new

Have you ever heard an argument, just knew something was not right, but could not figure out what it was? Everyone has skills that help to evaluate arguments. Cultivate
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noncredit courses

your own natural abilities by learning some techniques to evaluate arguments by looking at example arguments. In *Rhetoric*, Aristotle claims several advantages to the study of persuasive speaking and critical listening, including: it helps us see both sides of the issue; it helps us refute unfair arguments; and it helps us defend ourselves against those who might take advantage of their ability to persuade. Topics discussed include the function of language as a persuasive tool, informal fallacies, vagueness and ambiguity, emotional appeals, general argument structures and techniques, and diagramming the flow of natural arguments. Arguments that have actually been presented in different contexts, both in philosophy and in other disciplines, will be subjected to evaluation based on these tools. Participants are encouraged to bring in example arguments that they feel are important for group discussion and evaluation. (Limited to 30)

Fall Spec Term Sec 1 **M**—6:15-8:15, Sept. 30-Nov. 11 (7 meetings),
Arch 30, Felth
No late fee through Sept. 23

(Eric Felth is an advanced graduate student in the Department of Philosophy at the University of Minnesota. His research interests are in philosophy of language, linguistics, and formal logic. He has taught courses in logic)

★CSch 0232 FOOD FOR THOUGHT: A REVIEW OF SOME THOUGHT-PROVOKING IDEAS. No credit, \$62 (age 62, \$52).

This is not a nutrition course about calories, vitamins, and cholesterol. Rather it is a course to feed and stimulate the mind with ideas that make a difference in the life of an individual and a nation. "Some Food for Thought" is the title of a collection of essays written by the instructor that the class will read and discuss. The essays range from our personal outlooks to national and world conditions that affect us and that we can affect. Prior to the first class, students should purchase "Some Food for Thought" at Copies on Campus in the H.D. Smith Bookstore, 100 Anderson Hall, west bank campus of the University of Minnesota. (Limited to 20)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-22 (4 meetings), HHHCtr 184,
Smith
No late fee through Sept. 24

(Harlan M. Smith is a professor emeritus of economics at the University of Minnesota. Here he departs from economics to enter with the class into broader and less intimidating ranges of human thought that are of concern to almost everybody)

CSch 0233 CONFUCIAN ETHICS: A DIFFERENT PERSPECTIVE OF OUR LIFE AND SOCIETY. No credit, \$92 (age 62, \$82).

Confucius is indisputably the most influential thinker in shaping the Chinese culture. The Analects, or Collected Sayings of Confucius, have been the number one classic in Chinese scholarship since ancient times. This is an opportunity to study the thoughts of Confucius by reading the Analects. Study will focus on the following topics and issues: *Jen* (benevolence or human-heartedness), the core of Confucian doctrines; moral and material life; self-cultivation and self-respect; *hsiao* and *t'i* (love and respect for one's parents and elder brothers), and their extended application to social order; rites vs. rights; and Confucian political thoughts. Students are encouraged to take an active part in the discussions and offer their views on the practical implications of Confucian ethics.

Fall Spec Term Sec 1 **W**—6-8, Oct. 2-Nov. 13 (7 meetings),
Arch 30, Lin
No late fee through Sept. 25

(Shaoxin Lin is an advanced graduate student in the Department of Philosophy at the University of Minnesota. He is specializing in ethics and political philosophy)

Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

★CSch 0237 **ORAL TRADITIONS OF NORTH AMERICAN INDIANS.** No credit, \$92 (age 62, \$82).

Winter is the traditional time of American Indian storytelling. Indian families gathered together indoors, sharing stories and passing on cultural beliefs and values. A storyteller once said she could tell stories all winter and not repeat a single one. Storytelling is a rich heritage of Indian tribes. With the oral tradition as the medium, students learn about the belief systems of Minnesota tribes and selected other tribes. Stories from various tribes are compared. In what ways are their world views similar? How are they different? The trickster persona, present in most tribes, will be discussed. Indian storytellers will be invited to share traditional and contemporary stories. (Limited to 25)

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-Feb. 26 (7 meetings),
FordH 130, Brunette
No late fee through Jan. 8

(Pauline Brunette, a Chippewa Indian, is an advanced graduate student in American studies and an adviser to American Indian students at the University of Minnesota)

★CSch 0238 **LEGENDS AND LIES: PERSISTENT MYTHOLOGIES OF THE ANCIENT WORLD.** No credit, \$79 (age 62, \$69).

new

In both the scholarly community and in popular mythology, legends which originated in the ancient world have survived and blossomed. The rediscovery of Atlantis, for example, is from time to time announced by the supermarket tabloids. Students will explore such legends as Atlantis, the Amazons, and the Trojan War in historical context. Taking into account literary, archaeological, and artistic evidence (and the lack thereof), each legend will be unravelled in a search for its kernel of truth. (Limited to 30)

Spring Spec Term Sec 1 **M**—10 a.m.-12, Apr. 6-May 11 (6 meetings),
MacP, Edwards
No late fee through Mar. 30

(Martha Edwards is an advanced graduate student in the Department of History at the University of Minnesota. She has been studying ancient history for the past 11 years)

★CSch 0242 **MONA LISA MEETS BATMAN: THE SOCIAL PRODUCTION OF ART.** No credit, \$89 (age 62, \$79).

new

Explore a fascinating mix of perspectives on art, literature, and music. What is art today? Is it classical music, art museums, and the traditional novel? Or is it mass produced movies and rock-n-roll, or going to Walker Art Center to see the Clio Awards (the best in international advertisements)? What is an artist? How do technological, economic, and political realities of a culture influence what is called art or what artists create? Does art transcend the everyday functions of society as an ideal realm or is it (or should it be) one of those everyday functions? In order to begin to answer some of these questions, view and discuss videos which offer a reinterpretation of the Western tradition of art, discuss the status of art museums versus popular art, and look at our consumption of mass images. Read *Sula*, a novel by Toni Morrison, and see a film in which she talks about the cultural, gender, and racial aspects in that novel. Read from two music critics who challenge traditional thought about the role of music in cultural life. (Limited to 25)

Fall Spec Term Sec 1 **T**—6:30-8:30, Oct 1-Nov. 5 (6 meetings),
FordH 130, Crawford
No late fee through Sept. 24

(Claudia Crawford is an assistant professor in the Department of Humanities at the University of Minnesota)

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Courses and sections in red have limits on enrollment. See page 20.

CSch 0280 PUBLIC FACES, PRIVATE LIVES: CONTEMPORARY WOMEN IN TRADITIONAL RELIGION. No credit, \$66 (age 62, \$56).

Although the values and perspectives articulated by women and feminist theologians have received considerable scholarly attention, formal religious institutions have not incorporated them into their regular worship services or governance procedures. Does this mean that women are not challenging traditional dogmas and practices within these institutions, or does it mean that women are creating spiritual alternatives inside and outside of these institutions? What are women thinking about—good and evil, sin and salvation, the nature of the divine? Or, to explore the public/private question in another manner, are women—past and present—the kind of women that traditional religious institutions have always portrayed them to be from the pulpit? Explore these and other questions by examining film clips, literature, alternative spiritualities, and recent research conducted among Twin Cities women.

cew

Winter Spec Term Sec 1 **T**—10:15 a.m.-12:15, Jan. 14-Feb. 11 (5 meetings), Washburn Library, 5244 Lyndale Ave. S., Mpls, Wilson, Henderson
No late fee through Jan. 7

(Paula Wilson received her M.A. in systematic theology and is a Ph.D. candidate in American studies. Her scholarly work is in the area of cultural images of women in religion. Susan Henderson received her Ph.D. in American studies from the University of Minnesota. Her research involved a survey entitled "Women in the Pews")

CSch 0290 SPIES, INTRIGUE, ESPIONAGE. No credit, \$43 (no discount for persons 62 and older).

Spies. Spies. Spies. Joshua, Pinkerton, Mata Hari, Ian Fleming, and Mary, Queen of Scots. Throughout the ages, spies and spy masters have used black deeds, slights of hand, and false information to deceive their enemies. Individual lives and entire empires have been won and lost as a result of the success or failure of secret missions. Journey through history and learn how espionage has been the handmaiden of kings and emperors, presidents and prime ministers, and generals and traitors in their attempts to gain ascendancy over the opposition.

Spring Spec Term Sec 1 **T**—6-8, Apr. 7-21 (3 meetings), KoltH S139, Bachrach
No late fee through Mar. 31

(Deborah Bachrach is a post-doctoral associate in history at the University of Minnesota. She is particularly interested in the impact of intelligence on the outcomes of great military events)

★CSch 0292 CRITICAL THINKING FOR NEWS CONSUMERS. No credit, \$98 (age 62, \$88).

Do you ever get the feeling that the version of reality presented by the mass media is only a small part of the story? Most people are content to passively allow this "objective" version to shape their thinking. Get the whole story and think for yourself by studying the following topics: identifying bias in news coverage (source selection, framing the issues, selective use of facts or history), the triumph of style over substance, finding the unstated assumption, asking the unasked questions, and more. (Limited to 30)

new

Fall Spec Term Sec 1 **W**—7-9, Sept. 25-Oct. 30 (6 meetings), EBCEC 156, StP Campus, Black, Kostouros
No late fee through Sept. 18

(Eric Black is a special projects writer for the Minneapolis Star Tribune and author of Rethinking the Cold War and Our Constitution: The Myth That Binds Us. John Kostouros is a writer, teacher, and consultant who has worked as a newspaper reporter, editor, and editorial writer. He is completing an M.A. degree in mass communications)

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CSch 0293 SOCIAL JUSTICE AND COMMUNITY SERVICE.

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CSch 0294 THE STATE OF OUR SCHOOLS: EDUCATIONAL DEBATE AND THE AMERICAN DREAM

(see page 513)

CSch 0295 FAMILY IMAGES, AMERICAN DREAMS. No credit, \$85 (age 62, \$75).

new

Americans love the family but distrust it too, if our writers are to be believed. We celebrate personal freedom and at the same time yearn for the security of family life. Our attitudes toward the family reflect its changing sociology and shape our expectations and hopes for the future. Look at the idea of the family through a range of cultural expressions: paintings, plays, movies, and two classic novels, *The Awakening* and *A Death in the Family*.

Spring Spec Term Sec 1 **W**—6:30-8:30, Apr. 8-May 6 (5 meetings),
KoltH S139, Scanlan
No late fee through Apr. 1

(Tom Scanlan is an associate professor who teaches cultural history courses in the Department of Rhetoric and the Program in American Studies at the University of Minnesota)

★CSch 0299 PLANTS IN LEGEND AND LITERATURE. No credit, \$88 (age 62, \$78).

new

Enjoy a trip through magic and myth. Tree spirits, plants for expelling witches, the mistletoes and Aeneas, Balder and Washington Irving, planting by the moon, music and your plants, plants in Creation stories, charm plants, and more. Trace human efforts to control nature through magic and science, and the role plants played. Discuss how famous authors use plants for powerful literary effects. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 40)

Winter Spec Term Sec 1 **Th**—10 a.m.-12, Jan. 16-Feb. 20 (6 meetings),
Woman's Club of Mpls, 410 Oak Grove, Knutson
No late fee through Jan. 9

(Dr. Don Knutson is a lecturer in the Department of Plant Biology at the University of Minnesota. In addition to doing research on mistletoes, he is currently involved with starting a seed bank for Minnesota wild plant seeds)

Writing

★CSch 0300 FACING THE BLANK PAGE: OVERCOMING WRITER'S BLOCK. No credit, \$50 (age 62, \$40).

Participants work on exercises that silence the stifling voice that says: "What you've just written is really stupid. It's not good enough. You'll never get it done in time." Many of us have had writing used against us: "I want you to write one thousand times, 'I'll never put thumb tacks on the teacher's chair again.'" Consequently, many people learned to approach writing as if it were punishment. Writing can be fun and exciting, but it's almost always hard work, even for people who love to write. Practice techniques for getting the writing process started, and work on exercises designed to help you make progress on your own individual projects. (Limited to 25)

Fall Spec Term Sec 1 **M**—9:30-11:30 a.m., Sept. 30-Oct. 21 (4 meetings),
MacP, Moses
No late fee through Sept. 23

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(Joseph Moses has taught courses in basic writing, freshmen composition, advanced expository writing, fiction writing, overcoming writer's block, and pre-professional writing for business at the University of Minnesota, and has worked as a consulting writer of newsletters and procedures in the business community)

★CSch 0301 CREATIVE WRITING I. No credit, \$86 (age 62, \$76).

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 at authenticity of voice, at what narrators are, and at what narrators' descriptions of setting and emotion reveal about character and plot. Participants are welcome to bring in work for reading and discussion, and to talk about problems that arise while writing. (Limited to 18)

Fall Spec Term Sec 1 **W**—10 a.m.-12, Oct. 2-Nov. 13 (7 meetings),
MacP, Westmoreland
No late fee through Sept. 25

Sec 2 **T**—6:15-8:15, Oct. 1-Nov. 19 (7 meetings—no
class Nov. 5), CivMinE 214, Westmoreland
No late fee through Sept. 24

(Julie Westmoreland is an advanced graduate student in the Creative and Professional Writing Program at the University of Minnesota. She has written various articles and book reviews, and is currently working on a book)

★CSch 0302 CREATIVE WRITING II. No credit, \$86 (age 62, \$76).

Provides an opportunity for students to continue working on their creative writing in an environment that is both structured and challenging, yet relaxed and supportive. Read work by established writers and discuss students' work. Students will be encouraged to work toward completion of a creative work. Emphasis is on fiction and memoir. (Limited to 20)

Winter Spec Term Sec 1 **Th**—10 a.m.-12, Jan. 16-Feb. 27 (7 meetings),
MacP, Cooper
No late fee through Jan. 9

Sec 2 **Th**—6-8, Jan. 16-Feb. 27 (7 meetings),
LindH 320, Cooper
No late fee through Jan. 9

(Dan Cooper is a doctoral candidate in the Department of English at the University of Minnesota. He has an M.A. in creative writing and his short stories have been published in local magazines)

★CSch 0303 WHOLE-BRAINED WRITING. No credit, \$86 plus \$2 special fee. Total \$88 (age 62, \$76 plus \$2 special fee. Total \$78).

Offers fun "whole-brained" 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, and work on developing powerful writing through a sensory approach. 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, ballooning, group-writing, music-writing, spring-boarding (writing based on other writing), persona-writing, and journaling. (Limited to 20)

Fall Spec Term Sec 1 **M**—6:15-8:15, Oct. 7-Nov. 18 (7 meetings),
LindH 227, Finley
No late fee through Sept. 30

(Todd Finley is an advanced graduate student in the Creative and Professional Writing Program in the Department of English at the University of Minnesota. His novel in progress, A New Breed, is about contemporary urban American Indians)

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★CSch 0304 **JOURNAL WRITING.** No credit, \$74 plus \$4 special fee. Total \$78 (age 62, \$64 plus \$4 special fee. Total \$68).

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. 29-Dec. 3 (6 meetings),
MacP, Mucke
No late fee through Oct. 22

(Edith Mucke, assistant professor emeritus, is a former director of Continuing Education for Women at the University of Minnesota. A worldwide traveler, she has written 17 travel journals and has recently completed a book—"not an autobiography, but the genre is memoir." For ten years she has taught journal writing to students, encouraging and inspiring them to write)

★CSch 0305 **WRITING THROUGH GRIEF AND LOSS: WALK THE CIRCLE OF THE MOUNTAIN.** No credit, \$74 (age 62, \$64).

After any significant loss—death, divorce, disappointment—an individual experiences grief. Lasting from months to years, grief is our process for healing. Writing is a tool for healing and for life. Through regular writing in a journal, participants explore this tool as a means to honor our personal journeys. The page is used as a listener when our stories must be told and retold. Learn from the act of writing what our inner selves can teach us. In-class exercises 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. Participants should come to each class with an easy-writing pen and a simple notebook. (Limited to 15)

Fall Spec Term Sec 1 **Th**—6-8, Oct. 3-Nov. 14 (6 meetings—no class Oct. 31), Linden Hills Library, 2900 W. 43 St., Mpls, Johnson
No late fee through Sept. 26

(Elizabeth Johnson is an advanced graduate student in the Creative and Professional Writing Program at the University of Minnesota. She is also a nurse)

★CSch 0306 **WHODUNIT: SUSPENSE WRITING.** No credit, \$102 (age 62, \$92).

The suspense genre has taken off in recent years and everyone is reading mysteries and thrillers by such writers as Agatha Christie and Tony Hillerman. Investigate how to write good suspense fiction, including short stories and novels. Examine the tools of the trade: plot development, twists, red herrings, explosive openings, unforgettable endings. Includes recommended reading, writing exercises, and in-class workshops. Come prepared to find out whodunit. (Limited to 20)

Fall Spec Term Sec 1 **Th**—6-8, Sept. 26-Nov. 14 (8 meetings),
Lutheran Church of the Good Shepherd, Red Lecture Room, 4801 France Ave. S., Edina (park in lot south of the Church and enter through doors from parking lot), Logue
No late fee through Sept. 19

(Mary Logue has published a suspense novel, Red Lake of the Heart, short stories, and is currently working on the pilot for a television show called "Likely Suspects")

new

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★CSch 0307 **WRITING SCIENCE FICTION AND FANTASY.** No credit, \$115 (age 62, \$105).

new

For writers at any level, focus on creation through in-class exercises and a process approach. Discuss how to get started on a science fiction or fantasy story and how to follow through. Explore elements of the story—building an alternate world and populating it with believable (sometimes nonhuman) characters who have desires and conflicts (i. e., plot). Read and discuss how essays by Ursula LeGuin, Joseph Campbell, and others 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 (and hopefully publication). Participants are encouraged to distribute copies of their work (at any stage of development) to benefit from their fellow writers' insights and questions and to receive a detailed response from the instructor. A textbook (*Science Fiction Writer's Workshop-I* by Barry Longyear) and a collection of essays will be required purchases. (Limited to 15)

Winter Spec Term Sec 1 W—6-8, Jan. 8-Mar. 4 (9 meetings),
KoltH S139, Bane
No late fee through Jan. 2

(Rosanne Bane has an M.A. in English with an emphasis in writing from the University of Minnesota. She has taught writing courses at both the University and The Loft, and has completed a science fiction screenplay and is working on a science fiction novel. She edits The PHOENIX, and her short story "Manscent" has been published in Sing Heavenly Muse!)

★CSch 0308 **READING AND WRITING THE SHORT STORY.** No credit, \$79 (age 62, \$69).

Learn to write by reading well-crafted short stories and examining what makes a story work. Focusing on close readings of contemporary writers, take stories apart to identify their components, and then reconstruct them to discover how the pieces fit together to make the humming machine of a fine story. Finally, try writing a story yourself and sharing it in a supportive environment. Develop your own voice through understanding, not imitation. Students are requested to purchase text prior to first class meeting. Text: *The Signet Classic Book of Contemporary American Short Stories*, Burtan Raffel, ed. (Limited to 20)

Spring Spec Term Sec 1 T—10:15 a.m.-12:15, Apr. 7-May 12
(6 meetings), MacP, Malek
No late fee through Mar. 31

(Joyce Malek is a Ph.D. candidate in English and a short story writer. She has taught literature and composition at the University of Minnesota, and creative writing courses at both the University and At the Foot of the Mountain theatre)

★CSch 0309 **READING AND WRITING POETRY.** No credit, \$86 (age 62, \$76).

new

Focus on writing poetry while reading and discussing modern and contemporary poems written by poets of varied cultures. The poems read will generate ideas for in-class writing. There will be other exercises for in- 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)

Winter Spec Term Sec 1 T—10 a.m.-12, Jan. 14-Feb. 25 (7 meetings),
MacP, Fischer
No late fee through Jan. 7

(Elizabeth Kilde Fischer is an advanced graduate student in English at the University of Minnesota. She has taught poetry writing at the University and has had some of her poetry published)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★CSch 0310 PEPPER PODS AND DRAGONFLIES: A POETRY WORKSHOP WITH MICHAEL DENNIS BROWNE. No credit, \$60 (age 62, \$50). *Includes lunch.*

For anyone who has written down a dream, kept a journal, or dreamed of doing either, but has never written poetry, or for anyone who writes poetry already, but would like to explore ways of doing it differently and perhaps better. Or a workshop for anyone who enjoys sitting in a circle with other strangers, becoming friends through the act of writing together and maybe even risking reading those first thoughts out loud. Or for anyone who teaches poetry, but is tired of old ways and would like to discover new ones. Whatever your background, you're welcome into this circle. By the end of the day, you will have written a number of times, heard some exciting contemporary and modern poems, asked any questions you care to about poetry, and learned the names of enough books of poems and books about poems to keep you busy and warm through a Minnesota winter. (Limited to 20)

new

Fall Spec Term Sec 1 **Sa**—9:30 a.m.-4:30, Oct. 26 (1 meeting),
EBCEC 166, StP Campus, Browne
No late fee through Oct. 18

(Michael Dennis Browne is a professor of English, recipient of a 1989 Distinguished Teacher Award from the College of Liberal Arts, and director of the Program in Creative and Professional Writing at the University of Minnesota. He is the author of three published collections of poetry and many texts for music. His awards include fellowships from the National Endowment for the Arts and the Bush Foundation)

★CSch 0320 NONFICTION WRITING: PART I. No credit, \$77 (age 62, \$67).

Designed for individuals with little or no experience in nonfiction writing for publication. Includes instruction in basic writing and marketing skills, and an introduction to publishing, all provided within a supportive atmosphere. Professional writers talk with students at several sessions. (Limited to 18)

Fall Spec Term Sec 1 **W**—3:15-5:15, Oct. 2-Nov. 6 (6 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Vick
No late fee through Sept. 25

(Judith Vick has a master's degree in journalism from the University of Minnesota. She is a market consultant and the published author and editor of newspaper and magazine articles and several books)

★CSch 0321 NONFICTION WRITING: PART II. No credit, \$88 (age 62, \$78).

Students at a more advanced level of writing refine their skills and learn procedures for selling their work in magazine, newspaper, book, and corporate markets. Self-publishing is introduced. Editors and professional writers from a variety of publications talk with students at several sessions. Participants receive critiques of their work in a supportive atmosphere. (Limited to 12)

Winter Spec Term Sec 1 **W**—3-5, Jan. 15-Feb. 19 (6 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Vick
No late fee through Jan. 8

(Judith Vick has a master's degree in journalism from the University of Minnesota. She is a market consultant and the published author and editor of newspaper and magazine articles and several books)

★CSch 0322 CREATIVE ARTICLE AND ESSAY WRITING. No credit, \$90 (age 62, \$80).

Annie Dillard writes this of nonfiction: "The essay can do everything a poem can do, and everything a short story can do—everything but fake it. The essayist does what we do with our lives; the essayist thinks about actual things." Some of the possible topics

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Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

for nonfiction writing include historical, cultural, or natural events as well as personal experiences. Practice generating article ideas and refining writing skills in a supportive workshop atmosphere. Includes practical aspects of breaking into print such as the query letter. (Limited to 20)

Winter Spec Term Sec 1 **M**—6-8, Jan. 6-Feb. 24 (7 meetings—no class Jan. 20),
AmundH 162, Ashcroft
No late fee through Dec. 30

(Mary Ellen Ashcroft is an advanced graduate student in composition theory at the University of Minnesota. Her Ph.D. emphasis is women finding their writing voice)

★CSch 0350 FREE-LANCE MAGAZINE WRITING. No credit, \$92 (age 62, \$82).

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, Oct. 2-Nov. 13 (7 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Perry
No late fee through Sept. 25

(Susan Perry is a full-time, free-lance writer who has written articles for more than 100 magazines and newspapers, including Ms., USAir, Mpls./St. Paul, and The Washington Post, and is the co-author of Nightmare: Women and the Dalkon Shield and The Secrets Your Body Clocks Reveal)

★CSch 0351 WRITING A BOOK PROPOSAL. No credit, \$66 (age 62, \$56).

Designed to help writers put together a finished 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. 8-May 6 (5 meetings),
Walker Library, 2880 Hennepin Ave., Mpls, Perry
No late fee through Apr. 1

(Susan Perry is a former writer/editor for Time-Life Books and currently works full-time as a free-lance writer and editor. She is the co-author of Nightmare: Women and the Dalkon Shield and The Secrets Your Body Clocks Reveal, and has ghosted or contributed to a variety of other books)

★CSch 0352 MAGAZINE WRITING. No credit, \$102 (age 62, \$92).

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 **Th**—7-9, Apr. 9-May 28 (8 meetings), ClaOff B30,
StP Campus, Saetre, Thornton
No late fee through Apr. 2

(Sara Saetre is 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-lancer whose articles have appeared in Sports Illustrated, Glamour, Men's Health, Minnesota Monthly, and other magazines)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★**CSch 0354 ARTS REVIEWING: GETTING STARTED.** No credit, \$49 (no discount for persons 62 and older).

new

Almost everyone believes their ideas on movies, music, books, and theater are as good, if not better, than professional critics. Here's the chance to put those thoughts onto a page and have them read and critiqued by a group of other aspiring critics. Class discussion focuses on reading the work of mainstream, alternative, and local critics. Students write on the art form of their own choosing, and learn the techniques of getting published. (Limited to 20)

Winter Spec Term Sec 1 **T**—6:15-8:15, Jan. 14-Feb. 4 (4 meetings),
AmundH 158, Gillen
No late fee through Jan. 7

(Shawn Gillen is an advanced graduate student in English literature and has an M.A. in creative writing. He is a free-lance writer and music critic for City Pages and the Minnesota Daily)

★**CSch 0356 INTRODUCTION TO COPY EDITING.** No credit, \$102 (age 62, \$92).

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 copy-editing 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**—7-9, Oct. 3-Nov. 21 (8 meetings),
VinH 213, Saetre
No late fee through Sept. 26

Winter Spec Term Sec 2 **W**—1-3, Feb. 5-Mar. 25 (8 meetings),
MacP, Perry
No late fee through Jan. 29

Spring Spec Term Sec 3 **T**—6-8, Mar. 31-May 19 (8 meetings),
AmundH 162, Mederios
No late fee through Mar. 24

(Sara Saetre is an M.A. student in journalism and mass communication at the University of Minnesota. She has ten years of experience in writing and copy editing and was assistant editor of A Silence Too Loud: Family Violence, a magazine published by the School of Journalism. Susan Perry is a former writer/editor for Time-Life Books who now works full-time as a free-lance writer and editor. Richard C. Mederios is a Ph.D. candidate in English. He has taught writing and literature courses at the University and other Twin Cities institutions since 1982. He also has worked as a writing consultant and free-lance editor in academic and business contexts)

★**CSch 0357 NEWSLETTER WRITING.** No credit, \$88 (age 62, \$78).

Does your association, business, club, or organization issue a newsletter? Gain or improve newsletter skills with this course. Class sessions include lectures and discussions on how to write articles for your newsletters, how to develop skills and techniques to write informative and interesting material for your publication, how to set up a schedule, and the importance of lead sentences and paragraphs. Sources of information for articles, writing good headlines, and the kinds of information best suited for your readership. (Limited to 20)

Spring Spec Term Sec 1 **Th**—7-9, Apr. 16-May 21 (6 meetings),
HckrH 111, StP Campus, Sperbeck
No late fee through Apr. 9

(John Sperbeck is an associate professor with the Minnesota Extension Service and researches and writes articles for magazines, newspapers, and newsletters)

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noncredit courses

★CSch 0358 LAYOUT AND PASTEPUP FOR BEGINNERS. No credit, \$79 (age 62, \$69).

How to create an effective and attractive newsletter, poster, or brochure for your organization, business, or club. Techniques of layout including various formats; papers; printing processes; instant lettering and phototypesetting; art and photography; selecting type sizes and styles for legibility and readability; pasteup for camera-ready copy; and working with your printer. (Limited to 25)

Fall Spec Term Sec 1 **T**—7-9:30, Oct. 1-29 (5 meetings),
AkerH 211
No late fee through Sept. 24

(Instructor to be assigned)

★CSch 0359 HOW TO WRITE AND PUBLISH TEXTBOOKS. No credit, \$48 (no discount for persons 62 and older). Includes lunch.

If you're a teacher, you've probably said to yourself, "I could write a better textbook than the one I'm using." And you probably can, too, once you know the secrets of how it is done. In this course you will learn what publishers look for in textbook manuscripts, how to get started with your project, where and how to make contacts with book publishers, how to choose a publisher, how to present your project so that it says PUBLISH ME, how to deal with editors, how to negotiate a contract, how much work to expect, what traps and obstacles to avoid on the road to success, and what the benefits are to you of writing a textbook. (Limited to 20)

Fall Spec Term Sec 1 **Sa**—9 a.m.-4, Oct. 12 (1 meeting), EBCEC 166,
StP Campus, Runnels
No late fee through Oct. 5

(James Runnels has a Ph.D. in English from Rutgers University. He is a former manager with a college textbook publisher and currently teaches writing at Inver Hills Community College)

★CSch 0360 BROCHURE WRITING: PUTTING IT TOGETHER. No credit, \$45 (no discount for persons 62 and older).

Create an engaging and effective brochure. The plan of attack used in this introductory course includes defining the target market and how to reach more than one target with the same brochure; finding visuals on a limited budget; and working with copy layout, deadlines, and resource files. Students practice writing brochure copy with a critique of current work given for those interested. Tips are given on direct response and building packets. (Limited to 20)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-15 (3 meetings), NichH 209A,
Nereson
No late fee through Sept. 24

(Sally Nereson is an advanced graduate student in the Department of Composition and Communication at the University of Minnesota. She has extensive experience as a communications consultant with National Ag Underwriters, Fredrickson Communications, the Flagship Athletic Club, and Open Windows Inc.)

★CSch 0361 BROCHURE DESIGN: PRESENTING THOUGHTS AND IDEAS VISUALLY. No credit, \$60 (age 62, \$50)

Because many people, particularly in business environments, are increasingly reluctant to read paragraph after paragraph of dense text, we need strategies to help us ensure that our information gets read and understood. This course discusses and shows how to use document design and information mapping techniques to convey written information quickly and effectively in this age of information overload. We'll look at

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noncredit courses

some examples and then practice converting our own work into a more "visual" format. (Limited to 20)

Spring Spec Term Sec 1 **Th**—6-8, Apr. 9-30 (4 meetings), JonesH 2, Nereson

No late fee through Apr. 2

(Sally Nereson is an advanced graduate student in the Department of Composition and Communication at the University of Minnesota. She has extensive experience as a communications consultant with National Ag Underwriters, Fredrickson Communications, the Flagship Athletic Club, and Open Windows Inc.)

Literature

★CSch 0400 "THERE'S NO PLACE LIKE HOME": WOMEN WRITING ABOUT HOUSE AND HOME. No credit, \$88 (age 62, \$78).

In the 19th and 20th centuries, many women novelists have explored issues of domesticity and ideas about house and home in their work. Students read five books, each of them addressing house and home from a different perspective. Jane Austen's *Mansfield Park*, an early 19th-century novel, focuses on the estate and the protagonist's reflections on her past and present home. Louisa May Alcott's *Little Women* is a later 19th-century domestic novel that tells the story of four girls growing up in one household. Joan Chase, in *During the Reign of the Queen of Persia*, focuses on the importance of one house in Ohio and the three generations of women who inhabit it. Marilynne Robinson's *Housekeeping* reveals a fascinating revision of ideas about keeping house and raising a family. And finally, Jamaica Kincaid, in her new novel *Lucy*, explores one woman's breaking ties with her West Indian home and family and where this severing takes her. By examining a number of critical and theoretical texts about women writers, domesticity, and feminist studies, and reflecting on our own houses, homes, and families, the class should generate many questions and conclusions about the connections between house and home and the novels read. (Limited to 30)

new

Spring Spec Term Sec 1 **M**—6-8, Apr. 6-May 18 (7 meetings), Walker Library, 2880 Hennepin Ave., Mpls, Herzan

No late fee through Mar. 30

(Sandra Herzan is an advanced graduate student in the Department of English at the University of Minnesota. Her work focuses on 19th- and 20th-century women's fiction, especially coming of age stories)

★CSch 0401 MAN-MADE WOMEN: LITERATURE, EDUCATION, AND PATRIARCHY. No credit, \$88 (age 62, \$78).

Education, however liberating its potential, often involves coercion, subjugation, and the attempt by the powerful to mold those less empowered. Patriarchal culture, the rule of the fathers, is a system which maintains the power of men by controlling women's education and the public images of women. Thus the fantasy and reality of the man-made woman pervades our culture, finding an early form in the Pygmalion myth. Trace this theme from the Bible's *Genesis*, Ovid's *Metamorphoses*, and Shaw's *Pygmalion* to Austen's *Emma* and two short stories by Hoffman and Hawthorne. Students also read Thomas Hardy's *Tess of the d'Urbervilles*, and Tsitsi Dangarembga's *Nervous Conditions*. (Limited to 30)

new

Winter Spec Term Sec 1 **M**—6-8, Jan. 6-Feb. 24 (7 meetings—no class Jan. 20), Walker Library, 2880 Hennepin Ave., Mpls, Maertens

No late fee through Dec. 30

(James Maertens is an advanced graduate student in the Department of English at the University of Minnesota. He has taught composition and literature, and his research interests are feminist and psychoanalytic criticisms)

Read about abbreviations, symbols, and maps on page 64.

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★CSch 0402 **DAUGHTERS AND FATHERS.** No credit, \$88 (age 62, \$78).

new

Every woman remembers her father—both his presence and his absence in their many forms. Comprehending his influence can be the process of a lifetime. Join contemporary women authors in exploring the daughter-father relationship, which so often contains the key to a woman's understanding of herself. Selections include Eudora Welty's beautiful 1969 Pulitzer Prize-winning novel, *The Optimist's Daughter*; Toni Morrison's acclaimed *Beloved*, winner of the 1988 Pulitzer Prize; white South African writer Nadine Gordimer's *Burger's Daughter*; and a new anthology, *My Father's Daughter*, featuring selections by over 20 established contemporary women writers. We will discuss these works in detail and look at critical approaches to the daughter-father relationship. (Limited to 25)

Winter Spec Term Sec 1 **T**—6-8, Jan. 7-Feb. 18 (7 meetings), NichH 209, Fletcher
No late fee through Dec. 31

(Linda Fletcher is an advanced graduate student in the Department of English at the University of Minnesota. Her research interests include father-daughter relationships in literature)

★CSch 0403 **WOMEN IN LITERATURE: THE PORTRAYAL OF WOMEN IN NOVELS.** No credit, \$78 (age 62, \$68).

CEW

More novels have been written by men than by women, yet women are frequently the central characters. Describing the emotional, moral, and social predicaments facing women allowed novelists to explore the human condition and incidentally provide us with 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 as both permissible and desirable. This year's fall class will read and discuss two novels by George Eliot (a woman), *Mill on the Floss* and *Middlemarch*; during the winter, *Daisy Miller* and *Portrait of a Lady*, both by Henry James; and in the spring, short stories by Maupassant and Chekov. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Fall Spec Term Sec 1 **F**—10 a.m.-12, Oct. 18-Nov. 22 (6 meetings), Woman's Club of Mpls, 410 Oak Grove, Kheim
No late fee through Oct. 11

Winter Spec Term Sec 2 **F**—10 a.m.-12, Jan. 17-Feb. 21 (6 meetings), Woman's Club of Mpls, 410 Oak Grove, Kheim
No late fee through Jan. 10

Spring Spec Term Sec 3 **F**—10 a.m.-12, Apr. 24-May 29 (6 meetings), Woman's Club of Mpls, 410 Oak Grove, Kheim
No late fee through Apr. 17

(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 0404 **JANE AUSTEN'S LATER NOVELS.** No credit, \$91 (age 62, \$81).

new

"Few writers have been the object of so fervent an admiration as that which is given to Jane Austen," the distinguished critic Lionel Trilling observed. On the surface, the continuing popularity of Jane Austen might seem difficult to explain because the world of her novels, in which heroines seem content to move from drawing room to dining room to altar, seems remote from our times. And yet exploring the inner lives of Jane Austen's characters and understanding the moral problems and social tensions they encounter intensifies the experiences of our own lives no less today than in the past. Examine Austen's last three novels, *Emma*, *Northanger Abbey*, and *Persuasion*.

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noncredit courses

Although this course follows last year's CSch 0410 Jane Austen's Early Novels, students who have not taken that course are certainly welcome in this one. (Limited to 20)

Fall Spec Term Sec 1 **Th**—1-3, Oct. 3-Nov. 7 (6 meetings),
St. Anthony Park Library, 2245 Como Ave., StP,
Walzer
No late fee through Sept. 26

(Arthur Walzer has a Ph.D. in English literature. He is an associate professor in the Department of Rhetoric at the University of Minnesota, where he teaches courses in humanities, literature, and writing)

★CSch 0420 RETURN TO PARADISE: LITERATURE OF THE SOUTH PACIFIC. No credit, \$88 (age 62, \$78).

Few places on earth hold the allure of the islands of the South Pacific. Writers as diverse as Robert Louis Stevenson, Somerset Maugham, and James Michener have journeyed to this remote area in search of a fulfilling alternative to the ills of Western civilization. But the South Pacific is much more than a repository of romance for the disenchanted; it is a very real place. Contemporary writers from Samoa, Fiji, and New Zealand confront the human struggles in 20th-century paradise. Using the visions of Stevenson, Maugham, and Michener as a foundation, the class will survey works by such current writers as Albert Wendt (Samoa), Daryl Tarte (Fiji), and Keri Hulme (New Zealand) in an attempt to gain a sense of the reality of the romantic South Pacific. (Limited to 30)

new

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-Feb. 26 (7 meetings),
Lutheran Church of the Good Shepherd, Red Lecture
Room, 4801 France Ave. S., Edina (park in lot south of
the Church and enter through doors from parking lot),
Carr
No late fee through Jan. 8

(Richard Carr is an advanced graduate student in the Department of English and the director of the University of Minnesota Writing Laboratory. He served as a Peace Corps volunteer in Western Samoa for 2 years and traveled throughout the South Pacific region)

★CSch 0440 TRAVELERS AND THEIR JOURNALS. No credit, \$76 (age 62, \$66).

Explore the literature of travel from earliest times to the present against the changing backgrounds of geographical knowledge, travel technology, and literary convention. The traveler is seen not only as an observer, but also as a representative of a culture, viewing the unfamiliar through a particular set of values and assumptions. Includes the voyage of the Argonauts and Homer's *Odyssey*, pilgrim and fantasy voyages of the medieval period, and the mercantile and missionary travels of the Renaissance. The age of science produced new travel technologies and a new type of traveler, as did the age of mass literacy and mobility. Both resulted in a very different type of literature. The final type of traveler to be considered is the experimenter with earlier technologies such as Thor Heyerdahl and Timothy Severin. The course offers encouragement to its members to undertake travel journals of their own. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Spring Spec Term Sec 1 **M**—10 a.m.-12, Apr. 6-May 4 (5 meetings),
Woman's Club of Mpls, 410 Oak Grove, Parker
No late fee through Mar. 30

(John Parker is a former professor and curator of the James Ford Bell Library at the University of Minnesota. He presented a version of this course as Hist 3700 Travelers and Their Journals over KUOM Radio)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★CSch 0441 **RETHINKING HENRY JAMES.** No credit, \$75 (age 62, \$65).

new

For decades the short stories and prose of Henry James have been propped up as pillars of the Western literary cannon, but recent scholarship and writing on James reveals important new insights into the novelist and his work. Examine three of James's major novels—*Portrait of a Lady*, *The Bostonians*, and *The Golden Bowl*—and several of his tales through the lens of new scholarship. The course will pay attention to three areas of recent scholarship on James: the dynamics between his sexuality and his treatment of women in his books; his close, competitive relationship with women writers; and the appropriation of popular culture into his writing. (Limited to 30)

Spring Spec Term Sec 1 **T**—6:15-8:15, Apr. 7-May 12 (6 meetings),
Lutheran Church of the Good Shepherd, Red Lecture
Room, 4801 France Ave. S., Edina (park in lot south of
the Church and enter through doors from parking lot),
Gillen

No late fee through Mar. 31

(Shawn Gillen is an advanced graduate student in English literature and has an M.A. in creative writing)

★CSch 0442 **READING SCIENCE FICTION AND FANTASY.** No credit, \$88 (age 62, \$78).

new

Students spend time reading, discussing, and responding to some of the stories that are the benchmarks in science fiction and fantasy, selecting 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 have a partial reading list that participants will complete, so you can push 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). Course format includes a variety of classroom discussion techniques—large-group discussion, small-group discussion, and in-class freewriting. Participants shouldn't expect the instructor to play "expert"; everyone gets a shot at playing art critic in this course. (Limited to 25)

Fall Spec Term Sec 1 **W**—6-8, Oct. 2-Nov. 13 (7 meetings),
FolH 148, Bane
No late fee through Sept. 25

(Rosanne Bane has an M.A. in English with an emphasis in writing from the University of Minnesota. She's taught writing courses at both the University and The Loft, and has completed a science fiction screenplay and is working on a science fiction novel. She edits The PHOENIX and her short story "Manscent" has been published in Sing Heavenly Muse!)

★CSch 0443 **ISLANDS OF THE PSYCHE: GENDER, ADVENTURE, AND THE SEARCH FOR SELF.** No credit, \$88 (age 62, \$78).

new

The adventure is one of the oldest genres of literature, and one of the most enduring images in adventure novels is the island. Islands can symbolize human individuality—our desire to escape culture, to discover ourselves. C. G. Jung saw human development as a heroic quest for self-knowledge, wholeness, identity, and connection with others. Students will test their ideas of adventure, gender, and identity through a variety of stories with both male and female heroes: Jules Verne's *Twenty Thousand Leagues Under the Sea*, Rider Haggard's *She*, Aldous Huxley's *Island*, Virginia Woolf's *Orlando*, and Jamaica Kincaid's *Annie John*. Join this voyage into the oceans of your unconscious. (Limited to 30)

Fall Spec Term Sec 1 **W**—6-8, Oct. 2-Nov. 13 (7 meetings),
Walker Library, 2880 Hennepin Ave., Mpls,
Maertens
No late fee through Sept. 25

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

(James Maertens is an advanced graduate student in the Department of English at the University of Minnesota. He has taught composition and literature courses, and his research interests are feminist and psychoanalytic criticisms)

★CSch 0444 THE SPIRITUAL IMAGINATION: CONTEMPORARY AMERICAN FICTION AND MATTERS OF FAITH. No credit, \$88 (age 62, \$78).

new

Explore the relationship between spirituality and literature. Read fiction and some nonfiction by contemporary American writers who explore and question the spiritual and the nature of the spiritual self. Students read the fiction and essays with several questions in mind: How can literature embody and explore the spiritual? How does the search for a spiritual self manifest itself in American fiction? What does it mean to be or have a spiritual self in the modern age? What is the relationship between spirituality and aesthetics? What does this literature say about spirituality and its relationship to the nature of human existence (i.e., social issues, sexuality, morality)? Books may include Louise Erdrich's *Love Medicine*, John Irving's *A Prayer for Owen Meany*, Walker Percy's *The Moviegoer*, and Chaim Potok's *My Name is Asher Lev*. (Limited to 30)

Spring Spec Term Sec 1 **W**—6-8, Apr. 8-May 20 (7 meetings),
FordH 70, Brownlee
No late fee through Apr. 1

(James Brownlee is an advanced graduate student in the Department of English at the University of Minnesota. He specializes in 20th-century American fiction, and his research interests focus on the relationship between literature and religion)

★CSch 0445 POETS OF TIN PAN ALLEY. No credit, \$94 plus \$2 special fee. Total \$96 (age 62 and MIA members, \$84 plus \$2 special fee. Total \$86).

new

A study of the lyrics and lyricists of American popular song during its "golden age"—the years between World War I and II. Study the art of lyric writing as it developed during this period with special emphasis upon the lyrics of Irving Berlin, Ira Gershwin, Lorenz Hart, Cole Porter, Dorothy Fields, and other writers who wrote for Broadway musicals and revues, Hollywood films, and the sheet music and record industry collectively known as "Tin Pan Alley." Students learn to analyze song lyrics as a form of poetry, as part of the dramatic setting of a stage or film musical, and as words patterned in relation to music. No musical knowledge is required; students learn a few basic principles of musical notation that enable them to follow the melody of a song. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Complete Scholar will accept registrations. Limited to a combined total of 30)

Spring Sec Term Sec 1 **W**—1-3, Apr. 1-May 6 (6 meetings),
Mpls Institute of Arts, Room 305, 2400 3 Ave. S.,
Furia
No late fee through Mar. 25

(Philip Furia is a professor of English and American studies at the University of Minnesota. He has written books and articles on such modern American poets as Ezra Pound, Wallace Stevens, William Carlos Williams, and Robert Lowell. His recent book, The Poets of Tin Pan Alley: A History of America's Great Lyricists, was published by Oxford University Press)

★CSch 0446 20TH-CENTURY HEIRS OF JANE AUSTEN: A CONTINUATION. No credit, \$128 (age 62, \$118).

A continuation of last year's popular course with all new books. Jane Austen claims, "Three or four families in a country village is the very thing to work on." Novels of manners examine the manners (social conventions, customs, rules, etc.) of society
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

(the "country village" of Jane Austen) in order to discover how they reflect the moral condition of its members. These novels describe the problems confronting ordinary men and women coping with life in their respective "country village." Begin in the fall by reading *Appointment in Samarra* by John O'Hara and conclude with John Updike's *Rabbit at Rest* in the spring. Fall readings also include novels by Evelyn Waugh (*Brideshead Revisited*) and Barbara Pym. (Limited to 60)

Fall Spec Term	Sec 1	W —10 a.m.-12, Sept. 25-Dec. 4 (10 meetings—no class Nov. 27), MacP, Kheim <i>No late fee through Sept. 18</i>
	Sec 2	Th —6-8, Sept. 26-Dec. 5 (10 meetings—no class Nov. 28), FolH 114, Kheim <i>No late fee through Sept. 19</i>
Winter Spec Term	Sec 3	W —10 a.m.-12, Jan. 8-Mar. 11 (10 meetings), MacP, Kheim <i>No late fee through Jan. 2</i>
	Sec 4	Th —6-8, Jan. 9-Mar. 12 (10 meetings), FolH 114, Kheim <i>No late fee through Jan. 2</i>
Spring Spec Term	Sec 5	W —10 a.m.-12, Apr. 8-June 10 (10 meetings), MacP, Kheim <i>No late fee through Apr. 1</i>
	Sec 6	Th —6-8, Apr. 9-June 11 (10 meetings), FolH 138, Kheim <i>No late fee through Apr. 2</i>

(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 early 20th-century novel)

★CSch 0447 READING HOME: MINNESOTA LITERATURE. No credit, \$88 (age 62, \$78).

new

For people who want to read the literature of the state, whether they are new to the area or lifelong residents. Look at issues such as ethnicity (yes, ethnicity in the Scandinavian state), a sense of belonging, a sense of place, Minnesota humor, co-existence with nature, and how Minnesota literature distinguishes itself from other regional categories. A sample of possible authors includes Garrison Keillor, Gerald Vizenor, Will Weaver, Meridel Le Seur, Louise Erdrich, Sinclair Lewis, F. Scott Fitzgerald, Peg Meier, John Hasseler, Howard Mohr, and others. In addition to the readings, participants will be writing in response journals, thus creating our own Minnesota literature. Students can look forward to a variety of readings and stimulating small- and large-group discussions. (Limited to 30)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-Nov. 19 (7 meetings—no class Nov. 5), Washburn Library, 5244 Lyndale Ave. S., Mpls, Kuhne, Roll
No late fee through Sept. 24

(Michael Kuhne, a native Minnesotan, is a doctoral candidate at the University of Minnesota currently studying composition theory, cultural studies, and pedagogy. Amanda Roll is a doctoral candidate at the University of Minnesota currently working on her dissertation which focuses on Midwestern writers and issues of place. She is a British citizen who has spent the last five years living in Minnesota)

★CSch 0448 THE MAGIC MOUNTAIN: MASTERPIECE OF LITERATURE OR CRASHING BORE? No credit, \$96 (age 62, \$86).

new

Read and discuss Thomas Mann's *The Magic Mountain*, the book everyone takes on summer vacation and brings back unread. Published in 1924, it is not only symp-
(continued next page)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

omatic for the history of the Weimar Republic, but it also mirrors the spiritual condition of Europe before the outbreak of World War I. It is in many ways a realistic novel, a Bildungsroman which needs to be read and understood at various levels. We will give the text a close reading and discuss such topics as Germany and Europe before 1914, sickness and disease, love and death, the changing perceptions of time, rationalism and romanticism, music, and the use of irony in narration. (Limited to 20)

Fall Spec Term Sec 1 **W**—10:15 a.m.-12:15, Oct. 2-Nov. 6 (6 meetings), Walker Library, 2880 Hennepin Ave. S., Mpls, Hirschbach
No late fee through Sept. 25

(Frank Hirschbach recently retired after 32 years as a professor of German literature and area studies at the University of Minnesota. He served as director of the Honors Division and as chair of his department. His publications include books and articles on modern German and Austrian literature and the German Democratic Republic)

★CSch 0449 THE MYSTERY IN THE MYSTERY: DETECTIVES ON SPIRITUAL JOURNEYS.
No credit, \$63 (age 62, \$53)

Mystery writer P.D. James asserts that murder mysteries can be successful only in a culture that understands itself as being moral, and that the mystery writer has a particular responsibility to examine and reflect good and evil. Read and discuss James's *A Taste for Death* and *Talking God* by Tony Hillerman. Explore the role of the spiritual journey of Adam Dalglish and Joe Lemphorn as they work to solve a case as well as bring harmony to their private lives. Discuss questions such as what is the difference for these detectives between the evil of murder and the evil that destroys the human spirit? What effect does the confrontation of evil as detectives have on their inner struggle for personal justice? Answer these questions and grapple with James's idea that the role of the murder mystery is to mirror cultural morality. (Limited to 25)

new

Winter Spec Term Sec 1 **W**—6:30-8:30, Jan. 15-Feb. 12 (5 meetings), Woodbury Library, 1250 Radio Dr., Woodbury, Wilson
No late fee through Jan. 8

(Paula Wilson is an avid mystery reader and a Ph.D. candidate in American studies at the University of Minnesota. Her research is in the area of cultural images of women in religion)

Natural and Physical Sciences

★CSch 0500 BIG WOODS, BOREAL FOREST, AND TALLGRASS PRAIRIE: A NATURALIST'S JOURNEY THROUGH MINNESOTA. No credit, \$128 (age 62, \$118). \$115 for Bell Museum members.

Three great biomes meet in Minnesota, creating extraordinary diversity for the naturalist to explore. Learn about the species and ecological interactions that characterize the grasslands and the deciduous and boreal forests through field trips, lectures, and slides. Discover how climate and natural disturbances such as fire have interacted with soils and geology to shape the biogeography of Minnesota. A half-day Saturday field trip to Wolsfeld Woods (**Sept. 28**) visits a remnant of the "Big Woods" deciduous forest; a half-day Saturday field trip to Cedar Creek Natural History Area (**Oct. 5**) studies prairies and oak savannas. A weekend at Itasca State Park explores the north woods and peatlands (**Friday afternoon through Sunday, Oct. 18-20; an additional cost of \$12 is charged to cover lodging. Participants provide own transportation; carpooling is encouraged**). (Limited to 20)



Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Fall Spec Term Sec 1 **T—6:30-8:30, Sept. 24-Oct. 22** (5 meetings plus 3 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Ferrari
No late fee through Sept. 17

(Jim Ferrari is a doctoral student in plant ecology at the University of Minnesota. His research interests include the ecology of forest understory plants and the reconstruction of paleoenvironments)

★**CSch 0520 WINTER WILDLIFE: STUDIES IN THE FIELD.** No credit, \$106 (age 62, \$96). \$95 for Bell Museum members.

How do plants and animals survive Minnesota's winters? How do they cope with the extreme cold or find enough food? Learn about the habits and adaptations by which Minnesota's plants and animals successfully deal with the harsh demands of our winters. During field trips to two ecologically special places in the state, participants observe over-wintering birds, animal tracks, and plants in their winter condition. One half-day field trip to Cedar Creek Natural History Area (**Feb. 1**) and a four-day trip to Itasca State Park (**Friday night through Monday, Feb. 14-17**) offer a diversity of wildlife and landscape that should enhance your enjoyment of Minnesota winters for years to come. (**Lodging for three-day trip is included in the course cost; meals cost extra. Participants provide own transportation; carpooling is encouraged**) (Limited to 25)

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Winter Spec Term Sec 1 **W—7-9, Jan. 29-Feb. 12** (3 meetings plus 2 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Miller
No late fee through Jan. 22

(Jake Miller has a doctorate from the Department of Ecology, Evolution, and Behavior at the University of Minnesota, and is a field biologist with extensive research and teaching experience. His research focuses on bird behavior)

★**CSch 0521 EYE OF NEWT AND TOE OF FROG: DISCOVERING THE REPTILES AND AMPHIBIANS OF MINNESOTA.** No credit, \$47 (no discount for persons 62 and older). \$42 for Bell Museum members.

Become familiar with Minnesota's turtles, frogs, snakes, and other reptiles and amphibians. Two classroom meetings include discussion of natural history, ecological value, and conservation issues of Minnesota's reptiles and amphibians. Two half-day Saturday field trips (**evening of May 9 and afternoon of May 16**) will enable you to identify and observe these interesting animals in their natural habitat. (**Participants provide own transportation; carpooling is encouraged**) (Limited to 20)

new

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Spring Spec Term Sec 1 **Th—6:30-8:30, May 7, 14** (2 meetings plus 2 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Dorff
No late fee through Apr. 30

(Carol Dorff has an M.S. in wildlife conservation from the University of Minnesota. Her work has focused on the protection of rare species, including the state threatened Blanding's turtle)

★**CSch 0522 ISN'T THAT JUST DUCKY? WATERFOWL AND THEIR BEHAVIOR.** No credit, \$70 (age 62, \$60). \$63 for Bell Museum members.

In this land of 10,000 lakes, waterfowl are a common sight. Their migrations mark the coming of winter and the promise of spring. Learn about these fascinating birds through lectures on their biology, behavior, and conservation. Study local species as well as their northern and southern hemisphere relatives. Two half-day field trips

new



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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

(Oct. 5 and 12) concentrate on observing and understanding local waterfowl during the fall migration at area lakes, and provide an opportunity to observe ducks from around the world at a local waterfowl collection. **(Participants provide own transportation; carpooling is encouraged)** (Limited to 20)

Fall Spec Term Sec 1 **W**—7-9, Sept. 25-Oct. 16 (4 meetings plus 2 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Brewer
No late fee through Sept. 18

(Gwen Brewer received her Ph.D. in ecology and animal behavior from the University of Minnesota. She has worked extensively on waterfowl behavior in Argentina)

★**CSch 0523 NATURE IN PEN AND INK: TECHNIQUES IN NATURAL HISTORY DRAWING.** No credit, \$124 (age 62, \$114). \$112 for Bell Museum members.

Observe the natural world through the critical eyes of an artist, and transform your appreciation of nature into creative images. Examine a variety of techniques and mediums used by natural history artists and illustrators. Sharpen your drawing skills using the rich source of subject material at the Bell Museum and during two half-day Saturday field trips **(dates and times to be arranged; participants provide own transportation; carpooling is encouraged)**. This is a continuation of CSch 0543 Natural History Drawing, and students need this prerequisite or other previous drawing experience. Students must supply basic drawing materials (an additional \$10 fee is needed to cover specialized materials). (Limited to 25)

Winter Spec Term Sec 1 **T**—7-9, Jan 14-Mar. 10 (8 meetings plus 2 field trips—no class Feb. 25), BellMus 311 (use Auditorium entrance facing Church Street), Luce
No late fee through Jan. 7

(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. He has a research interest in the history of scientific illustration and has written a book and several articles on the life and art of Francis Lee Jaques)

★**CSch 0524 BASICALLY BIRDS: EARLY SPRING ORNITHOLOGY.** No credit, \$112 (age 62, \$102). \$101 for Bell Museum members.

An introduction to the basics of ornithology. In the classroom, learn the basics on relationships, behavior, and special adaptations of birds. Then take four Saturday field trips **(Apr. 4, 11, 18, 25)** to apply and observe what you have learned in class. Two half-day trips to the University of Minnesota Raptor Center and the Minnesota Zoo provide an up-close view of bird life. One full-day and one half-day field trip to the wilds of Minnesota provide an opportunity to observe birds in their natural habitats (if the timing is right, we will go to prairie chicken lekking grounds). Students need binoculars and a field guide to the birds of North America. **(Participants provide own transportation; carpooling is encouraged)** (Limited to 20)

Spring Spec Term Sec 1 **W**—7-9, Mar. 25-Apr. 22 (5 meetings plus 4 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Powell
No late fee through Mar. 18

(Abby Powell is a graduate student in the Department of Fisheries and Wildlife at the University of Minnesota. Her dissertation is on the management of endangered and/or threatened birds)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.



noncredit courses

★CSch 0525 ECOLOGY AND BEHAVIOR OF MINNESOTA'S BIRDS: LATE SPRING ORNITHOLOGY. No credit, \$112 (age 62, \$102). \$101 for Bell Museum members.

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An understanding of the ecology and behavior of birds enhances the pleasure of bird watching, and is also an ideal way to begin an interest in birds. In the classroom, study the day-to-day and yearly activities of birds, and the ways in which birds interact with their environments. On three half-day and one full-day Saturday field trips (May 2, 9, 16, 23), explore topics such as migration, breeding biology, and vocalizations of birds, and practice observation and identification of Minnesota's birds through sight, song, and habits. Binoculars and a field guide are essential for the field trips. **(Participants provide own transportation; carpooling is encouraged)** (Limited to 20)

Spring Spec Term Sec 1 **W**—7-9, Apr. 29-May 27 (5 meetings plus 4 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Cabe

No late fee through Apr. 22

(Paul Cabe is a graduate student in the Department of Ecology, Evolution, and Behavior at the University of Minnesota. He combines a lifelong interest in birding with research in the population, biology, and genetics of birds)

★CSch 0528 INTRODUCTION TO PLANTS: BOTANY FOR BEGINNERS. No credit, \$72 (age 62, \$62). \$65 for Bell Museum members.

new

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Designed as an overview of the structure and function of plants. Discussion topics include taxonomy and classification; external and internal anatomy of leaves, roots, and stems; and plant life cycles. Explore the mysteries of growth, flowering, seed formation, and germination. Soil/plant interactions, the nature of soils, environmental adaptation, and plant associations are covered. (Limited to 25)

Winter Spec Term Sec 1 **T**—6:30-8:30, Jan. 7-Feb. 11 (6 meetings), BellMus 3 (use Auditorium entrance facing Church Street), Burrell

No late fee through Dec. 31

(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has an M.S. in horticulture and is currently a graduate student in landscape architecture at the University of Minnesota. He has a lifelong interest in the growing and propagation of native plants)

★CSch 0529 MARINE MAMMALS: BIOLOGY AND BEHAVIOR. No credit, \$42 plus \$3 special fee. Total \$45 (no discount for persons 62 and older). \$37 plus \$3 special fee. Total \$40 for Minnesota Zoo members.

new

Of all animals, few are held in as much awe as those that live in the sea, particularly cetaceans. Explore the unique adaptations of marine mammal groups, including social organization, behavior, and learning. Students have the opportunity to closely observe bottlenose dolphins during a behind-the-scenes tour with the 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 2, 9 (2 meetings), Minnesota Zoo, 13000 Zoo Boulevard, Apple Valley (meet in lobby), Ellis-Joseph

No late fee through Apr. 24

(Dr. Sue Ellis-Joseph is a conservation/education specialist at the Minnesota Zoo, with broad experience in marine mammal biology, behavior, and conservation)

★CSch 0530 SHARKS: REALITIES AND MYTHS. No credit, \$42 plus \$3 special fee. Total \$45 (no discount for persons 62 and older). \$37 plus \$3 special fee. Total \$40 for Minnesota Zoo members.

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Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

Sharks are perhaps the least understood member of the animal kingdom. For countless years they have inspired fear, fascination, and a daunting array of misconceptions. Dispel the myths and learn the truth about this fascinating marine creature while focusing on the latest research. Examine shark behavior, biology, commercial uses, and looming threats to their survival. Observe closely several species of reef sharks and tour behind-the-scenes of the Minnesota Zoo's new coral reef exhibit. (Offered in cooperation with the Minnesota Zoo. Limited to 20)

Fall Spec Term Sec 1 **Sa**—9 a.m.-12:30, Nov. 9, 16 (2 meetings),
Minnesota Zoo, 13000 Zoo Blvd., Apple Valley
(meet in lobby), Ellis-Joseph
No late fee through Nov. 7

Winter Spec Term Sec 2 **Sa**—9 a.m.-12:30, Feb. 1, 8 (2 meetings),
Minnesota Zoo, 13000 Zoo Blvd., Apple Valley
(meet in lobby), Ellis-Joseph
No late fee through Jan. 24

(Dr. Sue Ellis-Joseph is an education specialist at the Minnesota Zoo, with broad experience in marine biology and a special interest in shark and coral reef conservation)

★CSch 0531 NATURAL HISTORY AND MANAGEMENT OF TRUMPETER SWANS: A CASE STUDY OF A THREATENED SPECIES. No credit, \$82 (age 62, \$72). \$74 for Bell Museum members.

A detailed overview of the behavior, ecology, and management of Trumpeter Swans. Life history information focuses on habitat needs, breeding behavior, and feeding ecology, with most presentations drawn from field observations of wild Trumpeters in Alaska, Minnesota, and the Rocky Mountains. Discussion includes efforts currently underway to restore breeding birds throughout the species' historic range, including past successes and future prospects. Two field trips: a half-day trip (**Oct. 26**) to Henepin parks to observe breeding Trumpeter Swans, hopefully with cygnet swans; and a half-day trip to Weaver Bottoms (south of Red Wing, **Nov. 23**) to witness the stopover of 5,000 to 10,000 migrating Tundra, and a few Trumpeter Swans (**participants provide own transportation; carpooling is encouraged**). A packet of materials for this course can be purchased at Kinko's, 306 15 Ave. S.E., Minneapolis. (Limited to 25)

new

BELL
MUSEUM
COURSE



Fall Spec Term Sec 1 **W**—7-9, Oct. 23-Nov. 20 (5 meetings plus 2 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Henson
No late fee through Oct. 16

(Paul Henson is a Ph.D. student in wildlife conservation at the University of Minnesota. Trumpeter Swan breeding behavior and management is the subject of his dissertation. He has a B.A. in environmental studies and natural history from the University of California)

★CSch 0532 ANIMAL BEHAVIOR. No credit, \$72 (age 62, \$62). \$62 for Minnesota Zoo members.

The behavior of animals is much more complex than most people realize. This class, held at the Minnesota Zoological Gardens, uses a multifaceted approach to learning about animals: lectures, movies, demonstrations, and an animal-of-the-day. Subjects include the why and how questions of animal behavior, learning and conditioning, courtship and reproductive behavior, territoriality and dominance hierarchies, play, and the costs and benefits of social and solitary living. Many of the topics are vividly demonstrated by observing some of the zoo inhabitants, i.e., marine mammals, macaques, ducks, gibbons, etc. (Offered in cooperation with the Minnesota Zoo. Limited to 25)

new

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Fall Spec Term Sec 1 **Sa**—10 a.m.-12, Oct. 12-Nov. 16 (6 meetings),
Minnesota Zoo, 13000 Zoo Blvd., Apple Valley
(meet in lobby), Evarts
No late fee through Oct. 4

(Susan Evarts received her Ph.D. in animal behavior from the University of Minnesota. Her research interests include mating systems and breeding behavior of waterfowl)

★CSch 0533 WORLD OF GREEN: HOW PLANTS WORK. No credit, \$88 (age 62, \$78).

Provides a firm understanding of green plants—where they came from, how they do their wonderful things. Discuss the plants that live intimately with various unrelated creatures, and how plants tell time, communicate, defend, and heal themselves. Gain an understanding of the work of Charles Darwin, Barbara McClintock, and other giants in this field. Other topics include preventing species extinction and bio-technology. (Limited to 30)

new

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct. 10-Nov. 14 (6 meetings),
Lutheran Church of the Good Shepherd, Red Lecture
Room, 4801 France Ave. S., Edina (park in lot south of
the Church and enter through doors from parking lot),
Knutson
No late fee through Oct. 3

(Dr. Don Knutson is a lecturer in the Department of Plant Biology at the University of Minnesota. In addition to doing research on mistletoes, he is currently involved with starting a seed bank for Minnesota wild plant seeds)

★CSch 0534 FALL WILDFLOWERS AND GRASSES OF MINNESOTA. No credit, \$82 (age 62, \$72). \$74 for Bell Museum members.

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. Special emphasis is given to distinguishing asters, goldenrods, and grasses using field guides and simple keys. Identification skills will be sharpened through keying plants by their showy seed heads and fruits. Two half-day field trips (**Sept. 14** and **28**; locations dependent on where plants are in bloom. **Participants provide own transportation; carpooling is encouraged**). (Limited to 25)



Fall Spec Term Sec 1 **Th**—6:30-8:30, Sept. 12-Oct. 10 (5 meetings plus 2
field trips), BellMus 3 (use Auditorium entrance facing
Church Street), Burrell
No late fee through Sept. 5

(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has an M.S. in horticulture and is currently a graduate student in landscape architecture at the University of Minnesota. He has a lifelong interest in the growing and propagation of native plants)

★CSch 0535 A CELEBRATION OF THE SEASON: SPRING WILDFLOWERS OF MINNESOTA. No credit, \$104 (age 62, \$94). \$94 for Bell Museum members.

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. 25**, **May 16**) and one all-day Saturday field trip (**May 9**) enable participants to test their botanical skills in three flower-rich areas (locations of field trips dependent on conditions). (Limited to 25)



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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

Spring Spec Term Sec 1 **T**—6:30-8:30, Apr. 14-May 12 (5 meetings plus 3 field trips), BellMus 3 (use Auditorium entrance facing Church Street), Burrell
No late fee through Apr. 7

(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has an M.S. in horticulture and is currently a graduate student in landscape architecture at the University of Minnesota. He has a lifelong interest in the growing and propagation of native plants)

★CSch 0540 THE BIOLOGY OF AIDS. No credit, \$60 (age 62, \$50).

As of December 31, 1990, there were 161,073 reported cases of AIDS (acquired immune deficiency syndrome) in the U.S., with 100,000 deaths. It is estimated that over a million people in this country are infected with the virus that causes the disease for which there is currently no cure. The focus of this short course is the basic biology of AIDS. Topics include: history of the disease; basic immunology; origin of the AIDS virus; biochemistry of DNA, RNA, and proteins; biochemical structure, function, and life cycles of viruses; how the AIDS virus disrupts the immune system; opportunistic diseases (the "real killers"); treatments; and AIDS-related viruses. This course is intended for the general public and presumes no prior detailed knowledge of biology or biochemistry. (Limited to 40)

new

Winter Spec Term Sec 1 **W**—6:30-8:30, Feb. 5-26 (4 meetings), MoosT 2-650, Peifer
No late fee through Jan. 29

(Rick Peifer is assistant to the director for the General Biology Program at the University of Minnesota. He teaches courses in introductory biology)

★CSch 0550 MINNESOTA GEOLOGY: AN INTRODUCTION TO YOUR SURROUNDINGS. No credit, \$148 (age 62, \$138). \$133 for Bell Museum members.

Despite its tame topography, Minnesota has had an active and varied geological history, including mountain ranges, inland seas, volcanoes, and glaciers. A review of the evidence for these geologic events is presented in lectures illustrated with slides, films, and maps. Appropriate rock and fossil material is on hand for discussions. Three field trips cover much of Minnesota's geologic past: a half-day trip to local areas (**Apr. 4**), one all-day trip to southeastern Minnesota (**Apr. 25**), and a weekend trip to the North Shore (**May 9-10**; **camping equipment required for overnight stay at Jay Cooke State Park. Extra cost for state park permit and camping fee. Participants provide own transportation; carpooling is encouraged**). (Limited to 25)

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Spring Spec Term Sec 1 **Th**—7-9, Apr. 2-May 7 (6 meetings plus 3 field trips), FordH 185, Seal
No late fee through Mar. 26

(Rebecca Seal is a doctoral student in the Department of Geology and Geophysics at the University of Minnesota. Her research interests include rivers, fluid dynamics, and sedimentology)

★CSch 0551 GOING UNDERGROUND: GEOLOGY AND ECOLOGY OF CAVES. No credit, \$62 plus \$4 special fee. Total \$66 (age 62, \$52 plus \$4 special fee. Total \$56). \$56 plus \$4 special fee. Total \$60 for Bell Museum members.

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Explore the fascinating world of caves. Learn how caves are formed and examine the organisms that inhabit them. Discuss the geological processes of cave development and their impact on the surrounding terrain; cave fauna and their unique adaptations to a subterranean environment; the history of cave exploration; and issues concerning cave conservation and management. A full-day field trip of natural caves (**Oct. 26**)

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noncredit courses

provides an opportunity to examine cave formations and cave life typical of the Upper Midwest. (**Participants provide own transportation; car pooling is encouraged**) (Limited to 25)

Fall Spec Term Sec 1 T—6:30-8, Oct. 15-29 (3 meetings plus one field trip), Arch 25, Alexander, Nordquist
No late fee through Oct. 8

(E. Calvin Alexander, Jr. is a professor in the Department of Geology and Geophysics at the University of Minnesota with extensive research experience in karst geology. Gerda Nordquist is animal coordinator for the Minnesota County Biological Survey and has studied bats in Minnesota for several years)

CSch 0554 MINNESOTA'S STREAMS AND RIVERS. No credit, \$106 (age 62, \$96).

Consists of a brief discussion of the basic ecology of flowing waters, including plants and animals inhabiting streams, the functioning of the stream ecosystem, and the relationship of stream dynamics to the riparian catchment. Other topics include the geological history of Minnesota's streams, the history of rivers in early Minnesota exploration and trade, the geographics of the three major drainage systems of Minnesota, recreational fisheries, and the conservation and protection of Minnesota rivers. Includes one half-day Saturday field trip (**June 13; participants provide own transportation; carpooling is encouraged**). (Offered in cooperation with the Minnesota Valley National Wildlife Refuge)

Spring Spec Term Sec 1 W—7-9, May 6-June 17 (6 meetings plus 1 field trip—no class May 27), Minnesota Valley National Wildlife Refuge, 3815 E. 80 St., Bloomington, Waters
No late fee through Apr. 29

(Thomas F. Waters is a professor emeritus of fisheries at the University of Minnesota. He has conducted research in several areas of stream ecology and has published two books on the Minnesota region, *The Streams and Rivers of Minnesota*, and *The Superior North Shore*)

★CSch 0560 QUARKS TO QUASARS: AN OVERVIEW OF 20TH-CENTURY PHYSICS. No credit, \$106 (age 62, \$96)

From the theory of relativity to string theory, the discoveries of this century have dramatically altered the way we understand the nature of the physical world. This introductory overview of the physics and cosmology of the 20th century includes relativity; the big bang; quantum theory; atomic, nuclear, and elementary-particle physics; nuclear energy; and modern unification theories. Discuss how modern physics has influenced our lives and changed our view of the world. Background in mathematics or physics is not required. Emphasis is on qualitative and conceptual understanding of the ideas and implications of modern physics. Students are asked to purchase a manual and paperback texts. (Limited to 30)

Fall Spec Term Sec 1 T—6:15-8:15, Oct. 1-Nov. 12 (7 meetings), Phys 157, Jones
No late fee through Sept. 24

(Roger Jones is an associate professor of physics at the University of Minnesota. His scholarly interests include a philosophical critique of science and the development of new educational vehicles for popular and high school physics courses. His book *Physics as Metaphor and other writings deal with the metaphorical and idolatrous character of science*)

★CSch 0561 THE EARLY DAYS OF NUCLEAR PHYSICS AND THE BOMB: A PERSONAL REFLECTION. No credit, \$34 (no discount for persons 62 and older).

World War II was the first war characterized by the broad applications of basic science to weapons and national defense. The atomic bomb was a product of the same
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noncredit courses

science that led to dramatic improvements in quality of life and health care. Trace fifty years of discoveries in atomic and nuclear physics, and discuss the dilemma caused by the development and use of the bomb and its long range implications. (Limited to 35)

Winter Spec Term Sec 1 **T**—10 a.m.-12, Jan. 21, 28 (2 meetings),
Lutheran Church of the Good Shepherd, Red Lecture
Room, 4801 France Ave. S., Edina (park in lot south of
the Church and enter through doors from parking lot),
Nier
No late fee through Jan. 14

(Alfred Nier is a regents' professor emeritus of physics at the University of Minnesota and a member of the National Academy of Sciences. He is the discoverer of a number of naturally occurring isotopes and has developed instruments for weighing atoms. These instruments have been applied to problems in physics, geology, chemistry, biology, and space physics)

★CSch 0565 VISITS TO SMALL PLANETS AND LARGE: THE VIEW FROM THE OTHER END OF THE TELESCOPE. No credit, \$66 (age 62, \$56).

After three decades of close observation by robotic spacecraft—and briefly on Earth's moon by human explorers—our only unchanged perception of the planets is how many of them there are. From Mercury to Neptune, they have been transformed from telescopic fuzzballs to unique and complex worlds whose surfaces, atmospheres, and satellites display clues to the forces that shaped their evolution and that of the solar system as a whole. A new field of science is emerging from the space age. It deals with many phenomena unknown on present day Earth, and others that influence our own environment more or less gently but have driven other bodies down strange and extreme evolutionary paths: a greenhouse effect run wild on Earth's sister planet Venus, catastrophic climate changes on Mars, an inferno of volcanic eruptions on Jupiter's satellite Io. Images from spacecraft cameras are used to illustrate what we have learned in this new age of space exploration. (Limited to 30)

new

Fall Spec Term Sec 1 **M**—6:15-8:15, Oct. 14-Nov. 4 (4 meetings),
Arch 55, Pepin
No late fee through Oct. 7

(Robert Pepin is a professor in the School of Physics and Astronomy at the University of Minnesota. During 25 years at the University, he has studied meteorites, lunar samples, and planetary atmospheres for what they can tell us about the early history of the solar system, and worked with NASA on planning strategies for planetary exploration)

★CSch 0570 THE SCIENCE OF CHAOS: A NEW WINDOW ON BOTH THE ORDINARY AND THE FANTASTIC. No credit, \$64 (age 62, \$54).

During the past 30 years, an entirely new mathematical discipline has arisen that is radically changing the way we view the world. Scientists are taking a fresh look at familiar events, from the beating of the human heart to the ever-changing weather, and are finding delightful patterns, intricate structures, and complex rhythmic cycles. A new vocabulary is being invented: fractals, self-similarity, strange attractors, chaos. With a little guidance, many of the basic concepts and most of the real-world examples of mathematical chaos are readily accessible to the nonspecialist. This course is for those who want to see the beauty of the world with different eyes, as well as for those who just want to get in on some of the fun. We will work with the book *Turbulent Mirror* by John Briggs and David Peat, a highly readable attempt to bring the subject down to earth (begin reading before first class). An excellent alternative text for those with a good mathematical background is *Fractals, Chaos, and Power Laws* by Man-

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noncredit courses

fred Schroeder. Ideas or questions based on *Chaos*, the best selling historical account by James Gleick, are also welcome. Household objects and computer demonstrations are used to help everyone discover patterns of chaos for themselves. (Limited to 35)

Spring Spec Term Sec 1 **T**—6:15-8:15, Apr. 7-28 (4 meetings),
MurH 311, Gray
No late fee through Mar. 31

(Larry Gray is a mathematics professor at the University of Minnesota. His research concerns mathematical models of systems that contain a large number of randomly interacting components, ranging from ecological models to systems of subatomic particles)

★CSch 0580 THE UNCOMMON ONES: PRESSURES ON RARE AND ENDANGERED SPECIES. No credit, \$78 (age 62, \$68).

One animal species will disappear from the earth every 20 minutes between now and the year 2000. Extinction of species, however, has always occurred: 90 percent of the species that have ever lived are now extinct. Focus on the biological, economic, and political factors that drive animal species to extinction. Examples such as the eastern timber wolf, the whooping crane, the peregrine falcon, and the grizzly bear are used to illustrate cultural, biological, environmental, and social limitations on population growth and range. Legal protection, management approaches, and citizen involvement are discussed. (Offered in cooperation with the Minnesota Valley National Wildlife Refuge. Limited to 35)

Winter Spec Term Sec 1 **W**—6:30-8:30, Jan. 22-Feb. 19 (5 meetings),
Minnesota Valley National Wildlife Refuge,
3815 E. 80 St., Bloomington, Cooper
No late fee through Jan. 15

(Jim Cooper is an associate professor in the Department of Fisheries and Wildlife at the University of Minnesota. His research interests include waterfowl and wetlands, with special interest in Trumpeter Swan behavior, ecology, and restoration)

★CSch 0582 RAINBOW WARRIORS OR ECOTERRORISTS: HOW BEST TO SAVE THE PLANET. No credit, \$94 (age 62, \$84).

Tree spiking. Property destruction. Civil disobedience and confrontation. Are these the best or most effective methods of protecting the earth? Many environmental activists have despaired of accomplishing reforms within our established social, political, and economic systems. They believe that only radical action can save the planet. Others argue that radicalism is counterproductive if not downright wrong. Discuss current policies, tactics, philosophies, and aims of environmental groups ranging from The Nature Conservancy to Earth First! and Ecoavenger. Readings present divergent viewpoints on the politics, ethics, and philosophy of environmental protection, and are not an attempt to convert anyone to a particular set of beliefs. (Limited to 20)

Fall Spec Term Sec 1 **T**—6:15-8:15, Oct. 1-Nov. 5 (6 meetings),
StCen 202, StP Campus, Cunningham
No late fee through Sept. 24

(Bill Cunningham, professor of biology, has taught at the University of Minnesota for 25 years and is a member of a number of environmental groups. He was formerly chair of the Minnesota chapter of the Sierra Club and vice-chair of the Friends of the Boundary Waters Wilderness, and has recently written a textbook entitled *Environmental Science: A Global Concern*)

★CSch 0584 EXPLORING THE HUMAN-NATURE BOND. No credit, \$72 (age 62, \$62). \$65 for Bell Museum members.

It is increasingly apparent that human survival depends on learning to live in harmony
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noncredit courses

new

BEL
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with the environment. Focus on how people relate to nature and explore varying perspectives concerning human responsibilities to the environment. Topics include eco-feminism, Third World views of nature, deep ecology, and eco-utopias. Read papers by several modern philosophers, including Aldous Huxley and Murray Bookchin. A packet of materials for this course can be purchased at Kinko's in Dinkytown, 325 14 Ave. S.E., Minneapolis. (Limited to 30)

Winter Spec Term Sec 1 T—6:30-8:30, Feb. 18-Mar. 24 (6 meetings),
BellMus 3 (use Auditorium entrance facing
Church Street), Buege
No late fee through Feb. 11

(Douglas Buege is a doctoral student in philosophy at the University of Minnesota. His areas of focus are environmental ethics, feminism, and Kant, and his dissertation examines Third World citizens' responsibilities to their environment)

The Practical Scholar course offerings

University Access

★PSch 0600 **STUDY SKILLS.** No credit, \$28 (no discount for persons 62 and older).

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 T—9 a.m.-1, Sept. 10 (1 meeting),
MacP, DeNoble
No late fee through Sept. 3

Spring Spec Term Sec 2 Sa—9 a.m.-1, Apr. 4 (1 meeting),
Arch 20, DeNoble
No late fee through Mar. 27

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

★PSch 0601 **TEST TAKING: STRATEGIES FOR OBJECTIVE AND ESSAY EXAMS.** No credit, \$30 (no discount for persons 62 and older).

new

Do you find yourself rereading for tests and still not remembering? Do you perform better on certain types of exams than on others? Different kinds of exams require different test-taking strategies and different ways of preparing. Learn how to prepare for exams so that your scores will reflect what you know. Includes lecture, discussion, and small-group activities. (Limited to 30)

Fall Spec Term Sec 1 T—6-8, Oct. 1, 8 (2 meetings),
AkerH 309, Weinsheimer
No late fee through Sept. 24

(Joyce Weinsheimer is program director of the Learning and Academic Skills Center at the University of Minnesota. Her doctorate is in higher education and she has several years of experience in college teaching and counseling)

Read about abbreviations, symbols, and maps on page 64.

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★PSch 0602 HOW TO PREPARE FOR THE GRADUATE RECORD EXAMINATION (GRE).
 No credit, \$60 plus \$4 special fee. Total \$64 (age 62, \$50 plus \$4 special fee. Total \$54).

Review general test-taking skills and the various types of verbal, quantitative, and analytical questions presented on the GRE General Test. In addition to learning test-taking strategies, participants complete test simulation exercises and formulate an individualized study plan. Materials provided at first class meeting. (Limited to 40. Limit is absolute—no instructor permission)

Fall Spec Term Sec 1 **M**—6-8:30, Sept. 16-30 (3 meetings),
 FordH 170,
No late fee through Sept. 9

Winter Spec Term Sec 2 **M**—6-8:30, Jan. 6-27 (3 meetings—no class Jan. 20),
 FordH 349
No late fee through Dec. 30

Spring Spec Term Sec 3 **M**—6-8:30, May 4-18 (3 meetings), FordH 40
No late fee through Apr. 27

(Instructor, to be assigned, will be a staff member in the Learning and Academic Skills Center at the University of Minnesota)

★PSch 0603 HOW TO PREPARE FOR THE GRADUATE MANAGEMENT ADMISSIONS TEST (GMAT). No credit, \$60 plus \$4 special fee. Total \$64 (age 62, \$50 plus \$4 special fee. Total \$54).

Familiarizes participants with test-taking strategies for the GMAT. Discussions focus on the kinds of directions, materials, and questions presented in the quantitative and verbal sections of the test. Participants use their responses to test simulation exercises to develop an individualized study plan. Materials provided at first class meeting. (Limited to 40. Limit is absolute—no instructor permission)

Fall Spec Term Sec 1 **T**—6-8:30, Sept. 24-Oct. 8 (3 meetings), SmithH 231
No late fee through Sept. 17

Winter Spec Term Sec 2 **T**—6-8:30, Feb. 4-18 (3 meetings), AkerH 211
No late fee through Jan. 28

Spring Spec Term Sec 3 **T**—6-8:30, May 5-19 (3 meetings), AkerH 211
No late fee through Apr. 28

(Instructor, to be assigned, will be a staff member in the Learning and Academic Skills Center at the University of Minnesota)

★PSch 0604 HOW TO PREPARE FOR THE PRE-PROFESSIONAL SKILLS TEST (PPST). No credit, \$43 plus \$3 special fee. Total \$46 (no discount for persons 62 and older).

Review the format and content of the PPST's proficiency tests in reading, mathematics, and writing. Workshop sessions provide a description of the content measured in a particular skill area and discuss test-taking strategies for each type of question on the exam. Practice with sample test items provides the basis for developing an individualized study plan. Materials provided at first class meeting. (Limited to 40. Limit is absolute—no instructor permission)

Fall Spec Term Sec 1 **TTh**—6-8, Sept. 19, 24, 26 (3 meetings),
 AmundH 240
No late fee through Sept. 12

Winter Spec Term Sec 2 **TTh**—6-8, Feb. 13, 18, 20 (3 meetings),
 AmundH 104
No late fee through Feb. 6

(Instructor, to be assigned, will be a staff member in the Learning and Academic Skills Center at the University of Minnesota)

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noncredit courses

- ★**PSch 0605 OVERCOMING EMOTIONAL BLOCKS TO LEARNING.** No credit, \$28 (no discount for persons 62 and older).

new

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. Areas covered include modifying personal belief systems, using positive self-talk, managing anxiety, and overcoming difficult learning histories. (Limited to 20)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-15 (3 meetings), EE/CSci 2260, Hirsch
No late fee through Sept. 24

(Glenn Hirsch is a licensed consulting psychologist in private practice and a senior staff psychologist at University Counseling Services)

- ★**PSch 0620 GRAMMAR REFRESHER.** No credit, \$81 plus \$2 special fee. Total \$83 (age 62, \$71 plus \$2 special fee. Total \$73).

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? 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. Review grammar, punctuation, sentence structure, and common problem areas. Format includes lecture, exercises, and student participation. Students should plan to spend a few hours each week completing homework assignments. (Limited to 20)

Fall Spec Term Sec 1 **T**—6-8, Sept. 24-Oct. 29 (6 meetings),
LindH 216, DeNoble
No late fee through Sept. 17

Winter Spec Term Sec 2 **M**—6-8, Jan. 27-Mar. 2 (6 meetings),
FordH 115, DeNoble
No late fee through Jan. 21

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

- ★**PSch 0621 WORDS: MAKING THEM WORK FOR YOU—PART I.** No credit, \$41 (no discount for persons 62 and older).

Designed for all 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 who want to develop a richer vocabulary, and also for those planning to take undergraduate or graduate admissions exams or other tests requiring vocabulary skills. (Limited to 25)

Fall Spec Term Sec 1 **W**—12-1, Oct. 2-Nov. 6 (6 meetings),
MacP, DeNoble
No late fee through Sept. 25

Spring Spec Term Sec 2 **W**—6-7:30, Apr. 1-22 (4 meetings),
AmundH 162, DeNoble
No late fee through Mar. 25

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

- ★**PSch 0622 WORDS: MAKING THEM WORK FOR YOU—PART II.** No credit, \$41 (no discount for persons 62 and older).

A continuation of PSch 0621, but not limited to students who have taken that class.
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noncredit courses

Focus on the definition, pronunciation, and usage of useful 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. (Limited to 25)

Winter Spec Term Sec 1 **W**—12-1, Jan. 8-Feb. 12 (6 meetings),
MacP, DeNoble
No late fee through Jan. 2

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

★PSch 0640 RAPID READING AND COMPREHENSION. No credit, \$93 (age 62, \$83).

For people with average to good reading potential who want to improve their reading speed and comprehension. Generally, the minimal gain is a doubling of original reading speed. Emphasis is on lifelong goals, which are achieved through lecture and classroom participation and practice. (Limited to 30)

Fall Spec Term Sec 1 **T**—6-9, Sept. 24-Oct. 15 (4 meetings),
ApH 226, Bennett
No late fee through Sept. 17

Spring Spec Term Sec 2 **T**—6-9, Apr. 14-May 5 (4 meetings), KoltH S140,
Bennett
No late fee through Apr. 7

(J. Michael Bennett coordinates the college reading and introductory public speaking courses in the Department of Rhetoric at the University of Minnesota. He frequently lectures and conducts seminars across the country in the areas of reading, writing, speaking, and listening)

★PSch 0646 INTRODUCTION TO COLLEGE WRITING. No credit, \$84 (age 62, \$74).

Many people entering college for the first time or returning after several years feel apprehensive about what will be required of them by academic writing. Regardless of the amount of experience one has in business or personal writing, academic writing promises to make new demands. Typically, much of the success of students depends on their abilities as writers. Focus on what students need to know to succeed as academic writers, and discuss what distinguishes academic writing by looking at samples and practicing writing, sharing writing in a supportive atmosphere, and considering how to transfer abilities in business and personal writing to writing for the academy. Covers techniques for inventing, revising, and editing writing; strategies for writing under pressure; appropriate and varied structures; academic style; and library research resources, all designed around a workshop setting. (Limited to 15)

Fall Spec Term Sec 1 **W**—6-8:30, Oct. 2-Nov. 6 (6 meetings),
Arch 40, Kuhne
No late fee through Sept. 25

(Michael Kuhne is a Ph.D. candidate in English at the University of Minnesota. His research interests are in composition, literacy, and cultural critique)

First Step: Preparation for University Mathematics is a program designed especially for people who need to review or update their skills in mathematics. It also may 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

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noncredit courses

working on their math skills. **Classes include Math Skills Assessment Clinic, Basic Mathematics Review, Elementary Algebra, Intermediate Algebra, and Basic Concepts of Statistics: Preparing for College Level.**

- ★**PSch 0660 MATH SKILLS ASSESSMENT CLINIC.** No credit, \$24 plus \$4 special fee. Total \$28 (no discount for persons 62 and older).

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 math skills test is given which allows students to determine their current levels of math skills. After self-scoring their tests, students will receive an interpretation of the results. Additional topics include an overview of the math program, a discussion of the nature of mathematics, and administration of the Math Anxiety Rating Scale. (Limited to 35)

Fall Spec Term Sec 1 **W**—5:30-8:30, Sept. 11 (1 meeting),
NCCE Library, Robertson
No late fee through Sept. 4

(Douglas Robertson is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. His research interests are in developmental mathematics education)

- ★**PSch 0661 BASIC MATHEMATICS REVIEW.** No credit, \$112 (age 62, \$102).

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. Class prepares students for Elementary Algebra (PSch 0662). (Limited to 30)

Fall Spec Term Sec 1 **W**—6-7:15, Sept. 25-Dec. 4 (11 meetings),
VinH 213, Robertson
No late fee through Sept. 18

(Douglas Robertson is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. His research interests are in developmental mathematics education)

- ★**PSch 0662 ELEMENTARY ALGEBRA.** No credit, \$154 (age 62, \$144).

Instruction in elementary algebra including signed numbers, solving equations, graphing, factoring, rational expressions, roots, and radicals. Option of taking self-graded quizzes to monitor progress during class. Prepares students for Intermediate Algebra (PSch 0663). (Limited to 30)

Winter Spec Term Sec 1 **W**—6-7:45, Jan. 8-Mar. 18 (11 meetings),
VinH 213, Robertson
No late fee through Jan. 2

(Douglas Robertson is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. His research interests are in developmental mathematics education)

- ★**PSch 0663 INTERMEDIATE ALGEBRA.** No credit, \$234 (age 62, \$224).

This second course in algebra covers rational expressions, radicals, roots, quadratic and rational equations and inequalities, conic sections, functions and relations, and exponential and logarithmic functions. Prepares students for Math 1111, College Al-

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noncredit courses

gebra. Since this is a second course in algebra, students who take this course must know the content of elementary algebra including linear equations and inequalities, exponents, factoring, elementary rational expressions, roots, and radicals (see PSch 0662). (Limited to 30)

Spring Spec Term Sec 1 **W**—5:45-8:45, Apr. 1-June 10
(11 meetings), MurH 311, Robertson
No late fee through Mar. 25

(Douglas Robertson is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. His research interests are in developmental mathematics education)

★**PSch 0664 BASIC CONCEPTS OF STATISTICS: PREPARING FOR COLLEGE LEVEL.** No credit, \$119 (age 62, \$109).

A preparatory course for undergraduate or graduate-level statistics in behavioral science, psychology, or sociology; designed especially for people who are afraid of taking statistics or who want a basic understanding of statistical concepts. Familiarizes students with statistical vocabulary and notation, descriptive statistics, probability distributions, and hypothesis testing. Students should have a good background in arithmetic and elementary algebra prior to taking this course. (Limited to 25)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-Dec. 10 (10 meetings—no class
Nov. 5), MurH 308, Cassuto
No late fee through Sept. 24

(Nadav Cassuto is a Ph.D. student in psychometrics at the University of Minnesota. He has taught statistics classes through the psychology program)

Business and Professional Development

★**PSch 0700 LEADERSHIP: BUILDING ON YOUR STRENGTHS.** No credit, \$145 (age 62, \$135). *Does not include lunch.*

Have you ever wondered about the difference between a manager and a leader? This seminar gives some answers and shows you how to make use of your leadership qualities. Just as each person has his or her own personality, each leader has his or her own most effective leadership style. Successful leaders know their particular styles and the best ways to use them. You start with a self-assessment instrument, co-developed by the instructor and employed in many organizations nationwide, and use it to identify specific strategies for developing your leadership ability. You practice such skills as people reading, team building and motivating, and identify, compare, and discuss the various principles that affect leadership. **Lunch not included; cafeteria available.** (Limited to 35)

Fall Spec Term Sec 1 **T**—8:30 a.m.-4:30, Oct. 22 (1 meeting),
EBCEC 156, StP Campus, Johnson
No late fee through Oct. 15

(Michael A. Johnson is a professor of organizational management at the University of Minnesota)

★**PSch 0701 EMPOWERMENT: THE NEXT LEADERSHIP IMPERATIVE.** No credit, \$265 (age 62, \$255).

Leadership is based on both vision and the ability to empower (not just motivate) others. This program challenges each participant to understand, develop, and adopt a personal leadership position and values profile. Examine effective and compassion-
(continued next page)

new

new

Read about abbreviations, symbols, and maps on page 64.
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noncredit courses

ate, yet competitive and world class organizations to understand how they empower their people. Participants learn how to create environments that foster internalized motivation in employees and associates. (Limited to 30)

Winter Spec Term Sec 1 **M**—1-5, Mar. 2-23 (4 meetings), EBCEC 166, StP Campus, Schander
No late fee through Feb. 24

(Raoul E. Schander is an adjunct instructor in the Department of Strategic Management and Organization at the University of Minnesota, and has been a management consultant in private practice for over five years. He has taught various management courses and worked in organizational development for over four years. Small business and entrepreneurship are areas of expertise and special interest for him)

★PSch 0702 MOTIVATION: BRINGING OUT THE BEST IN YOUR EMPLOYEES. No credit, \$145 (age 62, \$135). *Does not include lunch.*

new

All people are motivated. This course is designed to help supervisors and managers turn that motivation into successful employee performance. Because people do not respond to the same stimulus in the same way, you will examine the nature and value systems of people in organizations, and learn to use motivational tools in a nonmanipulative manner in order to maximize employees' motivation at work and to further organizational goals. The course helps you understand not only how different people are motivated, but also how you can become more effective in your interpersonal relations. **Lunch not included; cafeteria available.** (Limited to 35)

Winter Spec Term Sec 1 **Th**—8:30 a.m.-4:30, Jan. 16 (1 meeting), EBCEC 52, StP Campus, Fjerstad
No late fee through Jan. 9

(Robert L. Fjerstad is an adjunct faculty member in industrial relations at the University of Minnesota, and president of Human Relations Consultants in Minneapolis)

★PSch 0703 MANAGEMENT SKILLS FOR WOMEN. No credit, \$90 (age 62, \$80). *Includes lunch.*

CEW

For women new to management or for those who aspire toward a management career and are interested in learning the basic skills of supervision and management. The focus is on the role of the manager and the major functions of management, including planning, setting objectives, organizing, getting work done through others, communication, and motivation. Discussion centers on the application of these concepts to the daily work setting. (Limited to 32)

Fall Spec Term Sec 1 **Sa**—8:30 a.m.-4:30, Oct. 12 (1 meeting), EBCEC 52, StP Campus, Reed
No late fee through Oct. 4

(Debra Reed, a private management consultant, is the former manager of manpower development and training for EcoLab Inc., St. Paul)

★PSch 0704 CONDUCTING EFFECTIVE BUSINESS MEETINGS. No credit, \$145 (age 62, \$135). *Does not include lunch.*

new

Business meetings cost American corporations billions of dollars each year. This one-day workshop focuses on making business meetings more effective. Topics include developing leadership skills, setting agendas, choosing the optimum meeting time and setting, using visual aids as communicative and persuasive tools, dealing with conflict and with difficult people, and preparing meeting minutes for future action. Also covered are dealing with frustrating situations which commonly occur in meetings such as the argumentative participant, getting off the topic, and meeting monopolizers. **Lunch not included; cafeteria available.** (Limited to 25)

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noncredit courses

Winter Spec Term Sec 1 **Th**—8:30a.m.-4:30, Jan. 23 (1 meeting), EBCEC 156, StP Campus, Reed
No late fee through Jan. 16

(Debra Reed is the former manager of development and training for EcoLab Inc., St. Paul, and has 18 years of experience in corporate training and development)

★**PSch 0705 FORMAL BUSINESS PRESENTATIONS.** No credit, \$285 (age 62, \$275). Does not include lunch.

Giving a formal presentation may be a frightening experience, but it has the potential of providing positive exposure and can benefit your career. This two-day workshop helps you improve presentation skills and develop confidence. Topics include: analyzing the audience; planning and organizing the content of a presentation; designing and using visual aids; and developing skills such as controlling nervousness, speaking with confidence and enthusiasm, and maintaining audience attention. Participants plan and deliver a formal presentation during the workshop. Through limited class size and the use of videotaping, participants receive individualized feedback and assistance with their presentation, become aware of their current presentation skills, and learn about and practice techniques for dealing with challenges. **Lunch not included; cafeteria available.** (Limited to 12)

Spring Spec Term Sec 1 **M**—8:30a.m.-4:30, Apr. 13, 20 (2 meetings), EBCEC 166, StP Campus, Reed
No late fee through Apr. 6

(Debra Reed is the former manager of development and training for EcoLab Inc., St. Paul, and has 18 years of experience in corporate training and development)

★**PSch 0706 JAPANESE MANAGEMENT SYSTEMS: A PRIMER FOR AMERICAN EXECUTIVES DOING BUSINESS WITH JAPANESE COMPANIES.** No credit, \$250 (age 62, \$240).

Designed to improve business understanding and effectiveness among Americans, Japanese, and other Asian nationalities. This practical, cross-cultural business course examines cultural norms that have shaped Japanese management practices such as decision-making by consensus (*wa*), lifetime employment, mentoring relationships, hiring, training, job rotation, and contrasts these management concepts with those of prominent American firms. Business negotiation styles and tactics used by both Japanese and American companies are examined and discussed. Each student is assigned to a fictional Japanese or American company interested in negotiating a joint venture or trading relationship. While facts are simulated, the experience takes on real dimensions as you and several business colleagues (e.g., your classmates) prepare negotiation strategies, swap letters, and propose agendas with the other company, and then conduct two live negotiation sessions. *Smart Bargaining—Doing Business With the Japanese* by John Graham and Yoshihiro Sano (Rev. ed. 1989) is the required course text and must be purchased separately. (Limited to 35)

Fall Spec Term Sec 1 **W**—5:30-8, Oct. 2-Nov. 6 (6 meetings), EBCEC 166, StP Campus, Seeley
No late fee through Sept. 25

(William S. Seeley is an adjunct faculty member in the Department of Strategic Management and Organization, Carlson School of Management, University of Minnesota. He is the founder and president of Seeley Legal Services in Minneapolis)

★**PSch 0711 BUILDING YOUR BUSINESS: PLANNING FOR GROWTH.** No credit, \$135 (age 62, \$125).

Designed to help the small business owner and corporate planner develop a sound plan oriented toward growth that is based on realistic assessments. Participants assess

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noncredit courses

core business, personal and organizational strengths, internal and external growth opportunities, options such as repositioning and divesting, and ROI (return on investment) requirements. Finally, participants look at such factors as financial and human resources, organizational structure, technology changes, and the economy as they might impact the implementation of the plan. (Limited to 30)

Fall Spec Term Sec 1 **T**—5:30-7:30, Oct. 1-22 (4 meetings), EBCEC 166, StP Campus, Schneider

No late fee through Sept. 24

(Gregg Schneider, M.B.A. and law degree recipient, is an adjunct professor at Augsburg College, where he teaches Business Strategy and Business Growth)

★PSch 0712 SMALL BUSINESS: WRITING A BUSINESS PLAN AND MOTIVATING AND MANAGING EMPLOYEES. No credit, \$90 (age 62, \$80). Includes box lunch.

Designed for small business owners and managers who want to prepare and write a comprehensive plan for the small business. Focuses on defining the goal and unique nature of your business, and helping develop and describe the niche into which the business best fits. In order for the overall planning function to succeed, the marketing, financial, and other functional area plans must be tied together so that these supporting plans relate to the purpose and the unique character of the business. Discussion includes alternative approaches to motivation; the content, process, and reinforcement theories of motivation; and Maslow's hierarchy of needs. A hands-on exercise in providing feedback to employees is provided. Explore the management by objective technique, practice goal setting using the Tapemaster Company example, and discuss the basics of work groups and the group process model as well as three key managerial contingencies. An example of group think—the NASA Challenger incident—is included. (Limited to 25)

Winter Spec Term Sec 1 **Sa**—9 a.m.-4, Jan. 4 (1 meeting), NCCE, Weber
No late fee through Dec. 27

(Mark Weber is a Ph.D. candidate in the Department of Strategic Management and Organization, Carlson School of Management, University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

★PSch 0713 SMALL BUSINESS: MANAGING CONTROL AND TRACKING PERFORMANCE. No credit, \$90 (age 62, \$80). Includes box lunch.

Designed for small business owners and managers who want to start with the basics and learn to read financial statements. Learn how to work with financial statements using ratio analysis to track performance. Course covers the rudiments of cash budgeting and financial forecasting, and basic analytical tools such as depreciation methods, time value of money, measuring return on investment, capital budgeting, costs of capital and capital structure, and decision trees. Apply some analytical tools to track small business performance and spot problems which require rectification. Topics include working capital policy, cash management, inventory management (including the Economic Order Quantity model), lease vs. buy decisions, markups, the costs of financing current assets, evaluation of alternatives, break even analysis, design of the control process, review of different types of control methods, and problems in establishing effective control systems. (Limited to 25)

Winter Spec Term Sec 1 **Sa**—9 a.m.-4, Jan. 25 (1 meeting), NCCE, Weber
No late fee through Jan. 17

(Mark Weber is a Ph.D. candidate in the Department of Strategic Management and Organization, Carlson School of Management, University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

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★PSch 0714 **STRESS MANAGEMENT IN THE WORKPLACE.** No credit, \$120 (age 62, \$110)

Focus is on stress in organizations and the workplace. Excessive stress in work environments can adversely affect employee health, productivity, and morale. Topics examined include the nature of stress, assessment of employee stress levels, and stress management interventions. Participants examine stressors in their work environment and strategies to reduce work-related stress. The course may be especially appropriate for managers and supervisors. (Limited to 24)

Fall Spec Term Sec 1 **M**—6:15-8:15, Oct. 14-Nov. 4 (4 meetings),
NCCE, Romano

No late fee through Oct. 7

(John L. Romano is a licensed consulting psychologist and an associate professor in the Counseling and Student Personnel Psychology Program at the University of Minnesota. He has facilitated workshops, taught courses, and been published on the subject of stress)

★PSch 0715 **BUSINESS FINANCE AND ACCOUNTING FOR PLANNERS AND DECISION MAKERS.** No credit, \$295 (age 62, \$285). Does not include lunch.

Designed for the person who does not have an extensive background in accounting and finance, this seminar provides an overview of accounting and finance fundamentals and the uses of accounting data in planning and decision making. Topics include the role, basic principles, language, and process of accounting; the format and structure of financial statements and annual reports; financial statement analysis; depreciation and inventory valuation; cost-volume-profit (breakeven) analysis; contribution margin; and the use of relevant costs for decision making. Since accounting is the basic language of business, this seminar will help participants communicate and work more effectively with accountants and financial managers, and make better financial decisions. **Lunch not included; cafeteria available.** (Limited to 35)

Fall Spec Term Sec 1 **MT**—8:30 a.m.-4:30, Oct. 21, 22 (2 meetings),
EBCEC 166, StP Campus, Rosko, Tranter
No late fee through Oct. 14

Spring Spec Term Sec 2 **ThF**—8:30 a.m.-4:30, Apr. 16, 17 (2 meetings),
EBCEC 156, StP Campus, Rosko, Tranter
No late fee through Apr. 9

(Peter Rosko is an associate professor of finance and Terry Tranter is an assistant professor of accounting in the University of Minnesota's Carlson School of Management)

★PSch 0716 **PURCHASING FUNDAMENTALS.** No credit, \$145 (age 62, \$135). Does not include lunch.

Designed to help newly appointed buyers make good purchasing decisions. This intensive, one-day seminar is also appropriate for purchasing professionals who want to review and update basic purchasing procedures and skills. Practical information and techniques are stressed. Topics include policies, the written and unwritten; basic data one should have and keep in order to perform; forms, or better yet, the lack thereof; areas for exploration; selection and evaluation of suppliers; time management; laws to know; and bids, quotes, and spot buys. **Lunch not included; cafeteria available.** (Limited to 35)

Winter Spec Term Sec 1 **W**—8:30 a.m.-4:30, Jan. 29 (1 meeting), EBCEC 156,
StP Campus, Gallagher
No late fee through Jan. 22

(Charles Gallagher, C.P.M., is corporate director of purchasing at Valspar Corporation, Minneapolis)

new

new

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noncredit courses

★**PSch 0717 MARKETING FOR NON-MARKETING MANAGERS.** No credit, \$265 (age 62, \$255).

new

Designed to help non-marketing managers and decision makers gain a better understanding of marketing strategy and policy. Discussion will include product, pricing, promotion, and distribution components of marketing, and how the business environment affects and changes marketing choices. Current trends in marketing activities will also be examined. (Limited to 30)

Winter Spec Term Sec 1 **T**—3-5, Jan. 14-Mar. 3 (8 meetings),
EBCEC 166, StP Campus, Nemecek
No late fee through Jan. 7

(Barbara Nemecek is the Continuing Education and Extension coordinator for the departments of logistics management and marketing, Carlson School of Management, University of Minnesota)

★**PSch 0718 RETAIL ENTREPRENEURSHIP.** No credit, \$165 (age 62, \$155).

new

Study of marketing considerations in establishing and managing one's own retail firm. Retailing principles, problems, and trends as they relate to the small retail establishment. Factors important in shaping marketing plans in retail. Designed for the individual who has decided to open or has recently opened a store. (Limited to 30)

Spring Spec Term Sec 1 **M**—3-5, Apr. 6-May 11 (5 meetings—no class
Apr. 27), EBCEC 156, StP Campus, Nemecek
No late fee through Mar. 30

(Barbara Nemecek is the Continuing Education and Extension coordinator for the departments of logistics management and marketing, Carlson School of Management, University of Minnesota)

★**PSch 0719 ADVERTISING FOR THE SMALL BUSINESS.** No credit, \$165 (age 62, \$155).

new

Practical approach to utilizing creative advertising media. Analyzes aspects of communications using marketing mix and process with emphasis on advertising and media alternatives. (Limited to 30)

Fall Spec Term Sec 1 **T**—3-5, Oct. 1-29 (5 meetings), EBCEC 166,
StP Campus, Child
No late fee through Sept. 24

(Emily Child, M.B.A. with a concentration in marketing, has 12 years of corporate marketing management experience and runs a small advertising and marketing consulting business)

★**PSch 0724 PROFESSIONAL SELLING: COMMUNICATION AND CLIENT PERSONALITY STYLE.** No credit, \$46 (no discount for persons 62 and older).

Examine the communicative aspects of selling and the flexible behavioral style required to succeed in a competitive sales environment. Participants learn to identify major prospect personalities and choose effective strategies to ensure a successful sales relationship. Workshop format includes lecture, discussion, and practice of techniques through case studies and role plays. (Limited to 27)

Fall Spec Term Sec 1 **Sa**—9 a. m.-1, Sept. 28 (1 meeting), HHHCtr 20, Mader
No late fee through Sept. 20

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director, and has been author and co-author of major training manuals for that firm)

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noncredit courses

★PSch 0725 PROFESSIONAL SELLING: SUCCESSFUL CLOSING SKILLS. No credit, \$46 (no discount for persons 62 and older).

Most salespeople have a great deal of product knowledge and communicate well with others. However, when it comes to closing the sale, they often fall short of their expectations. This workshop examines the barriers salespeople, as well as clients, set up to inhibit the closing process. Topics include the steps to a successful sale, timing, trial closes, stalls, overcoming the fear of closing, effective closing strategies, and insuring repeat business. Workshop format includes lecture, discussion, and practice of techniques through case studies and role playing. (Limited to 25)

Fall Spec Term Sec 1 **Sa**—9 a.m.-1, Nov. 23 (1 meeting), HHCtr 20, Mader
No late fee through Nov. 15

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director, and has been author and co-author of major training manuals for that firm)

★PSch 0726 PROFESSIONAL SELLING: HANDLING CLIENT OBJECTIONS. No credit, \$46 (no discount for persons 62 and older).

Focus on how to effectively answer client objections and close more sales. Topics include maintaining a positive attitude, reasons for buyer resistance, common types of objections, and specific strategies for successfully handling objections. Workshop format includes lecture, discussion, and practice of techniques through case studies and role plays. (Limited to 27)

Fall Spec Term Sec 1 **Sa**—9 a.m.-1, Oct. 26 (1 meeting), HHCtr 20, Mader
No late fee through Oct. 18

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director, and has been author and co-author of major training manuals for that firm)

★PSch 0727 PROFESSIONAL SELLING: BASIC TECHNIQUES. No credit, \$115 (age 62, \$105).

Designed as an introduction to basic selling skills, this course provides sales people with techniques in presenting themselves; identifying buyers' needs; developing effective questioning and listening skills; performing openings and closings; and handling buyer resistance. The role of the professional in selling is presented as a problem solver who provides a service to the buyer. Class format includes lecture, discussion, and practice of techniques through small groups and role playing. (Limited to 30)

Winter Spec Term Sec 1 **T**—6-8, Jan. 21-Feb. 18 (5 meetings), NCCE, Mader
No late fee through Jan. 14

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director, and has been author and co-author of major training manuals for that firm)

★PSch 0728 PROFESSIONAL SELLING: ADVANCED PROBLEM SOLVING. No credit, \$115 (age 62, \$105).

Designed as a second-level course in selling skills with an emphasis on developing strategies and strengthening the ability to handle various sales problems before they become obstacles to a sale. Topics include maintaining interview control, uncovering the buyer's hidden agenda, stalls, timing, closing a sale, and ethical issues. An experiential case study approach is used with mini-lectures, small group discussion, and

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noncredit courses

role playing of specific selling incidents. Intended for those who have completed PSch 0727 Professional Selling: Basic Techniques, or who have had basic selling skills training. (Limited to 25)

Spring Spec Term Sec 1 T—6-8, Apr. 7-May 5 (5 meetings), NCCE, Mader
No late fee through Mar. 31

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director, and has been author and co-author of major training manuals for that firm)

★PSch 0734 **STARTING AND BUILDING A SUCCESSFUL CONSULTING BUSINESS.** No credit, \$85 plus \$6 special fee. Total \$91 (age 62, \$75 plus \$6 special fee. Total \$81). Includes lunch.

For people who want to be consultants. This workshop provides an overview of the consulting field, including: reviewing the opportunities in consulting; evaluating benefits and potential challenges of a consulting business; analyzing your strengths and potential; deciding between part-time and full-time; choosing your focus; promoting services; prospecting for clients; pricing services; minimizing start-up costs; avoiding mistakes. Resource materials provided. (Limited to 28)

Fall Spec Term Sec 1 Sa—9 a.m.-4, Oct. 5 (1 meeting), EBCEC 156,
StP Campus, Moen
No late fee through Sept. 27

Winter Spec Term Sec 2 Sa—9 a.m.-4, Jan. 18 (1 meeting), EBCEC 156,
StP Campus, Moen
No late fee through Jan. 10

(Marilyn Moen has been a consultant and trainer for 20 years and is owner and director of Moen Training and Consulting in Mound, Minnesota. She has provided training across the U.S. and in other countries)

★PSch 0735 **CONSULTING: CREATING SUCCESSFUL PROPOSALS, NEGOTIATIONS, AND AGREEMENTS.** No credit, \$85 plus \$6 special fee. Total \$91 (age 62, \$75 plus \$6 special fee. Total \$81). Includes lunch.

New consultants often find it's not just what they know that counts, it's also how they communicate this knowledge which determines whether or not they get clients and have a profitable business. Consultants need to be skilled at proposal writing, persuasive communications, and negotiating agreements. In this workshop, examine situations which call for proposals, suggested formats and guidelines of basic proposals, evaluation methods, methods to give your proposal an "edge," presentation considerations, negotiation of key points and financial aspects, and arranging basic agreements with clients. Participants are encouraged, although not required, to have participated in the PSch 0734 Starting and Building a Successful Consulting Business. (Limited to 28)

Fall Spec Term Sec 1 Sa—9 a.m.-4, Oct. 26 (1 meeting), EBCEC 135A,
StP Campus, Moen
No late fee through Oct. 18

Spring Spec Term Sec 2 Sa—9 a.m.-4, May 2 (1 meeting), EBCEC 156,
StP Campus, Moen
No late fee through Apr. 24

(Marilyn Moen has been a consultant and trainer for 20 years and is owner and director of Moen Training and Consulting in Mound, Minnesota. She has provided training across the U.S. and in other countries)

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★**PSch 0736 CONSULTING: BUILDING SALES AND MARKETING SKILLS.** No credit, \$85 plus \$6 special fee. Total \$91 (age 62, \$75 plus \$6 special fee. Total \$81). *Includes lunch.*

One of the most challenging areas for consultants is the area of sales and marketing. Yet this can make a significant difference to the success of your consulting business. Topics addressed in this workshop include: defining your market; deciding to be a generalist or a specialist; exploring alternative marketing strategies; developing flyers, brochures, sales letters, and public relations kits; using creative and low-cost methods of marketing; planning the sales interview; responding to objections and questions; building confidence for sales. Resource materials are provided. Participants are encouraged, although not required, to have participated in PSch 0734 Starting and Building a Successful Consulting Business. (Limited to 28)

Winter Spec Term Sec 1 **Sa**—9 a.m.-4, Feb. 8 (1 meeting), EBCEC 156, StP Campus, Moen
No late fee through Jan. 31

(Marilyn Moen has been a consultant and trainer for 20 years and is owner and director of Moen Training and Consulting in Mound, Minnesota. She has provided training across the U.S. and in other countries)

★**PSch 0737 DEVELOPING, MARKETING, AND CONDUCTING SEMINARS AS A BUSINESS.** No credit, \$85 plus \$10 special fee. Total \$95 (age 62, \$75 plus \$10 special fee. Total \$85). *Includes lunch.*

For many people, the seminar business provides an attractive opportunity. As a part-time career, it supplements existing income sources. As a full-time career, it provides freedom, flexibility, and financial rewards. This workshop helps you develop your own seminar business. Topics include: evaluating the risks and rewards of the seminar business; choosing subjects and markets; selecting among the alternatives of sponsored, in-house, or public seminars; pricing seminars; promoting seminars; planning and developing sessions; developing skills as a seminar leader; evaluating seminar effectiveness. Resource materials include a Style Survey Assessment to help with training and marketing skills. (Limited to 28)

Spring Spec Term Sec 1 **Sa**—9 a.m.-4, Apr. 11 (1 meeting), EBCEC 156, StP Campus, Moen
No late fee through Apr. 3

(Marilyn Moen has been a consultant and trainer for 20 years and is owner and director of Moen Training and Consulting in Mound, Minnesota. She has provided training across the U.S. and in other countries)

★**PSch 0738 STREAMLINING OPERATIONS IN OFFICES AND SHOPS.** No credit, \$245.00 (age 62, \$235). *Does not include lunch.*

Streamlining reduces the total elapsed time or processing cycle of any work flow whether paper or other work output. Introduces and explores storyboarding as a technique to help participants streamline and make their work environments more efficient. Storyboarding starts by displaying the current process as cards or sequential steps on a storyboard. Learn to analyze options, eliminate nonvalue added tasks, and remove bottlenecks. Further improvement of solutions is attained by questioning the need for remaining operations and sequencing more streamlined work flow. These techniques are especially valuable for anyone mechanizing, automating, or writing requirements for a computer system, including the team facilitation leader, quality improvement planner, office manager, service sector manager, office systems analyst, and members of process improvement teams. **Lunch not included; cafeteria available.** (Limited to 30)

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new

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Winter Spec Term Sec 1 **TW**—9 a.m.-4, Jan. 28, 29 (2 meetings), EBCEC 166, StP Campus, Wickstrom
No late fee through Jan. 21

(Lee Wickstrom, an adjunct professor of operations and management science in the Carlson School of Management, University of Minnesota, has a Ph.D. and 25 years of managerial experience at Honeywell's industrial and information systems in Minneapolis, London, Paris, and Phoenix. He helped General Motors with the Saturn car systems by consulting in Detroit for 30 months and is the first person in Minnesota to pass the national Certified Systems Integrator's Exam)

★**PSch 0744 SPEAKING AND LISTENING SKILLS FOR THE WORKPLACE.** No credit, \$144 (age 62, \$134).

Efficient and effective communication skills have never been more instrumental to success in business and the professions than they are today. This short course assists you in mastering the fundamentals of persuasive communication and accurate listening. Brief, substantive lectures are followed by specific-skill practice sessions. (Limited to 22)

cew

Winter Spec Term Sec 1 **T**—6-9, Jan. 21-Feb. 11 (4 meetings), ClaOff 6, StP Campus, Bennett
No late fee through Jan. 14

(J. Michael Bennett coordinates the college reading and introductory public speaking courses in the Department of Rhetoric at the University of Minnesota. He frequently lectures and conducts seminars across the country in the areas of reading, writing, speaking, and listening)

★**PSch 0745 BARRIERS TO RISK-TAKING FOR CAREER WOMEN.** No credit, \$32 (no discount for persons 62 and older).

For career women who find themselves "playing it safe," and who may be stalled in their careers as a result, this course explores the cultural barriers which may prevent women from seeking challenges and taking the initiative. Includes an assessment of the participant's level of risk-taking and opportunities to set goals in this area. (Limited to 25)

Fall Spec Term Sec 1 **M**—6-7:30, Oct. 14, 21 (2 meetings), NCCCE, Emerson
No late fee through Oct. 7

(Nadine Emerson, licensed psychologist, is a consultant and counselor in private practice specializing in relationship issues, addiction, and personal growth. As a doctoral student at the University of Minnesota, she focused her research on the areas of control and anxiety)

★**PSch 0746 DELIVERING EFFECTIVE PRESENTATIONS.** No credit, \$145 (age 62, \$135). Does not include lunch.

If you want to give effective public presentations in both formal and informal settings, this course is designed for you. Focus on constructing a solid speech, reducing anxiety, and giving a dynamic presentation. Learn how to improve your tone of voice, rate of speech, and verbal and nonverbal delivery. Specific topics include establishing credibility and rapport; organizing your ideas; using notes, a podium, and a microphone; giving an impromptu speech; and dealing with audience questions or comments. **Lunch not included; cafeteria available.** (Limited to 35)

new

Fall Spec Term Sec 1 **W**—8:30 a.m.-4:30, Oct. 9 (1 meeting), EBCEC 52, StP Campus, Erwin
No late fee through Oct. 2

(Dan Erwin is president of The Erwin Group, a Twin Cities management consulting firm. He has taught speech-communication through Extension Classes at the University of Minnesota)

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noncredit courses

★PSch 0747 **NEGOTIATING FOR AGREEMENT.** No credit, \$145 (age 62, \$135). Does not include lunch.

new

In today's competitive world, everyone needs practical negotiation skills. Most business and personal transactions and decisions require some degree of negotiating ability. This seminar is designed to help participants use negotiation techniques to reach high quality and mutually satisfying agreements and to build better working relationships. Participants learn to understand the process of negotiation; identify their strengths and shortcomings as negotiators; work with models for analyzing their own and others' negotiation styles, strategies, and tactics; explore effective negotiation techniques and use these techniques in a positive manner; build the skills required to implement a broad range of negotiation tactics; and apply their negotiation knowledge and skills to real-world situations. The seminar offers practical tools and hands-on practice for sharpening negotiation skills and gaining the confidence necessary for engaging in successful win-win negotiations. **Lunch not included; cafeteria available.** (Limited to 35)

Fall Spec Term Sec 1 **Th**—8:30 a.m.-4:30, Oct. 3 (1 meeting),
EBCEC 62, StP Campus, Johnson
No late fee through Sept. 26

(Michael A. Johnson is a professor of organizational management in the School of Dentistry at the University of Minnesota)

★PSch 0748 **NEGOTIATION SKILLS FOR PURCHASING MANAGERS AND BUYERS.** No credit, \$285 (age 62, \$275). Does not include lunch.

new

For purchasing executives and managers, purchasing agents, buyers, and other managers and professionals who want to develop good negotiation techniques and gain greater confidence and competence in their negotiating ability. The program is designed to sharpen negotiating and interviewing skills, and help participants achieve more successful purchasing negotiations. Learn what to negotiate, with whom to negotiate, and how to evaluate proposals. In addition, learn to prepare for negotiation sessions, act and react during the sessions, and use interviews to gather information not only about your own position, but also about your customers and suppliers. Participants practice their skills by taking part in simulated purchasing negotiation sessions. **Lunch not included; cafeteria available.** (Limited to 35)

Fall Spec Term Sec 1 **WTh**—8:30 a.m.-4:30, Oct. 16, 17 (2 meetings),
EBCEC 32, StP Campus, Gallagher
No late fee through Oct. 9

(Charles Gallagher, C.P.M., is corporate director of purchasing, Valspar Corporation, Minneapolis)

★PSch 0749 **CUSTOMER RELATIONS.** No credit, \$125 (age 62, \$115). Does not include lunch.

new

To serve customers successfully, people in the customer service area need to listen, be responsive, and control their emotions. This course focuses on ways to achieve and maintain good customer relations. Topics include establishing trust and rapport, resolving conflicts, personalizing service, dealing with anger, improving listening comprehension, and handling complaints. Through a variety of exercises, discussions, films, and lectures, participants learn how to be effective customer service professionals. **Lunch not included; cafeteria available.** (Limited to 35)

Spring Spec Term Sec 1 **T**—8:30 a.m.-4, Apr. 21 (1 meeting),
EBCEC 52, StP Campus, Russell
No late fee through Apr. 14

(Mary Russell is director of training support at National Car Rental and an officer of the Minnesota Chapter of the Society of Consumer Affairs Professionals)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★**PSch 0750 UNDERSTANDING AND MANAGING STRESS IN THE WORKPLACE.** No credit, \$125 (age 62, \$115). *Does not include lunch.*

new

Helps participants identify and define the stressful aspects of their work settings and personal lives, including frustration, conflict, and pressure. Factors that influence the severity of stress both internally and externally are explored, and ways of minimizing stress psychologically through change of attitude are examined. Specifically, the workshop deals with the nature of stress, burnout, and Type A behavior, and the ways stress affects people physically and emotionally. Participants assess the stress they are experiencing in their personal lives in addition to measuring work stress. Relaxation techniques are presented. **Lunch not included; cafeteria available.** (Limited to 35)

Spring Spec Term Sec 1 **Th**—9 a.m.—4, Apr. 9 (1 meeting), EBCEC 52,
StP Campus, Hung
No late fee through Apr. 2

(John H. Hung is a clinical psychologist and an assistant professor in the schools of public health and medicine at the University of Minnesota)

★**PSch 0751 ASSERTIVENESS TRAINING FOR MEN AND WOMEN.** No credit, \$125 (age 62, \$115). *Does not include lunch.*

new

Combining useful theory with classroom applications and practice, understand how to put assertiveness principles to work in everyday life. You can expect to become better at expressing both positive and negative feelings; dealing with conflict and anger; responding to criticism, aggression, and manipulation; constructively solving problems; self-initiating; and projecting a positive self-image. The course is designed for individuals who want to increase their effectiveness in interpersonal relationships at home, in social situations, and in the work setting. Methods used include class lectures, self-assessment inventories, and simulation exercises. **Lunch not included; cafeteria available.** (Limited to 30)

Fall Spec Term Sec 1 **W**—9 a.m.—4, Oct. 23 (1 meeting), EBCEC 156,
StP Campus, Loeffler
No late fee through Oct. 16

(Dorothy Loeffler is a professor in the Department of Educational Psychology at the University of Minnesota and a licensed consulting psychologist)

★**PSch 0752 ASSERTIVENESS TRAINING FOR MANAGERS.** No credit, \$125 (age 62, \$115). *Does not include lunch.*

new

Your managerial style—what you do, when you do it, what you say, and how you say it—is a major factor in creating a climate of leadership and teamwork in your organization. An assertive manager inspires involvement and participation. Training in assertiveness helps a manager develop self-control, good interpersonal relations, and skill in dealing with supervisors, colleagues, and subordinates. In this seminar, the framework of assertiveness is used to describe and understand the three major approaches to supervision: aggressive, passive, and assertive. Assertive techniques for giving and responding to criticism and for respectfully confronting failure to perform are presented. Simulation exercises and practice suggestions are used to help participants problem-solve their own situations. **Lunch not included; cafeteria available.** (Limited to 30)

Spring Spec Term Sec 1 **M**—9 a.m.—4, Apr. 13 (1 meeting), EBCEC 52,
StP Campus, Loeffler
No late fee through Apr. 6

(Dorothy Loeffler is a professor in the Department of Educational Psychology at the University of Minnesota and a licensed consulting psychologist)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

★PSch 0753 MAINTAINING HEALTHY WORK RELATIONSHIPS: ASSERTION SKILLS.

No credit, \$82 (age 62, \$72).

new

Relationships in the work setting, such as those with clients, superiors, and subordinates, may complicate the use of assertive behavior. This course examines the special considerations in deciding how, when, and where to be assertive in work situations, and how to increase personal effectiveness through verbal and nonverbal behavior. Includes overview of assertion, methods of identifying the dynamics of a situation, rights and responsibilities of assertive behavior, choices and consequences of behaving assertively, and ways to build an assertive belief system. An opportunity to discuss and role-play situations involving assertion in the workplace. (Limited to 25)

Fall Spec Term Sec 1 **W**—6:15-8:15, Oct. 2-23 (4 meetings), NCCCE, Flower
No late fee through Sept. 25

(Jill Flower is a counselor at University of Minnesota Counseling Services and a doctoral student in the Counseling and Student Personnel Psychology Program. Her research interests include sex-role stereotyping)

★PSch 0754 MAINTAINING HEALTHY WORK RELATIONSHIPS: ADVANCED ASSERTION, PRACTICE AND PROBLEM SOLVING. No credit, \$82 (age 62, \$72)

new

Builds on the fundamental skills and knowledge you have acquired from either PSch 0753 Maintaining Healthy Work Relationships or other introductory assertion courses. The focus is on practicing and rehearsing assertiveness skills in small groups. You have the opportunity to analyze specific situations, and receive feedback and suggestions about how to respond assertively in a variety of circumstances. (Limited to 25)

Winter Spec Term Sec 1 **W**—6:15-8:15, Jan. 15-Feb. 5 (4 meetings),
NCCCE, Flower
No late fee through Jan. 8

(Jill Flower is a counselor at University of Minnesota Counseling Services and a doctoral student in the Counseling and Student Personnel Psychology Program. Her research interests include sex-role stereotyping)

★PSch 0755 MANAGING DIVERSITY IN THE WORKPLACE. No credit, \$70 (age 62, \$60).

new

More than half of the U.S. labor force now consists of minorities, immigrants, and women. During the next 10 years, these three groups will account for 85 percent of the growth in the labor force. As pointed out by R. Roosevelt Thomas Jr. in a recent *Harvard Business Review* article, increasingly we need to move toward affirming diversity in the workplace. Cross-cultural misunderstandings and conflicts can occur whenever employees with different backgrounds, experiences, or approaches interact. Such misunderstandings have many negative consequences and can be detrimental to productivity. Therefore, learning about dimensions of differences and developing managers and employees who will work well with people who are different from themselves is critical. This workshop will examine key issues that individuals and companies need to address, including: developing awareness of diversity and sensitivity to cultural and other forms of difference; understanding the major dimensions of diversity and their implications for employee behaviors, perceptions, and values; developing effective intercultural communication programs and reducing prejudice and stereotyping; and creating a climate where diversity can flourish. The workshop is especially appropriate for training directors, human resource professionals, and others with a stake in developing more diverse and tolerant workplaces. (Limited to 30)

Fall Spec Term Sec 1 **F**—1-5, Oct. 25 (1 meeting), EBCEC 166, StP Campus,
Albert, Albert
No late fee through Oct. 18

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

Spring Spec Term Sec 2 F—1-5, Apr. 10 (1 meeting), EBCEC 166, StP Campus, Albert, Albert
No late fee through Apr. 3

(Rosita Albert is an associate professor in the Department of Speech-Communication at the University of Minnesota. She is the senior faculty member in the area of intercultural communication and teaches courses focusing on a wide variety of cultures. An Hispanic social psychologist, she has taught at a number of universities, and was a visiting scholar at Harvard University. Her research has focused on cultural differences and on the development and evaluation of intercultural training. Stuart Albert is an associate professor in the Department of Strategic Management and Organization. His area of interest is organizational change)

★PSch 0756 **COMMUNICATING EFFECTIVELY IN CONFLICT SITUATIONS.** No credit, \$62 (age 62, \$52).

How can you handle a hostile audience or a disagreement with a colleague or supervisor? How can you defend your position when you are under attack? Even the best speaker may not be prepared for negative reactions. Learn to use logical and psychological tactics to overcome audience resistance and persuade those who oppose you. Learn why people are negative and how to handle your emotions to avoid fueling conflict. Recognize that conflict is not inherently a negative event and when you negotiate respectfully everyone wins. The class will have a chance to try out these techniques in hypothetical situations. (Limited to 30)

Spring Spec Term Sec 1 T—6-8, Apr. 14-28 (3 meetings), NCCE, Lapakko
No late fee through Apr. 7

(David Lapakko is an assistant professor of speech-communication at Augsburg College. He received his doctorate from the University of Minnesota, where his research focused on persuasion, argumentation, and public speaking)

★PSch 0757 **CONFLICT MANAGEMENT: AN OVERVIEW OF NEGOTIATION SKILLS AND THEORY FOR THE PRAGMATIST.** No credit, \$96 (age 62, \$86).

From your supper table to the super powers, competitive assumptions for dealing with interpersonal, organizational, and systemwide conflicts are being challenged by cooperative processes for managing conflict. This class will give you an opportunity to assess what strategies you currently use for dealing with conflict; what are and when to use the various styles of negotiation—one-to-one, mediation, arbitration, manager/mediation, and other forms of organizational dispute resolution. Several negotiation simulations will be used, giving all participants both the initial experience and feedback essential for making the leap to pragmatic applications. (Limited to 30)

Winter Spec Term Sec 1 Sa—8:30 a.m.-12:30, Jan. 18, 25 (2 meetings), EBCEC 166, StP Campus Fiutak
No late fee through Jan. 10

(Thomas Fiutak is the assistant director and cofounder of the Conflict and Change Center at the University of Minnesota, as well as a practicing consultant in organizational conflict management)

★PSch 0758 **HOW ORGANIZATIONS CONFLICT AND NEGOTIATE.** No credit, \$72 (age 62, \$62).

Organizations approaching the 21st century have an array of strategies to carry on intraorganizational as well as interorganizational disputing. The purpose of this course will be to explore the options, from litigation, arbitration, and med/arb systems mediated arenas to summary jury and mini trials. Knowing not only what the process is but why to use one as opposed to the other is key. We will explore the pros and cons by discussing some theory while playing some roles. (Limited to 30)

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new

Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

Spring Spec Term Sec 1 **Sa**—9 a.m.-12, Apr. 4, 11 (2 meetings), NCCE, Fiutak
No late fee through Mar. 27

(Thomas Fiutak is the assistant director and cofounder of the Conflict and Change Center at the University of Minnesota as well as a practicing consultant in organizational conflict management)

★PSch 0759 INTERCULTURAL COMMUNICATION FOR INTERNATIONAL BUSINESS: BEYOND THE ANECDOTES. No credit, \$145 (age 62, \$135).

new

Business leaders today realize the strong influence of culture on business. They are aware of the potentially damaging consequences when culture is left out of the business equation. An internationally and interculturally aware manager creates an atmosphere in which cultural differences are acknowledged and handled in a constructive manner. In this three-part seminar, participants learn to recognize the important aspects of the culture-business relationship and to apply this awareness to their own situation as managers and decision makers. They identify their own culturally determined business practices as well as the values and assumptions underlying the practices in other cultures. The seminar moves from the culture-general to the culture-specific, leading participants from cultural self-awareness to skills in intercultural interaction. Simulation exercises and practice suggestions help participants analyze and manage their own situations. (Limited to 30)

Fall Spec Term Sec 1 **T**—6-9, Nov. 19-Dec. 3 (3 meetings), EBCEC 166, StP Campus, Steglitz, Eland
No late fee through Nov. 12

Spring Spec Term Sec 2 **T**—6-9, May 5-19 (3 meetings), EBCEC 166, StP Campus, Steglitz, Eland
No late fee through Apr. 28

(Inge Steglitz is an intercultural trainer and educator. She holds M.A. degrees in psychology and speech-communication and is working on her Ph.D. in intercultural communication. Alisa Eland is a foreign student adviser and counselor at the Office of International Education, University of Minnesota. She has an M.A. in educational psychology. Both present and facilitate cross-cultural training for U.S. and international students, faculty, business organizations, health care professionals, educators, and community groups)

★PSch 0760 CUSTOMER SERVICE TRAINING. No credit, \$135 (age 62, \$125).

new

Exemplary customer service is a necessity for business to compete advantageously in today's market place. This course provides an overview of effective customer service strategies used by successful organizations and training practices used to develop customer oriented personnel. The fundamental components of customer service training will be reviewed including: needs assessment, instructional design, implementation of training, and measuring customer service results. The development of exemplary customer service programs in differing business contexts will be highlighted. (Limited to 35)

Winter Spec Term Sec 1 **Th**—1-5, Feb. 13, 20 (2 meetings), EBCEC 156, StP Campus, Stone, Schwartz
No late fee through Feb. 6

(James R. Stone III obtained his doctorate from Virginia Polytechnic Institute and State University in vocational-technical education. Dr. Stone has been a consultant for the past 10 years, co-author of a text in retail marketing, instructor for numerous business related courses, and has 10 years of sales, marketing, and retail business experience. Sherry A. Schwartz received her Ph.D. from the Department of Vocational and Technical Education at the University of Minnesota. Dr. Schwartz instructs a wide variety of business oriented courses, has conducted numerous training programs for industry, and has been a training consultant for the past 10 years)

Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

- ★PSch 0764 **HOW TO WRITE FOR THE WORLD OF WORK.** No credit, \$145 (age 62, \$135). *Does not include lunch.*

new

Generate successful business and technical reports, letters, and memos by building your understanding of the writing process. In this seminar you learn to write with a persuasive style by focusing on the communication triangle: information, audience, and purpose. Organization, format, and editing are discussed, and examples of standard letters and reports are given. While some basic rules of grammar and usage may be covered, this session is not a review of traditional English composition. Teaching methods include lecture, discussion, and workshops. Managers, assistants, technicians, and professionals—anyone who must write correspondence and reports—will find this a useful seminar. **Lunch not included; cafeteria available.** (Limited to 25)

Fall Spec Term Sec 1 **T**—8:30 a.m.-4:30, Oct. 8 (1 meeting),
EBCEC 52, StP Campus, Duin
No late fee through Oct. 1

(Ann Hill Duin is an assistant professor and director of the Undergraduate Scientific and Technical Communication Program in the Department of Rhetoric at the University of Minnesota)

- ★PSch 0765 **GOOD WRITING FOR GOOD MANAGERS.** No credit, \$145 (age 62, \$135). *Does not include lunch.*

new

Identify the basic principles of good business writing as they apply to good management. Workshop participants will be offered specific, practical suggestions on how they can avoid common errors, improve their writing, develop their style, and establish good writing habits. Particular types of business writing will be addressed: how to write a clear memo, organize a report, use a personal voice when writing to customers, write persuasive letters of recommendation, say “no” diplomatically, write nondefensively, express anger constructively, use the good-news memo to create good will, and be a “functional” rather than a “formal” communicator. Participants will practice the tips and techniques they encounter by trying their hands at some entertaining and useful writing exercises. In addition, they will be invited to submit samples of their own work for writing critiques. *The University of Minnesota Style Manual* and a self-designed writing plan will enable participants to continue developing their skills over time. **Lunch not included; cafeteria available.** (limited to 20)

Winter Spec Term Sec 1 **Th**—8:30 a.m.-4, Jan. 23 (1 meeting), EBCEC 52,
StP Campus, Wilbers
No late fee through Jan. 16

(Dr. Stephen Wilbers has offered his writing workshop to a wide variety of academic, professional, and technical audiences, including university students and faculty, assistant and associate deans, marketing representatives, bank managers, budget analysts, mining engineers, researchers, and scientists. He has published a history of the Iowa Writers' Workshop as well as interviews, book reviews, short stories, and a number of professional and academic articles, including "Good Writing for Good Results" in The College Board Review)

- ★PSch 0766 **DESIGNING QUESTIONNAIRES AND SURVEYS.** No credit, \$145 (age 62, \$135). *Does not include lunch.*

new

Questionnaires and surveys are often used in work settings to assess customer and employee needs, develop strategies for solving an organizational problem, and establish a base for future planning. This course helps you construct reliable and valid questionnaires and surveys. Topics include the strengths and weaknesses of surveys, components of a good questionnaire, and differences between needs assessment and evaluation summaries. Learn how to write effective questions, prepare an efficient

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Read about abbreviations, symbols, and maps on page 64.
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format, set up response alternatives, conduct the study, and prepare responses for computer analysis. The course is designed for people doing applied research and evaluation in corporate marketing and training departments, social service agencies, educational institutions, and nonprofit organizations. **Lunch not included; cafeteria available.** (Limited to 35)

Fall Spec Term Sec 1 **T**—9 a.m.-4, Oct. 1 (1 meeting), EBCEC 52,
StP Campus, Matross
No late fee through Sept. 24

Spring Spec Term Sec 2 **T**—9 a.m.-4, Apr. 14 (1 meeting), EBCEC 52,
StP Campus, Matross
No late fee through Apr. 7

(Ronald P. Matross is head of data and reporting services in Student Support Services at the University of Minnesota and an adjunct instructor in the College of Education)

The following courses are designed for anyone needing to learn the basics or improve their skills at using personal computers for business or at home. All classes are small (groups of 20 or less), emphasize hands-on learning, and are dedicated to skill development and practical application.

★**PSch 0779 WORD PROCESSING ON MACINTOSH COMPUTERS.** No credit, \$230 (age 62, \$220).

Hands-on instruction in word processing, Macintosh microcomputers. Short lecture/demonstrations are given and then students work on projects on the computers in the classroom. Topics include microcomputer concepts; the Macintosh interface and operating system; entering, modifying, saving, and printing documents; setting tabs, margins, and indentations; moving, copying, and deleting blocks of text; character enhancements; checking spelling; string search; graphics; and defining pages with headers and footers. (Limited to 20)

new

Fall Spec Term Sec 1 **M**—6-7:30, Sept. 30-Dec. 9 (11 meetings),
ApH 117, Robertson
No late fee through Sept. 23

(Douglas Robertson is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. He teaches developmental mathematics and computing, and has written three books on using microcomputer applications)

★**PSch 0780 INTRODUCTION TO MICROCOMPUTERS.** No credit, \$145 (age 62, \$135).

Learn about the basic operations of a microcomputer, including how computers function, the selection and use of software packages, and the management of data files. Through lecture and supervised practice on IBM microcomputers, participants explore computer applications such as word processing, electronic spreadsheets, and database management. Workbooks are provided for future reference. This seminar is recommended as an introduction to other microcomputer courses. (Limited to 20)

new

Fall Spec Term Sec 1 **T**—6-9, Oct. 8-22 (3 meetings), EBCEC
Computer Lab, StP Campus, Marker
No late fee through Oct. 1

Spring Spec Term Sec 2 **W**—6-9, Apr. 8-22 (3 meetings), EBCEC
Computer Lab, StP Campus, Marker
No late fee through Apr. 1

(Carolyn Marker is a principal systems analyst with Continuing Education and Extension at the University of Minnesota)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

- ★PSch 0781 **INTRODUCTION TO WORDPERFECT.** No credit, \$150 (age 62, \$140).

new

Learn the basics of word processing on one of the most popular full-feature word processing packages available—WordPerfect. In addition to learning how to create and print a document, the course covers editing, inserting, deleting, and moving text; saving, backing up, and retrieving files; enhancing text by centering, indenting, underlining, and boldfacing; and spell checking. This hands-on course is designed for the person who has little or no experience with word processing. Version 5.1 will be used in class; however, instruction is also applicable to WordPerfect 5.0 and 4.2. Instruction is on IBM microcomputers. **Lunch not included; cafeteria available for sec 1.** (Limited to 20)

Fall Spec Term Sec 1 T—8:30 a.m.-4:30, Oct. 29 (1 meeting), EBCEC Computer Lab, StP Campus, Meerdink
No late fee through Oct. 22

Spring Spec Term Sec 2 T—6-9, Apr. 7-21 (3 meetings), EBCEC Computer Lab, StP Campus, Meerdink
No late fee through Mar. 31

(Joyce Meerdink is an information systems specialist with Continuing Education and Extension at the University of Minnesota and a certified WordPerfect instructor)

- ★PSch 0782 **INTERMEDIATE WORDPERFECT: MACROS, STYLES, MERGING, AND SORTING.** No credit, \$120 (age 62, \$110).

new

Hands-on learning of four advanced functions of WordPerfect: macros, styles, merging, and sorting. *Macros*: creating, naming, editing, and using macros; using a macro pause within a macro. *Styles*: creating, editing, and using styles; understanding the different types of styles. *Merging*: creating and merging a simple primary and secondary file; understanding the concepts of field, record, and key field; creating envelopes. *Sorting*: performing sorts by last name and by zip code; performing multilevel sorts; creating a select statement. Participants are encouraged to bring sample documents to work on in class. Instruction is on IBM microcomputers. Version 5.1 will be used in class; however, instruction is also applicable to WordPerfect 5.0 and 4.2. (Limited to 20)

Winter Spec Term Sec 1 T—6-9, Jan. 14, 21 (2 meetings), EBCEC Computer Lab, StP Campus, Meerdink
No late fee through Jan. 7

(Joyce Meerdink is an information systems specialist with Continuing Education and Extension at the University of Minnesota and a certified WordPerfect instructor)

- ★PSch 0783 **INTERMEDIATE WORDPERFECT: COLUMNS, MATH, TABLES, GRAPHICS.** No credit, \$120 (age 62, \$110).

new

Hands-on learning of four advanced functions of WordPerfect: columns, math, tables, and graphics. *Columns*: creating and using both newspaper and parallel column styles and determining which style to use. *Math*: understanding the basic math operators and creating subtotals, totals, and grand totals. *Tables*: creating, editing, and formatting tables; incorporating math within a table. *Graphics*: creating and editing horizontal and vertical lines; creating and editing text and graphic boxes. Participants are encouraged to bring sample documents to work on in class. Instruction is on IBM microcomputers. Version 5.1 will be used in class; however, instruction is also applicable to WordPerfect 5.0 and 4.2. (Limited to 20)

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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

Winter Spec Term Sec 1 **T**—6-9, Jan. 28, Feb. 4 (2 meetings), EBCEC Computer Lab, StP Campus, Meerdink
No late fee through Jan. 21

(Joyce Meerdink is an information systems specialist with Continuing Education and Extension at the University of Minnesota and a certified WordPerfect instructor)

★**PSch 0784 INTRODUCTION TO LOTUS.** No credit, \$260 (age 62, \$250). Does not include lunch.

new

Lotus 1-2-3 is one of the most widely used microcomputer software packages currently available, with applications in finance, accounting, marketing, budgeting, planning, and numerous other areas. Large interrelated worksheets can be calculated at the touch of a key, and the package also allows for the easy creation of many types of graphs. This class is designed for beginning Lotus users; emphasis is on hands-on experience with the Lotus software. Participants learn to create and manipulate Lotus spreadsheets, develop and print graphs from the spreadsheet data, and produce reports using Lotus 1-2-3's data manipulation capabilities. Instruction is on IBM microcomputers. Participants should be familiar with using microcomputers. **Lunch not included; cafeteria available.** (Limited to 20)

Fall Spec Term Sec 1 **TW**—8:30 a.m.-4:30, Oct. 1, 2 (2 meetings), EBCEC Computer Lab, StP Campus, Marker
No late fee through Sept. 24

Winter Spec Term Sec 2 **TW**—8:30 a.m.-4:30, Jan. 21, 22 (2 meetings), EBCEC Computer Lab, StP Campus, Marker
No late fee through Jan. 14

Spring Spec Term Sec 3 **WTh**—8:30 a.m.-4:30, Apr. 29, 30 (2 meetings), EBCEC Computer Lab, StP Campus, Marker
No late fee through Apr. 22

(Carolyn Marker is a principal systems analyst with Continuing Education and Extension at the University of Minnesota)

★**PSch 0785 INTERMEDIATE LOTUS.** No credit, \$280 (age 62, \$270). Does not include lunch.

new

Designed for those who have a basic understanding of the spreadsheet operations (cursor movements, label vs. value, simple formula writing, editing, deleting, copying, formatting, saving and retrieving files, adjusting column width, and creating simple graphs), this course explores the Lotus program in greater depth. The focus is on (1) using range names to simplify formulas; (2) protecting the contents of cells; (3) using advanced "@" functions such as @MIN, @MAX, @AVG, @IF, @VLOOKUP, @CHOOSE, @DATE, and @PMT; (4) creating and using a data base (sorting, finding, and extracting records); (5) using data base statistical functions such as @DSUM, @DCOUNT, and @DAVG; and (6) creating and using macros. The course is completely hands-on using IBM microcomputers. **Lunch not included; cafeteria available.** (Limited to 20)

Fall Spec Term Sec 1 **TW**—8:30 a.m.-4:30, Oct. 15, 16 (2 meetings), EBCEC Computer Lab, StP Campus, Amidon
No late fee through Oct. 8

Spring Spec Term Sec 2 **WTh**—8:30 a.m.-4:30, May 13, 14 (2 meetings), EBCEC Computer Lab, StP Campus, Amidon
No late fee through May 6

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Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

(Mike Amidon is coordinator of the computer laboratory at the Earle Brown Center and has developed independent study courses in Lotus 1-2-3, dBASE III +, Excel, and MS DOS for the University of Minnesota)

★PSch 0786 HARD DRIVE MANAGEMENT: INTRODUCTION TO MS DOS. No credit, \$305 (age 62, \$295).

new

Explore the Microsoft disk operating system in this hands-on course and discover ways to use its commands to work more quickly and efficiently when creating, maintaining, deleting, and recovering files. Topics include the purpose and functions of DOS, internal vs. external commands, input/output commands, types of files, hard drive management, copying, backing up and restoring files, and writing batch files. Participants work at IBM microcomputers and receive a complete set of DOS handouts. (Limited to 20)

Winter Spec Term Sec 1 **W**—6-9, Jan. 15-Feb. 12 (5 meetings), EBCEC Computer Lab, StP Campus, Amidon
No late fee through Jan. 8

(Mike Amidon is coordinator of the computer laboratory at the Earle Brown Center and has developed independent study courses in Lotus 1-2-3, dBASE III +, Excel, and MS DOS for the University of Minnesota)

★PSch 0787 INTRODUCTION TO MICROSOFT WINDOWS 3.0. No credit, \$145 (age 62, \$135). Does not include lunch.

new

Microsoft Windows 3.0 is an exciting new graphical interface for IBM PCs and IBM clones. Working with MS DOS, Windows uses icons and pull-down menus to provide a more intuitive, efficient work environment. This course will cover: installing Windows; the difference between real, standard and 386 enhanced mode; working with menus, dialog boxes, applications and documents; the Program Manager, the File Manager, the Control Panel, and the Print Manager; Windows accessories; options for starting Windows; and optimizing Windows. Instruction will be hands-on, using the IBM PC Model 50Z equipped with VGA color graphics monitor and mouse. **Lunch not included; cafeteria available.** (Limited to 20)

Fall Spec Term Sec 1 **T**—8 a.m.-4:30, Oct. 22 (1 meeting), EBCEC Computer Lab, StP Campus, Amidon
No late fee through Oct. 15

(Mike Amidon is coordinator of the computer laboratory at the Earle Brown Center and has developed independent study courses in Lotus 1-2-3, dBASE III +, Excel, and MS DOS for the University of Minnesota)

★PSch 0788 COMPUTER SYSTEMS MANAGEMENT FOR THE LINE MANAGER. No credit, \$245 (age 62, \$235).

new

For the line manager, the introduction of computer or information systems can be a blessing or a curse. The line manager needs to understand the new dimensions/considerations that he/she will face when computer systems become part of his or her responsibilities. This course helps the line manager to manage information systems and work with information systems personnel in assessing needs (environmental audit), knowing the limit and future requirements (life cycle) of systems, and being aware of maintenance, security, performance, and connectivity considerations. (Limited to 24)

Fall Spec Term Sec 1 **Th**—6-9, Oct. 3-31 (5 meetings), EBCEC 166, StP Campus, Hasledalen
No late fee through Sept. 26

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noncredit courses

(Kenneth W. Hasledalen, M.B.A., received his Ph.D. from the University of Minnesota. He has over 22 years of administrative experience with 16 years directing new development and system enhancement for public sector management information systems. He currently is employed by the State of Minnesota and is responsible for information policy and services for the Department of Human Services)

★PSch 0794 MANUFACTURING FOR NON-MANUFACTURING EXECUTIVES. No credit, \$245 (age 62, \$235). Does not include lunch.

new

Designed to help the participant understand manufacturing strategy and speak "manufacturingese." It is ideal for the executive just promoted to manage manufacturing. Participants develop communications capabilities that encourage a useful dialogue between manufacturing and other business functions. It attempts to involve major corporate functions in the development of a competitive advantage for the firm's manufacturing operations. Key organizations that should be involved in the development of a strong manufacturing strategy include engineering, finance, human resources, marketing, operations, and quality. **Lunch not included; cafeteria available.** (Limited to 24)

Spring Spec Term Sec 1 **TW**—9 a.m.-4, Apr. 14, 15 (2 meetings), EBCEC 156, StP Campus, Schroer
No late fee through Apr. 7

(James R. Schroer, most recently vice president of corporate manufacturing for Honeywell, Inc., consults and is president of his own company. He helps clients become more competitive, and his special interests are plant turnarounds, better labor-management relations, and using new technologies for competitive advantage. Schroer frequently appears as a speaker and seminar leader)

If you already have started or are considering starting a business in your home, this series of short seminars may be useful to you. Attend one or as many as you like. If you choose to complete the five-part series, you should have the tools you need to operate your home-based business more successfully.

★PSch 0795 A HOME-BASED BUSINESS: IS IT FOR YOU? No credit, \$65 (age 62, \$55). Includes box lunch.

new

During the morning session, develop an understanding of some of the benefits and pitfalls of operating a business out of your home as well as how to maintain a manageable lifestyle. Discover what others in home-based businesses are doing, identify helpful resources, begin networking, and learn whether or not you have an entrepreneurial spirit. Marketing a product/service is the basis for your business, and practicing the Marketing Concept may be the difference between success or failure of your business. Topics for the afternoon session include identifying and analyzing your target market so that you have selected the right product/service mix to suit the needs of that market. A marketing plan will be addressed in PSch 0796. (Limited to 40)

Winter Spec Term Sec 1 **Sa**—9 a.m.-3, Jan. 18 (1 meeting), NCCE,

No late fee through Jan. 10

(Mary K. St. John is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. Her research interests include experiential learning, educational needs of small business, and students' learning styles. Shari L. Peterson is an assistant professor in the Division of Science, Business, and Mathematics of the General College. She has been coordinator of the Marketing Program and her research interests include experiential learning and student retention)

Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★PSch 0796 A HOME-BASED BUSINESS: PRICING, DISTRIBUTION, AND PROMOTION. No credit, \$36 (no discount for persons 62 and older).

new

After you have identified your target market and analyzed the consumer's needs for a specific product/service, the next step is to identify major considerations in pricing and inexpensive ways to distribute and promote your product/service. You should then be able to develop a formal marketing plan that becomes part of your business plan, the focus of PSch 0797. (Limited to 30)

Winter Spec Term Sec 1 W—6-9, Feb. 5 (1 meeting), NCCE, Peterson
No late fee through Jan. 29

(Shari L. Peterson is an assistant professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. She has been coordinator of the Marketing Program and her research interests include experiential learning and student retention)

★PSch 0797 A HOME-BASED BUSINESS: THE BUSINESS PLAN. No credit, \$36 (no discount for persons 62 and older).

new

The business plan is the overall guide in which you define and articulate the steps involved in running a successful business and marketing your product/service. Developing such a plan is necessary if you intend to seek financing, but it is also valuable in defining the potential risks, problems, and many management decisions that arise in any venture. Learn how you can write a workable business plan; then in PSch 0798, learn how you can keep the records that are a part of your business plan. (Limited to 30)

Winter Spec Term Sec 1 Th—6-9, Feb. 20 (1 meeting), NCCE, St. John
No late fee through Feb. 13

(Mary K. St. John is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. Her research interests include experiential learning, educational needs of small business, and students' learning styles)

★PSch 0798 A HOME-BASED BUSINESS: RECORD KEEPING AND TAXES. No credit, \$36 (no discount for persons 62 and older).

new

Record keeping begins with an understanding of the tax issues related to home-based businesses. Accurate records insure compliance with IRS regulations and generate maximum benefits to the entrepreneur. A formal system of records also identifies the amount of money needed to start and operate a business in your home. You are then prepared for a discussion of how accurate records are a part of what you need to know to secure financing in PSch 0799. (Limited to 30)

Spring Spec Term Sec 1 Th—6-9, Apr. 2 (1 meeting), NCCE, St. John
No late fee through Mar. 26

(Mary K. St. John is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. Her research interests include experiential learning, educational needs of small business, and students' learning styles)

★PSch 0799 A HOME-BASED BUSINESS: FINANCING. No credit, \$36 (no discount for persons 62 and older).

new

How much money do you need to start or grow a business? What are the best sources for financing? How do you deal with a loan officer? Should you consider equity or debt? When should short, intermediate, or long term financing

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be used? What statements are needed in a financial plan? (Limited to 30)

Spring Spec Term Sec 1 **Th**—6-9, Apr. 16 (1 meeting), NCCE, St. John
No late fee through Apr. 9

(Mary K. St. John is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. Her research interests include experiential learning, educational needs of small business, and students' learning styles)

Human Development

★**PSch 0800 ASSERTIVENESS TRAINING.** No credit, \$61 (age 62, \$51).

Becoming assertive means not only standing up for one's rights in negative, confrontational situations, but also being able to express beliefs, feelings, and opinions in an honest, open, and appropriate way. Increase communication skills while reducing anxiety and feelings of resentment and guilt through learning to distinguish assertive behavior from both passive and aggressive behavior. In class, you will have the chance to 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**—1-3, Oct. 1-29 (5 meetings), Highland Park Library, 1974 Ford Pkwy., StP, Solon
No late fee through Sept. 24

(Paula Solon is a psychologist in private practice and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota)

★**PSch 0802 ENHANCING SELF-ESTEEM.** No credit, \$55 (age 62, \$45).

Self-esteem is not a constant, but a feeling or image that we have of ourselves that fluctuates over time and across situations. Identify the thoughts, feelings, and behaviors that affect your sense of self and your relationships with others, and examine tools for building and maintaining a positive self-image. Through lectures, discussions, and group activities, participants learn specific steps for increasing self-acceptance, developing confidence, setting and achieving realistic goals, and overcoming barriers to change. This class is designed as an educational experience, not a therapy group. (Limited to 20)

Winter Spec Term Sec 1 **M**—10:15 a.m.-12:15, Jan. 13-Feb. 10
(4 meetings—no class Jan. 20), Washburn Library, 5244 Lyndale Ave. S., Mpls, Haycock
No late fee through Jan. 6

Spring Spec Term Sec 2 **T**—6:15-8:15, Mar. 31-Apr. 21 (4 meetings), NCCE, Kenfield
No late fee through Mar. 24

(Julie Kenfield is a licensed psychologist in private practice in Minneapolis and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. Laurel Haycock is a doctoral student in the Counseling and Student Personnel Psychology Program)

★**PSch J803 MOVING BEYOND DEPENDENT BEHAVIORS: STRATEGIES FOR WELL-NESS.** No credit, \$55 (age 62, \$45).

Dependencies can restrict choices and lower self-worth. Overcoming these behaviors encourages a regaining of free choice and personal well-being. Examine attitudes and behaviors that are dependency based, including dependencies on relationships,

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noncredit courses

food, or work. Original sources/persons for dependent behaviors and attitudes are discussed, and healthy and unhealthy patterns of dependency are identified. Emphasis is placed on developing strategies for wellness and on devising methods for ending or preventing unhealthy dependencies. This class is designed as an educational experience, not as a therapy group. (Limited to 20)

Winter Spec Term Sec 1 **T**—6-8, Jan. 7-28 (4 meetings), EE/CSci 2260, Kenfield
No late fee through Dec. 31

(Julie Kenfield is a licensed psychologist in private practice in Minneapolis and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota)

★PSch 0804 PERFECTIONISM AND PROCRASTINATION. No credit, \$42 (no discount for persons 62 and older).

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? Includes a combination of lectures about how these behaviors originate and manifest themselves plus small group discussions and exercises to learn techniques to stop these delaying tactics. This class is designed as an educational experience, not as a therapy group. (Limited to 25)

Winter Spec Term Sec 1 **Th**—1:15-3:15, Jan. 9-23 (3 meetings), Linden Hills Library, 2900 W. 43 St., Mpls, Harless
No late fee through Jan. 2

Spring Spec Term Sec 2 **M**—6-8, Apr. 6-20 (3 meetings), FordH 60, Harless
No late fee through Mar. 30

(Debra Harless is a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. She has worked as a counselor and instructor in university and college settings, with an emphasis in the area of learning skills. Her research interests include learning and teaching styles)

★PSch 0806 WHY A LIVING TRUST? No credit, \$17 (no discount for persons 62 and older).

Much is being written these days about the living trust as an alternative to guardianship and probate. *Money* magazine (March 1989) recommends the revocable living trust as a precaution against the costs and abuses associated with guardianship. *Fortune* magazine (February 25, 1991) recommends 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 25)

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct. 10 (1 meeting), Lutheran Church of the Good Shepherd, 4801 France Ave. S., Edina (park in lot south of Church and enter through doors from parking lot), Houk
No late fee through Oct. 3

(Larry Houk is a graduate of the University of Minnesota Law School. He has over 20 years' experience in the area of estate planning and trusts, and has taught seminars on the subject to audiences nationwide)

★PSch 0807 UNDERSTANDING THE LIVING WILL. No credit, \$17 (no discount for persons 62 and older).

Minnesota's living will legislation was recently enacted to extend the legal rights of competent adults to make their own health care decisions up to the time when they
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noncredit courses

may be unable to make such decisions. Primary emphasis is on the problems people have with filling out the living will and the resultant effects when implemented. The mechanics of filling out the form are also discussed. Questions from participants about their specific concerns are encouraged. (Limited to 20)

Fall Spec Term Sec 1 **Th**—10 a.m.-12, Oct. 3 (1 meeting),
Lutheran Church of the Good Sheperd,
4801 France Ave. S., Edina,
(park in lot south of Church and enter through
doors from parking lot), Keppler, Fuller
No late fee through Sept. 26

(Rosalind Keppler is an elder law attorney with Kuehn and Keppler, Minneapolis. Dr. Benjamin Fuller was a full-time faculty member in the Department of Medicine at the University of Minnesota Medical School. He is now retired)

★PSch 0808 WOMEN'S DEVELOPMENT: DEFINE YOURSELF. No credit, \$70 (age 62, \$60).

Research in the social sciences tells us that there are definite stages of personality development. This psychological growth continues throughout our lives and does not end with childhood or adolescence. This course will define these stages and relate them particularly to adult female development. Examine the emerging theories of female development, the principles and concepts underlying the female developmental process, relationships, balancing roles, assertiveness and self-esteem. Course format combines lecture, discussion, and in-class exercises. (Limited to 25)

Fall Spec Term Sec 1 **M**—6-8, Sept. 30-Oct. 28 (5 meetings),
FordH 285, Solon
No late fee through Sept. 23

(Paula Solon is a psychologist in private practice and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota)

★PSch 0809 SELF-ESTEEM ISSUES FOR WOMEN. No credit, \$55 (age 62, \$45).

Many women feel the effects of low self-esteem in work and personal relationships. Women may internalize messages from society, family, and friends, thereby learning to negatively label themselves. Participants will address low self-esteem as a woman's issue, examine thoughts, feelings, and behaviors that affect images of self, and identify tools for building and maintaining a positive self-image. Includes informal lectures, discussion, and group activities for women who are interested in increasing self-acceptance, developing confidence, identifying barriers to change, and setting and achieving realistic goals. This class is designed as an educational experience, not a therapy group. (Limited to 20)

Fall Spec Term Sec 1 **W**—6:15-8:15, Oct. 2-23 (4 meetings),
Woodbury Branch Library, 2150 Radio Dr.,
Woodbury, Schank
No late fee through Sept. 25

(Janet Schank is a licensed psychologist and a doctoral candidate in educational psychology at the University of Minnesota. She has been a counselor in community and educational programs)

★PSch 0810 MANAGING PERSONAL STRESS. No credit, \$55 (age 62, \$45).

Participants look at a simple model that illustrates how individuals process stress in different ways and how a negative cycle can be reversed. Characteristic responses to stress and the underpinnings of self-defeating responses are examined. Several stress management techniques are presented and experienced. (Limited to 30)

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Winter Spec Term Sec 1 **M**—6-8, Jan. 13-Feb. 10 (4 meetings—no class Jan. 20), Arch 45, Emerson
No late fee through Jan. 6

(Nadine Emerson, licensed psychologist, is a consultant and counselor in private practice specializing in relationship issues, addiction, and personal growth. As a doctoral student at the University of Minnesota, she focused her research on the areas of control and anxiety)

★**PSch 0811 DYNAMICS OF ANGER AND ANGER MANAGEMENT.**No credit, \$70 (age 62, \$60).

new

Anger is a signal—a message our needs or wants are not adequately being met, our rights are being violated, we are doing more or giving more than we can, or that, in some way, we are being hurt. Focus on the dynamics of anger. Learn how to express anger appropriately and learn anger management techniques. Course format includes lecture, discussion, and in-class exercises. This class is designed as an educational experience and not as a therapy group. (Limited to 25)

Spring Spec Term Sec 1 **Th**—6-8, Apr. 9-May 7 (5 meetings), Arch 45, Solon
No late fee through Apr. 2

(Paula Solon is a psychologist in private practice and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota)

★**PSch 0812 RELATIONSHIP LOSS: A GUIDE THROUGH GRIEF INTO HEALING.**No credit, \$70 (age 62, \$60).

new

For anyone who has lost a significant person through the break up of a relationship, separation, divorce, or death, this is an educational and experiential exploration of the anatomy of grief and ways to enhance the healing process. Course format combines lectures, discussion, and in-class exercises. This class is designed as an educational experience, not as a therapy group. (Limited to 25)

Fall Spec Term Sec 1 **Th**—6-8, Oct. 3-31 (5 meetings), Arch 45, Solon
No late fee through Sept. 26

(Paula Solon is a psychologist in private practice and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota)

★**PSch 0815 IDENTITY AND INTIMACY IN CLOSE RELATIONSHIPS.**No credit, \$47 (no discount for persons 62 and older).

Balance is what we strive for—to connect with someone else, yet remain individual. Explore 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. This class is structured to help students recognize their attitudes about intimacy and suggests steps to take to achieve a more comfortable balance. It is designed as an educational experience, not as a therapy group. (Limited to 30)

Winter Spec Term Sec 1 **W**—6-8, Jan. 15-29 (3 meetings), NCCCE, Colgan
No late fee through Jan. 8

(Philip Colgan is an instructor in the Department of Family Practice and Community Health at the University of Minnesota, and a psychotherapist in private practice in Minneapolis)

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noncredit courses

★PSch 0816 BEING YOURSELF/BEING TOGETHER: SELF-ESTEEM AND INTIMACY. No credit, \$47 (no discount for persons 62 and older).

Frequently, there are challenges in attempting to balance a sense of self with involvement in an intimate relationship. Focus on developing intimacy skills while maintaining a clear sense of identity. These skills include understanding how our internal dialogue affects intimate behavior, and communication skills such as expressing emotions and resolving conflicts. Change strategies, such as learning to set boundaries and developing more positive self-talk, also are explored. This course is designed as an educational experience, not as a therapy group. (Limited to 30)

Fall Spec Term Sec 1 **Sa**—9 a.m.-12, Oct. 5, 12 (2 meetings), NCCE, Colgan
No late fee through Sept. 27

(Philip Colgan is an instructor in the Department of Family Practice and Community Health at the University of Minnesota and a psychotherapist in private practice in Minneapolis)

★PSch 0817 EXPLORING YOUR FAMILY OF ORIGIN. No credit, \$55 (age 62, \$45).

During the past few years, there has been growing interest in and awareness of how our families of origin affect who we become as adults. Explore your family background in order to better understand your current self-concept, ways of communicating, coping skills, and the types of relationships you have with others. In addition, time will be spent increasing awareness of alternatives in these areas for those aspects that are problematic in our adult lives. This class is designed as an educational experience, not as a therapy group. (Limited to 25)

Fall Spec Term Sec 1 **Th**—6:15-8:15, Oct. 3-24 (4 meetings),
FordH 150, Kenfield
No late fee through Sept. 26

(Julie Kenfield is a licensed psychologist in private practice in Minneapolis and a doctoral student in the Counseling and Student Personnel Psychology Program)

★PSch 0827 JOB SEARCH STRATEGIES. No credit, \$63 (age 62, \$53).

Designed for people who currently are job hunting and for those planning to do so. Topics include choosing an approach, performing self assessments, targeting possible employers, writing résumés and cover letters, and interviewing. Participants have the opportunity to share ideas and support with other job seekers. (Limited to 20)

Spring Spec Term Sec 1 **W**—6-8, Apr. 1-22 (4 meetings), AmundH 124, Huck
No late fee through Mar. 25

(Christina Huck is a career counselor who has worked with University students and other adults, and has taught career planning classes and job search workshops. Her doctoral dissertation focuses on mid-life career change)

★PSch 0828 CAREER PLANNING FOR WOMEN WHO WORK. No credit, \$91 plus \$10 special fee. Total \$101 (age 62, \$81 plus \$10 special fee. Total \$91).

Designed for women who are in the process of making career decisions such as what position to seek next, whether or not to make a career change, how much of a change to make, or how to integrate an occupational role with family or other life roles. Assistance provided in defining career goals; assessing interests, skills, and values; finding information on occupations; doing informational interviews; making decisions; and conducting an effective job search. Includes self-assessment, testing, lectures, and group process. Concerns of working women are addressed through small group discussion. (Limited to 25)

CEW

Fall Spec Term Sec 1 **W**—6-8, Sept. 25-Oct. 30 (6 meetings),
NCCE, Huck

No late fee through Sept. 18
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noncredit courses

(Christina Huck is a career counselor who has worked with University students and other adults, and has taught career planning classes and job search workshops. Her doctoral dissertation focuses on mid-life career change)

★PSch 0829 CAREER DECISIONS: STRATEGIES FOR CHANGE. No credit, \$91 plus \$10 special fee. Total \$101 (age 62, \$81 plus \$10 special fee. Total \$91).

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. This is an opportunity to take the Strong Interest Inventory and the Myers-Briggs Type Indicator, two vocational assessment inventories. (Limited to 30)

Fall Spec Term Sec 1 **M**—6-8, Sept. 30-Nov. 4 (6 meetings), NCCE, Pelto
No late fee through Sept. 23

Winter Spec Term Sec 2 **W**—6-8, Jan. 15-Feb. 19 (6 meetings),
NCCE, Huck

No late fee through Jan. 8

Spring Spec Term Sec 3 **T**—6-8, Apr. 1-May 6 (6 meetings),
NCCE, Krantz

No late fee through Mar. 25

(Christina Huck is a career counselor who has worked with University students and other adults, and has taught career planning classes and job search workshops. Her doctoral dissertation focuses on mid-life career change. Barbara Krantz is a licensed psychologist and career counselor for the Extension Counseling Department. She specializes in career, personal, and academic counseling with current and prospective students. Janet Pelto is a career counselor for CEE Counseling)

★PSch 0830 CAREER UNREST AND MID-LIFE TRANSITIONS: REALIZING CHANGE. No credit, \$80 (age 62, \$70).

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, as well as a framework for dealing with life transitions. Techniques used to heighten self-awareness for improved decision making and planning include traditional testing, written exercises, as well as imagery and visualization. Includes lecture, discussion, and small group interaction. (Limited to 24)

Spring Spec Term Sec 1 **M**—6-8, Apr. 13-May 11 (5 meetings), NCCE, Nutter
No late fee through Apr. 6

(Kevin J. Nutter, Ph.D., is the program director of the Career Resource Center at the University of Minnesota, and is associated with Assessment and Vocational Services, a Minneapolis rehabilitation and out-placement counseling firm)

★PSch 0831 CAREER AND MID-LIFE CHANGE: JOB SEARCH STRATEGIES 40 AND OVER. No credit, \$80 plus \$7 special fee. Total \$87 (age 62, \$70 plus \$7 special fee. Total \$77).

Designed for the experienced worker established in a career who is planning on seeking new employment. Participants will address both psychological and logistical barriers that prevent people from making such career changes. Time will be spent developing the "paper tools" and the search strategy needed to efficiently and effectively change employment. Topics will include labor market changes, effective job

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new

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noncredit courses

search techniques, taking "smart" risks, and developing a personalized job search campaign. Class format will include lecture, discussion, and small group interaction. (Limited to 20)

Fall Spec Term Sec 1 **M**—6-8, Oct. 7-Nov. 4 (5 meetings), Walker Library,
2880 Hennepin Ave., Mpls, Nutter
No late fee through Sept. 30

(Kevin J. Nutter, Ph.D., is the program director of the Career Resource Center at the University of Minnesota, and is associated with Assessment and Vocational Services, a Minneapolis rehabilitation and out-placement counseling firm)

★PSch 0832 WRITING FOR JOBS: CHANGING DIRECTIONS. No credit, \$74 (age 62, \$64).

Getting an interview or a job is not just a matter of who you are or what you've done. Often, hiring decisions are based primarily on how an applicant is presented in writing. As more and more people change jobs and even change fields, the ability to produce impressive and shrewd cover letters, resumes, and follow-up letters becomes more of an expectation than an edge. Explore systematically special challenges involved in writing for jobs generally, especially when subtle or radical changes in professions are involved. Participants learn or sharpen skills at all stages of the writing process necessary to plan and carry out effective job-hunting strategies during and after the course. (Limited to 25)

Fall Spec Term Sec 1 **T**—6:15-8:15, Sept. 24-Oct. 22 (5 meetings),
JonesH 4, O'Brien
No late fee through Sept. 17

(John O'Brien, an advanced graduate student at the University of Minnesota, has taught advanced writing, composition, and literature. He has experience working with nontraditional students in general, and hands-on guidance in particular with individuals preparing materials for job hunting in many fields)

★PSch 0833 PROFESSIONAL SELLING FOR WOMEN: CAREER EXPLORATION. No credit, \$41 (no discount for persons 62 and older).

Career opportunities for women in professional sales are improving and increasing each year. Find out if this is the career track for you. Examine the role of professionals in sales, identify the many types of firms and industries where women are succeeding, and develop an understanding of the personal qualities that will improve your chances for success. Provides an opportunity to meet and discuss concerns with women in the field. (Limited to 25)

Fall Spec Term Sec 1 **Th**—6-8, Oct. 10, 17 (2 meetings), NCCE,
St. John
No late fee through Oct. 3

(Mary K. St. John is an associate professor in the Division of Science, Business, and Mathematics of the General College at the University of Minnesota. Her research interests include experiential learning, educational needs of small business, and students' learning styles)

★PSch 0834 RÉSUMÉ WRITING: GETTING IT TOGETHER. No credit, \$38 (no discount for persons 62 and older) class only; \$51 includes optional half-hour individual résumé critique.

Designed to teach participants how to develop an effective résumé. It is appropriate for those seeking their first paid position, a promotion, or those re-entering the job market or changing fields. Participants learn a variety of forms to employ when writing an effective résumé, and study examples of chronological, functional, and combina-

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noncredit courses

tion formats. Typical résumé pitfalls are discussed. Attention directed to learning alternative ways of marketing the skills you possess. At the conclusion of the workshop, students may arrange an optional half-hour individual résumé critique with the instructor. (Limited to 25)

Winter Spec Term Sec 1 **Th**—6-8, Jan. 16, 23 (2 meetings), NCCE 229, Peterson
No late fee through Jan. 9

(Susanne Peterson is a counselor for CEE Counseling at the University of Minnesota and a licensed psychologist. She has been engaged in individual career counseling and educational planning for men and women. She has planned and taught courses in career development strategies, résumé writing, job search process, and assertiveness, and has facilitated structural support groups for participants in the Math Preparation Program)

★PSch 0840 BUSINESS AND PERSONAL COMMUNICATION SKILLS FOR MEN. No credit, \$42 (no discount for persons 62 and older).

new

Do you find the boss hard to deal with or that people you manage work more against you than for you? Do you watch relationships go up in smoke because "we just can't communicate"? Examine communication traps men use which interfere with business and personal success, review successful communication strategies, and explore how to apply these strategies to such areas as negotiating skills, management techniques, and relationship building. (Limited to 20)

Spring Spec Term Sec 1 **T**—6-8, April 7-21 (3 meetings), EE/CSci 2260, Hirsch
No late fee through Mar. 31

(Glenn Hirsch is a licensed consulting psychologist in private practice and a senior staff psychologist at University Counseling Services)

★PSch 0845 YOU TALK MAN, I'LL TALK WOMAN—BRIDGING THE COMMUNICATION GAP. No credit, \$42 (no discount for persons 62 and older).

new

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)

Winter Spec Term Sec 1 **T**—6-8, Jan. 14-28 (3 meetings), Arch 20, Hirsch
No late fee through Jan. 7

(Glenn Hirsch is a licensed consulting psychologist in private practice and a senior staff psychologist at University Counseling Services)

★PSch 0848 LISTENING AND NEGOTIATING SKILLS. No credit, \$55 (age 62, \$45).

Designed to provide participants with an overview of listening and negotiation skills, and an opportunity to put these skills into practice. The principles presented are applicable in both personal and professional relationships. Focus is on learning to truly listen in conversations, and on acquiring skills to keep communication open while presenting personal needs respectfully and clearly. Course format combines lecture, discussion, and in-class exercises. (Limited to 25)

Fall Spec Term Sec 1 **T**—6:15-8:15, Oct. 1-22 (4 meetings),
NCCE, Haycock
No late fee through Sept. 24

Spring Spec Term Sec 2 **W**—10:15 a.m.-12:15, Apr. 1-22 (4 meetings),
Walker Library, 2880 Hennepin Ave. S., Mpls, Solon
No late fee through Mar. 25

(Laurel Haycock is a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. Paula Solon is a psychologist in private practice and a doctoral student in the Counseling and Student Personnel Psychology Program)

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★**PSch 0860 THE YOUNG CHILD'S COMPANIONS: FRIENDS AND FOES.** No credit, \$48 (no discount for persons 62 and older).

new

Research on children's interactions with companions supports the hypothesis that young children help to socialize one another, laying a foundation for later adaptation to society, in and out of school. Discussion includes the insights gained from research using natural observations of children interacting informally with peers in preschools, day care centers, and laboratory play sessions. Topics will include strategies used by children to maintain friendly relations such as the use of cooperation, compliance with peer requests, and the giving of nurturance or help to a companion. The functions of assertiveness, competitiveness, and aggressiveness in the peer group will be discussed. Finally, attention will be given to the role of teachers and care givers in guiding the social development of the young child. (Limited to 25)

Spring Spec Term Sec 1 **Sa**—9 a.m.-12, Apr. 4, 11 (2 meetings), EBCEC 166, STP Campus, Moore
No late fee through Mar. 27

(Shirley Moore is a professor emerita in the Department of Child Development at the University of Minnesota. She has been a nursery school and day care center director and is co-author of Contemporary Preschool Education: A Program for Young Children and The Young Child: Reviews of Research)

★**PSch 0861 PARENTING: THE ACTIVE ALERT CHILD.** No credit, \$48 (no discount for persons 62 and older).

For parents who feel as though they are always several steps behind their child. Active alert children are active (but not hyperactive), alert, bright, controlling, fearful, intense, attention-hungry, and empathetic. Examine how this child differs from the attention-deficit or hyperactive child and explore ways in which to best meet the needs of this child within the family system. (Limited to 30)

Fall Spec Term Sec 1 **Sa**—9 a.m.-12, Sept. 28, Oct. 5 (2 meetings), NCCE, Budd
No late fee through Sept. 20

(Linda Budd teaches in the Department of Family Social Science at the University of Minnesota. She is a licensed consulting psychologist in private practice and wrote Living With the Active Alert Child)

★**PSch 0862 BUILDING SELF-ESTEEM IN CHILDREN.** No credit, \$58 (age 62, \$48).

Having positive self-esteem means feeling that you are a competent person who has something worthwhile to contribute to life around you. This feeling is an important aspect of being mentally healthy. A child who feels this way is able to venture out into the world establishing positive relationships with others, working toward attaining goals, and welcoming life with pleasurable anticipation. This course is designed to help parents see clearly how to help children generate good, realistic feelings about themselves. The focus is on children ages 0 to 6 years. Topics include looking at participants' sense of self-worth and how it affects parent-child interaction, characteristics of and contributions to positive self-esteem, and ways to build up or break down children's good feelings about themselves. Class format combines lecture and discussion. (Limited to 25)

Fall Spec Term Sec 1 **Sa**—10 a.m.-12, Oct. 5-26 (4 meetings), ChDev 105, Mooney-McLoone
No late fee through Sept. 27

Spring Spec Term Sec 2 **T**—6-8, Apr. 7-28 (4 meetings), PeikH 225, Mooney-McLoone
No late fee through Mar. 31

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Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

(Ann Mooney-McLoone is an instructor in early childhood education and child development, and head teacher in the University of Minnesota Laboratory Preschool. She has given presentations at national conferences and parent education workshops, and is involved in ongoing research with the Institute of Child Development)

- ★PSch 0880 **LIFE IN THE OTHER LANE: PREPARING FOR RETIREMENT.** No credit, \$64 (age 62, \$54).

new

Like any other phase of life, retirement benefits from some prior planning and thinking. In our four sessions you will have an opportunity to share your fantasies of retirement, explore some of the common "traps" in unplanned retirement, debunk the myths about retirement, anticipate the life best for you in the absence of a structured job, and learn something about the psychology that supports or detracts from feeling productive and satisfied. (Limited to 25)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-22 (4 meetings), SmithH 121, Wales
No late fee through Sept. 24

(Elizabeth Wales, Ph.D. in clinical psychology and aging herself, is the director of University Counseling Services. When teaching in the family practice department of the Wright State School of Medicine, she was intrigued by the various ways retired people dealt with the challenge of retirement. Some were highly successful, others seemed never to adjust)

... Etcetera

- ★PSch 0900 **WORKING WITH FINANCIAL PROFESSIONALS.** No credit, \$18 (no discount for persons 62 and older).

Confused by the array of financial services available? Do you need a financial planner? An attorney? A CPA? An insurance agent or stockbroker? Identify who does what and the professionals you need to meet your needs. Criteria to evaluate ability, experience, and credentials are covered as well. (Limited to 35)

Fall Spec Term Sec 1 **Th**—6-8, Sept. 19 (1 meeting), NCCE, Whittlinger
No late fee through Sept. 12

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

- ★PSch 0901 **A GOOD BEGINNING TO MONEY MANAGEMENT.** No credit, \$56 (age 62, \$46).

Have you ever wondered where all of your money goes? Examine the process of gaining control of the income-expense flow of household budgets and review some basics of financial management at different life stages. Includes household inventory, insurance, net worth statements, credit, record keeping, general concepts related to financial planning, and family financial values. (Limited to 25)

Fall Spec Term Sec 1 **T**—6-8, Oct. 1-22 (4 meetings), NCCE, Dobbins
No late fee through Sept. 24

Spring Spec Term Sec 2 **W**—6:15-8:15, Apr. 8-29 (4 meetings), Woodbury Library, 2150 Radio Dr., Woodbury, Dobbins
No late fee through Apr. 1

(Celvia Dobbins is a doctoral student in the Department of Family Social Sciences at the University of Minnesota and has worked with civilian and military families in the areas of money management and financial responsibilities. Her research interests are in the area of family resource management)

Read about abbreviations, symbols, and maps on page 64.
Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

★PSch 0903 FINANCIAL PLANNING FOR THE WOMAN ON HER OWN. No credit, \$23 (no discount for persons 62 and older).

Financial planning and investing for any woman living on her own. Whether you are divorced, widowed, separated, or single, assess your financial situation and what you need to take into consideration in planning for the future. Topics include appropriate investments based on income needs and net worth, insurance needs, tax status, and sources of income for retirement years. Using case studies, we will demonstrate selecting and evaluating investments, risks inherent in investment options, and how to determine the amount to put into savings, investments, and retirement based on financial objectives. (Limited to 40)

Fall Spec Term Sec 1 **T**—6-9, Nov. 19 (1 meeting), Walker Library, 2880 Hennepin Ave., Mpls, Whittlinger
No late fee through Nov. 12

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

★PSch 0906 INVESTMENTS AND PERSONAL FINANCIAL PLANNING. No credit, \$58 (age 62, \$48).

Covers fundamental issues of sound financial management planning. Intended for both the novice and experienced investor, this series emphasizes concepts to help you better manage and control your financial future. *First session: Basic Financial Management Process.* Taking your financial inventory, personal budgeting and planning, determining goals and objectives for investment, retirement, future expenditures, and cash control procedures. Reviewing basic needs for savings, insurance, and wills. *Second session: Basics of Investments.* Basic features and considerations of investing in money market funds, bonds, preferred stocks, municipal bonds, bond funds, and stocks. *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, Jan. 14-28 (3 meetings), NCCE, Whittlinger
No late fee through Jan. 7

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

★PSch 0909 INVESTMENT ANALYSIS AND PORTFOLIO BUILDING. No credit, \$33 (no discount for persons 62 and older).

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. Students must have a basic working knowledge of various types of investments. (Limited to 40)

Spring Spec Term Sec 1 **Th**—6-8, Apr. 2, 9 (2 meetings), NCCE, Whittlinger
No late fee through Mar. 26

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

★PSch 0912 PORTFOLIO MANAGEMENT AND ASSET ALLOCATION STRATEGIES. No credit, \$33 (no discount for persons 62 and older).

Designed for those with active investment experience. Begin with a review of market
(continued next page)

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noncredit courses

forecasting concepts for the stock market, interest rates, and inflation. Economic scenarios provide a basis for allocating assets among cash, stocks, bonds, and real estate. Techniques for managing a portfolio based on one's needs and objectives also are reviewed. (Limited to 40)

Spring Spec Term Sec 1 **W**—6-8, Apr. 29, May 6 (2 meetings), Walker Library, 2880 Hennepin Ave., Mpls, Whittlinger
No late fee through Apr. 22

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

★PSch 0916 NURSING HOME EXPENSES AND YOUR FAMILY. No credit, \$32 (no discount for persons 62 and older).

Neither Medicare nor personal health insurance generally pays for long-term health care. Explore the principal ways families can protect themselves against the financial and emotional costs of long-term nursing home care. A lawyer and a financial psychologist join forces to describe and evaluate the Medicaid spend-down solution, the divorce technique, and nursing home insurance. Discussion blends the legal requirements and the psychological aftereffects of each approach. Designed for older people with average or above-average assets and their adult children. (Limited to 30)

Fall Spec Term Sec 1 **Sa**—9 a.m.-12:30, Oct. 12 (1 meeting), NCCF, Doyle, Houk
No late fee through Oct. 4

(Ken Doyle is a financial psychologist on the faculty of the University of Minnesota. Larry Houk is an attorney in private practice specializing in estate and health care planning)

★PSch 0920 EQUAL PARTNERSHIP: REAL AND PERSONAL PROPERTY RIGHTS IN RELATIONSHIPS. No credit, \$33 (no discount for persons 62 and older).

Marriage or cohabitation alters an individual's legal as well as financial situation. Understanding your legal rights and responsibilities in these partnerships may help you establish a happier, safer future for yourself and your family. Topics in this informational session include joint ownership of real estate and personal property; ante-nuptial (prenuptial) agreements; credit issues; establishment of financial assets in divorce or separation; rights to spouse/partner's pension and social security benefits; inheritance interests; and estate planning and challenges. Information covered also applies to unmarried couples living together. (Limited to 25)

Fall Spec Term Sec 1 **Sa**—9 a.m.-1:30, Oct. 12 (1 meeting), HHHctr 20, Roback
No late fee through Oct. 4

(Donna L. Roback, a University of Minnesota Law School graduate, is an attorney in private practice specializing in the areas of employment, real estate, business, and family law)

★PSch 0950 LANDSCAPING THE MINNESOTA HOME GROUNDS. No credit, \$70 (age 62, \$60).

Attention is focused on using plants to beautify our Minnesota yards and grounds. Special help for the interested home owner or business owner/manager to review critically the landscape of home or business and to plan a design to improve the grounds. Requirements for maintaining beauty in the yard will also be examined. For those who enjoy the art of horticulture. (Limited to 35)

Spring Spec Term Sec 1 **M**—7-9, Mar. 30-Apr. 27 (5 meetings), AlderH 415, Ray
No late fee through Mar. 23

(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)

Read about abbreviations, symbols, and maps on page 64.

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noncredit courses

★PSch 0951 BEAUTY IN THE BLEAK SEASON: LANDSCAPING FOR THE MINNESOTA WINTER. No credit, \$84 (age 62, \$74).

Winter seems like Minnesota's longest season. Traditionally, however, very little attention has been given to landscaping our Minnesota home and business grounds specifically to create lovely settings for winter. Participants examine a wide variety of northern winter landscapes, review plant materials which have outstanding winter features, and study plantings and pruning techniques which can transform bleak and barren surroundings into beautiful winter gardens. A tour of selected Twin Cities winter landscapes concludes the course. (Limited to 35)

Winter Spec Term Sec 1 **W**—7-9, Jan. 29-Feb. 19 (4 meetings plus all-day bus tour Saturday, Feb. 22), AmundH 116, Ray
No late fee through Jan. 22

(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)

★PSch 0953 PRUNING LANDSCAPE TREES AND SHRUBS. No credit, \$21 (no discount for persons 62 and older).

Trees and shrubs are an integral part of most landscape settings in the Upper Midwest, and pruning is necessary to maintain trees and shrubs in 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. (Limited to 25)

Winter Spec Term Sec 1 **W**—6:30-8, Feb. 26-Mar. 4 (2 meetings), NCEE, Johnson
No late fee through Feb. 19

(Jeffrey Johnson is a landscape gardener at the Minnesota Landscape Arboretum with responsibility for maintaining the tree and shrub collections. He is a practicing arborist and consultant, having studied and worked in the landscape horticulture field for 13 years)

★PSch 0954 HOW TO KEEP YOUR YARD GREEN AND HEALTHY. No credit, \$58 (age 62, \$48). \$48 for Arboretum members.

Healthy, well-maintained plantings add to both the value of your home and your enjoyment of outdoor living spaces. Learn the care of trees, shrubs, and lawns, including planting, fertilizing, watering, staking, wrapping, pruning, seeding vs. sodding of lawns, and mowing. Common insect and disease problems are discussed as well. Find out how to accomplish each task efficiently, effectively, and at the proper time for the greatest return on your efforts. Course format includes lecture and demonstration of methods in the field. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 30)

Spring Spec Term Sec 1 **T**—6:30-8:30, Apr. 14-May 5 (4 meetings), Minnesota Landscape Arboretum, Learning Center, 3675 Arboretum Dr., Chanhassen, Zins, Mugaas
No late fee through Apr. 7

(Mike Zins is an assistant horticulturist with the Minnesota Extension Service and has taught at the Arboretum for many years. Bob Mugaas is a Minnesota Extension Service horticulturist in Hennepin County and a turf specialist)

★PSch 0955 SELECTING THE BEST PLANTS FOR YOUR HOME AND GARDEN. No credit, \$28 (no discount for persons 62 and older). \$23 for Arboretum members.

Hundreds of varieties of woody landscape plants have been field tested at the Univer-
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Read about abbreviations, symbols, and maps on page 64.

Courses and sections in red have limits on enrollment. See page 20.

noncredit courses

sity of Minnesota Landscape Arboretum since plantings began in 1958. Review the best performing trees and shrubs for this area based on ongoing trials. 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. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 30)

Spring Spec Term Sec 1 **T**—6:30-8:30, Mar. 31, Apr. 7 (2 meetings),
Minnesota Landscape Arboretum, Learning Center,
3675 Arboretum Dr., Chanhassen, Zins
No late fee through Mar. 24

(Mike Zins is an assistant horticulturist with the Minnesota Extension Service and has taught at the Arboretum for many years)

★PSch 0956 FLOWER GARDEN DESIGN AND IMPLEMENTATION. No credit, \$84 (age 62, \$74). \$74 for Arboretum members.

Just as vegetables provide food for the body, flowers provide a feast for the eyes. Learn how to create colorful landscapes with herbaceous plants incorporating both good design principles and good gardening techniques for lower overall maintenance. Review culture, selection, and use of annuals, herbaceous perennials, and tender and hardy bulbs, plus their unique design possibilities. Each session will include lecture, a garden visit on Arboretum grounds, and hands-on learning activities. No previous design experience needed. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 25)

Spring Spec Term Sec 1 **MW**—6-9, May 4, 6, 11, 13 (4 meetings),
Minnesota Landscape Arboretum, Learning Center,
3675 Arboretum Dr., Chanhassen, Hanchek
No late fee through Apr. 27

(Anne Hanchek is an assistant professor of horticultural science and a Minnesota Extension Service environmental horticulturist. She is responsible for the development and coordination of statewide educational programs in environmental horticulture, including the Master Gardener Program)

★PSch 0958 GARDENING INTELLIGENTLY IN THE NINETIES: PREPARATION FOR WINTER. No credit, \$15 (no discount for persons 62 and older). \$12 for Arboretum members.

Discuss horticultural methods for preparing the yard and garden for the winter months ahead while keeping in mind aspects of integrated pest management. There are a variety of activities that can be done at the end of the growing season to help curb pest problems and make soil improvements for the upcoming gardening season. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 30)

Fall Spec Term Sec 1 **Sa**—10 a.m.-12, Oct. 5 (1 meeting),
Minnesota Landscape Arboretum, Classroom 2,
3675 Arboretum Dr., Chanhassen, Mugaas
No late fee through Sept. 27

(Bob Mugaas is a Minnesota Extension Service horticulturist in Hennepin County and a turf specialist)

★PSch 0961 HOME FRUIT GROWING. No credit, \$26 plus \$5 special fee. Total \$31 (no discount for persons 62 and older). \$21 plus \$5 special fee. Total \$26 for Arboretum members.

new 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 and provide
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noncredit courses

beauty as well as nutritious, good tasting fruit. Includes discussion on planting, site selection, choice of varieties, and pest control, with an emphasis on integrated pest management, drip and overhead irrigation, and general cultural care. Methods to overwinter less hardy varieties and proper harvesting, handling, and storage of different types of fruit are also discussed. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 30)

Fall Spec Term Sec 1 **T**—6:30-8:30, Oct. 1, 8 (2 meetings),
Minnesota Landscape Arboretum, Learning Center,
3675 Arboretum Dr., Chanhassen, Moe
No late fee through Sept. 24

(Peter Moe is the superintendent of building and grounds at the Minnesota Landscape Arboretum and has grown fruit crops for many years)

★PSch 0968 DESIGNING YOUR URBAN WILDLIFE GARDEN. No credit, \$45 (no discount for persons 62 and older).

new

Today more than ever before urbanites are seeking ways to attract wildlife to their yards. Learn the fundamentals of how to attract desirable wildlife and manage associated problems. Topics include: setting reasonable goals, understanding habitat requirements of common urban wildlife, dealing with problem animals, recognizing and selecting appropriate plant materials, and designing the basic "garden" layout. (Offered in cooperation with the Minnesota Valley National Wildlife Refuge. Limited to 35)

Fall Spec Term Sec 1 **T**—6:30-8:30, Oct. 1-15 (3 meetings),
Minnesota Valley National Wildlife Refuge,
3815 E. 80 St., Bloomington, Kitts, Zins
No late fee through Sept. 24

(Jim Kitts is a Minnesota Extension Service wildlife specialist and an associate professor at the University of Minnesota. He has taught various courses in wildlife management and animal damage control for many years. Mike Zins is an assistant horticulturist with the Minnesota Extension Service and has taught at the Arboretum for many years)

★PSch 0980 SPANISH FOR TRAVELERS. No credit, \$78 (age 62, \$68).

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)

Fall Spec Term Sec 1 **W**—6:30-8:30, Oct. 2-Nov. 6 (6 meetings),
FolH 318, Narváez
No late fee through Sept. 25

(Eric Narváez is an instructor at Normandale Community College. He holds an M.A. degree in foreign language education and Spanish, and has lived extensively in the Spanish-speaking world)

★PSch 0981 ITALIAN FOR TRAVELERS. No credit, \$78 (age 62, \$68).

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,

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noncredit courses

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)

Winter Spec Term Sec 1 **W**—7-9, Jan. 8-Feb. 12 (6 meetings),
FordH 40, Anderson
No late fee through Jan. 2

(Raffaella Anderson is an advanced graduate student in the Department of French and Italian at the University of Minnesota)

★PSch 0982 FRENCH FOR TRAVELERS. No credit, \$78 (age 62, \$68).

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)

Spring Spec Term Sec 1 **W**—7-9, Apr. 1-May 6 (6 meetings),
KoltH S140, Guderyon
No late fee through Mar. 25

(Susan Guderyon is an advanced graduate student in the Department of French and Italian at the University of Minnesota)

★PSch 0983 GERMAN FOR TRAVELERS. No credit, \$78 (age 62, \$68).

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, Apr. 1-May 6 (6 meetings), FolH 148
No late fee through Mar. 25

(Instructor, to be assigned, will be an advanced graduate student in the Department of German at the University of Minnesota)

Back-to-School Workshops August 8, November 9, or March 5

If you have been thinking about going back to school and don't know where to begin, plan to attend one of these informal workshops to be held at the Nolte Center on the Minneapolis campus. Whether you have had some college or none at all or if you are thinking about exploring a career change, you will find answers to questions about courses, bachelor's degrees, certificates, financial aid, career and educational planning, and other student services.

If you are not confident about how to study, find out what kind of help you need. You'll learn about free tutoring in note taking, outlining, theme writing, reading, grammar, or whatever help you need to complete a course.

The workshop is informal with plenty of time for questions and answers.

The workshops will be held Thursday, August 8, 6 to 9 p.m.; Saturday, November 9, 9 a.m. to 12; and Thursday, March 5, 6 to 9 p.m.

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Courses and sections in red have limits on enrollment. See page 20.

A Continuing Education and Extension counselor will be there to tell you about opportunities in Extension Classes, Independent Study correspondence and media courses, Continuing Education for Women programs, and a host of other Continuing Education opportunities at the University.

To add your name to the registration list for this free workshop and to receive a schedule and map, just give us a call at: 624-2388

Free Library Course

Using the library efficiently is essential whether you are looking for a single fact or for many varied information sources. Learn to save time and effort in the library with this free, two-session library course offered each quarter. You will learn constructs (such as bibliographic control and bibliographic access) and practical skills (such as searching LUMINA and using citation indexes). The instructor for this noncredit course is Associate Professor Marcia Pankake of the University Libraries.

Everyone is welcome. No registration is necessary. **All classes meet in room 180A of the Carlson School of Management Conference Center** located on the West Bank campus in the Humphrey Center.

Part I Everyone's Guide to the Whole Library

Characteristics of various types of libraries in the Twin Cities; different kinds of library services and materials; how libraries are organized; majority types of information sources and access to them; how to use library catalogs; how to use periodical indexes.

Part II The Whole Library Is More Than the Sum of Its Parts

Building on the principles presented the previous week, this session presents reference books and how to discover and use them; guides to reference literature; search strategy; using the library for research.

Fall Qtr	T—Oct. 1, 8, 6:30-9, Pankake
Winter Qtr	W—Jan. 8, 15, 6:30-9, Pankake
Spring Qtr	T—Mar. 31, Apr. 7, 6:30-9, Pankake

(Marcia Pankake, professor and bibliographer for English and American literature for University Libraries, has published books and articles on collection building and library construction. She has taught this course since 1976, continually revising it to keep up with changes in information formats and access)

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0900-0999

Compleat Scholar Weekends (see below)

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 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455; or call (612) 624-8880 for more information.

Registrations may be charged to Visa or MasterCard.

★**CSW 0600 THE NATURE OF WORK: THE AGE OF SMART MACHINES.** April 3-5, 1992.

Shoshana Zuboff's book, *In the Age of Smart Machines: The Future of Work and Power*, urges us to reflect on the changing nature of work in this time of increasing use of "smart machines." Older models of organization are rapidly changing, claims Zuboff, and these changes will be as profound as the Industrial Revolution. Read and discuss the implications of these changes in our work life in this weekend course held

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Read about abbreviations, symbols, and maps on page 64.

new

at Wilder Forest, a retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. In the work places of the past, heavy work was done by laborers and the more "important" work was done by thinkers/managers. With the application of smart machines, this is no longer the case—everyone has access to knowledge produced and displayed on computer terminals. What does that difference mean to you and your work life? Are work places becoming more democratic? Will the distinctions between manager and worker become less clear? Reflect on these questions posed by Zuboff and review the thinking which created the old organizational style, the impact of the Industrial Revolution, and the nature and impact of smart machines both on the nature of work and upon our thinking. Lecture and discussion will be interspersed with free time in which to enjoy the 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 March 24, 1992, at 6:30 p.m. in Nolte Center. (Limited to 18)

Registration is now open; deadline for registration is March 3, 1992.

Spring Spec Term, Sec 1, no credit, \$185 price includes two nights lodging (double occupancy), four meals, and a pre-trip lecture.

(Harvey Sarles, a professor of comparative literature at the University of Minnesota, is the group leader. His background is in anthropology and linguistics, and his primary interest is in human nature arguments)

★CSW 0700 SPRING WILDFLOWER WEEKEND. May 2-3, 1992.

new

Spend a weekend searching for the spring wildflowers in lush woods and limestone bluffs in 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 April 22, 1992, at 6:30 p.m. in Nolte Center. (Limited to 18)

Registration is now open; deadline for registration is April 1, 1992

Spring Spec Term, Sec 1, no credit, \$173 price includes one night lodging (double occupancy), two 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 horticulture curator at the Minnesota Zoo. She is a wildflower enthusiast and an experienced group leader)

★CSW 0701 POETS AND PLANTS. May 29-31, 1992.

new

Explore how plants are viewed and used by artists and writers. Discover how plants are used by poets to heighten emotional qualities. View plants in famous paintings to determine what the artists thought about them. Did they love them? Hate them? Ignore them? Did they see them as part of an ecosystem? Examine the work of several novelists, including Steinbeck, to see how plants were employed in this art form. Weekend includes a hike on Saturday afternoon to allow us to enjoy Minnesota's wildflowers and trees in their natural environment. Conclude the weekend by examining your own secret garden, your personal emotional reactions to plants. 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 on Friday evening and concludes Sunday at noon. There is a pre-trip lecture on May 19, 1992, at 6:30 p.m. in Nolte Center. (Limited to 18)

Registration is now open; deadline for registration is April 29, 1992.

Read about abbreviations, symbols, and maps on page 64.

noncredit courses

Spring Spec Term, Sec 1, no credit, \$185 price includes two nights lodging (double occupancy), four meals, and a pre-trip lecture.

(Don Knutson, group leader, is a lecturer in the Department of Plant Biology at the University of Minnesota. In addition to doing research on mistletoes, he is currently involved with starting a seed bank for Minnesota wild plant seeds)

★CSW 0801 AN ANTHROPOLOGICAL APPROACH TO WOMEN AND POWER. February 7-9, 1992.

A weekend to learn and relax at Wilder Forest, a meeting and retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. How do people become powerful, and what do different groups consider responsible uses of power? Students will examine women and power in different cultures, and among diverse groups within U.S. culture. Learn about women's ideas, experiences, and opportunities with regard to power in different cultural settings. We will examine power in relations among women and between women and men, in the context of different economies, kinship systems, and political systems. The weekend begins Friday evening and concludes Sunday noon. Lecture and discussion are interspersed with free time in which to enjoy the recreational facilities or just relax in the beautiful woodland setting. (Offered through Continuing Education for Women. Limited to 18)

cew

Registration is now open; deadline for registration is January 7, 1992.

Winter Spec Term, Sec 1, no credit, \$185 price includes two nights lodging (double occupancy), four meals, and one pretrip lecture.

(Sharon Doherty is a Ph.D. candidate in cultural anthropology at the University of Minnesota. Her research interests are U.S. cultural diversity, feminist anthropology, anthropology and education, and women and community organizing)

★CSW 0803 WOMEN AND SEXUALITY: DIALOGUES ACROSS THE DIVIDE. March 13-15, 1992.

A weekend to learn and relax at Wilder Forest, a meeting and retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. Women are often defined by our sex and divided by our sexualities. How do we all learn our sexuality? Is our sexual preference genetically determined or do we somehow learn to express our intimacy? In an atmosphere of mutual respect and trust, explore what heterosexuality, bisexuality, lesbianism, and celibacy mean for women and ways in which we can learn from each other and respect the diversity and commonalities of our life experiences. Discuss the book *Homophobia: Weapon of Sexism*. 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 March 4, 1992, at 6:30 p.m. in Nolte Center. (Limited to 18)

new

cew

Registration is now open; deadline for registration is February 14, 1992.

Winter Spec Term, Sec 1, no credit, \$185 price includes two nights lodging (double occupancy), four meals, and a pre-trip lecture.

(Jacquelyn Zita, an associate professor in the women's studies program at the University of Minnesota, is group leader. Her research interests include feminist philosophy, theories of gender and sexuality, and women's health issues. She is currently working on a book about textual representations of women's gender and sexuality)

★CSW 0902 SISTERS IN LITERATURE AND LIFE. October 18-20, 1991

A weekend to learn and relax at Wilder Forest, a meeting and retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. Explore the subject of sisters. Read three novels in which sisters figure centrally, consider some of the
(continued next page)

new

Read about abbreviations, symbols, and maps on page 64.

mythic sources for this relationship, discuss historical sister pairs for whom the relationship was vital, and examine on-going relationships with sisters and/or women who function as such. Books include: *Housekeeping* by Marilynne Robinson, *Pride and Prejudice* by Jane Austen, and *Sassafras, Cypress and Indigo* by Ntozake Shange. 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 October 8 at 6:30 p.m. in Nolte Center. (Limited to 21)

Registration is now open; deadline for registration is September 18, 1991

Fall Spec Term, Sec 1, no credit, \$195 price includes two nights lodging (in dormitory-like rooms that sleep four to six), four meals, and a pre-trip lecture.

(Susan Cygnet, feminist therapist and educator, and Toni McNaron, professor of English language and literature at the University of Minnesota, are group leaders. Professor McNaron was awarded a CEE Outstanding Teacher Award in 1990)

★CSW 0903 CURRENT BLESSINGS, CURRENT GRIEFS: A WEEKEND OF SHORT STORY DISCUSSIONS AND READING. April 10-12, 1992.

A weekend to read, discuss, and relax at Riverwood, a retreat center nestled along the banks of the Mississippi River 20 miles northwest of the Twin Cities. Few people are as familiar with the short story as with the novel. Read and talk about work by Jim Harrison, Will Weaver, Susan Straight, Guy de Maupassant, and others. Focus on how much truth about a life a skillful short story can offer, how the author does it, and what the problems of the story are. Designed for those who would like to read serious literature with more enjoyment and understanding. Lecture and discussion are interspersed with free time to enjoy the recreational facilities or just to relax in the beautiful setting. The weekend begins Friday evening and concludes Sunday at noon. There is a pre-trip lecture on April 2, 1992, at 6:30 p.m. in Nolte Center. (Limited to 24)

Registration is now open; deadline for registration is March 10, 1992.

Spring Spec Term, Sec 1, no credit, \$309 price includes two nights lodging (double occupancy), four meals, and a pre-trip lecture.

(Carol Bly, an instructor in the Department of English at the University of Minnesota, is a well-known writer. Her published works include: *Soil and Survival*, *Bad Government and Silly Literature*, *Letters From the Country*, and her new collection of short stories, *Tomcat's Wife*)

Mind and Muse

Mind and Muse is a special series of weekend retreats in the arts and humanities which combines intellectual exploration with hands-on artistic experimentation. **Mind and Muse** encourages both nonartists and artists to learn more about their world and themselves while exploring creativity.

Retreats focus on a variety of topics—from areas of current interest to themes which have fascinated people for ages. Each retreat is led by a team of outstanding scholars and artists from the University of Minnesota faculty and from across the state, and each takes place at a specially selected setting.

Mind and Muse is a cooperative program of The Compleat Scholar and the Split Rock Arts Program. Both programs are noted for their excellent faculties, innovative offerings, and expert understanding of the needs and desires of adult learners.

You may use your Visa or MasterCard to pay for Mind and Muse retreats. To register by phone using your credit card, call 624-6800.

Read about abbreviations, symbols, and maps on page 64.

noncredit courses

To receive your **Mind and Muse** brochure, which has complete information about dates, locations, faculty, costs, and registration, call 624-8880.

Retreats for 1991-92:

IMAGES OF THE PRAIRIE. September 26-28, 1991. An early fall retreat in Pipestone, Minnesota, in which participants will explore the natural and cultural history of the prairie through lecture, discussion, and creative writing or photography. Stay at the historic Calumet Inn. There will be plenty of outdoor time to explore the land, sky, flora, and fauna, and to let creativity flow from this breathtaking landscape. Instructors are Tom Scanlon, professor of American studies at the University of Minnesota; Nadine Blacklock and Craig Blacklock, nature photographers; and Paul Gruchow, Minnesota writer.

TSIM LAYBN! JEWISH ARTS AND CULTURE OF EASTERN EUROPE. An urban winter retreat to learn about and participate in the popular arts which enlivened Jewish families and communities from the Ukraine to the Black Forest until the Holocaust. Participants will partake of authentic food and festivity, learn about everything from religious textile art to Yiddish theater, and sing and dance to live *klezmer*, the raucous dance music of the Eastern European Jewish ghettos. (The Yiddish phrase *Tsim Laybn!* means To Life!)

THE WORD, THE EYE, THE HAND: NATIVE AMERICAN ARTS OF MINNESOTA. A spring lakeside retreat centering on the history, cultural context, and contemporary practice of traditional Native American arts. There will be traditional foods, storytelling around the campfire, writing, and exploration of Indian crafts, such as beadwork, quillwork, basketry, and pottery. Telephone 624-8880 for more information.

Research Explorations (REX)

What is the Research Explorations Program?

Research Explorations (REX) offers the opportunity for public participation in field and laboratory projects of University faculty research.

Research projects for 1991-92 have been scheduled throughout Minnesota, as well as at other U.S. and international sites. Local research projects deal with the environment, natural resources, wildlife and resource management, social and health issues, and other topics. Several REX projects take place overseas: archaeological digs are scheduled in Germany and Israel; and a glaciological study is planned in Sweden.

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, 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. **Persons interested in participating in the REX program should call (612) 625-9001 for registration materials and complete information, as well as for the application form.**

Many REX projects can accommodate only a limited enrollment.

Qualifications for REX Participation

The most important qualifications required of REX participants are commitment, common sense, and adaptability to different situations and cultures.

noncredit courses

Many projects require general skills, such as observing, interviewing, and record keeping. Especially for field projects, camping or wilderness experience is also beneficial. Some projects do need more specific skills, such as training in electronics, computers, and photography.

The Contribution

REX volunteers contribute their share of the cost of participating in the project and are responsible for travel expenses. **Because REX participants are contributing money and time to research sponsored by the University of Minnesota, a tax-exempt organization, the amount of your contribution may qualify as a tax-deductible contribution.**

The contribution covers such costs as field and laboratory expenses, compilation of research findings, and program planning, implementation, and administration. Projects have different arrangements regarding accommodations, meals, ground transportation, and clothing and equipment needs, so cost coverage varies.

Volunteer contributions 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 required initial \$150 deposit is nonrefundable unless the University REX program cancels the research project or the applicant is not accepted as a project participant. The balance, if any, of the participant contribution will not be returned if the volunteer withdraws within 30 days prior to the project starting date (unless a replacement can be found). The research project depends on the financial contribution of the participant for advance costs. No returns 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 some REX projects. Those interested in earning credit should contact the REX director and the specific project leader regarding requirements. The amount paid toward receiving academic credits may not be deducted as a **charitable** donation.

1991-92 Research Projects

noncredit courses

REX 0106 GEOMORPHIC RELATIONSHIP OF SOILS WITH LAMELLAE ON THE ANOKA SAND PLAIN. *Dates:* To be arranged. *Contribution:* \$150.

new

Goal is to determine the relationship of soils with lamellae to regional geomorphology and current land use. Soils will be sampled at numerous locations using soil pits and bore hole transects preparatory to laboratory analysis. REX volunteers will assist in this analysis plus describe and take inventory of specific sites. Volunteers must be willing to perform manual labor outdoors and able to take precise measurements. Project leader is Terence H. Cooper, associate professor, Department of Soil Science. Location: Isanti, Anoka, and Sherburne Counties, and the St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0112 ON-FARM MANAGEMENT. *Dates:* October 1991, St. Paul campus; April 1992, Eyota, Minnesota. *Contribution:* \$150, St. Paul location; \$450 (includes room and breakfast only), Eyota location.

On-farm research experiences at the University or in southeastern Minnesota will concentrate on farm management of calving operations. Precalving procedures require close observation of the cows; proper nutrition and adequate housing are essential. Management practices are exceedingly important as profit margins decrease in the cattle industry. Researchers from the University of Minnesota's Department of Animal Science are conducting experiments on controlling time of calving by phase feeding, and they are developing identification record systems for economic beef production. Volunteers will assist in the barn during calving, learning how to handle the new calves and seeing that the mother "owns" her offspring. They will help with identification records on each newborn calf and handle tattooing, dehorning, and other tasks. Project leader is Charles Christians, professor, Department of Animal Science. Location: University of Minnesota Beef Barn, St. Paul campus, or Eyota, Minnesota, ranch. **Call 625-9001 for registration information and an application form.**

REX 0114 EVALUATION OF THE SENSITIVITY OF RICE TO LOW PHOSPHOROUS AND ZINC. *Dates:* To be arranged. *Contribution:* \$150.

new

Goal is to develop new evaluation methods for the Philippines' International Rice Research Institute. Successful results will assist in the development of new rice varieties that can grow on poor soils without fertilizer. REX volunteers will assist faculty and graduate students in plant growth experiments using hydroponics. Volunteers must have some college-level laboratory experience. Project leader is Paul R. Bloom, professor, Department of Soil Sciences. Location: St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0121 IMPACT OF AGRICULTURAL CHEMICALS ON GROUNDWATER. *Dates:* Daily work for two to three weeks; weeks to be arranged. *Contribution:* \$150.

REX participants in this project will study the movement of herbicides through soil to the groundwater. Working with the project's leader and associate scientist, REX volunteers will take water and soil samples in the field and assist in the analysis of collected samples. Basic laboratory techniques will be taught. Project leader is J. L. Anderson, associate professor, Department of Soil Science. Location: Pesticide Analytical Lab, Soil Sciences Building, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0129 ISOLATION AND PURIFICATION OF CHICKEN ANTIBODIES. *Dates:* To be arranged. *Contribution:* \$150.

new

Goal is to isolate and purify tubulin antibodies from chicken eggs so that they can be used in studies of how plants use different forms of tubulin during development. The object is to get the chicken antibodies into a form that is useful for microscopy and

(continued next page)

noncredit courses

biochemical assays. REX volunteers will precipitate and affinity-purify antibody proteins from egg yolks using standard lab procedures. Volunteers must have knowledge of elementary chemistry. Project leader is Sue Wick, associate professor, Department of Plant Biology. Location: St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0130 STRESS EFFECTS ON LIVING PLANT CELLS. *Dates:* To be arranged. *Contribution:* \$150.

A study of varietal differences in plant cell membrane qualities based on resistance to water and salt stress. Seedlings exposed to these stresses will be evaluated through the light microscope. Volunteers should have laboratory and microscopy experience. Project leader is Eduard Stadelmann, professor, Department of Horticultural Science. Location: Alderman Hall 228, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0131 CLINICAL VETERINARY MICROBIOLOGY. *Dates:* To be arranged. *Contribution:* \$150.

The assistance is sought of active or retired professional veterinarians in the use of clinical microbiology to define the etiology and select the therapy of animal diseases. Selected veterinarians participate in a one- to two-week training period, then conduct studies in their own clinics for 3 to 12 months. Participants will gain improved diagnostic and therapeutic skills, and many will have the opportunity to publish or present results. Project leader is Gilbert Ward, professor, Department of Veterinary Pathobiology. Location: Veterinary Science Building 3000-C, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0133 QUANTITATIVE GENETICS OF THE FRUIT FLY. *Dates:* Approximately eight hours per week—day or evening hours—for one academic quarter; to be arranged. *Contribution:* \$150.

Quantitative genetics studies evolutionary changes in organisms. Typical research involves selecting extreme individuals from each generation as parents of the next, and studying how various conditions affect evolution of different characteristics. Because generation time is two weeks or less, the ideal organism of study is the fruit fly. Extremely fast, accurate, state-of-the-art equipment has been invented to measure many subjects. One system projects live flies onto a screen so that many points can be recorded directly into a computer for analysis. Another system measures the flying speed of many thousands of flies in a wind tunnel. Still other equipment measures resistance to gases such as ethanol vapor or carbon dioxide. (Flies recover well from these various processes.) Volunteers with an interest in biology or entomology who possess reasonable dexterity may enjoy this interesting research project. Project leader is Kenneth Weber, post-doctoral assistant, Department of Ecology, Evolution, and Behavior. Location: Zoology 18, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0140 PHYSIOLOGY AND ECOLOGY OF FIELD CROPS. *Dates:* To be arranged. *Contribution:* \$150.

REX volunteers will assist in research design of crops for more efficient growth strategies. Specific studies consider the role of light in modifying tillering habits in small grains and the factors that influence crop competitiveness with weeds. Volunteers will assist project personnel and develop case studies or other exercises. Volunteers should possess an interest in plant and/or agricultural biology, and in case study pedagogy. Project leader is Steve R. Simmons, professor, Department of Agronomy and Plant Genetics. Location: Borlaug Hall, St. Paul campus, University of Minnesota, and various field sites. **Call 625-9001 for registration information and an application form.**

new

noncredit courses

REX 0160 SEARCH FOR A NONLETHAL CONTROL FOR AVIAN PESTS IN GRAIN CROPS.

Dates: To be arranged. *Contribution:* \$150.

new

In an attempt to reduce or eliminate grain damage from house sparrows, lab and field experiments are being conducted to determine the comparative effectiveness of both chemical and mechanical repellents. REX volunteers will collect and analyze data from field and/or lab experiments and write reports on results. Volunteers may be asked to assist in designing additional experiments. Volunteers must have a keen interest in animal damage control, good hand-eye coordination, the ability to work with wild animals, and be sensitive to public inquiry. Project leader is James R. Kitts, associate professor, Department of Fisheries and Wildlife. Location: St. Paul campus, University of Minnesota; possibly other out-state research stations. **Call 625-9001 for registration information and an application form.**

REX 0232 UNIVERSITY DISPUTES AND THEIR POLITICAL IMPLICATIONS. *Dates:* To be arranged. *Contribution:* \$150.

new

Chronicle recent nationwide university controversies covered by the press. The study will concentrate specifically on identifying those disputes which involve politicians taking public positions on the issues. A comprehensive evaluation of the controversies will be made to assess any effect the disputes have on public opinion and institutional autonomy. Generalized conclusions could also suggest important lessons learned by college administrators. The REX volunteer will research major metropolitan newspaper indexes, identify relevant articles, contact university archivists for relevant documents and materials, and organize the material for study and evaluation. Volunteers will meet weekly with project leader Robert Hanle, director of development, University of Minnesota Foundation. Location: Morrill Hall 120, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0234 MISSIONARIES AND THE CONQUEST OF HONDURAN INDIANS. *Dates:* To be arranged. *Contribution:* \$150.

Permanent mission stations, intended to "civilize" the Indians, were established in Honduras as early as 1545. Local and regional archives have produced a large collection of copies of 16th- and 17th-century documents relating to these Central American missions. Assistance is needed to translate and transcribe these Spanish documents about early colonial life of the Honduran Indians and the Mercedarian Order mission system. Volunteers must be fluent in Spanish. Academic credit may be available through directed study. Project leader is John Weeks, professor, Humanities and Social Sciences Libraries, and adjunct faculty, departments of anthropology and Latin American studies. Location: Wilson Library 5, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0239 ECONOMIC CONSEQUENCES OF DIVORCE IN MINNESOTA. *Dates:* To be arranged. *Contribution:* \$150.

new

This longitudinal study gathers information on financial settlements at divorce and the resulting social and economic consequences for men, women, and children two and four years later. Findings will be provided to the Minnesota Supreme Court Gender Fairness Task Force and the Minnesota Department of Human Services for use in revising child support guidelines. Volunteers will learn about divorce, the role of research in public policy development, and the educational needs of lay persons. REX volunteers will listen to audio tapes of telephone interviews, keyboard data into a computer, and meet weekly with project leader Kathryn Rettig, associate professor, Department of Family Social Science. Location: McNeal Hall 186, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

noncredit courses

REX 0301 NUTRITION AND ORAL HEALTH OF THE ELDERLY. *Dates:* To be arranged. *Contribution:* \$150.

Although nutrition in older adults is a known factor in overall health care, little attention has been given to 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. This understanding will lead to educational programs and materials. Volunteers will assist in collecting, recording, and synthesizing data from interviews and lab tests. Project leader is Dr. Nelson Rhodus, research professor, Division of Oral Diagnosis and Radiology. Location: Moos Tower 7-536, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0302 SENIOR TREATMENT AND REHABILITATION. *Dates:* To be arranged. *Contribution:* \$150.

new

Many of the medical conditions that drive elderly people into medical institutions are reversible. This study hopes to find out how such reversals can be accomplished. An elderly population will be screened for serious yet reversible problems; half of those selected for this study will be treated, with their outcomes then compared to those of a control group. REX volunteers interview patients about their abilities, organize clinical information about the subjects, make entries in a computer data base, and/or assist in the routines of the office. Volunteers must be comfortable working with elderly people, in medical offices, and on computers. Project leader is Chad Boulton, M.D., assistant professor, Department of Family Practice and Community Health. Location: Minneapolis campus, University of Minnesota, and/or various medical offices. **Call 625-9001 for registration information and an application form.**

REX 0323 PREDICTING DIABETES. *Dates:* To be arranged. *Contribution:* \$150.

Juvenile, or Type I, diabetes is a disease afflicting children with multiple life-threatening problems for the rest of their lives. This project attempts to uncover latent damage in children which later would lead to overt and irreversible diabetes. Once prediabetic children have been identified, researchers hope to reverse or stop this latent, ongoing damage, and prevent the onset of diabetes through new treatments becoming available. Volunteers will contact and interview families with diabetic and prediabetic children; they also will help tabulate and input data into the project's computer data base. A medical, nursing, or public health background is preferred, but not required; volunteers should possess effective communication skills. Project leader is Dr. Jose Barbosa, professor, Department of Internal Medicine. Location: Phillips-Wangensteen Building 6-150, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0324 ALCOHOL AND DEGENERATIVE DISEASES. *Dates:* To be arranged. *Contribution:* \$150.

Alcohol consumption may have a role in the etiology and/or prognosis of various degenerative diseases such as coronary heart disease. The purpose of this study is to develop lab tests for quantification of long-term alcohol consumption. Research volunteers may be involved in lab work using computer software on protein analysis; they may also input crucial data into a computer data bank. Volunteers should have some familiarity with basic laboratory equipment and procedures. Project leader is Dr. Myron Gross, research associate, Division of Epidemiology. Location: 1-144 Health Sciences Unit A, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

noncredit courses

REX 0327 EVALUATING THE EFFECTIVENESS OF OB/GYN INSTRUCTIONAL SITES. *Dates:* To be arranged. *Contribution:* \$150.

Project leaders are seeking the assistance of a research volunteer to evaluate the teaching behavior of residents and physicians, and to analyze the effectiveness of various obstetrics and gynecological instructional sites. Activities will include observing medical students and physicians in their work, and the reading and coding of evaluation and assessment instruments. Volunteers should exhibit attention to detail and the ability to synthesize information from written texts. Some experience in business or educational program evaluation is preferred, and basic computer knowledge is recommended. Medical background is unnecessary. Project leaders are Benjamin Bornshtein, director of medical education, Department of Obstetrics and Gynecology; and Dr. Virginia Lupo, assistant professor, Department of Obstetrics and Gynecology. Location: Moos Tower 12-182, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0328 TREATMENT INFORMATION FOR MENTAL HEALTH AND BEHAVIOR PROBLEMS IN PERSONS WITH MENTAL RETARDATION. *Dates:* One to two days or evenings per week for 10 weeks; weeks to be arranged. *Contribution:* \$150.

Surveys published research about treatment of both behavior and mental health problems in persons with mental retardation. The goal is to produce a data base that will serve as a model for a nationally accessible information service. Volunteers will locate and abstract pertinent information from all published research between 1985 and 1991 and enter it into the data base. Volunteers must be able to read English-language research reports and to keep accurate records. Computer skills and knowledge about mental retardation and psychological and medical interventions are desirable, but not required. Project leader is Bruce Bakke, research fellow, Institute for Disabilities Studies. Location: Institute for Disabilities Studies, 2221 University Ave. S.E., #145, Minneapolis. **Call 625-9001 for registration information and an application form.**

REX 0329 CHRONOBIOLOGICAL BLOOD PRESSURE MONITORING. *Dates:* To be arranged. *Contribution:* \$150.

REX participants will recruit volunteers to obtain reference standards on blood pressure variation during a 48-hour span, and teach them how to use the measurement instrumentation. REX participants could also analyze their own chronobiological data. Project leaders are Germaine Cornelissen, research associate, and Dr. Franz Halberg, professor, Department of Laboratory Medicine and Pathology. Location: Lyon Laboratory 5-183, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0330 DIAGNOSIS AND TREATMENT OF GENETIC DISEASES. *Dates:* Two to four hours a day, one or two days a week; to be arranged. *Contribution:* \$150.

By being involved in laboratory research and/or database analysis, REX volunteers will learn about human genetic diseases, current treatments, and newborn screening. In addition to attending weekly laboratory meetings, the REX participant will be active in one of several ongoing projects, including: a newborn screening program to diagnose affected infants; preparation and analysis of an interactive research newsletter; and biochemical and/or molecular genetic tests of diseases being studied for experimental gene therapy treatment. Project leader is Dr. Chester B. Whitley, assistant professor, Department of Pediatrics and the Institute of Human Genetics. Location: Moos Tower 4-140 and Phillips-Wangensteen Building 13-123, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0332 MOLECULAR BASIS OF STREPTOCOCCAL VIRULENCE. *Dates:* Approximately 15 hours per week for three or more weeks; weeks to be arranged. *Contribution:* \$150.

Studies the biochemical determinants of streptococcal pathogenesis: What genes and their products assist these bacteria in their capacity to infect the human throat? REX volunteers can be involved in activities that correspond to their level of skill. Possible work includes measuring human immunological response to streptococcal infection and comparing the capacity of genetic variants of streptococci to colonize mice. Applicants must know sterile techniques as well as how to make chemical solutions; some training will be provided. Project leader is P. Patrick Cleary, professor, Department of Microbiology. Location: Mayo Memorial Hospital 935, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0333 POST-CORONARY ARTERY BYPASS GRAFT STUDIES. *Dates:* To be arranged. *Contribution:* \$150.

new

This large five-site, National Institutes of Health-funded study evaluates factors contributing to recovery after coronary artery bypass graft (CABG) surgery. Patients are interviewed before surgery and after surgery, first at six weeks, then six months, and annually for five years. From this study, knowledge and understanding of the process of recovery from CABG will increase so that the care and quality of life of future patients may be improved. REX volunteers will do such things as conduct telephone interviews and record medical events and returned questionnaires. In-person subject contact is optional. Volunteers must possess good communication skills. Project leader is Ruth Lindquist, assistant professor, School of Nursing. Location: Minneapolis Heart Institute and the University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0334 THE INFLUENCE OF ALUMINUM UPON EMBRYONIC BONE DEVELOPMENT. *Dates:* To be arranged. *Contribution:* \$150.

new

Elevated levels of aluminum have been associated with osteomalacia, a serious bone disorder. The mode of action of aluminum toxicity in the expression of osteomalacia is not well understood. This project will examine the influence of aluminum salts on local versus systemic factors which are known to be important in embryonic bone development, using the chick embryo as the experimental model. REX volunteers will do animal culture and dissection, solution preparation, histochemical preparation of skeletal tissue for microscopic study, light photomicroscopy, basic statistical analysis of data, and possibly simple biochemical determinations. Volunteers must have two years of biological sciences course work completed plus basic knowledge of organic and inorganic chemistry. Project leader is Conrad E. Firling, professor, Department of Biology, University of Minnesota, Duluth. Location: University of Minnesota, Duluth. **Call 625-9001 for registration information and an application form.**

REX 0335 QUALITY ASSURANCE/PATIENT SAFETY MONITORING. *Dates:* To be arranged. *Contribution:* \$150.

new

Seeks to assess and follow up on a variety of surgical patient parameters (e.g., pulse oximetry, vitals, complications intra- and post-operatively) in order to improve quality of care and patient safety. Because REX volunteers will collect data and perform statistical analysis of quality assurance parameters, experience using statistics is required. Project leader is Shep Cohen, M.D., assistant professor, Department of Anesthesiology. Location: Minneapolis V.A. Medical Center. **Call 625-9001 for registration information and an application form.**

noncredit courses

REX 0336 ROLE OF MODIFIED LOW DENSITY LIPOPROTEIN CHOLESTEROL IN CORONARY ARTERY DISEASE. *Dates:* To be arranged; project leader seeking a six-month commitment. *Contribution:* \$150.

new

Improved detection and prevention of coronary artery disease (CAD) among the general population is the goal of this project. The research seeks to develop specific methods to measure modified forms of LDL cholesterol in the blood and to compare levels of modified LDL cholesterol in individuals who have different degrees of CAD. REX volunteers will perform hands-on laboratory analyses under the direction of the project leader; they will develop and test specific methods for measuring modified forms of LDL cholesterol. REX volunteers must have some course work completed in the biological sciences, including laboratory experience. Project leader is John D. Belcher, assistant professor, Division of Epidemiology. Location: Moos Tower 1-133, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0337 DETERMINATION OF INCOMPETENCY. *Dates:* To be arranged. *Contribution:* \$150.

new

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. Depending on the phase of the study and the skills of the volunteers, REX participants may extract data from court records, telephone guardians to explain the study, recruit volunteers from care-giver groups, enter data, write reports, or perform statistical analysis. Project leader is Mary Weinensee, assistant professor, School of Nursing. Location: 6-101 Health Sciences Unit F, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0340 ISOLATION OF THE ANTIVIRAL AGENT IN WALDSTEINIA FRAGARIOIDES. *Dates:* To be arranged. *Contribution:* \$150.

new

Waldsteinia fragarioides (the barren strawberry plant from northern Wisconsin) has been shown to contain a substance(s) with potent antiviral (anti-HIV) activity in vitro. The goal of this project is to isolate sufficient amounts of the agent in pure form to determine the chemical structure, using activity against herpes simplex I to guide purification. REX volunteers will collect the plant in northern Wisconsin and interview local Native American medicine men to learn how they use the plant. Volunteers will also assist in extracting and purifying the antiviral agent in the laboratory, guided by assaying anti-herpes activity in cultured Vero monkey cells. Volunteers must have basic laboratory skills; other specific techniques will be taught. Project leader is W. T. Shier, professor, Department of Medicinal Chemistry. Location: Minneapolis campus, University of Minnesota, and northern Wisconsin. **Call 625-9001 for registration information and an application form.**

REX 0341 EXTRACTION OF SINGLE CELL PROTEIN FROM WASTE MATERIALS. *Dates:* To be arranged. *Contribution:* \$150.

new

Protein-deficient malnutrition underlies the major causes of death in developing countries. This project seeks to develop alternative sources of protein for human or animal feed by developing methods for the efficient extraction of single cell (microbial) protein produced by fermentation of waste materials. REX volunteers will use biochemical and microbiological techniques to isolate and study proteins. Various types of instrumental analysis will be used. Volunteers must possess basic biochemistry/microbiology laboratory skills. Project leader is W. T. Shier, professor, Department of Medicinal Chemistry. Location: Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

noncredit courses

REX 0603 DISABLED PERSONS AS TEACHERS. *Dates:* Once a week for a minimum of five weeks; five week period arranged between September 1, 1991, and May 31, 1992. *Contribution:* \$150.

Purpose is to examine the lives of disabled persons who are, or are training to become, teachers. Volunteers will interview disabled preservice and licensed teachers to learn about their career choice, the factors that have helped or hindered their training and employment, and adaptations they have used to function as teachers. Volunteers will also prepare interview transcripts and analyze interview data. Volunteers need strong interpersonal skills and adequate typing skills. Experience with the disabled and familiarity with Macintosh computers helpful, but not necessary. Project leaders are Clayton Keller, assistant professor, College of Education and Human Service Professions; and Vern Simula, professor, Department of Child and Family Development. Location: Montague Hall 120, University of Minnesota, Duluth. **Call 625-9001 for registration information and an application form.**

REX 0604 EXPLORING DRIVING USING SIMULATION. *Dates:* Approximately four hours a week for about ten weeks; weeks to be arranged. *Contribution:* \$150.

Goal is to set up a laboratory-based driving simulator and to compare experimental results from this facility with those from field testing. REX volunteers will be involved in every phase of the project setup, performance, and data analysis. Project leader is P. A. Hancock, associate professor, College of Education. Location: Norris Gym, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0802 ARTISTIC DISCOVERY IN 17TH-CENTURY NAPLES. *Dates:* One academic quarter to be arranged. *Contribution:* \$150.

Although Caravaggio, an Italian baroque painter, has become familiar to many today, Caracciolo, another artist greatly influenced by him, remains relatively unknown and enigmatic. Professor Michael Stoughton, art historian, has been working on what will be the first book-length study of Caracciolo. He seeks the assistance of a research volunteer to translate and transcribe Latin documents about the artist's life. Volunteer must be fluent in Latin. The project also involves library research on iconography of the Carmelite and Carthusian religious orders. Project leader is Michael Stoughton, professor, Department of Art History. Location: Jones Hall 107, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0902 THE ORIGIN OF ENGLISH WORDS. *Dates:* Flexible schedule to be arranged. *Contribution:* \$150.

Did you know that you can trace the history of how we know what we know by studying the etymology of words? For example, by studying the origins of the word *imagination*, you can glimpse the historical tension between rational and intuitive knowledge. If you enjoy puzzles like this, consider participating in this project. Volunteers will undertake the extremely detail-oriented work of copying and comparing etymologies from different sources. Project leader is Anatoly Liberman, professor, Department of German. Location: Wilson Library, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

PROJECTS PROPOSED FOR SUMMER 1992

THE IMPACT OF SOIL FERTILITY ON CROP PRODUCTIVITY (REX 0105). Schedule to be arranged. Location: St. Paul campus. Associate Professor Carl Rosen, Department of Soil Science.

noncredit courses

GLACIOLOGICAL STUDIES IN SWEDEN (REX 0134). Schedule to be arranged. Location: Stockholm, Sweden, or field station in northern Sweden. Professor Roger Hooke, Department of Geology and Geophysics.

INSECT POLLINATION IN PRAIRIES (REX 0150). Schedule to be arranged. Location: Nature preserves in the Twin Cities area. Catherine Reed, research associate, Department of Entomology.

TEL DOR: A JOURNEY TO ISRAEL'S ANCIENT PAST (REX 0210). Schedule to be arranged. Location: Tel Dor, Israel. Assistant Professor Philip Sellw, Department of Classical and Near Eastern Studies.

KELHEIM—ORIGINS OF A CELTIC IRON AGE CITY. Schedule to be arranged. Location: Kelheim, Bavaria, Germany. Professor Peter S. Wells, Department of Anthropology, and director, Center for Ancient Studies.

General Information

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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. The fee must be paid at the Bursar's Office no later than the second week of the quarter. If you have questions, contact the Student Relations Unit (625-5333).

Three student services (health service coverage, Minnesota Unions membership, and use of recreational facilities) may be elected and paid separately; see descriptions below.

Campus activities, services and facilities

Art rentals, University Art Museum (624-8519)

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. The rental office is open noon to 4:30 p.m., Monday through Friday. The rental office is located in M-16 Northrop Auditorium (one flight up from the northwest corner of Northrop). The cost is \$5 a work a quarter. Telephone 624-8519 for further information.

The University Art Museum galleries, located on the third and fourth floors of Northrop, has the following exhibit hours:

Monday, Tuesday, Wednesday, Friday	11 a.m. to 5 p.m.
Thursday	11 a.m. to 8 p.m.
Sunday	2 to 5 p.m.

All exhibits are free and open to the public. Posters and catalogs of current and past exhibits are sold in the Museum office, 110 Northrop Auditorium.

Recreational facilities (625-6800)

A Continuing Education and Extension student may use the recreational facilities of the University, during scheduled open recreation hours, through either of the following methods:

1. Students registered for three (3) or more credits may pay a recreational fee. This fee may be paid by quarter or semester (depending on course term) or, for summer students, on a 5-week or 10-week term. The fee should be paid at the time of registration and will be entered on a separate receipt.

The recreational fee will not be refunded after the second week of classes. No tuition refund will be made without surrender of the recreational fee receipt.

2. Students registered for fewer than three (3) credits must purchase a Recreational Sports Participation Permit at 108 Cooke Hall (Minneapolis) or 104 St. Paul Gymnasium.

3. If students cancel classes, they must surrender the recreational fee receipt or participation permit at the time of cancellation. **The University reserves the right to cancel recreational privileges of students who cancel classes and do not surrender the fee receipt or participation permit.**

4. Students must present their recreational fee receipt or participation permit when they wish to use the recreational facilities.

For further information regarding recreational facilities and programs, including current fees, telephone 625-6800 (Minneapolis) or 625-8283 (St. Paul).

Athletic tickets (624-8080)

University students carrying six credits or more are eligible to purchase student season athletic tickets for men's intercollegiate athletic events (credit requirement is subject to change). The football ticket includes swimming, wrestling, track, gymnastics and baseball. The first home game is on September 14 with San Jose State. Reserved tickets with specific seat assignments will be assigned for all six home games. Tickets will be available for pick up beginning September 9 at Bierman Field Athletic Building.

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, Bierman Field Athletic Building, 624-8080. Hours are 9 a.m. to 5 p.m. Monday through Friday.

Any student enrolled for at least six credits (requirements subject to change) in Extension Classes may purchase two student season athletic tickets under any or all of the following plans:

Plan No. 1—FOOTBALL TICKET. Cost is \$36. Admits to all home varsity football games (six games); all games will have reserved seats. Also admits to all regularly scheduled home baseball, gymnastics, swimming, track and wrestling home intercollegiate events—general admission seating. For information call 624-8080.

Plan No. 2—BASKETBALL TICKET. Admits to all home, regularly scheduled intercollegiate basketball games. Reserved seating only is available. Prices not established at press time.

Plan No. 3—HOCKEY TICKET. Admits to all home, regularly scheduled intercollegiate hockey games. Reserved seating only is available. Prices not established at press time.

Plan No. 4—SWIMMING, GYMNASTICS, TRACK, WRESTLING AND BASEBALL TICKET. Admits to all home, regularly scheduled intercollegiate games in these five sports. Seating is general admission.

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. Partial refund, if ticket is canceled, will be made, based on the refund schedule noted on the ticket.

When and Where to Purchase Football (Plan No. 1) Tickets in the Fall: At Bierman Field Athletic Building lobby, 15th Ave. S.E. at 5th St. S.E. Call 624-8080 for details.

Hours—9 a.m. to 5 p.m. daily, Monday through Friday.

Sale of Plans No. 2, 3, and 4: The special plans will be on sale in September. Call 624-8080 for details at that time.

Regulations governing purchase, transfer, and cancellation of the above tickets are available on request to the Athletic Ticket Office, Bierman Field Athletic Building (624-8080).

1991 Home Football Schedule:

September 14	San Jose State	October 26	Michigan
September 28	Pittsburgh	November 9	Ohio State
October 12	Purdue (Homecoming)	November 16	Wisconsin

Advance Spring Sale: Each spring an advance sale is conducted whereby students may apply for athletic tickets under Plan No. 1, to be picked up at Bierman Field Athletic Building prior to the first home football game. No proof of enrollment is required to order in the spring. Some form of proof of student status, however, must be presented to claim tickets in the fall. Students who register by mail will receive their fee statements by return mail in the order in which registrations are processed. Application may be made by mail in the spring sale. For an application, call the Athletic Ticket Office (624-8080).

Extension students may NOT pick up fee statements in advance at Wesbrook Hall. All fee statements will be mailed to students once payments have been recorded. No exceptions will be made.

Women's intercollegiate athletic tickets (624-8080)

Any Extension student, with a current I.D. and fee statement, may purchase tickets for women's intercollegiate athletic regular season events at the student price of \$1. Tickets are available at the door one hour before any basketball, gymnastics, softball, swimming/diving, track and field, and volleyball event. Ticket books and group discount tickets may be purchased at the Bierman Ticket Office.

There is no admission charge to women's cross country, golf, and tennis events.

Prices are subject to change.

Call 624-8080 for schedule information or the Gopher Sports Hotline at 626-STAT (7828) for 24-hour recorded results and updates.

Campus access for students with disabilities

The University of Minnesota has available accessibility maps for the Minneapolis and St. Paul campuses. The maps, **Access Guide for Students with Disabilities**, indicate handicapped parking areas, building entrance levels, elevators, curb cuts, and accessible buildings.

Those who would like copies of the guides should telephone the Office for Students with Disabilities at 624-4037. 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: Office for Students with Disabilities, 16 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.

For information about the message relay system for people with hearing impairments, call The Minnesota Relay Service, 297-5353.

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. Restrooms 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 the Office for Students with Disabilities (OSD). 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. OSD provides direct assistance such as information, referral, advocacy, support, and academic accommodations (i.e., interpreters, readers, tutors, 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 learning disabilities, sensory impairments, and psychiatric disabilities. A counselor provides services to students with physical and/or psychological disabilities as well as serves as a liaison between the University and the Division of Rehabilitation Services. For more information, contact the Office for Students with Disabilities, 16 Johnston Hall, 624-4037 (voice or TDD).

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 at least one Extension class have the additional option of enrolling in Boynton's Extended Coverage Plan. This prepaid plan entitles students to receive certain outpatient services at no charge and to receive others at reduced cost.

The cost of the Extended Coverage Plan is \$110 a quarter. 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.

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. Full fees are charged for prescription drugs, eye glasses, and dental care. Mental health services, x-rays, and minor surgical procedures are charged to students for collection from their insurance. Any balance after insurance is covered by the extended coverage fee with no out-of-pocket expense to the student. Students who do not have insurance must pay full charges for these services.

The Extended Coverage Plan does not cover hospitalization or surgery. Extension students who have paid for extended coverage may purchase the University-sponsored hospitalization insurance offered to day school students (cost is \$141 a quarter in 1991-92).

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 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. If you belong to the Extended Coverage Plan, one-half of the eligible charges that are not collectible from your hospitalization insurance (excluding take-home drugs and supplies) will be paid by Boynton. Students who do not have both extended cover-

age and hospitalization insurance, and students who use emergency rooms other than the University Hospital emergency room, are responsible for the entire emergency room bill. 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 4 million catalogued volumes. In addition to books and periodicals, the libraries have substantial holdings of government documents, manuscripts, archives, phonograph records, audiovisual tapes, and other materials.

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 the Science and Engineering Library 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, public affairs, 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.

Specialized services of University Libraries include in-depth reference service, library instruction, computer-literature searching, inter-library borrowing, and photocopying.

Continuing Education and Extension students are encouraged to use library services. A current fee statement (the student's receipted copy of the registration form) is needed to borrow materials. For library hours, call 624-4552.

Locker rental service

Lockers are available for \$2.50 for a half-size locker and \$4.25 for a full-size locker per quarter. Deposit cards must be purchased (cost is \$20) on the campus you are renting a locker: Coffman Union Service Center, East Bank; West Bank Cashier Section, Burs (W); and St. Paul Cashier Office, 107 Coffey Hall (except for lockers in the Classroom Office building; contact the Coffman Service Center).

Locker rental offices are at the Service Center in Coffman Union for the East Bank, the Periodical Shop, 48 SocSci, 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 (East Bank and St. Paul lockers only).

The Coffman Union Service Center, on the ground level of Coffman Union, in addition to locker rental, offers several other services: postal services, MTC monthly pass and commuter ticket sales; parking coupons; discount movie passes; card laminating; 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 Union Information Desk, 625-4177, for East Bank; 100 West Bank Union Skyway, 624-6338, for West Bank; and the Coffey Hall Post Office, 625-8284, for the St. Paul campus.

Minnesota Unions memberships

A Minnesota Unions membership card allows part-time students to use all services, programs, and facilities of Coffman Memorial Union, St. Paul Student Center, and the West Bank Union. Students enrolled in at least one University of Minnesota class (credit or noncredit) are eligible to purchase the membership card. The cost of the card is \$30 a quarter (subject to change).

The membership card entitles students to reduced rates for films, concerts, dances, and other admission events; recreation and outings services including bowling, billiards, table tennis, table games and amusement games, outings rental equipment; music-listening centers; the Coffman Union Artcraft Studio; use of meeting rooms at the St. Paul Student Center and West Bank Union; discounted membership at the Outdoor Store; and participation in special student events such as tournaments.

Membership cards are available from 8 a.m. to 4 p.m., Monday through Friday, in room 220 Coffman. After 4 p.m. and on weekends, inquire at the Information Center. For more information, call the CMU Administration Office at 625-7666, between 8 a.m. and 4:30 p.m.

Available without membership are lounge space, lost and found, photocopy service, bus pass sales, food service, and other services (not always available evenings or at all union locations).

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 at facilities depending on proximity to campus and type of facility.

When there are special events, such as concerts and athletic games, occurring on campus, special event rates go into effect at some facilities. **However, Extension students may park in Lot C51/Lot 33, on the East Bank after 4:30 p.m. by presenting a parking coupon.** Coupons are available in the evening at the Parking Services Operations office, on the East Bank, at 2030 University Ave. S.E.

Please see the parking maps on pages 688-690 for locations. If you have questions or need more parking information, call 625-6566 or 625-3337.

Handicapped parking—Some parking facilities and metered areas have parking spaces designated for handicapped parking. A Minnesota state handicapped permit is required to use these spaces. Handicapped patrons are charged the same parking rates as other patrons, except at the meters which are free for handicapped patrons. For more information on handicapped parking, call the University Police department at 624-3550.

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 7:30 a.m. to 5:30 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 Wesbrook 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 fee statement. The directory contains phone numbers and addresses of University offices, faculty, and staff members and phone numbers and addresses of Twin Cities campus day students.

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 a feature section on Wednesdays, an arts and entertainment section on Fridays, and a book review section on Thursdays. Subscription rates (subject to change) are \$14 a quarter for fall, winter, and spring; \$12 for summer sessions; and \$45 a year (180 issues). **The Minnesota Daily**, University of Minnesota, 720 Washington Ave. S.E., Suite 349, Minneapolis MN 55414 (627-4080).

Field Experience (OSLO)

Field learning opportunities are available to University students in a number of areas. The Office for Special Learning Opportunities (OSLO) maintains directories of a wide range of community resources that can be used for internships and other types of field experience learning. In some cases, it is possible to earn credit for a study project developed in conjunction with the field experience and carried out under the direction of a University faculty member. Students should talk to an instructor or see an OSLO adviser in 220 Johnston Hall. Call 624-7577 for an appointment.

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 year-round programming. The Northrop Dance Season presents major nationally and internationally acclaimed companies, those which are currently the most exciting. The 1991-92 season will be headlined in December by the Soviet Union's Bolshoi Ballet. It also includes Wim Vandekeybus, Maria Benitez Spanish Dance Company, Susan Marshall and Company, Mark Morris Dance Group, the Joffrey Ballet, and Miami City Ballet. A lively program of free events is offered each summer. For further information, call the Northrop Ticket Office (624-2345).

Student Employment Center

Extension students enrolled for six or more 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

Thousands of University of Minnesota students have attended play performances at the University Theatre. Whether in the modern four-theatre facility of Rarig Center or on board the Minnesota Centennial Showboat, University Theatre audiences see the brightest young talent in the Twin Cities. Performances are offered throughout the year and ticket prices remain low. (Extension students are eligible for discounts.) Information about current offerings is available by calling 625-4001.

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 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 in front of the St. Paul Student Center on Buford Avenue at Eckles Avenue. Buses leave these terminals at 10-minute and 20-minute intervals on weekdays and at 20-minute and 40-minute intervals on weeknights (from 6:25 to 11:05 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 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.

Buses stop on Como Ave. at 29th Ave. S.E. for students using the **Como Ave. park-and-ride facilities**. Parking is free at the Como lots, although there is a 35-cent charge to board or exit the bus to either campus (subject to change). Monthly passes (selected months) and bus fare discount cards for the Como lot can be obtained 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 University Transit Services, 2818 Como Ave. S.E., Minneapolis.

Transportation is available between the **East Bank and West Bank** every 12 minutes until 11:05 p.m. The West Bank terminal is in front of Blegen Hall, and the main East Bank terminal is on Pleasant Street S.E. at Pillsbury Drive (across the street from Jones Hall and Eddy Hall). East Bank-West Bank service also is available, at 40-minute intervals, on Route 13-U buses 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 the buses and at the student unions and University Transit Services, room 216, Printing and Graphic Arts Building, 2818 Como Ave. S.E., Minneapolis, MN 55414 (telephone 625-9000, Monday through Friday, 7:45 a.m. to 4:30 p.m.).

University of Minnesota 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 which is entitled to elect eight senators and eight alternates to the senate. Students elected to the University Senate automatically become members of the Extension Classes Student Board.

Eligibility for candidacy—A candidate for election from Continuing Education and Extension 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 winter quarter at 202 Westbrook Hall, Minneapolis campus; or call 626-0214.

Upon application for candidacy, the candidates must provide proof of their eligibility: transcripts indicating they are in good standing and meet the credits-earned requirement, and a fee statement showing credit load. 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.

The eight candidates receiving the greatest number of votes will be elected senators. Alternates will be the group of eight candidates receiving the next highest number of votes.

Election of Extension Classes senators and alternates will be held during the election period in 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 present a current fee statement when voting.

Polling places—Students may vote by mail or via ballot information distributed in the classroom. Students voting by mail must send a paid fee statement with their ballot. Fee statements will be returned by mail immediately. For information call 626-0214.

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 the student senators and alternates elected to the University Senate, 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 625-1078 for referral to a board member.



WISH EDUCATION

Adult and part-time students, we're for you!

On the next 15 pages, read about:

- student services
- campus facilities and services
- learning opportunities through CEE
- special programs, options, activities

About the University:

Some public misperceptions and some CEE realities

Misperception: *All the classes are so big.*

Reality: In winter quarter 1991, 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. Average cost is about a dollar for surface lots, \$2 to \$4 for the ramps and garages. And a new ramp at Fourth Street S.E. and 17th Avenue S.E. will open later in 1991. Hundreds more free parking spots are available at the commuter lot on Como Avenue and 29th Avenue S.E. Just park and ride the intercampus bus (35 cents each way).

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 want to take a few courses or work toward a master's degree. You can come in and visit (make an appointment for your convenience) or call anytime. 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.

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 regularly scheduled information groups for prospective students in August and September.

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.

Financial aid workshops

Want to know more about financial aid options for adult and part-time students? Attend a free financial aid workshop, another service of CEE Counseling, and learn about grants, loans, and scholarships. If you're serious about completing a degree or certificate, you'll find many of the same options are available to you that regular daytime students have (and some that they can't get). Financial aid workshops are offered every month. Call 625-2500.

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.

Free back-to-school workshops

In an information-packed, three-hour seminar you can learn just about everything you need to know about University Extension and what services and options are open to you. Space is limited and only three sections will be offered this year (August, November, March), so register early.

Whether you have had some college or none at all, or if you are thinking about exploring a career change, you will find answers to questions about evening classes, individualized learning and special study options, degrees and certificates, financial aid, career and educational planning, and other student services.

Call 624-2388 to add your name to the registration list.

Study Skills Help and Special Needs

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 for hours and location.

German 625-2080

French 624-4308

Spanish 625-5858

Library Orientation

Learn to use the University libraries. Each quarter a free two-evening course is offered entitled *Everyone's Guide to the Whole Library*. See Compleat Scholar courses in the Noncredit Course Offerings section of this bulletin for times, meeting places, and a description.

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. Also offered are GC 1422 *Writing Laboratory: Communicating in Society* and GC 0402 *Grammar and Usage Review*. Other credit courses to aid in skills development include LASK 1001 *Becoming a Master Student* and Rhet 1160 *College Reading*.

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.

Minority Students

Minority 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?

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.

Continuing Education and Extension's professional staff or academic advisers and counselors are ready to assist you in formulating your educational and career goals.

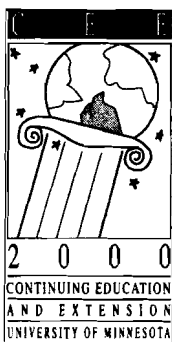
Advisers are available for day or evening appointments and can be reached by phone to answer questions, as well.

Fall registration sessions 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 and educational planning programs are offered throughout the year. A fee is charged for testing and some career and counseling programs. Call 625-2500 for more information.

The Nolte Scholarship Fund

Supporting Adult Students into the 21st Century



Continuing Education and Extension (CEE) offers adult part-time students the opportunity to attend the University of their schedule. Thousands of adults study in classes, seminars, conferences, an even at home through CEE. But not every potential adult student is able to pursue a University education.

For persons in low-paying jobs without tuition reimbursement, or whose lives have been disrupted by 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 Fund was established in 1986 to help adult students who are not eligible for other assistance programs. Often they are balancing the multiple responsibilities of full-time work and family duties as well as attending classes. Without the modest assistance of the Nolte Fund, they would have to put their University careers on hold-indefinitely.

Only one in ten needy adult students received assistance last year.

With your help, we can make the Nolte Fund a more effective resource for adults who are helping themselves through education.

You know how important education is.

Please join the supporters of the Nolte Fund and provide educational opportunity for hard-working adult students. We can't afford to waste the potential these students represent.

Send your contribution of \$25, or whatever you can afford, today. *Thank you.*

The Nolte Fund/U of M Foundation
311 Wesbrook Hall
77 Pleasant Street S.E.
Minneapolis, MN 55455

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. 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, libraries, lounge areas, parking, registration—we're delivering the services it takes whether it's through later hours, by mail, or by telephone.

The New Nolte Study

The newly 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 weeknights, Monday through Thursday, until 9 p.m. An Extension staff member is available to help answer questions.

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

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 the Office for Students with Disabilities, 624-4037, for campus accessibility maps that show handicapped 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 until 1 a.m. 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



This year-longer hours! Fall through spring, the Minnesota Book Center on the East Bank is open every weekday until 5:30 p.m. In addition, all bookstores are open in the evening early in the term and on several Saturdays.

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 bookstores and hours.

University of Minnesota Bookstores and Locations

The Minnesota Book Center in Williamson Hall-East Bank (625-6000). Courses in the College of Liberal Arts (except for CLA departments listed below at the Smith Bookstore), General College, College of Education, and the Institute of Technology.

Harold D. Smith 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.

Books Underground-St. Paul (624-9200). Books for classes scheduled on the St. Paul campus. Books for classes scheduled on the St. Paul campus.

Health Sciences Bookstore-Health Science Unit A (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.

Student Board; Rec Sports

Student Board: Get Involved

Seeking more graduate-level Extension classes. Recognizing outstanding Extension students. Improving campus lighting. 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. Each spring, Extension students are elected to the University Senate, the primary academic governing body of the University. Student senators also serve on the student board.

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, call 626-0214 for a referral. For information about meetings or joining the board, call 626-0214 or stop by 202 Westbrook Hall weekdays between 8 a.m. and 4:30 p.m.

Be a Sport!

Enjoy recreational sports activities of all kinds to help you keep in shape and to unwind from work or study. Students who register for 3 credits or more are entitled to use recreational sports facilities by paying the recreational service fee. Students registered for fewer than 3 credits or in noncredit classes may purchase the Department of Recreational Sports Participation Permit. You may participate in organized sports and intramurals and in open recreation (use of University recreational facilities such as racquetball and tennis courts, 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, 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.

Completing a Degree Through Extension Classes



You can complete a University of Minnesota bachelor's degree in any one of several different majors through Extension Classes. The courses you take and the graduation requirements you meet are determined by the college that grants the degree—not Extension Classes (CEE is not an “evening college.”) This means your degree is the same as the one day school students earn.

You must be admitted to a college 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-Regular Program (B.S.B.)	Civil Engineering	Individualized Study Program (B.I.S.)	Program for Individualized
Business-Accounting (B.S.B.)	Child Psychology	Individually Designed	Learning
Anthropology	Computer Science	Interdepartmental Major	Psychology
American Studies	Economics	Inter-College Program	Sociology (B.A. or B.S.)
Art History	Electrical Engineering	Mathematics	Speech- Communication
Studio Arts (B.A.)	English	Mechanical Engineering	
Biology	Food Science	Philosophy	
	History	Political Science	
	Humanities		

Completing degrees in some majors will require careful planning and scheduling of classes, but advisers and staff are available to help you find ways to meet requirements. 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.

Interdisciplinary Studies: Learning isn't what it used to be. It's better.

For complete descriptions of these Interdisciplinary Studies courses, see the credit courses section of the bulletin.

ID 3333 *Physics on Trial.* A critical exploration of physics and its relationship to the humanities. Based on the instructor's play *Trial by Fire* about the "heresy" trial of a physicist who challenges the uncompromising materialism and reductionism of science. Physics professor Roger Jones.

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 5001 *Scientific Discovery and the Human Imagination.* Creativity and imaginative insight sometimes outweigh procedures and the scientific method. Roger Jones and linguistics professor Michael Kac.

ID 5615-5616-5617 *Ways of Knowing.* Faculty from six very different areas—from biology to 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.

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.

Hist 1012, 1013 *World History.* A new year-long (two semester courses) study.

Pol 5610 *Feminist Political Theory.* Gender—a difference that doesn't make a difference? A multi-disciplinary review of authors and thinkers.

EAS 3001 *Chinese-Japanese Calligraphy.* Styles, aesthetic analysis, practice.

Pol 5610-Phil 5770 *Ethics, Politics, and Public Policy.* A two-course sequence about what we are, what we do, and how we're organized politically and the resulting impact of the moral and ethical consequences on other creatures, our planet, and future generations.

... and **Arts 3420 *Women Artists***; **AmSt 1001, 1002, 1003 *American Culture*** (comparisons); **RELS 3960 *Medieval Christian Mysticism.***

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 3070 *The Sixties Revisited* (fall); history professor emeritus Clarke Chambers

HSem 3080 *The Fall: Then and Now* (spring); English and women's studies professor Toni McNaron

Independent Study: Educational Freedom

If your schedule makes it difficult to take day or evening classes, Independent Study gives you the option of earning University credits where and when you have the time. Anyone may enroll and at any time. You can obtain all materials and submit course assignments by mail. Many Independent Study courses can be used to fulfill distribution requirements for University degrees.

When you enroll in an Independent Study course, you receive a comprehensive study guide written by a University faculty member. The study guide coordinates your reading in the textbooks, provides additional information about the topic and examples, explains the written assignments you submit for grading, and gives you information about the course exams. In addition to written materials, many courses include audio or video cassettes or broadcasts on TV or radio. (Graduate credit is available for some television courses.) Here are a few of our nearly 400 courses.

Arts and Humanities

Survey of American Literature I,II,III (Engl 3411,3412,3413)

Introduction to the Visual Arts (ArtH 1001)

Shakespeare I,II (Engl 3241,3422)

Introduction to the Theatre (Th 1101)

Russian Literature (Russ 3421, 3422)

Composition and Communications

Poetry Writing (EngW 3103)

Writing Practice (Comp 1011)

Introduction to Mass Communications (Jour 1001)

Magazine Writing (Jour 3173)

Technical Writing for Engineers (Comp 3031)

Math and Science

Statistics (GC 1454)

Introduction to Ecology (EEB 3001)

Precalculus (Math 1201)

General Biology (Biol 1009)

Perspectives on Computers and Society (CSci 3001)

Business and Management

Introduction to Retail Merchandising (TexC1641)

Income Tax Accounting (Acct 5135)

Principles of Accounting I,II,III (Acct 1524,1525,1526)

Principles of Marketing (Mktg 3000)

Fundamentals of Management (Mgmt 3001)

Social Sciences

Processes of Social Development (CPsy 5331)

The Language of Maps (Geog 1501)

Introduction to American Criminal Justice (Soc 3101)

Second Language Programs for Young Children (Elem 5321)

Infancy (CPsy 3302)

Geography of the Soviet Union (Geog 3181)

For a copy of the free Independent Study bulletin that describes, explains how to enroll, and details procedures, please call (612) 624-0000 or 1-800-234-6564.

The Compleat Scholar, People At Work



The Compleat Scholar and Practical Scholar programs make up a comprehensive curriculum of courses offering University learning without credit. Compleat Scholar courses focus on the liberal arts—the arts, literature, social sciences, natural and physical science, and writing. Practical Scholar courses focus on problem-solving and skill-building—business and professional development, 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.

Interrogating Identity: The Question of Black Art

Mozart-The Composer and the Man

The Art of Laurel and Hardy

Women and Performance: From the Mainstream to the Outer Limits

Flashbacks: Vietnam, Film, Representation

Confucian Perspectives on Our Life and Society

Indiana Jones and Popular Archaeology

Whodunit: Suspense Writing

Man-Made Woman: Literature, Education, and Patriarchy

The Spiritual Imagination: Contemporary Fiction and Matters of Faith

Mysteries-Detectives on Spiritual Journeys

The Biology of AIDS

Rainbow Warriors or Ecoterrorists: Saving the Planet

Women's Development: Define Yourself Business and Personal Communication Skills for Men

You Talk Man, I'll Talk Woman: Bridging the Communication Gap

People at Work

If you need career-related education-and you don't need college credit or quarter-length courses-the People at Work program is for you.

These short-term, noncredit classes provide convenient, intensive opportunities to master the skills and gain the insights important to being a successful manager. Faculty come both from the University and the professional working world. Either way, you get top-notch instruction from experts in leadership, specific functional areas, and practical applications. Some of the courses for 1991-92 are listed below. Call 625-0174 for registration materials.

Leadership: Building on Your Strengths

Your Business: Planning for Growth

Business Finance and Accounting for Planners and Decision Makers

Computer Systems Management for the Line Manager

Professional Selling: Successful Closing Skills

Bringing Out the Best in Your Employees

Retail Entrepreneurship

Customer Service Training

Good Writing for Good Managers

Split Rock Arts Program; Creative Weekends



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:

Creative Nonfiction: Writing About People, Places, and Things

Nature Photography

Enhancing Creative Potential

The Art of Shaker Basketry

Artmaking as an Act of Healing

Writing Fiction for Young People

Ceramics: Raku!

Process and Discovery: A Painting Retreat at the Cloquet Forestry Center

Monoprints with Master Printers

Traditional Native American Beadworking

The Self as the Source of the Story

Documentary Photography

Working the Poem: A Workshop of Close Critique

Mind and Muse

Combine hands-on artistic experimentation with intellectual exploration in **Mind and Muse** weekend retreats in the arts and humanities. Each noncredit retreat is led by a team of outstanding scholars and artists from the University faculty and from across the state and is held at a specially selected setting. Call 624-8880 for more information about the Mind and Muse weekends listed below. A cooperative program of the Compleat Scholar and the Split Rock Arts Program, two award-winning educational providers.

Images of the Prairie (Early fall, Pipestone; natural and cultural history; writing, photography)

Tsim Laybn! Jewish Arts and Culture of Eastern Europe (Winter, Twin Cities; popular art and culture)

The Word, The Eye, The Hand: Native American Arts of Minnesota (Spring, Twin Cities; cultural history and art; writing, craftwork)

Weekend and Daytime Classes

Off-Campus Classes

Joint day/Extension classes

In addition to the over 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. Classes that are offered once every year or two in Extension often are scheduled more frequently in day school.

Check the Credit Course Offerings section of this bulletin for departments that will offer joint day/Extension classes this year (a boxed 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. (Students registered through the day school may not register through Extension for additional day classes.)

Weekend classes

Some Extension classes are scheduled Saturdays and weekends. See the list below for a sampling.

ArtS 1101 Drawing (and many other art classes)

CAPy 5624 Eating Disorders (and other CAPy workshops)

CE 5104 Photogrammetry

Dsgn 1531 Surface-Fabric Design I

EdPa 5167 The American Middle School (and several other College of Education graduate-level courses)

PE 1041 Cycling

Phys 1275 General Physics Laboratory

PubH 5640 Child Abuse and Neglect (and other related workshops)

Th 1301 Acting for Non-Majors

Compleat Scholar noncredit courses in printmaking, weaving, poetry, marine mammals, sharks, study skills, management, small business, sales, consulting, workplace relations, parenting, and much more.

Take a class near home or work

Richfield and Roseville: University of Minnesota Extension courses are scheduled every quarter at Richfield Senior High School and Roseville Area High School. Classes usually include introductory courses in mathematics, business, English, economics, and other areas important to degree completion. See the Neighborhood Centers section near the end of this bulletin.

Reduced Tuition and No-Credit Options

Half-price registration

You may register for no credit in many regular credit classes. You pay approximately one-half the usual tuition rate (plus any course fees or special fees). Half-price registration offers the opportunity for the stimulation and learning of college courses without the obligations of earning credit. (No work is evaluated; no transcript record is kept.). Courses offered for half-price registration are indicated by a diamond symbol listed in parentheses after the regular tuition.

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. Dates are usually in January, June, July, and September. Cost to hostellers in 1991 is \$270 (subject to change) for accommodations, meals, and class instruction. Elderhostel is a national program now in its 16th year. The University of Minnesota-Twin Cities is one of several Minnesota colleges participating.

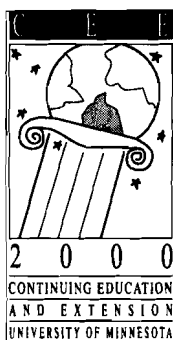
Typical course titles include *Contemporary African Politics*, *Sommerfest at Orchestra Hall*, *Tin Pan Alley Revisited*, and *Spring at the Mississippi Headwaters*. Call 626-7311 for more information about Elderhostel.

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

The Nolte Scholarship Fund

Supporting Adult Students into the 21st Century



Continuing Education and Extension (CEE) offers adult part-time students the opportunity to attend the University of their schedule. Thousands of adults study in classes, seminars, conferences, an even at home through CEE. But not every potential adult student is able to pursue a University education.

For persons in low-paying jobs without tuition reimbursement, or whose lives have been disrupted by 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 Fund was established in 1986 to help adult students who are not eligible for other assistance programs. Often they are balancing the multiple responsibilities of full-time work and family duties as well as attending classes. Without the modest assistance of the Nolte Fund, they would have to put their University careers on hold-indefinitely.

Only one in ten needy adult students received assistance last year.

With your help, we can make the Nolte Fund a more effective resource for adults who are helping themselves through education.

You know how important education is.

Please join the supporters of the Nolte Fund and provide educational opportunity for hard-working adult students. We can't afford to waste the potential these students represent.

Send your contribution of \$25, or whatever you can afford, today. *Thank you.*

The Nolte Fund/U of M Foundation
311 Wesbrook Hall
77 Pleasant Street S.E.
Minneapolis, MN 55455

Degrees & Certificates

For further information
about degrees and certificates,
telephone CEE Counseling:
625-2500

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Degrees

Important Admissions Changes

Beginning fall 1991, all students admitted to a University of Minnesota baccalaureate degree program who have 38 or fewer credits (freshman status) must meet the preparation standards listed below. Beginning fall 1993, all admitted students (including advanced standing applicants with 39 or more credits) must have these same required preparatory courses, as well (see exception below).

- Four years of English (with emphasis on writing, reading, speaking skills, and literary understanding and appreciation)
- Three years of mathematics (one year each of elementary and intermediate algebra and geometry).
- Three years of science (including one year each of biological and physical sciences)
- Two years of a single second language
- 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 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 any questions about admission to a degree program or the preparation requirements, please contact an adviser in CEE Counseling at 625-2500.

Degree and certificate programs may change or be discontinued. The University will make every reasonable effort to assist admitted students in completing a program.

Several college degrees (two-year and four-year), in approximately 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 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 of agriculture in food technology (College of Agriculture), and a master of business taxation (M.B.T.) may be completed through Extension classes. 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:

Completion of two-thirds (66%) of total credits for the year (first summer session through spring quarter) with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W, V, and X are not considered in this calculation.

The formula for determining this is:

$$\frac{\text{Total credits graded A, B, C, or S}}{\text{Total credits graded A, B, C, D, F, S, N, or I}} = 66\%$$

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

Undergraduate degrees

General College

In accordance with action of the Board of Regents in January, 1986, the General College no longer offers degree programs. The mission of The General College is to prepare students for transfer to University degree programs.

Associate in Liberal Arts (A.L.A.), College of Liberal Arts

The College of Liberal Arts no longer offers the A.L.A. degree as a primary goal for students entering the college. The degree may be granted only by special petition. Students seeking information about the A.L.A. degree should contact 114 Johnston Hall (624-4545).

Bachelor of Arts (B.A.), College of Liberal Arts

The Bachelor of Arts degree from the College of Liberal Arts can be earned in 16 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 group distribution requirements (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 areas 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 group distribution 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 in good standing may apply for admission to majors.

The following majors currently can be completed in Extension Classes:

American Studies	Individualized Study Degree Program (B.I.S.)
Art History	Individually Designed Interdepartmental
Arts, Studio	Major (IDIM)
Child Psychology	Philosophy
Computer Science	Political Science
Economics	Psychology
English	Sociology (B.A. and B.S.)
History	Speech-Communication

Majors in other departments—Anthropology, Biology, Humanities, and Mathematics—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 24 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:

Arts, Studio	Mathematics
Child Psychology	Philosophy
Computer Science	Political Science
Dutch	Psychology
Economics	Sociology
English	Spanish
History	Speech-Communication
Humanities-European Focus	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 1990-92 CLA bulletin is essential to the CLA degree candidate. It can be obtained by calling the Service Bureau, 625-3030. 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 graduation plans

Continuing Education and Extension B.A. candidates usually follow the graduation requirements in use at the time of their 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 75 credits, must complete the graduation requirements in effect at the time they reenter. Those with 75 or more credits at the time of last attendance may elect either current requirements or those in effect when they last attended.

For questions regarding graduation requirements, students are encouraged to contact their CLA office or CEE Counseling.

English, language, distribution, and world studies requirements

Composition Requirement

Writing Practice requirement or exemption and 3000-level writing course designated by the major department.

Second Language Requirement

The current second language requirement for the B.A., B.I.S., and B.F.A. degrees went into effect fall 1986 for students entering the college with fewer than 39 credits and all students entering CLA beginning fall 1988.

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.

Entrance standard: Students who wish to study the most commonly taught languages—French, German, and Spanish—must meet a second-language entrance standard, demonstrating by examination the proficiency usually attained after the first three quarters of college study (usually three to four years in high school).

Proficiency tests to determine fulfillment of the entrance standard and graduation requirement will be given several times during the year. Students should contact their language department for testing information.

Students who meet the entrance standard may continue their study at higher levels in the same language or may begin study in another language. Students who do not meet the standard and who register in beginning French, German, or Spanish will receive credit for beginning courses, but the credit will not apply toward graduation. Students who do not meet the standard have the option to register in a language other than French, German, and Spanish, and the credit will count toward graduation.

Study abroad programs through the Global Campus include courses that fulfill second language requirements. See the International Education section of this bulletin.

Former Second Language Requirement

Students admitted to and enrolled in CLA *before 1986*, or who entered CLA with more than 39 credits *before fall 1988*, may complete the second language requirement for the B.A. by one of two routes:

Route I: Complete a minimum of 23 credits or validation at the fifth quarter level by the appropriate language department. Background from high school usually relates to this requirement as follows:

High school study	Additional study in college
5 years	requirement satisfied
4 years	fifth quarter level in same language
3 years	fourth and fifth quarter level in same language
2 years	third through fifth quarter level in same language
1 year	second through fifth quarter level in same language

Students with two or more years of Latin in high school may satisfy this requirement by continuing in Latin or by taking 15 credits in another language.

Route II: Complete a minimum of 27 credits in the following combination:

A. At least 15 credits in a single second language. Background from high school usually relates to this requirement as follows:

High school study	Additional study in college
3 years	none in college
2 years	5 credits at higher level in same language
1 year	10 credits at higher level in same language

B. At least 12 credits (7 for those with 4 years high school study in one language) in courses concerned with the country or countries that use the language in which the student completes 15 credits. (Further study in the language beyond the 15-credit level counts as part of the 12-credit requirement.) A list of eligible courses appears in Section IV of the 1990-92 CLA bulletin. Information on Extension classes meeting this requirement may be obtained from CEE Counseling, 314 Nolte Center. Courses elected for this purpose may **not** be used to satisfy the group distribution requirements. Students may receive permission to repeat for credit any language studied in high school, but then may count only the college work in meeting degree requirements.

Group distribution 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")

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—at least one from each sub-area)
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 expand the boundaries set by major European and North American educational traditions, students studying for a bachelor of arts degree are asked to examine radically different cultures. Students must take a least two courses (8 to 10 credits) dealing with the cultures of Asia, Africa, or Latin America, or with traditional American Indian cultures. These courses may also be used to satisfy other College of Liberal Arts requirements. A list of approved courses is found in Section IV of the 1990-92 CLA bulletin. A list of Extension classes meeting this requirement can be obtained by calling CEE Counseling, 625-2500.

U.S. cultural pluralism requirement

Candidates for the B.A. and B.I.S. must take at least two courses (8-10 credits) that focus on Afro-American, Asian-American, American Indian and Chicano cultures within the United States. A list of approved courses that satisfy this requirement appears in section IV of the 1990-92 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 applies to all students entering CLA fall 1990 and thereafter.

Special notes on group distribution requirements:

1. A maximum of 12 credits from any one department may be used to meet group distribution requirements in Groups A-D, even though courses from some departments may be used in different groups. No course may be used in two groups.
2. Courses used for English composition and for language requirements (including courses used for Route II, part B) may not be used for group distribution requirements.
3. 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.

4. Honors courses or sections may be substituted for regular courses or sections (unless otherwise specified).
5. Courses approved for the world studies or U.S. cultural pluralism requirements, which are also approved for a group distribution requirement or Route II language requirement, may be used to fulfill both the world studies or U.S. cultural pluralism requirements and the relevant group distribution or language requirement.
6. 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.
7. At least one Group A course must deal specifically with a formal language or a formal symbolic system.
8. 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.), College of Liberal Arts

The Department of Studio Arts offers the Bachelor of Fine Arts to students who demonstrate superior professional promise. It is a "performance" degree, and students must apply through the department to be accepted into the program. Application involves the presentation of a portfolio. Standard CLA requirements are modified somewhat for students in this degree program. B.F.A. students who fall under the new second language requirement must complete that requirement as part of their B.F.A. degrees. 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.), College of Liberal Arts

The School of Music offers the B.M. degree for students who demonstrate superior professional promise in the areas of performance, jazz studies, and composition and theory. 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.), College of Liberal Arts

The Bachelor of Science degree is offered by the departments of Child Psychology, Communication Disorders, Economics, Geography, Sociology, and the Urban Studies program. Its requirements are more concentrated than those of the B.A. program with no second language, world studies, and cultural pluralism courses required. (Some of these majors may not be entirely available through Extension.)

For further information, call CEE Counseling, 625-2500.

Bachelor of Individualized Study (B.I.S.), College of Liberal Arts

The Bachelor of Individualized Studies degree enables students to design an individualized program based on their personal academic objectives. Proposals must

be evaluated and approved by at least two faculty advisers. With adviser approval, up to 40 credits of non-CLA course work may be included in the degree program. For further information, call CEE Counseling, 625-2500.

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

The College of Liberal Arts Dean's List is the college's method of recognizing students' superior academic performance. About ten percent of CLA students qualify for the list each quarter. It has two divisions. For the "all A" list (usually about four percent of CLA students qualify), students must earn 12 credits of A and all other credits with A or S grades. For the "two-thirds A" list, they must complete 12 credits (at least eight credits on A-F grading) with A grades for two-thirds of their A-F credits and with B or S grades for all other credits.

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 may also request that this information be sent at no charge to their hometown newspapers.

Bachelor of Science in Business (B.S.B.), Carlson School of Management

The B.S.B. degree may be earned through Continuing Education and Extension. Students wishing to complete the B.S.B. degree through Extension should talk with a member of the 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 grade-point average requirements for admission to the Carlson School of Management are subject to change. **Students are responsible for consulting an adviser annually regarding pre-management and admission requirements.**

Upon completion of the pre-management program, students interested in a business degree must make formal application to the school. **A minimum of 40 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 through special examination may be accepted at the discretion of the Carlson School of Management staff. Make an appointment with 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, the quarterly *Undergraduate Update*, the current Pre-Management and Upper Division Planning Sheet to that bulletin, and the Extension bulletin.

An official college (day school) transcript is created for Extension B.S.B. students at the time of admission.

Application deadlines

Fall quarter June 1
Spring quarter January 15

Pre-management requirements for students applying for admission to the Carlson School of Management fall 1990 and thereafter

Second Language Requirement—Students who graduate from high school after June 1986 and who graduate with their B.S.B. from the University after June 1991 will be required to have two years of high school or two quarters of college work in a single second language.

Group A—Communication, Language, Symbolic Systems

9-10 credits; see Pre-Management Planning Sheet

1. Comp 1011 (5 credits); A-F grading required
2. Symbolic systems; A-F grade required

Note: Mathematics requirement, although group A, is listed with Management-Related group (tool courses) below.

Group B—Physical and Biological Sciences

9 credits; see Pre-Management Planning Sheet

1. One science course with laboratory
2. One history of science or application of science course

Group C—The Individual and Society

13 credits; see Pre-Management Planning Sheet

1. Psy 1001; A-F grading required
2. Individual and Society (one course)
3. International Studies (one course)

Group D—Literary and Artistic Expression

8 credits; see Pre-Management Planning Sheet

Choose option 1 or option 2 below:

1. Two quarters of Humanities (select from 1001, 1002, 1003, 1004, 1005)
2. One literature course **and** one artistic expression/humanities course

Management-Related Group ("Tool Courses") and Mathematics

26 credits; A-F grading required

1. Acct 1050 (formerly 1024/1025) Introduction to Financial Reporting
2. Econ 1101 Principles of Micro-economics
3. Econ 1102 Principles of Macro-economics

4. IDSc 1010 Fundamentals of Information Development and Use
5. OMS 1020 Data Analysis and Statistical Inference for Managers
6. Math 1142 Short Calculus or Math 1211 Calculus I (or equivalent)

Plus additional transferable elective credits to equal a minimum of 90 credits by the time of admission to the Carlson School of Management.

General admission requirements for all students applying to the Carlson School of Management

Because of resource constraints, the Carlson School of Management establishes enrollment limits. Although grade-point averages (as described below) are a primary determinant of admission, applicants are required to provide additional information about their background and achievements to allow a broader view of their qualifications for admission.

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 (1024/1025), Econ 1101 and 1102, IDSc 1010/OMS 1020, and the calculus requirement. No more than two of these courses may be in progress at the time of application. (Note: If you have taken DSci 1050, contact an Extension adviser, 625-2500, about this requirement.)
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. Minimum overall grade-point average in all transferable and tool credits of 2.80. (Note: The school accepts only the *first* passing grade—D or better—in calculating grade-point averages.) (Credits of N or F earned fall quarter 1987 and later count in the grade-point average used for admission.)
As space permits, students with strong credentials (e.g., significant leadership experience, 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.

Requirements for graduation for students admitted to the Carlson School of Management fall 1989 or later

Note: Students admitted to the Carlson School of Management prior to fall 1989 are responsible for the requirements published in the Management bulletin current at the time of their admission.

1. Complete a minimum of 180 quarter credits of which a minimum of 45 credits must be taken at the University of Minnesota.
2. Complete a minimum of 72 credits in business and economics coursework 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 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 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** to be completed during the first three quarters in the Carlson School of Management; A-F grading required.
Acct 3001 Introduction to Management Accounting
Mgmt 3001 Fundamentals of Management
BFin 3000 Finance Fundamentals
IDSc 3030 (formerly MSci 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.
Mgmt 3004 Business Policy: Strategy Formulation and Implementation
- IV. **8-12 credits upper division Communications courses** (A-F or S-N grading)
Comp 3022 Critical Thinking and Writing for Management
Comp 3032 Preprofessional Writing for Business
One course from the following:
Rhet 3254 Advanced Public Speaking
Rhet 3266 Discussion Methods
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.

Bachelor of Science in Business—General Management Program Additional Major Requirements

- I. **Elective credits, to reach 180**, 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).

Note: Students pursuing more than one area of emphasis should expect to spend additional time completing their degree in the Carlson School of Management.

Actuarial Science:

Ins 5100 Risk Management and Insurance
Ins 5230/Math 5057 Life Contingencies I
Ins 5231/Math 5058 Life Contingencies II
Math 5473 Analysis of Numerical Methods
Math 5056 Theory of Interest

Banking:

BFin 3601 Bank Financial Management (spring quarter)
BFin 3602 Regulation of Depository Institutions (fall quarter)
BFin 3603 Selected Problems in Banking Management (winter quarter)

Two of the following:

Acct 3101 Intermediate Financial Reporting
BFin 3100 Financial Management
BFin 3300 Investment Management and Financial Markets

Finance:

BFin 3100 Financial Management
BFin 3300 Investment Management and Financial Markets
Ins 5100 Risk Management and Insurance
Acct 3101 Intermediate Financial Reporting
Acct 3201 Intermediate Management Accounting

Small Business Management and Entrepreneurship:

Mgmt 3008 Entrepreneurship and the Smaller Enterprise
Mgmt 3002 Psychology in Management

One of the following:

Mgmt 5101 Advanced Topics: Entrepreneurship Project
Mgmt 5101 Advanced Topics: Small Business Management
(Only these topics in Mgmt 5101 will satisfy this requirement)

Two of the following:

Acct 3101 Intermediate Financial Reporting
BFin 3100 Financial Management
Mktg 3010 Buyer Behavior and Marketing Analysis
OMS 3041 Project Management

Marketing:

Mktg 3010 Buyer Behavior and Marketing Analysis
Mktg 3020 Marketing Operations Management

One of the following:

Mktg 3030 Sales and Distribution Management
Mktg 3050 Marketing Communications
Mktg 3065 Retail Management
Mktg 3090 Marketing Topics

Two additional upper division Carlson School of Management courses other than additional marketing courses

Logistics Management:

LM 3000 Introduction to Logistics Management

LM 5010 Topics in Logistics Management

LM 5020 Advanced Logistics Management

LM 5030 Principles of Transportation

Two advanced courses (8 credits) selected from BFin, IDSc, Mktg, or OMS.

Operations Management:

OMS 3056 Production and Inventory Management

OMS 3059 Quality Management

One of the following:

OMS 3041 Project Management

OMS 5155 Methods for Quality Improvement

Two more 3xxx or 5xxx Carlson School of Management courses. The OMS department recommends two of the following:

LM 3000

LM 5020

Mgmt 3002

Mgmt 3008

IDSc 5102

IR 3007

Acct 3101

Acct 3201

General Management Studies

Two of the following:

BCS 3004

BLaw 3058

OMS 5060

Ins 5100

LM 3000

Mgmt 3002

Three additional courses within the school. These may be selected from the list above. No more than two of these courses may be taken from the same department or functional area.

Self-Designed Emphasis

20 credits of upper division courses with no more than 12 credits in one designator area. Credits may be from other units within the University. Approval of the Director of Undergraduate Studies is required. At least 12 of the 20 credits must be completed after approval.

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

Acct 5125 Auditing Principles and Procedures

Acct 5135 Introduction to Taxation

8 credits 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 for more information and application forms.

A copy of "Pursuing a Bachelors 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 625-3030.

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 1991-93 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 Extension Counseling Office for information.

(See **Institute of Technology Bulletin** for full course descriptions and offerings.)

Electrical Engineering Curriculum Guide

See also 1989-91 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; 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, 625-2500.

LOWER DIVISION ELECTRICAL ENGINEERING PROGRAM

Credits

Comp 1011 Writing Practice 5
Math 1211, 1221, 1241, 3311, 3321, 3331 Calculus, Multivariable and Vector Analysis 27
Phys 1251-1252-1253 General Physics (with lab) or 1271/1275, 1281/1285, 1291/1295 12

Phys 3501 Modern Physics	4
Chem 1014 General Principles of Chemistry*	4
CSci 3121 Algorithms and Data Structures I	4
CSci 3322 Algorithms and Data Structures II	5
EE 1000 Introduction to Electrical Engineering	1
EE 1400 Circuits Laboratory	1
EE 3009-3010 Linear Circuits I-II	8
EE 3351-3352 Introduction to Logic Design, Introduction to Microprocessors	8
Liberal education electives	8
Technical elective (AEM 3036 or ME 3301)	4
TOTAL	97

*Chem 1004-1005 may be substituted for Chem 1014.

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, more courses may need to be taken 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 table 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 1991-93 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.)

Year	Course Numbers	Quarter (F W S)	Semester (F S)	Total Hours
1	Math 1211, 1221, 1241 ME 1025 CSci 3101	4 4 4 4 4		20
2	Phys 1251 or 1271/1275, 1252 or 1281/1285 ME 3900 or Stat 3091 Math 3321 AEM 1015	4 5 4	4 4	21
3	Phys 1253 or 1291/1295 AEM 3016, 3036 Comp 1011 CE 3400	4 4 5 4	4	21
4	ME 3201, 3203, 3205 ME 3301, 3303, 5342	4 4 4 4 4 4		24
5	IEOR 3000 *ME 3701, 3702	4 2 2		8

Day Only or Infrequent Extension Offerings:

MatS 3400

Senior Laboratory requirement

ME 3020

ME 5254 (Summer Extension)

ME 5260

Chem 1014 (Substitute Chem 1004 and 1005)

EE 3003/3004

Additional EE

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). These may be scheduled at any time to maintain a full schedule.

*ME 3701 and 3702 meet concurrently spring quarter; 3701 is a prerequisite for 3702.

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 7 Wulling Hall.

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: performing arts, habitation design, behavioral genetics, American social activism, and Third World development.

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 201 Westbrook Hall.

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 interdisciplinary 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, 7 Wulling Hall, 624-2004.

College of Agriculture and College of Human Ecology Bachelor of Science (B.S.) in Food Science

Sufficient courses in the major and in other distribution areas are offered through Continuing Education and Extension on a two- to three-year cycle to meet most of the degree requirements in Food Science.

Students interested in the bachelor's degree in Food Science through Extension should contact CEE Counseling (625-2500) or the Department of Food Science and Nutrition at 624-1290 as soon as possible.

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 are obtainable through CEE Counseling. After a student is admitted, a long-range plan can then be completed, and a departmental adviser will be assigned.

Graduate degrees

Be sure to read the section on graduate credit, page 47.

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, CEE students do not go on to doctoral study.

The M.A. Program: Two Emphases

You 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:

- **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.
- **Reading knowledge of one modern or classical language.** You 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.
- **A qualifying examination taken during the course of your studies.** Offered twice a year, in the fall and spring quarters, this four-hour examination asks you to analyze and interpret two works announced one quarter in advance. You must pass the examination no later than the end of the second calendar year in residence, or no later than four years after admission if you are enrolled in Continuing Education and Extension.
- **A writing project: two or three "Plan B" papers.** Instead of a traditional master's thesis, we ask you to complete three major writing projects (two in the writing emphasis) on topics you define in consultation 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.

Admissions Procedures

Information about admission to the M.A. program can be found in the current Graduate School Bulletin. More current information and application forms may be obtained from the English Graduate Studies Office in 205 Lind Hall (625-3882).

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, 1991 (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 (\$25).
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 15, 1992 (Department of English, University of Minnesota, 205 Lind Hall, 207 Church Street S.E., Minneapolis, MN 55455; telephone 612/625-3882).

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 15, 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 15 deadline. While January 15 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 Agriculture (M.Agric.) in Food Technology

The Department of Food Science and Nutrition offers sufficient evening courses at the 5000- and 8000-level through Continuing Education and Extension to enable students to complete most of the requirements for the M.Agric. degree, with area of concentration in Food Technology. About three years are required. The M.Agric. degree is administered by the College of Agriculture and is also available in other areas of concentration, in each of which it would be necessary to take some day as well as evening classes.

Requirements for the master of agriculture degree in food technology

COURSE WORK (45 credits): A minimum of 27 credits in 5000- or 8000-level courses taken for graduate credit after admission to the College of Agriculture, with at least 18 credits (A-F grading) in courses comprising the area of concentration. At least 9 credits (A-F grading) comprising the related field must be from a single department or field of study outside the area of concentration. Depending on the area, most of these may be met by the evening program.

ADMISSIONS PROCEDURES: Application forms and information may be obtained from the College of Agriculture, 277 Coffey Hall, St. Paul, MN 55108, or by calling 624-3009. Any student with a baccalaureate degree or equivalent from a recognized college or university may apply for admission to the program. For detailed admission criteria, program and distribution requirements, refer to the brochure "The Master of Agriculture" (which may be obtained by calling the College of Agriculture, 624-3009). For assistance in developing objectives and a proposed plan of study prior to formal application for admission, call the Department of Food Science and Nutrition (624-1290) to arrange a preliminary interview with a faculty adviser. Admission is dependent upon having an adviser.

For information on use of credits earned in Extension in the **Master of Science degree in Food Science**, see the Graduate School Bulletin.

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. The program is offered only in the evening 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—Students are 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, students must make up the deficiencies. These courses may be taken after admission.

Students must complete 46 credits, including 16 credits in business, economics, and accounting, 14 credits in the fundamentals of tax, tax research, tax procedure, and corporate tax, and 16 credits of elective tax courses. Students must maintain 3.00 grade-point average. The final exam 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 summer terms.

For further information, contact Frederick R. Jacobs, Director of Graduate Studies, Business Taxation, 645 Management/Economics Building, University of Minnesota, 271 19th Avenue S., Minneapolis, MN 55455; telephone 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, All-University Council on Aging, University of Minnesota, 330 Humphrey Center, 301 19th Ave. S., Minneapolis, MN 55455.

Certificates

Degree and certificate programs may change or 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 not 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. 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 be enrolled in more than three certificates 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, 625-2500.

Application

Students can obtain a copy of "CEE Certificate Program Information" with an application form by contacting CEE Counseling, 625-2500, 314 Nolte Center. A non-refundable \$15 application fee 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 varies 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 written statement outlining how the certificate program helps 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 \$16 certificate fee will be required at the time the Certificate Completion Form is filed. Certificate application forms can be obtained from CEE Counseling, 314 Nolte Center; 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 year (first summer session through spring quarter) with grades of A,B,C, or S. Grades of D,N,I, and F are not considered satisfactory. Grades of W,V, and X are not considered in this calculation.

The formula for determining this is:

$$\frac{\text{Total credits graded A,B,C, or S}}{\text{Total credits graded A,B,C,D,F,S,N or I}} = 66\%$$

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 further information and assistance in reviewing options, study skills, and steps that might improve academic standing.

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." A student earning a 3.50 grade-point average, or better, in University of Minnesota credits within the certificate will be awarded a certificate "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	661	Graphic design	660
Alcohol and drug counseling education	656	Industrial engineering	675
Art, graphic design and commercial illustration	660	Industrial relations	666
Arts, liberal	660	Information systems analysis and design	667
Associate in management of administrative services	667	Liberal arts	660
Behavior analyst	657	Management of administrative services	667
Business administration	663	Mathematics and science	661
Cardiovascular perfusion technology	659	Mechanical engineering	676
Civil engineering	673	Ophthalmology technician certificate	661
Commercial illustration	660	Pharmacy, geriatric	660
Computer science	670	Real estate	669
Counseling, alcohol and drug education	656	Science, engineering and	672
Credit and financial management	665	Science, mathematics and	661
Early childhood studies	660	Undergraduate development Certificates in	669
Electrical engineering	674	Computer science	670
Engineering	672	Engineering and science	672
Fellow in management of administration services	667	Civil engineering	673
Financial management	665	Electrical engineering	674
Geriatric pharmacy	660	Industrial engineering	675
		Mechanical engineering	676

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.)

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, 299A 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)

The Behavior Analyst Certificate is currently under review. Until the review process is complete, a moratorium has been placed on further admissions to this certificate. If you are pursuing this certificate, please contact an adviser in CEE Counseling, 625-2500, for more information.

The Behavior Analyst in Community Environments Certificate program was developed in response to the growing need for persons trained at the postbaccalaureate level in behavior analysis and therapy. Designed for persons holding an M.A., B.A., R.N., or equivalent degree, it involves approximately one year of full-time study, including a practicum, but requires no formal research. Training is geared to the specific type of clients with whom the student wishes to work. Programming for developmentally disabled persons and families with youngsters with behavior/emotional problems is emphasized.

Graduates are trained for positions in the following areas: state or county agencies (such as state hospitals or county welfare agencies), special education programs, sheltered workshops, day activity centers, private residential facilities and community-based programs for mentally ill or retarded persons. The Behavior Analyst in Community Environments Certificate awarded by CEE at the University may supplement existing credentials but it is not awarded by, or recognized by, the Minnesota Department of Education as a specialized teaching license comparable to those necessary for teaching handicapped students in special education programs in the public schools. While students may work toward the Behavior Analyst in Community Environments Certificate concurrently with teaching licensure, the former does not substitute for the latter. Similarly, while training provided in this program is generally adequate to pass requirements for certification as a Behavior Analyst under the Minnesota Department of Personnel job classification, it is **not** a substitute for such an examination.

Prerequisites

A bachelor's degree, master's degree, or equivalent from an accredited college. Preferred majors: education, social work, psychology.

Specific prerequisites required: introductory psychology, learning (operant and classical conditioning), child psychology, personality development and abnormal behavior. Students lacking any of these prerequisite courses will be required to include them in their program work. Students claiming competence in the above areas may be required to pass qualifying examinations.

Grade-point average of 3.00. Factors such as experience and current professional responsibilities will also be considered in admitting students to the program.

Admission Procedures

Application forms are available from CEE Counseling, 314 Nolte Center, telephone 625-2500.

Applications should be submitted to Behavior Analyst in Community Environments Certificate Program, University of Minnesota, Continuing Education and Extension Counseling, 314 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455. Applications are accepted on a continuing basis. Preference will be given to people with practical experience dealing with the client population with whom they intend to work. Final review of applications will be made by the Behavior Analyst Certificate Program Committee. Admission to the program is limited.

Core Requirements (21 credits)

EPsy 5116 Behavior Analysis in Education

EPsy 5705 Behavior Analysis Procedures with Mildly and Moderately Handicapped People

EPsy 5622 Programs and Curricula for Learners with Severe Handicaps

EPsy 5711 Practicum: Behavior Analysis Certificate Program. All students are required to complete 9 quarter credits of supervised practicum and analysis of professional problems (300 hours of on-site work). The practicum must be done in no less than two, and preferably three, sites. No more than one quarter of practicum may be done in the student's current place of employment. **There will be no exceptions to this regulation.** Practicum placements are available in (1) developmental disabilities, (2) chronic adult disabilities, and (3) programs for behavior problem/emotionally disturbed youth. Students must have permission of the instructor to register for the practicum.

Electives

To round out the student's program, 9 to 12 elective credits in addition to the core courses will be required, dealing with the target populations listed above. While most elective courses are available through Extension classes, some students may find it necessary to enroll in day classes as well. The specific courses selected must be completed while enrolled in the Behavior Analyst in Community Environments Certificate program. Prerequisite courses listed above may not be counted toward the 30-33 credit requirement.

Time Limit

Students have a time limit of three years in which to complete all **core** requirements including the basic three quarters of lecture courses and the 9 practicum credits.

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 an 18-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 course is expected to be accredited by the Committee for Allied Health Education Accreditation of the American Medical Association upon completion of its first year of training. Graduates from the program will receive Certificates from Continuing Education and Extension and will be eligible for the certification 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 will also 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 625-7168 or 1-800-US-HEART. Application period is from November 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.

Early Childhood Studies certificates

The Early Childhood Studies Certificates (45 and 90 credit) have been discontinued. Contact an adviser in CEE Counseling, 625-2500, to explore other educational options.

Geriatric Pharmacy certificate

Continuing Education and Extension offers a Certificate in Geriatric Pharmacy program. For more information, contact Continuing Education in Pharmacy at 624-2442.

Graphic Design/Commercial Illustration certificate

(Formerly Commercial Art Certificate)

(60 credits)

The Graphic Design/Commercial Illustration Certificate has been discontinued. Contact an adviser in CEE Counseling, 625-2500, to explore other educational options.

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

Group Distribution 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 625-2500 for a copy of CLA courses meeting the group distribution requirements offered through Extension before taking any courses.

Mathematics and Science certificate (IS)

(45 credits)

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.

Prerequisite: 2 years of algebra and 2 years of geometry including trigonometry.

Core Requirement (25-28 credits)

Comp 1011	Writing Practice or equivalent
Math 1211	Calculus I
Math 1221	Calculus II
Math 1241	Calculus III
Math 3311	Multivariable Calculus

Electives: Additional courses to make a minimum total of 45 credits, selected from the following areas.

Astronomy	Engineering
Biology	Geology
Botany	Aerospace Engineering and Mechanics
Chemistry	Microbiology
Ecology	Physics

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.

Requirements for the certificate will include completion of nine months of didactic and clinical training immediately followed by a 12-month externship.

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.

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 course work in the junior and senior years.

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

(61-64 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 or equivalent	Acct 3001 Introduction to Management Accounting
Comp 3022 Critical Thinking and Writing for Management	Acct 3101 Intermediate Financial Reporting
Econ 1101-1102 Principles of Economics	Acct 5102 Advanced Financial Reporting I
Math 1111 College Algebra and Analytic Geometry	Acct 3201 Intermediate Management Accounting
Math 1142 Short Calculus or Math 1211 Calculus I	IDSc 1010 Fundamentals of Information Development and Use
Acct 1050 (formerly 1024/1025) Introduction to Financial Reporting	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

(89-92 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 (76-77 credits)

Comp 1011 Writing Practice or equivalent	Acct 3101 and 5102 Intermediate and Advanced Financial Reporting
Comp 3022 Critical Thinking and Writing for Management	Acct 3001 Introduction to Management Accounting
Econ 1101-1102 Principles of Economics	Acct 3201 Intermediate Management Accounting
IR 3002 Personnel and Industrial Relations	12 additional credits of upper division accounting electives
Math 1111 College Algebra and Analytic Geometry	IDSc 3030 (formerly MSci 3030) Information Systems and Information Management
Math 1142 Short Calculus or Math 1211 Calculus I	
Acct 1050 (formerly 1024/1025) Introduction to Financial Reporting	

IDSc 1010 (formerly MSci 1010)
Fundamentals of Information
Development and Use

OMS 1020 (formerly MSci 1020) Data
Analysis and Statistical Inference for
Managers

Electives (12 credits)

BFin 3000 Finance Fundamentals
BLaw 3058 Business Law
Econ 3105 Managerial Economics
BGS 3002 Business and Society
BGS 3004 International Business
Ins 5100 Risk Management and Insurance
OMS 3000 Introduction to Operations
Management

LM 3000 Introduction to Logistics
Management
Mktg 3000 Principles of Marketing
Mgmt 3001 Fundamentals of Management
Mgmt 3004 Business Policy: Strategy
Formulation and Implementation

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 are usually 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 in 90 credits of college-level work, or they will have already completed a bachelor's degree.

Admission to Undergraduate Development Certificates in Business Administration

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.

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	Acct 1050 (formerly 1024/1025) Introduction to Financial Reporting
Econ 1101-1102 Principles of Economics	Math 1111 College Algebra and Analytic Geometry
IDSc 1010 (formerly MSci 1010) Fundamentals of Information Development and Use	Psy 1001 General Psychology
OMS 1020 (formerly MSci 1020) Data Analysis and Statistical Inference for Managers	

Core Requirement (12 credits)

Acct 3001 Introduction to Management Accounting	*BFin 0001C Introduction to Investments
Econ 3105 Managerial Economics	BFin 3000 Finance Fundamentals
BGS 3002 Business and Society	Mktg 3000 Principles of Marketing
BGS 3004 International Business	BLaw 3058 Business Law
IDSc 3030 (formerly MSci 3030) Information Systems and Information Management	Mgmt 3001 Fundamentals of Management
IR 3002 Personnel and Industrial Relations	Mgmt 3004 Business Policy: Strategy Formulation and Implementation
Ins 5100 Risk Management and Insurance	Math 1142 Short Calculus or Math 1211 Calculus I
LM 3000 Introduction to Logistics Management	

*Certificate credit (does not apply toward a degree program)

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 (formerly MSci 1010)

Fundamentals of Information Development and Use

OMS 1020 (formerly MSci 1020)

Data Analysis and Statistical

Inference for Managers

Math 1111 College Algebra and Analytic Geometry

Math 1142 Short Calculus

or Math 1211 Calculus I

Psy 1001 General Psychology

Core Requirement (24 credits)

Acct 3001 Introduction to Management Accounting

Econ 3105 Managerial Economics

OMS 3000 Introduction to

Operations Management

IDSc 3030 (formerly MSci 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 except Composition and Speech, which may be taken S-N. 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, 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 Lois Bell 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)

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

*Credit and Financial Management Certificate students should take BLaw 3078 and 3088 this year (1991-92). These courses are currently under review for continuance.

Electives (8 credits)

Acct 3201 Intermediate Management
Accounting
Econ 3701 Money and Banking
GC 3732 Consumer Transactions
and the Law
BFin 3100 Financial Management

BFin 3601 Bank Financial Management*
Ins 5100 Risk Management and Insurance
Mgmt 3001 Fundamentals of Management
LM 3000 Introduction to Logistics
Management
*offered infrequently

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
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, 0002C Supervision I, II
IR 3000 Topics in Industrial Relations
IR 5000 Topics in Industrial Relations
Any 3000- or 5000-level IR course
MIS 3102 Fundamentals of Management Information Systems
Mgmt 3001 Fundamentals of Management
Mgmt 3002 Psychology in Management
Psy 3011 Introduction to the Psychology of Learning
Psy 3124 Psychology of Individual Differences

Psy 3201 Introduction to Social Psychology
Psy 5501 Vocational Psychology
Psy 5701 Personnel and Industrial Psychology
Psy 5703 Psychology of Organizational Training and Development
Psy 5705 Work Motivation
OMS 5160 Deterministic Modeling and Optimization
Soc 5201 Introduction to Social Psychology
Soc 5411 Formal Organizations

*Certificate credit (does not apply toward a degree program)

Information Systems Analysis and Design certificate

(50-52 credits)

The Information Systems Analysis and Design Certificate has been discontinued. Students completing this certificate should call CEE Counseling for important completion information at 625-2500.

Management of Administrative Services certificates

The Management of Administrative Services certificates (Associate and Fellow) have been discontinued. Students planning to complete these certificates should contact Nancy Gonzalez in CEE Counseling (625-2500) for important completion information.

The Management of Administrative Services certificate program has been developed by Continuing Education and Extension in cooperation with the Carlson School of Management and the Administrative Management Society.

These university-level certificate programs are designed especially for those management employees who have not received such training in schools of business or commerce, in order to assist them in becoming more competent in their present positions and to improve their opportunities for advancement.

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 Management of Administrative Services certificates

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 course work in the junior and senior years.

Associate in Management of Administrative Services certificate

(54-56 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits of business courses at the University of Minnesota.

Core Requirement (43-47 credits)

Comp 1011 Writing Practice or
Comp 0003C Review of Business
English or Comp 0004C Business
Correspondence, or equivalent
Econ 1101-1102 Principles of Economics
Acct 1050 (formerly 1024/1025)
Introduction to Financial Reporting
Acct 3001 Introduction to Management
Accounting
Math 1111 College Algebra and Analytic
Geometry
Math 1131 Finite Mathematics

BLaw 3058 Business Law
IDSc 1075 Elementary COBOL
IDSc 3030 Information Systems and
Information Management
Psy 1001 General Psychology
IDSc 1010 (formerly MSci 1010)
Fundamentals of Information
Development and Use
OMS 1020 (formerly MSci 1020) Data
Analysis and Statistical Inference for
Managers

Electives: Additional courses to be selected from the list of requirements or electives for the senior certificate to make a minimum of 51-55 credits total for the certificate.

Fellow in Management of Administrative Services Certificate

(90 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits of business courses at the University of Minnesota.

Core Requirement (51-54 credits)

GC 3531 Writing for Business and
the Professions and Comp 0004C
Business Correspondence
or Comp 1011 Writing Practice
or equivalent

Econ 1101-1102 Principles of Economics
Acct 1050 (formerly 1024/1025)
Introduction to Financial Reporting
Acct 3001 Introduction to Management
Accounting

BLaw 3058 Business Law
IDSc 1075 Elementary COBOL
Math 1131 Finite Mathematics and Math
1111 College Algebra and Analytic
Geometry
Psy 1001 General Psychology

IDSc 1010 (formerly MSci 1010)
Fundamentals of Information
Development and Use
OMS 1020 (formerly MSci 1020) Data
Analysis and Statistical Inference
for Managers

Group Requirements (36 credits)

Group I—At least four courses from the following (16 credits):

IR 3002 Personnel and Industrial Relations	BFin 3000 Finance Fundamentals
Mgmt 3002 Psychology in Management	Ins 5100 Risk Management and Insurance
BFin 0001C Introduction to Investments	Mktg 3000 Principles of Marketing

Group II—At least five courses from the following (20 credits):

BFin 3100 Financial Management	IR 3010 The Individual in the Organization
LM 3000 Introduction to Logistics Management	Acct 3201 Intermediate Management Accounting
Acct 3101 Intermediate Financial Reporting	Mgmt 3001 Fundamentals of Management
	BLaw 3088 Law of Personal Property, Real Property, Wills and Estates

Electives: Additional courses from the following list of courses or areas to make a minimum of 90 credits total for the certificate.

IR 0001C, 0002C Supervision I, II
Psy 5751 Psychology of Advertising
Accounting
Economics
Finance
Management
Industrial Relations
Insurance

Marketing
Real Estate
Logistics Management (formerly
Transportation)
English
Humanities
Social Science
Speech

Real Estate certificate

The Real Estate Certificate Program has been discontinued. Students interested in real estate courses may contact the Minnesota Center for Real Estate and Housing Education, College of Business, St. Cloud State University, University Technology Center, 1313 Fifth Street S.E., Minneapolis, MN 55414; (612) 379-3891.

Undergraduate Development certificates

(UDC Series 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:

- Engineers and scientists who formulate ideas and create new products and services.
- Engineering technicians who help develop, test, and apply these ideas and creations.
- 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 trade schools 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 Extension 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 (21-25 credits)

Math 1211-1221-1241 Calculus I-II, Linear
and Nonlinear Multivariable Analysis I
Comp 1011 Writing Practice or
equivalent

CSci 3400 or CSci 3311 Discrete Structures
of Computer Science

Concentration Requirement (17 credits)

CSci 3104 Introduction to Programming
and Problem Solving; or CSci 3316
Introduction to the Science of
Computer Programming
CSci 3105, 3106 Fundamentals of
Algorithms and Languages I-II; or
CSci 3321 and CSci 3322 Algorithms
and Data Structures I and II

CSci 3107 Introduction to the
Structures and Programming
of Computer Systems; or
CSci 5101 Introduction to the
Structures and Programming
of Software Systems I; or CSci 3327
Introduction to the Organization of
Computer Systems

Electives

**Nontechnical electives to make a minimum of 45 credits for the certificate.

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 (17 credits)

Math 3311, Linear and Nonlinear
Multivariable Analysis I

Math 3321 Differential Equations and
General Vector Spaces

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 (8 credits)

Courses from nontechnical or biological science electives, to make a minimum of 90 credits, including those from the 45 credit UDC in Computer Science.

**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).

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 Requirement (30-33 credits)

Comp 1011 Writing Practice or equivalent

Math 1211 Calculus I

Math 1221 Calculus II

Math 1241, Linear and Nonlinear Multivariable Analysis I

Phys 1251 or 1271/1275, 1252 or

1281/1285 General Physics and Lab

Plus one of the following three courses:

CSci 3101 A FORTRAN Introduction to Computer Programming

CSci 3102 A Pascal Introduction to Computer Programming

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 curriculums 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 Requirement (25 credits)

Math 3311 , Linear and Nonlinear
Multivariable Analysis I

Math 3321 Differential Equations and
General Vector Spaces

Phys 1253 or 1291/1295 General Physics
and Laboratory

Chem 1004-1005+ General Principles of
Chemistry

Spread Requirement: A minimum of 8 credits from the following courses

Math 3331 Vector Analysis

AEM 1015 Statics

AEM 3016 Deformable Body Mechanics

AEM 3036 Dynamics

EE 3009 Linear Circuits I

EE 1400 Circuits Laboratory

CE 3400 Fluid Mechanics

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).

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 Requirement (25 credits selected from the following)

Math 3311 , Linear and Nonlinear Multivariable Analysis I	Phys 1253 or 1291/1295 General Physics and Laboratory
Math 3321 Differential Equations and General Vector Spaces	AEM 1015 Statics
Chem 1004-1005† or 1031-1032 General Principles of Chemistry	AEM 3016 Deformable Body Mechanics CE 3400 Fluid Mechanics

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 Elements of Soil Mechanics
CE 3400 Fluid Mechanics (if not taken in core requirement)
CE 5405 Hydrology and Hydrologic Design
CE 5603 Introduction to Construction Materials

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 3311 , Linear and Nonlinear Multivariable Analysis I	EE 1400 Circuits Laboratory
Math 3321 Differential Equations and General Vector Spaces	EE 3009 Linear Circuits I
Math 3221 Introduction to Linear Algebra and Linear Differential Equations	EE 3010 Linear Circuits II
Math 3331 Vector Analysis	Phys 1253 or 1291/1295 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).

Undergraduate Development Certificate in Electrical Engineering—135 credits

(Includes 90 credits from Undergraduate Development Certificate in Electrical Engineering)

Students must be formally admitted to upper division Electrical Engineering in the Institute of Technology.

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, 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 3351 Introduction to Logic Design and Microprocessors
EE 3012 System Design	EE 3352 Microprocessors
EE 3060 Semiconductor Devices	EE 3400-3401-3402 Junior Electrical Engineering Laboratory
EE 3061 Analog Electronics	Comp 3031 Technical Writing for Engineers
EE 3062 Digital Electronics	Any other EE 5000-level courses
EE 3110 Electric and Magnetic Fields	
EE 3111 Electromagnetic Waves	

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.

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.

Core Requirement (26 credits)

CSci 3101 A FORTRAN Introduction to Computer Programming

Math 3321 Differential Equations and General Vector Spaces

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—94-96 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 credits.

Core Requirement (42 credits)

CSci 3101 A FORTRAN Introduction to Computer Programming
Math 3321 Differential Equations and General Vector Spaces
AEM 1015 Statics
AEM 3016 Deformable Body Mechanics
AEM 3036 Dynamics
Phys 1253 or 1291/1295 General Physics and Laboratory
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
ME 5342 Heat Transfer (if not used in core requirement)
ME 5344 Thermodynamics of Fluid Flow
ME 3020 Mechanical Engineering Computation

Note: ME 1025 Engineering Graphics or accepted equivalent is required if not already taken in the UDC 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).

Numbering/Symbols/Maps

Abbreviations

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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 47.

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 classes and sections, page 20. Limited-enrollment classes or sections are printed in red in this Bulletin.
 - ⊙ 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 50.
 - ◆ Regular credit course open for registration on a reduced, no-credit, tuition plan (see page 51).
 - △ Consent of department offering course is required.
 - Consent of college offering course is required.
- cr Credit
Qtr Quarter
Sem Semester
Spec Special Term
S/N Satisfactory/No credit grading system. See page 45.
A/F Letter grading system. See page 45.
Lect Lecture
Rec Recitation
Prereq Prerequisite. See page 44
Sec Section
Equiv Equivalent
Grad Graduate

Department abbreviations, course designators

Acct, Accounting	CSci, Computer Science
AdEd, Adult and Teacher Education	CISy, Curriculum and Instructional Systems
AEM, Aerospace Engineering and Mechanics	Dnce, Dance
Afro, Afro-American and African Studies	Dan, Danish
AgEc, Agricultural and Applied Economics	Dsgn, Design
AgET, Agricultural Engineering Technology	Dtch, Dutch
Agro, Agronomy and Plant Genetics	EAS, East Asian Studies
Amln, American Indian Studies	EEB, Ecology, Evolution, and Behavior
AmSt, American Studies	Econ, Economics
ANE, Ancient Near Eastern Studies	EdPA, Educational Policy and Administration (includes courses formerly in HiEd, SPFE, and EdAd)
AnSt, Ancient Studies	EPsy, Educational Psychology
AnSc, Animal Science	EE, Electrical Engineering
Anth, Anthropology	Elem, Elementary Education
Arab, Arabic	Engl, English (language and literature)
Arch, Architecture	EngW, English (creative and professional writing)
ArEd, Art Education	ESL, English as a Second Language
ArtH, Art History	Ent, Entomology
ArtS, Art, Studio	FPCH, Family Practice and Community Health
Ast, Astronomy	FSoS, Family Social Science
BioC, Biochemistry	BFin, Finance (business)
Biol, Biology	Fin, Finnish
BFin, Finance	FW, Fisheries and Wildlife
BGS, Business, Government, and Society	FScN, Food Science and Nutrition
BLaw, Business Law	FSSP, Foreign Studies SPAN (formerly FoSt)
BME, Business and Marketing Education (Vocational Education)	ForP, Forest Products
CBN, Cell Biology and Neuroanatomy	FR, Forest Resources
Chem, Chemistry	Fren, French
Chic, Chicano Studies	Frlt, French and Italian
CAPy, Child and Adolescent Psychiatry	GC, General College
CPsy, Child Psychology	GCB, Genetics and Cell Biology
Chn, Chinese	GeoE, Geo-Engineering
CE, Civil and Mineral Engineering	Geog, Geography
Clas, Classical and Near Eastern Studies	Geo, Geology and Geophysics
CLS, Clinical Laboratory Science	Ger, German
CVM, College of Veterinary Medicine	Grk, Greek
CDis, Communication Disorders	HSU, Health Science Units
CLit, Comparative Literature	Hebr, Hebrew
CSch, Compleat Scholar (noncredit)	Hndi, Hindi
CSW, Compleat Scholar Weekends (noncredit)	Hist, History
Comp, English Composition	HMed, History of Medicine
	HSci, History of Science and Technology

HEEd, *Home Economics Education*
 (Vocational Education)
 HSem, *Honors Opportunities (CLA)*
 Hort, *Horticultural Science*
 Hsg, *Housing*
 Hum, *Humanities*
 Ind, *Industrial Education*
 (Vocational Education)
 IEOR, *Industrial*
Engineering/Operations Research
 IR, *Industrial Relations*
 CEBS, *Certified Employee Benefits*
Specialist
 IDSc, *Information and*
Decision Sciences
 IofT, *Institute of Technology*
 ID, *Interdepartmental Study*
 IntR, *International Relations*
 Ins, *Insurance*
 Ital, *Italian*
 Jpn, *Japanese*
 JwSt, *Jewish Studies*
 Jour, *Journalism and Mass*
Communication
 Kin, *Kinesiology*
 Kor, *Korean*
 LA, *Landscape Architecture*
 LAS, *Latin American Studies*
 Lat, *Latin*
 LASK, *Learning and Academic Skills*
 Ling, *Linguistics*
 LM, *Logistics Management*
 Mgmt, *Management*
 Mktg, *Marketing*
 MatS, *Materials Science and*
Engineering
 Math, *Mathematics*
 MthE, *Mathematics Education*
 ME, *Mechanical Engineering*
 MicB, *Microbiology*
 MidE, *Middle Eastern Studies*
 Mil, *Military Science*
 MdGk, *Modern Greek*
 Mus, *Music*
 MuEd, *Music Education*
 Nav, *Naval Science*
 Nor, *Norwegian*
 Nurs, *Nursing*
 OMS, *Operations and*
Management Science
 Per, *Persian*
 Phcg, *Pharmacognosy*
 Phar, *Pharmacy*
 Phil, *Philosophy*
 PE, *Physical Education*
 PMed, *Physical Medicine and*
Rehabilitation
 Phys, *Physics*
 Phsl, *Physiology*
 PBio, *Plant Biology*
 PIPa, *Plant Pathology*
 Plsh, *Polish*
 Pol, *Political Science*
 Port, *Portuguese*
 PSch, *Practical Scholar (noncredit)*
 Psy, *Psychology*
 PA, *Public Affairs*
 PubH, *Public Health*
 Rec, *Recreation, Park and Leisure*
Studies
 RelS, *Religious Studies*
 REX, *Research Explorations*
 Rhet, *Rhetoric*
 Russ, *Russian*
 Scan, *Scandinavian*
 SeEd, *Secondary Education*
 Serb, *Serbo-Croatian*
 SW, *Social Work*
 Soc, *Sociology*
 Soil, *Soil Science*
 SoAS, *South Asian Studies*
 Span, *Spanish*
 SpPt, *Spanish-Portuguese*
 Spch, *Speech-Communication*
 Stat, *Statistics*
 Swed, *Swedish*
 TexC, *Textiles and Clothing*
 Th, *Theatre Arts*
 Turk, *Turkish*
 UrbS, *Urban Studies*
 CVM, *College of Veterinary Medicine*
 VoEd, *Vocational Education*
 WoSt, *Women's Studies*
 YoSt, *Youth Development and*
Research (Youth Studies)

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 the Office for Students with Disabilities, 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>	ElectE, <i>Electrical Engineering</i>
AgEng(StP), <i>Agricultural Engineering</i>	EltH, <i>Elliott Hall</i>
Agr(StP), <i>Agronomy</i>	FergH, <i>Ferguson Hall (West Bank)</i>
AkerH, <i>Akerman Hall</i>	FieldHse, <i>University Field House (1800 University Avenue S.E.)</i>
ApH, <i>Appleby Hall</i>	FolH, <i>Folwell Hall</i>
AlderH (StP), <i>Alderman Hall</i>	FordH, <i>Ford Hall</i>
AmundH, <i>Amundson Hall</i>	FronH, <i>Frontier Hall</i>
AndH, <i>Anderson Hall</i>	FraserH, <i>Fraser Hall</i>
AnScVM (StP), <i>Animal Science/Veterinary Medicine</i>	FScN(StP), <i>Food Science and Nutrition</i>
Arch, <i>Architecture</i>	CorL (StP), <i>Gortner Laboratory of Biochemistry</i>
Armory, <i>Armory Bldg.</i>	GrnH (StP), <i>Green Hall</i>
ArtB, <i>Art Building (2020 Washington Ave. So., Minneapolis)</i>	Gym (StP), <i>Gymnasium (St. Paul campus)</i>
BellMus, <i>Museum of Natural History</i>	HckrH(StP), <i>Haecker Hall</i>
BFAB, <i>Bierman Field Athletic Bldg.</i>	HodsonH (StP), <i>Hodson Hall</i>
BioSci(StP), <i>Biological Sciences Center</i>	HrG(StP), <i>Horticulture Greenhouse</i>
BlegH, <i>Blegen Hall</i>	HSUnitF, <i>Health Sciences Unit F</i>
BorH (StP), <i>Borlaug Hall</i>	HHHCtr, <i>Hubert H. Humphrey Center (West Bank)</i>
Botany, <i>Botany</i>	Intermedia Arts (formerly UC Video), <i>Intermedia Arts of Minnesota (425 Ontario S.E.)</i>
Botany B, <i>Botany (basement)</i>	JacH, <i>Jackson Hall</i>
BuH, <i>Burton Hall</i>	JOAd, <i>Jackson-Owre Addition</i>
CentLib (StP), <i>Central Library</i>	JohH, <i>Johnston Hall</i>
ChDev, <i>Child Development</i>	JonesH, <i>Jones Hall</i>
CookeH, <i>Cooke Hall (1900 University Avenue SE)</i>	KaufL (StP), <i>Kaufert Lab</i>
ChRC, <i>Children's Rehabilitation Center</i>	KlaCt, <i>Klaeber Court</i>
CivMinE, <i>Civil and Mineral Engineering</i>	KolthH, <i>Kolthoff Hall</i>
CMU, <i>Coffman Memorial Union</i>	Law, <i>Law Building (West Bank)</i>
ClaOff (StP), <i>Classroom Office Building</i>	LindH, <i>Lind Hall</i>
CofH(StP), <i>Coffey Hall</i>	MacP, <i>MacPhail Center (1128 LaSalle Ave., Minneapolis)</i>
DiehlH, <i>Diehl Hall</i>	Mayo, <i>Mayo Memorial Hospital</i>
EBCEC (StP) <i>Earle Brown Continuing Education Center</i>	McNH(StP), <i>McNeal Hall</i>
EddyH, <i>Eddy Hall</i>	MechE, <i>Mechanical Engineering</i>
EdHAn, <i>Eddy Hall Annex</i>	MdbH, <i>Middlebrook Hall</i>
EE/CSci, <i>Electrical Engineering/Computer Science Bldg.</i>	Mgmt/Econ, <i>Management/Economics Bldg</i>
	MlrdH, <i>Millard Hall</i>

MMA, Mayo Memorial Auditorium
MoosT, Moos Tower (formerly
HSUnitA)
MurH, Murphy Hall
MusEd, Music Education
NCCE, Nolte Center for Continuing
Education
NorrisH, Norris Hall
NichH, Nicholson Hall
NMA, Northrop Memorial
Auditorium
NorH(StP), North Hall
OMWL, O Meredith Wilson Library
OwreH, Owre Hall
PalmC (StP), Palmer Classroom
Building
PeikH, Peik Hall
PeikG, Peik Gymnasium
PetH (StP), Peters Hall
PeoCtr, People's Center (2000 Fifth
Street S., West Bank)
Phys, Physics, Tate Laboratory of
PillsH, Pillsbury Hall
PiH, Pioneer Hall
PolDB, Police Department Bldg.
PtH, Pattee Hall

PWB, Phillips Wangensteen Bldg.
RarigC, Rarig Center
SaH, Sanford Hall (1122 University
Ave. S.E.)
ScottH, Scott Hall
SciCB, Science Classroom Bldg.
ShevH, Shevlin Hall
SmithH, Smith Hall
SnH (StP), Snyder Hall
Soils (StP), Soils
SocSci, Social Sciences Bldg.
Stad, Stadium (North or South towers)
StakH(StP), Stakman Hall of Plant
Pathology
StCen (StP), Student Center
TerH, Territorial Hall
VinH, Vincent Hall
VoTech (StP), Vocational-Technical
Education
WaLib, Walter Library
WesH, Wesbrook Hall
WilleyH, Willey Hall
WmsonH, Williamson Hall
WullH, Wulling Hall
Zoology, Zoology

Abbreviations for off-campus classes

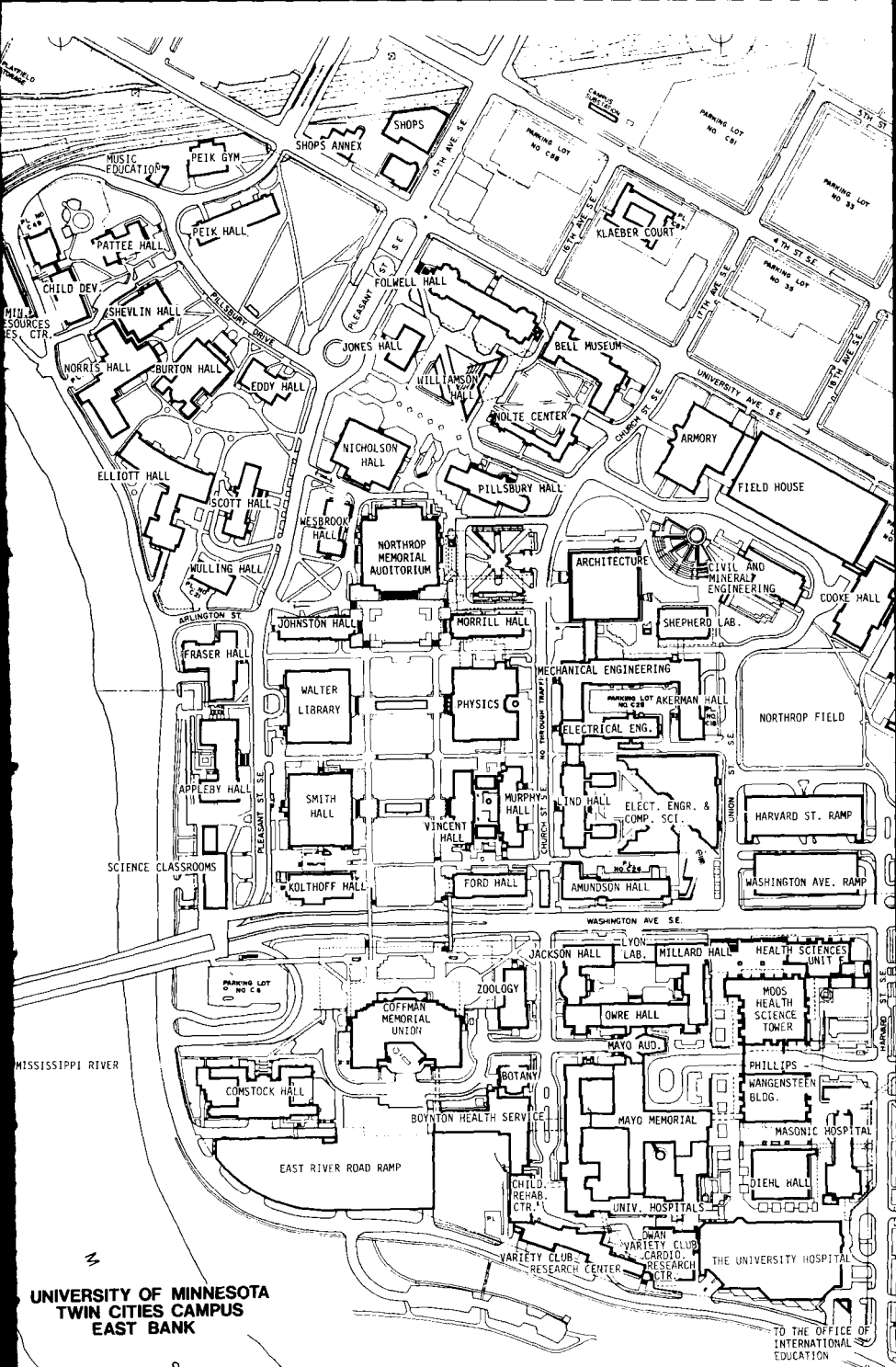
The following abbreviations for off-campus class sites are used throughout this **Bulletin**:

Roseville Area HS

Roseville Area High School—West Campus
1261 W. Highway 36, Roseville 55113

Richfield HS

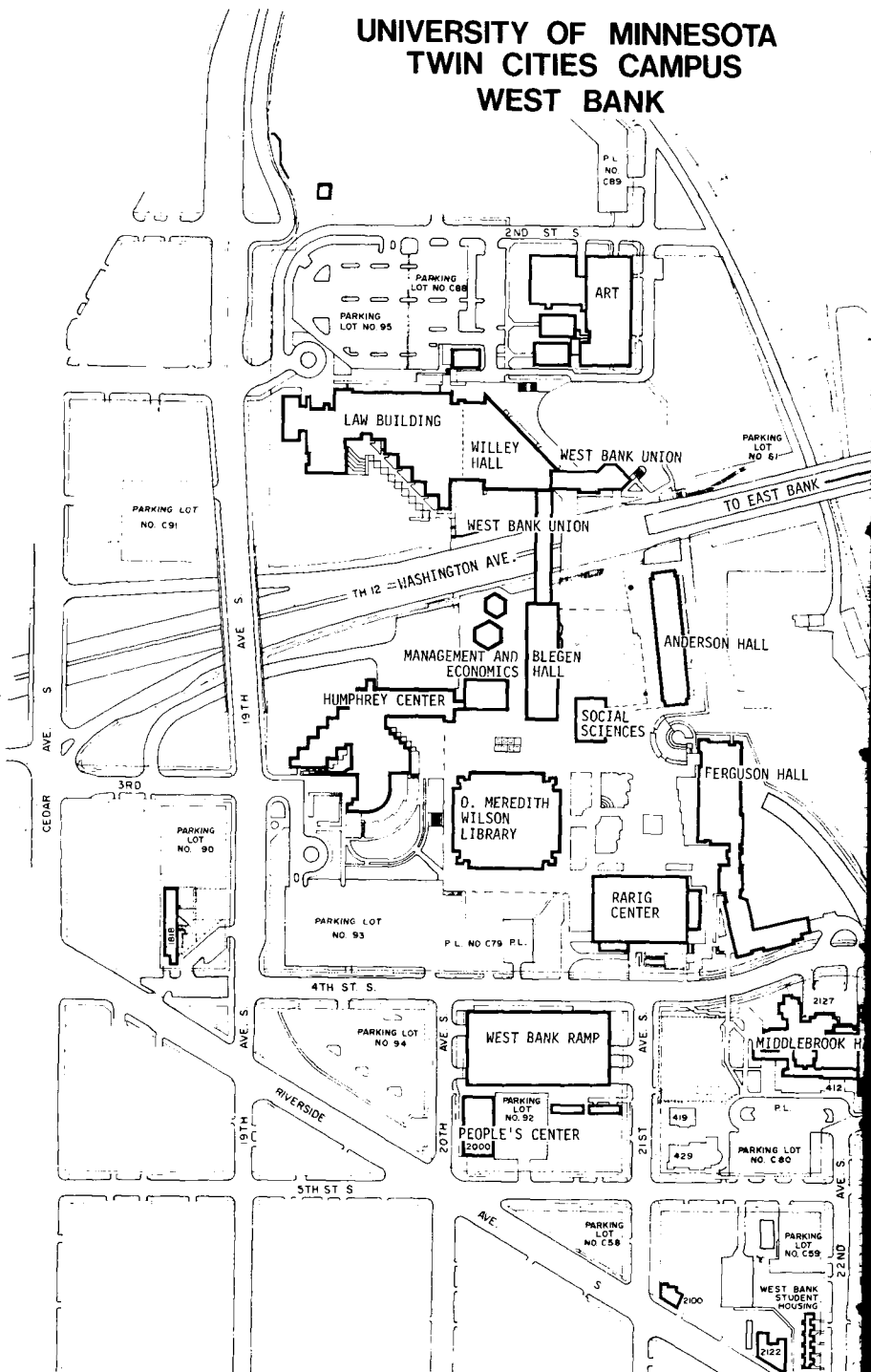
Richfield Senior High School
7001 Harriet Ave. S., Richfield 55423

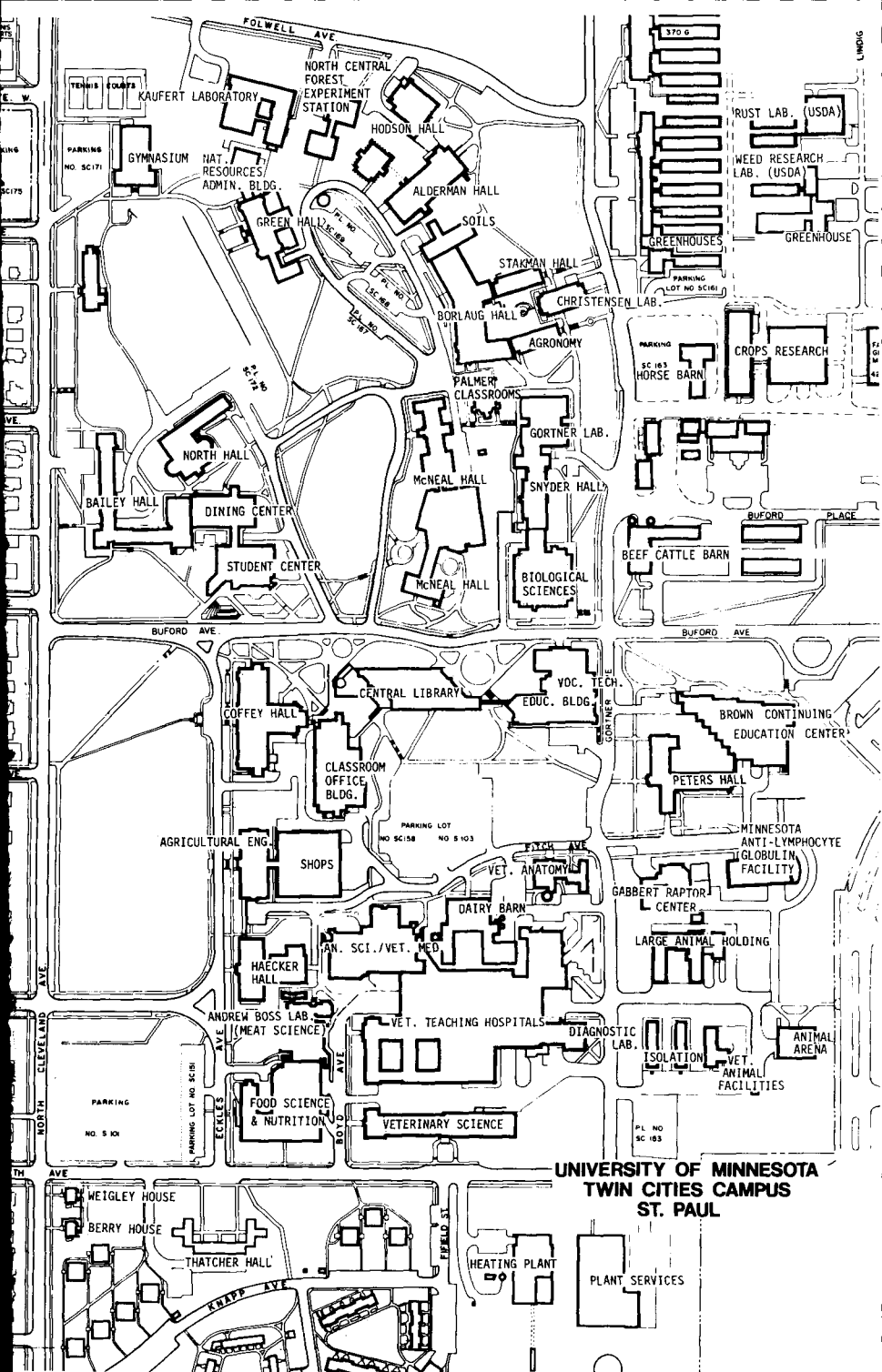


**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK**



TO THE OFFICE OF
INTERNATIONAL
EDUCATION

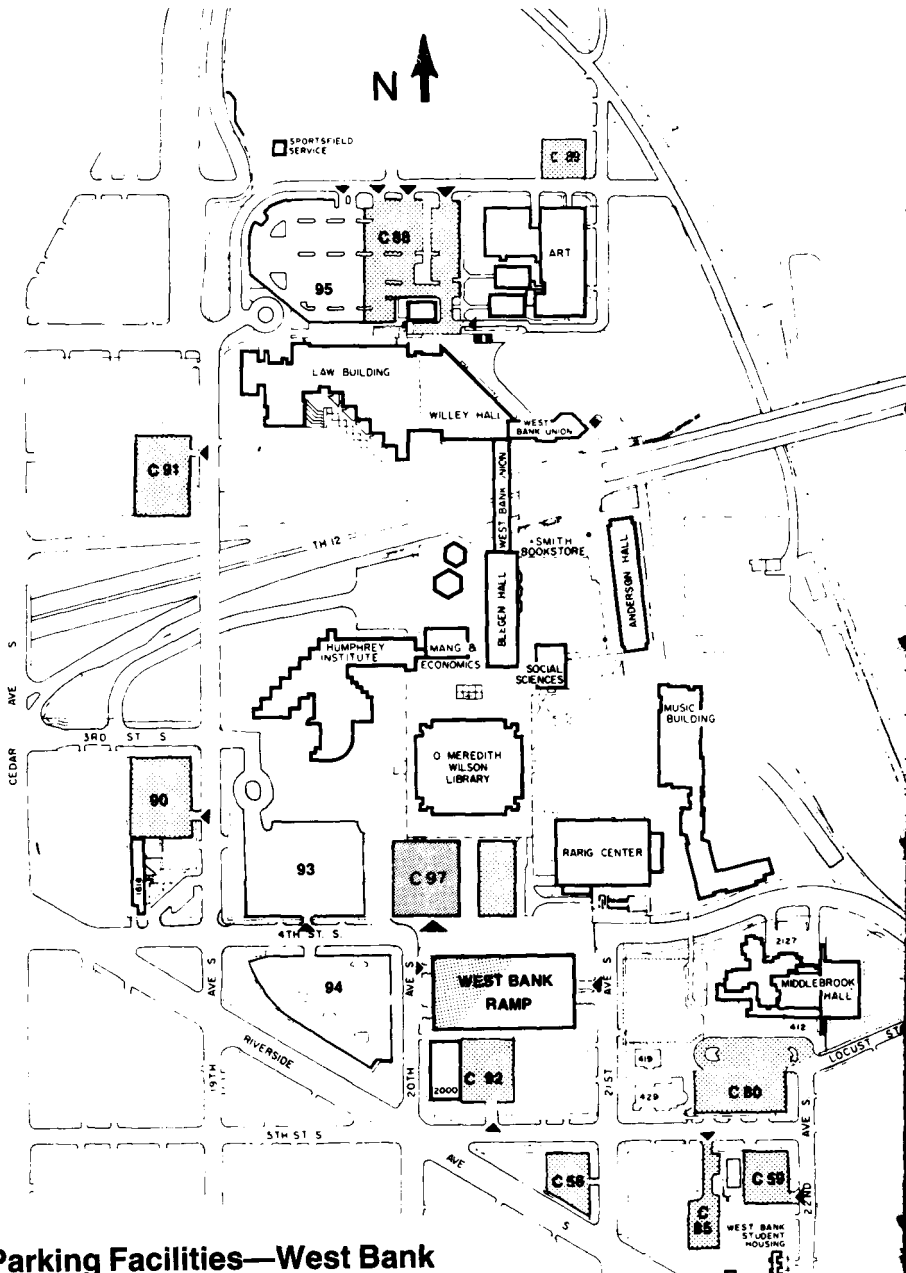
UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS WEST BANK







See **Parking Facilities** on page 613 in this bulletin for more information about parking.

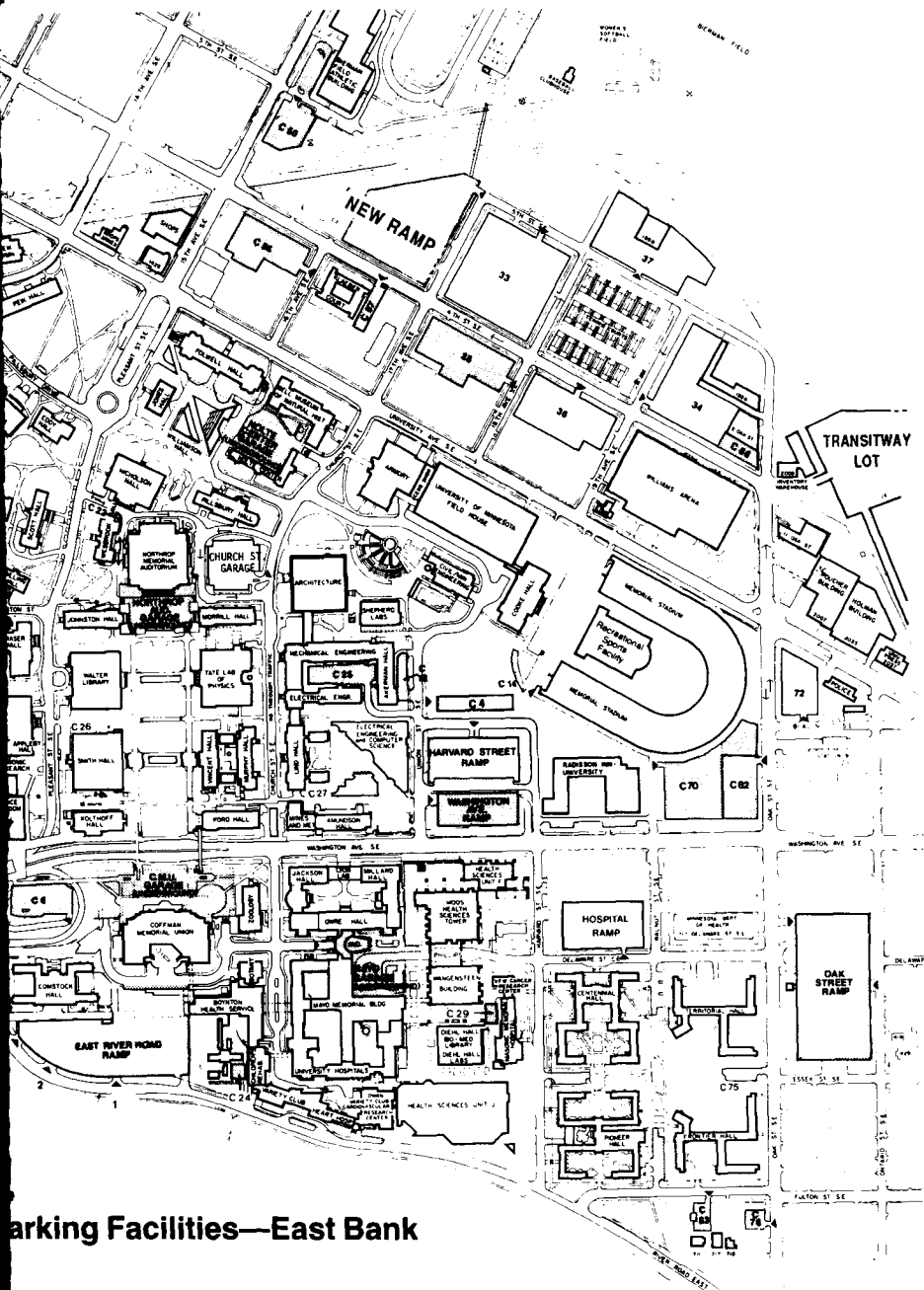
-  Public lots
-  Contract lots



Parking Facilities—West Bank

See **Parking Facilities** on page 613 in this bulletin for more information about parking.

-  Public lots
-  Contract lots



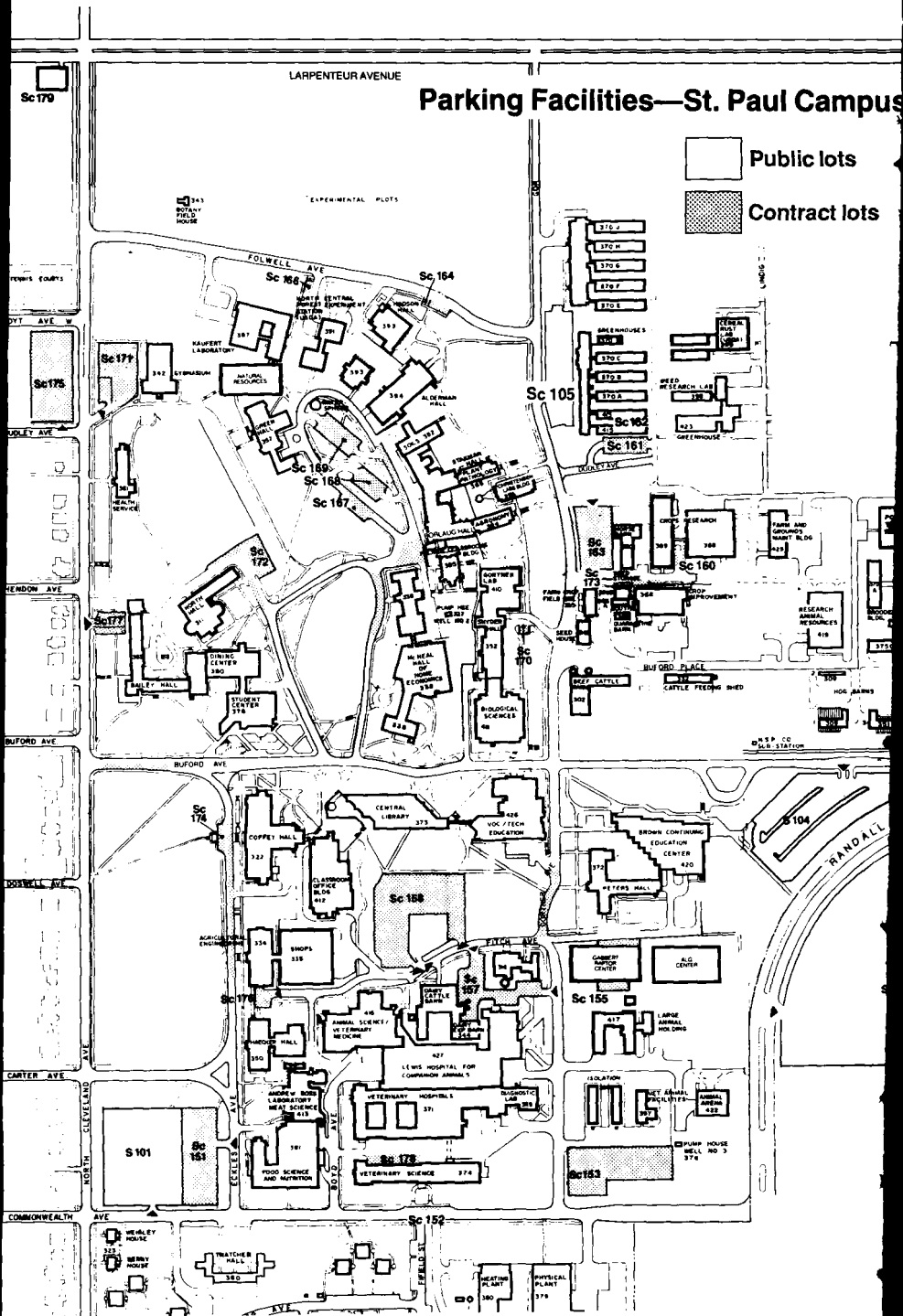
Parking Facilities—East Bank

LARPEUR AVENUE

Parking Facilities—St. Paul Campus

Public lots

Contract lots



N

NO SCALE

691

Hwy. 36

Hwy. 280

I-94

35W

DINKYTOWN

EAST BANK

WEST BANK

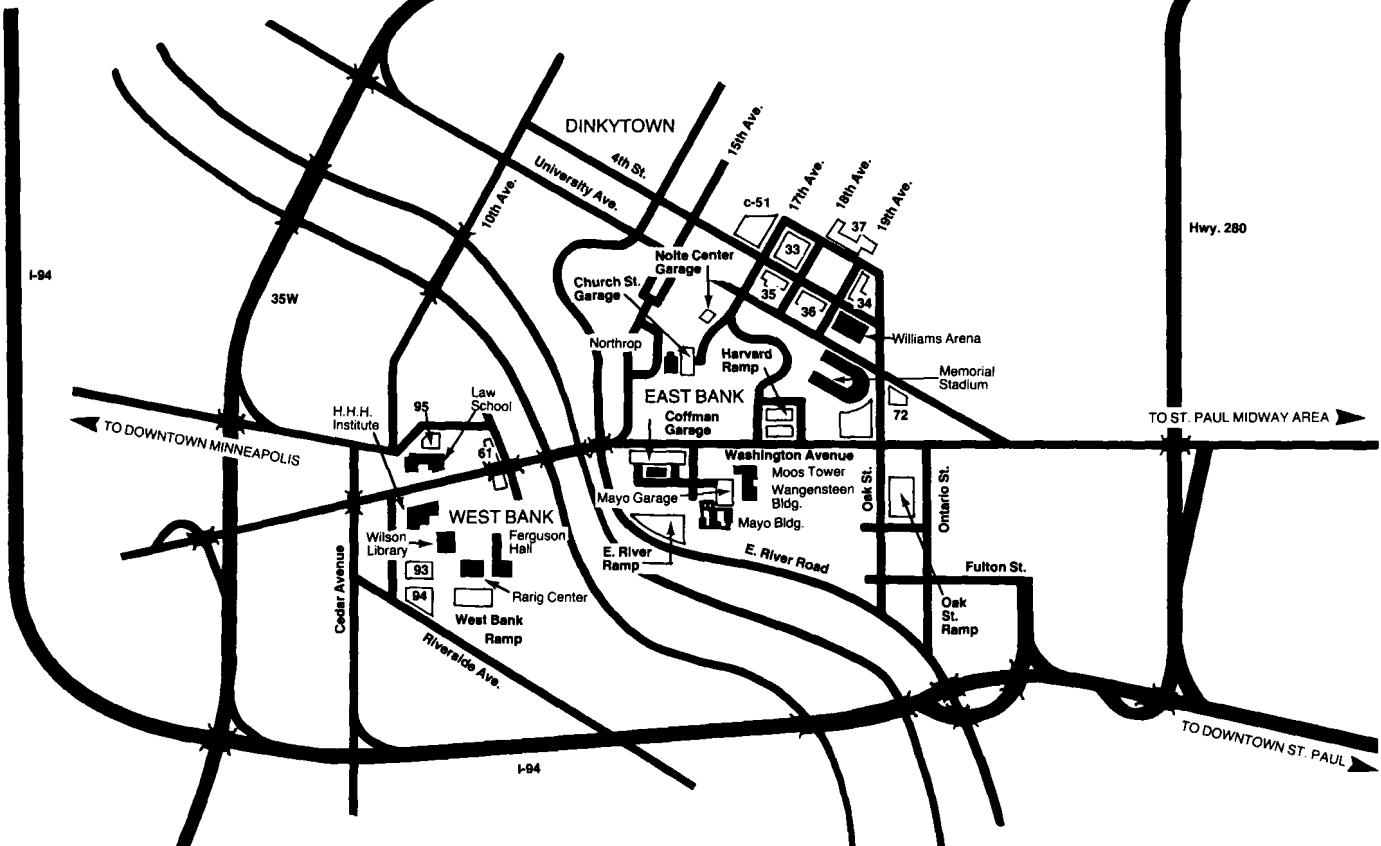
UNIVERSITY

TO ST. PAUL MIDWAY AREA

TO DOWNTOWN MINNEAPOLIS

TO DOWNTOWN ST. PAUL

I-94



10th Ave.

University Ave.

4th St.

15th Ave.

17th Ave.

18th Ave.

19th Ave.

0-51

33

37

Church St. Garage

Nofte Center Garage

35

36

34

Williams Arena

Memorial Stadium

Northrop

Harvard Ramp

Coffman Garage

72

H.H.H. Institute

Law School

95

61

Washington Avenue

Moos Tower

Wangensteen Bldg.

Mayo Bldg.

Oak St.

Ontario St.

Wilson Library

Ferguson Hall

93

94

Rarig Center

West Bank Ramp

Mayo Garage

E. River Ramp

E. River Road

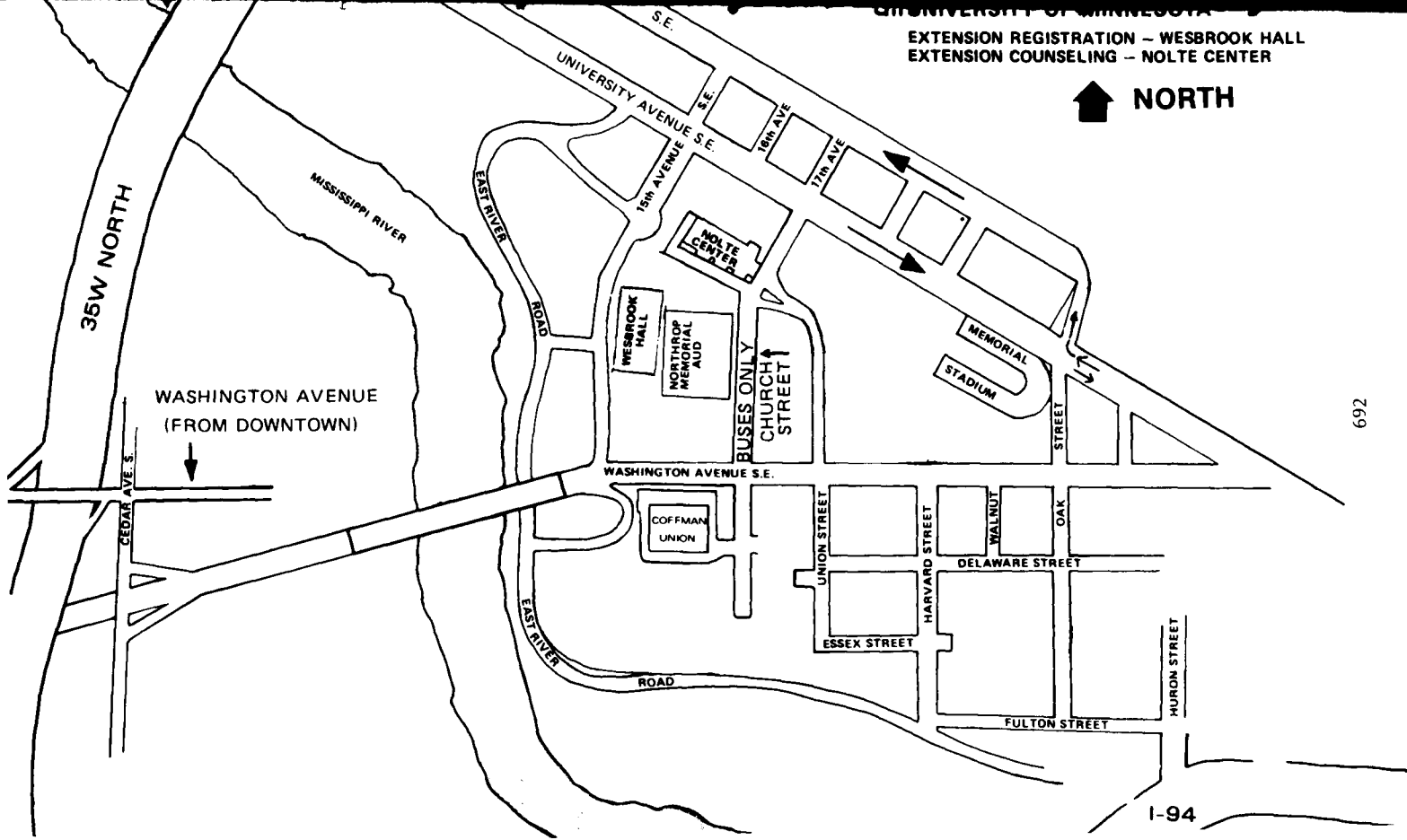
Fulton St.

Oak St. Ramp

Cedar Avenue

Riverdale Ave.

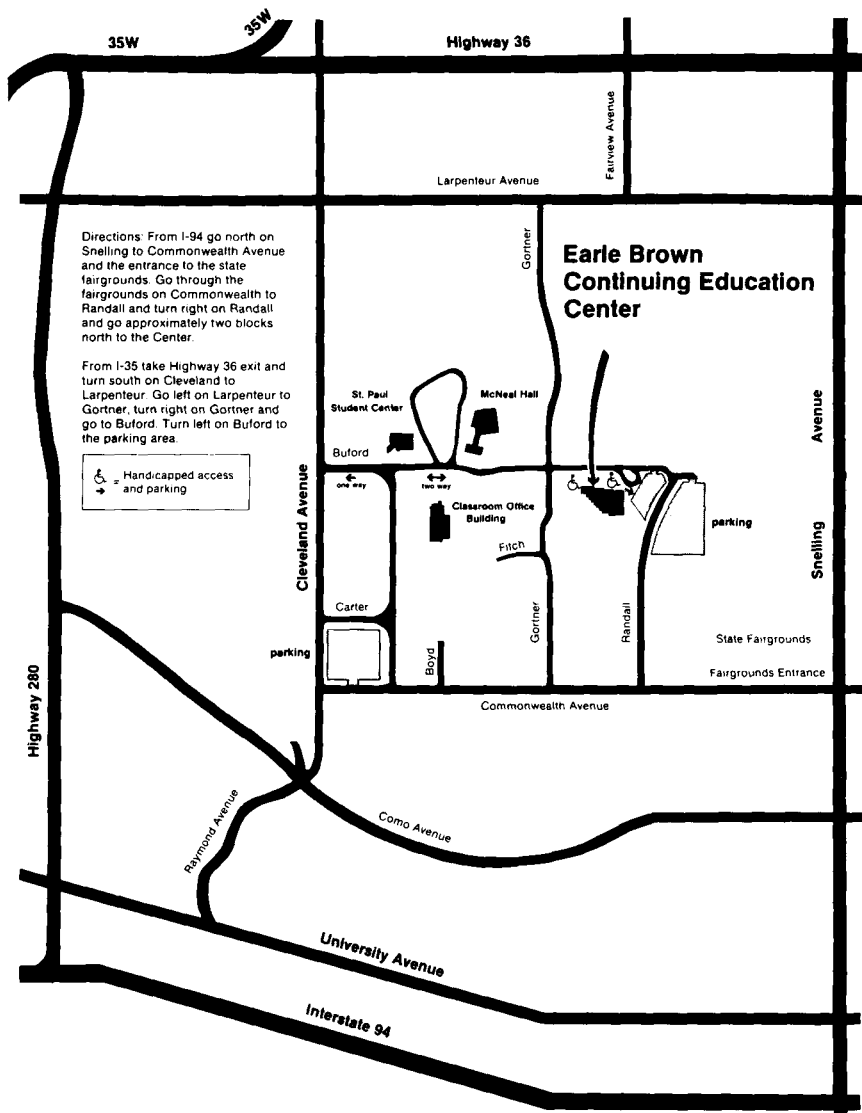
UNIVERSITY OF MINNESOTA
EXTENSION REGISTRATION - WESBROOK HALL
EXTENSION COUNSELING - NOLTE CENTER

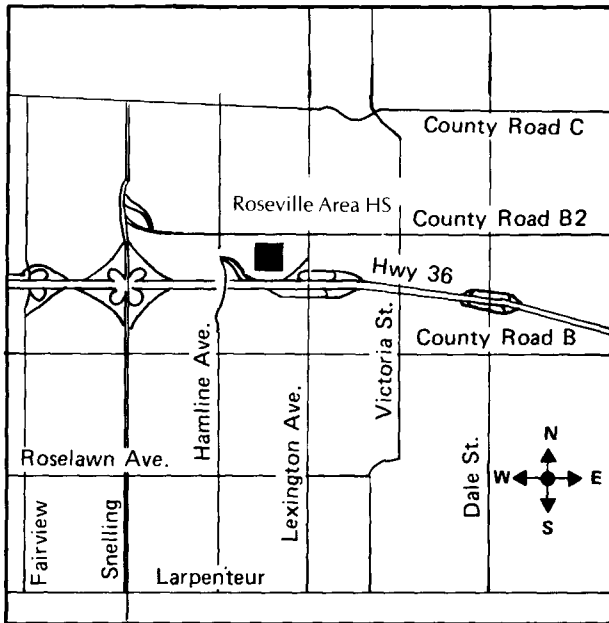


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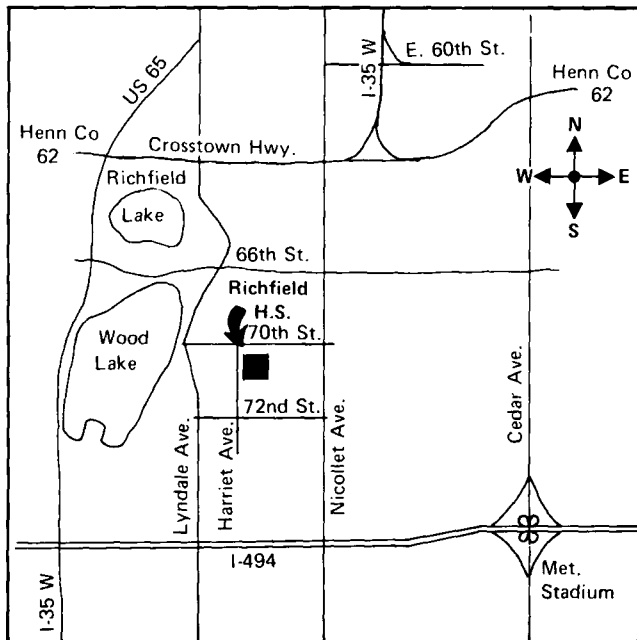
I-94

ACCESS ROUTES TO EARLE BROWN CONTINUING EDUCATION CENTER—ST. PAUL CAMPUS Parking Map

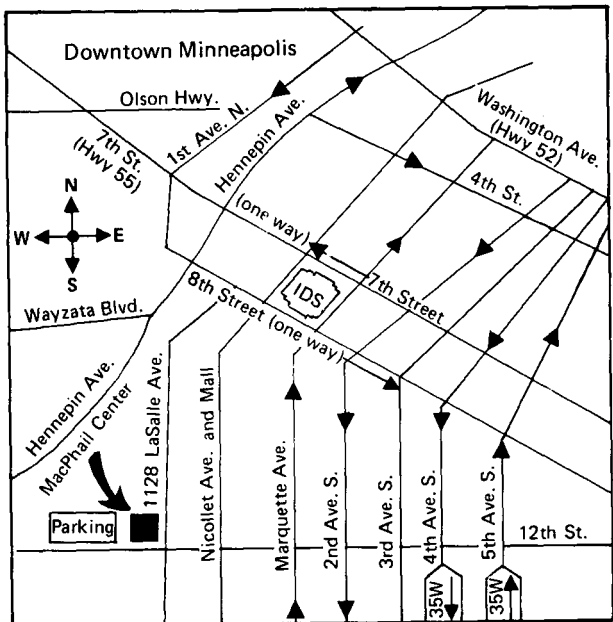




Roseville Area High School
1261 W. Highway 36, Roseville



Richfield High School
7001 Harriet Ave. S., Richfield



MacPhail Center
1128 LaSalle Ave., Minneapolis

Off-Campus Classes

Neighborhood Centers

Courses are listed (by term) on the following pages for 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 695.

See the course listings section of this **Bulletin** (arranged alphabetically by department) for course descriptions. See page 681 for departmental abbreviations.

See page 684 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 29, 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. Some courses listed below may have prerequisite courses which must be satisfactorily completed before the listed course may be taken.

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 695)

Fall Quarter

Comp 1011	Writing Practice
EPsy 5651	Managing Problem Behavior in the Classroom
GC 1111	Weather and Climate
Math 1111	College Algebra and Analytic Geometry
Math 1201	Pre-Calculus
Math 1211	Calculus I
Psy 3604	Abnormal Psychology

Fall Semester

Econ 1101	Principles of Economics (Micro)
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Winter Quarter

Math 1111	College Algebra and Analytic Geometry
Math 1142	Short Calculus
Math 1211	Calculus I
Math 1221	Calculus II
Psy 1001	Introduction to Psychology

Spring Semester

Econ 1102	Principles of Economics (Macro)
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Spring Quarter

Comp 1011	Writing Practice
Mktg 3000	Principles of Marketing
Math 1221	Calculus II
Psy 3201	Introduction to Social Psychology

Richfield Senior High School

7001 Harriet Avenue S., Richfield (map on page 695)

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 1111	College Algebra and Analytic Geometry
Math 1201	Pre-Calculus
Math 1211	Calculus I
Psy 1001	Introduction to Psychology

Fall Semester

Econ 1101	Principles of Economics (Micro)
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Winter Quarter

BLaw 3058	Business Law
Math 1211	1211 Calculus I
Phil 1001	Logic

Spring Semester

Econ 1102	Principles of Economics (Macro)
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Spring Quarter

Comp 1011	Writing Practice
EPsy 5651	Managing Problem Behavior in the Classroom
Math 1221	Calculus II
Psy 3604	Abnormal Psychology
PubH 3001	Personal and Community Health

St. Paul campus class offerings

The following courses will be offered this year on the St. Paul campus of the University of Minnesota. See the **Course Offerings** section of this **Bulletin** (arranged alphabetically by department) for complete course titles and descriptions. See St. Paul campus map, page 687.

Buy books for classes offered on the St. Paul campus at the Books Underground bookstore. Also see the **How and When to Register** section of this **Bulletin**.

Fall Quarter

AgEc 5790	World Food Problems
Agro 5200	World Food Problems
AgET 5027	Appropriate Technology for International Development
Biol 3011/3111	Animal Biology
BME 3302	Teaching Basic Business Subjects
BME 3310	Microcomputer Applications in Business Education
BME 5152	Research, Methods in Teaching Business
BME 5157	Materials and Method in Office Education
BME 5201	Clinical Methods in Marketing Education
BME 5253	Supervisory Training
BME 5335	Teaching Microcomputer Graphics
BME 5340	Trends, Issues in Business
BME 5353	Curriculum in Business Education
BME 5360	Teaching Keyboarding in Elementary, Middle Schools
Dsgn 1206	Spatial Logic For Designers
Dsgn 1501	Introduction to Design
Dsgn 1523	Design Process: Drawing
Dsgn 1525	Design Process: Two-Dimensional Design I
Dsgn 1528	Design Process: Color
Dsgn 1550	Intermediate Drafting
Dsgn 1555	Interior Design II: Interior Design Problems
Dsgn 3251	Graphic Design I
Dsgn 3253	Design Process: Drawing II
Dsgn 3280	Design Portfolio
Dsgn 3517	History of Costume (through 18th century)
Dsgn 3523	Design Process: Drawing II
Dsgn 3525	Design Process: Two-Dimensional Design
Dsgn 3527	Design Process: Three Dimensional Design
Dsgn 3528	Design Process: Color II
Dsgn 3532	Fiber Structure: Weaving
Dsgn 3534	Computer Applications to Design Problems
Dsgn 3537	Fiber Structure Design I
Dsgn 3550	Interior Design Presentation
Dsgn 3552	Computer-Aided Design
Dsgn 5554	Contract Design
FSoS 5001	Human Sexual Behavior
FSoS 5025	Parenting
FSoS 5240	Gender Roles and the Family
FSoS 3026/5026	Assessment of Alcohol and Drug Abuse Problems
FSoS 3029/5029	Counseling Skills Practicum I
FSoS 3030/5030	Counseling Skills Practicum II
FSoS 3031/5031	Counseling Skills Practicum III

FSoS 3032/5032	Chemical Abuse and the Family: An Overview
FSoS 3037/5037	Group Therapy: Theory and Practice
FScN 5622	Macronutrient Metabolism
FScN 5643	World Food Problems
FScN 5662	Clinical Nutrition
FScN 5665	Applied Clinical Nutrition I
FScN 8311	Flavor Chemistry
GCB 3022/5022	Genetics
HSU 5027	Human Sexual Behavior
Hort 1010	Home Horticulture
HEEd 5300	Home Economics Curriculum
HEEd 5500	Home Economics Education
HEEd 5512	Clinical Seminar: The School Setting
Ind 1120	Communication Technology
Ind 5300	Industrial Surveys
Ind 5330	Industrial Course Construction
IDSc 1010	Fundamentals of Information Development and Use
I of T 0001	Fundamentals of Engineering Review
LA 1024	Theory of Landscape Design
LA 5133	Applied Plant Community Ecology
PIPa 1000	An Introduction to Plant Pathology
Rhet 1151	Writing in Your Major
Rhet 1160/5160	College Reading
Rhet 1251	Effective Listening
Rhet 3562	Writing in Your Profession
Rhet 5258	Interviewing: Dynamics of Face-to-Face Communication
Rhet 5400	Dissemination and Utilization of Information
Rhet 5500	Research in Communication Strategies
Soc 3315	Latin American Societies in Transition
Soil 1020/5022	Introductory Soil Science
Soil 5560	Interpretation of Land Resources
Stat 1001	Statistics
Stat 5021	Statistical Analysis I
TexC 1602	Fitting the Human Subject
TexC 1603	Advanced Apparel Production
TexC 1643	Apparel Industries
TexC 3601	Tailoring
TexC 3646	Retail Supervision
VoEd 5200	Evaluation of Local Programs
VoEd 5340	Principles of Supervisory Management
VoEd 5750	Training in Industry and Business
VoEd 5286	Marketing Education and Training Programs
VoEd 5762	Management of Conflict
VoEd 5770	Training and Development: Topics
YoSt 5230	Work with Youth—Individual
YoSt 5231	Work With Youth—Families
CSch 0292	Critical Thinking for News Consumers
CSch 0310	Poetry Workshop with Michael Dennis Brown
CSch 0359	How To Write and Publish Textbooks
CSch 0582	How Best To Save the Planet?
PSch 0700	Leadership: Building on Your Strengths

PSch 0703	Management Skills for Women
PSch 0706	Japanese Management Systems
PSch 0711	Your Business: Planning For Growth
PSch 0715	Business Finance and Accounting for Planners
PSch 0734	Starting a Successful Consulting Business
PSch 0735	Consulting: Proposals, Negotiations, Agreements
PSch 0746	Delivering Effective Presentations
PSch 0747	Negotiating for Agreement
PSch 0748	Negotiation Skills for Purchasers
PSch 0751	Assertiveness Training
PSch 0755	Managing Diversity in the Workplace
PSch 0759	Intercultural Communication in International Business
PSch 0764	Writing At Work
PSch 0766	Designing Questionnaires and Surveys
PSch 0770-0788	Computer Training Workshops

Fall Semester

Econ 1101	Principles of Economics
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Winter Quarter

AgEc 5480	Futures Markets and Prices
AgEc 5550	Food Marketing Economics
AgEc 5630	Regional Development Systems
BioC 5025	Biochemistry Lab
Biol 1103	General Botany
Biol 5001	Biochemistry
Biol 5004	Cell Biology
BME 3303	Teaching Accounting, Data Processing
BME 3310	Microcomputer Applications in Business Education
BME 5160	Advanced Word Processing Practicum
BME 5162	Research, Methods in Teaching Accounting, Data Processing
BME 5330	Spreadsheet Analysis in Business Education
BME 5355	Adult Business and Marketing Education
BME 5370	Teaching Desktop Publishing
BME 5380	Customer Service Training
Dsgn 1206	Spatial Logic For Designers
Dsgn 1220	Commercial Art Media and Studio Techniques
Dsgn 1523	Design Process: Drawing I
Dsgn 1525	Design Process: Two-Dimensional Design I
Dsgn 1528	Design Process: Color
Dsgn 1531	Surface-Fabric Design I
Dsgn 1550	Intermediate Drafting
Dsgn 1554	Spatial Design Experiences
Dsgn 1555	Interior Design Problems
Dsgn 3251	Graphic Design I
Dsgn 3252	Graphic Design II
Dsgn 3256	Production For the Graphic Designer
Dsgn 3523	Design Process: Drawing II
Dsgn 3525	Design Process: Two-Dimensional Design
Dsgn 3527	Design Process: Three Dimensional Design
Dsgn 3528	Design Process: Color II
Dsgn 3532	Fiber Structure: Weaving

Dsgn 3534	Computer Applications to Design Problems
Dsgn 3552	Computer-Aided Design
Dsgn 3554	Interior Building Technology
Dsgn 3571	Professional Issues in Applied Design
FSoS 5200	Family Relationships
FSoS 5253	Humanities, Aging, and Family Living
FSoS 3027/5027	Current Issues and Pharmacology of Alcohol and Drug Abuse
FSoS 3029/5029	Counseling Skills Practicum I
FSoS 3030/5030	Counseling Skills Practicum II
FSoS 3037/5037	Group Therapy: Theory and Practice
FScN 5474	Food Consumption Economics
FScN 5524	Sensory Evaluation of Dairy Products
FScN 5555	Freezing and Dehydration of Foods
FScN 5624	Human Protein and Energy Utilization
FScN 5666	Applied Clinical Nutrition II
ForP 5405	Paper in Today's World
GCB 3022/5022	Genetics
Hort 1010	Home Horticulture
Hort 1020	Floral Design
Hort 3031	Fruit Science
Hort 5042	Turf Management
Hsg 5881	Designed Environments and Aging
HEEd 5001	Liberation Pedagogy and Family Life Education
HEEd 5310	Methods in Teaching Home Economics
Ind 1110	Production Systems
Ind 5301	Tests in Industrial Subjects
Ind 5303	Instructional Aids
Ind 5360	Industrial Instruction
IDSc 1010	Fundamentals of Information Development and Use
lofT 0001	Fundamentals of Engineering Review
ID 5525-5526	Garbage, Government, and the Globe
LA 3098	Landscape Architecture Design
LA 5226	Professional Practice
PE 1056	Cross-Country Skiing
PIPa 5002	Plant Pathology for Advanced Students
Rhet 1222	Public Speaking
Rhet 3562	Writing in Your Profession
Rhet 3565	Writing for Publication
Rhet 5257	Scientific and Technical Presentations
Rhet 5258	Interviewing: Dynamics of Face-to-Face Communication
Rhet 5400	Dissemination and Utilization of Information
Stat 1001	Statistics
Stat 5302	Applied Regression Analysis
TexC 1602	Fitting the Human Subject
TexC 1603	Advanced Apparel Production
TexC 3660	Apparel: Computer Lab
VoEd 5300	Philosophy and Practice
VoEd 5750	Training in Industry and Business
VoEd 5760	Organization Development in Industry and Business
VoEd 5770	Training and Development: Topics
VoEd 5900	Using Vocational Education Research

YoSt 5130	Experiential Education for Citizen Development: National Youth Services
YoSt 5231	Work With Youth—Families
YoSt 5232	Work With Youth—Groups
YoSt 5331	Youth Agencies, Organizations, and Youth Service Systems
PSch 0701	Empowerment and Leadership
PSch 0702	Motivating Employees
PSch 0704	Conducting Effective Business Meetings
PSch 0716	Purchasing Fundamentals
PSch 0717	Marketing for Non-Marketing Managers
PSch 0719	Advertising for Small Business
PSch 0734	Starting a Successful Consulting Business
PSch 0736	Consulting: Sales and Marketing
PSch 0738	Streamlining Operations in Offices and Shops
PSch 0744	Speaking and Listening Skills
PSch 0757	Conflict Management
PSch 0760	Customer Service Training
PSch 0765	Good Writing for Good Managers

Spring Semester

Econ 1102	Principles of Economics
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Spring Quarter

AgEc 5640	Financing State and Local Governments
AgEc 5650	Economics of Natural Resource Policy
Biol 5003	Genetics
BME 3159	Word and Information Processing
BME 3300	Teaching Keyboarding
BME 5151	Research and Methods in Keyboarding
BME 5252	Teaching Promotion
BME 5261	Sales Training
BME 5305	Methods in Business Education
BME 5345	Microcomputer Applications
BME 5365	Microcomputer Applications in Business Education
Dsgn 1220	Commercial Art Media and Studio Techniques
Dsgn 1501	Introduction to Design
Dsgn 1523	Design Process: Drawing I
Dsgn 1525	Design Process: Two-Dimensional Design I
Dsgn 1528	Design Process: Color
Dsgn 1543	Fashion Illustration
Dsgn 1550	Intermediate Drafting
Dsgn 1554	Interior Design I: Spatial Design Experiences
Dsgn 3252	Graphic Design II
Dsgn 3253	Graphic Design III
Dsgn 3255	Typographic Design
Dsgn 3256	Production For the Graphic Designer
Dsgn 3280	Design Portfolio
Dsgn 3523	Design Process: Visual Presentation II
Dsgn 3525	Design Process: Two-Dimensional Design
Dsgn 3527	Design Process: Three-Dimensional Design
Dsgn 3528	Design Process: Color II
Dsgn 3531	Surface-Fabric Design II

Dsgn 3532	Fiber Structure: Weaving
Dsgn 3534	Computer Applications to Design Problems
Dsgn 3537	Fiber Structure Design I
Dsgn 3548	Lighting Design for Environmental Spaces
Dsgn 3550	Interior Design Presentation
Dsgn 3556	Computer-Aided Design II
FSoS 1025	Parenthood
FSoS 3260	Family Resource Management
FSoS 5240	Gender Roles and the Family
FSoS 5500	Racial and Ethnic Minority Families
FSoS 3028/5028	Treatment of Alcohol and Drug Use Problems
FSoS 3029/5029	Counseling Skills Practicum I
FSoS 3030/5030	Counseling Skills Practicum II
FSoS 3031/5031	Counseling Skills Practicum III
FSoS 3032/5032	Chemical Abuse and the Family: An Overview
FSoS 3037/5037	Group Therapy: Theory and Practice
FScN 3610	Community Nutrition
FScN 5390	Food Law
FScN 5633	Vitamin and Mineral Metabolism
FScN 5667	Applied Clinical Nutrition III
FScN 8315	Food Proteins
GCB 3008	The Biology of Cancer
HEEd 3910	Educational Methods for Home Economics
HEEd 5315	Evaluation: Theory, Techniques
HEEd 5407	Family Life Education
HEEd 5514	Clinical Seminar: Teaching
Hort 1021	Woody Plant Materials
Hort 1022	Herbaceous Plant Materials
Hort 5034	Commercial Vegetable Horticulture
Hsg 5861	Housing Management
IDSc 1010	Fundamentals of Information Development and Use
Ind 1130	Principles of Energy and Power
LA 5133	Applied Plant Community Ecology
LA 5136	Government Recreation Facilities Planning
PIPa 5200	Poisonous Plants
PubH 3301/5301	Interrelationships of People and Animals in Society Today
Rhet 1151	Writing in Your Major
Rhet 1160/5160	College Reading
Rhet 1220	Human Communications
Rhet 1222	Public Speaking
Rhet 3562	Writing in Your Profession
Rhet 5165	Organizational Communication, Change
Rhet 5257	Scientific and Technical Presentations
Rhet 5258	Interviewing: Dynamics of Face-to-Face Communication
Rhet 5500	Research in Communication Strategies
Rhet 5572	Procedures and Policies Manual
Soc 3671	Rural Societies: Latin America
Soil 5310	Soil Chemistry
Stat 5301	Designing Experiments
TexC 1602	Fitting the Human Subject
TexC 3647	Retail Occupational Search
TexC 3660	Apparel: Computer Lab

TexC 3664	Fashion Trend Analysis
CVM 3100	Interrelationships of People and Animals in Society Today
VoEd 5500	Vocational Education Administration
VoEd 5760	Organization Development in Industry and Business
VoEd 5762	Management of Conflict
VoEd 5770	Training and Development: Topics
VoEd 5800	Special Needs Students
YoSt 5130	Personal Development and Experiential Education: High Intensity Outdoor Adventure
YoSt 5130	Experiential Learning: Theatre Activities in Youth Work
YoSt 5132	Experiential Learning
YoSt 5230	Work With Youth—Individual
YoSt 5232	Work With Youth—Groups
CSch 0158	Outdoor Photography
CSch 0352	Magazine Writing
CSch 0357	Newsletter Writing
PSch 0705	Business Presentations
PSch 0718	Retail Entrepreneurship
PSch 0726	Advanced Supervision: Team Effectiveness
PSch 0735	Consulting: Proposals, Negotiations, Agreements
PSch 0737	Developing, Marketing, Conducting Seminars
PSch 0749	Customer Relations
PSch 0750	Managing Stress in the Workplace
PSch 0752	Assertiveness Training for Managers
PSch 0755	Managing Diversity
PSch 0759	Intercultural Communication for International Business
PSch 0766	Designing Questionnaires and Surveys
PSch 0794	Manufacturing for Non-Manufacturing Executives
PSch 0860	Friend or Foe: Young Children's Peers
PSch 0950	Landscaping the Minnesota Home Grounds

DRUG-FREE CAMPUS AND WORK PLACE COMPLIANCE

TO: All Students of the University of Minnesota

FROM: President Nils Hasselmo

Federal laws¹ 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: educational 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 judgment 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

¹The 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
	If death or serious injury, not less than 20 years. Not more than life.	If death or serious injury, not less than life.	COCAINE	500-4,999 gm mixture
			CONCAINE BASE	5-49 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.	PCP	10-99 gm or 100-999 gm mixture
			LSD	1-10 gm mixture
			FENTANYL	40-399 gm mixture
	Not less than 10 years. Not more than life.	Not less than 20 years, not more than life.	FENTANYL ANALOGUE	10-99 gm mixture
			METHAMPHETAMINE	100 gm or more or 1 kg ¹ or more mixture
			HEROIN	1 kg or more mixture
			COCAINE	5 kg or more mixture
			COCAINE BASE	50 gm 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.	PCP	100 gm or more or 1 kg or more mixture
			LSD	10 gm or more mixture
FENTANYL			400 gm 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.	FENTANYL ANALOGUE	100 gm or more mixture	
	Drug	Quantity	First Offense	Second Offense
	Others ²	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.

¹Law as originally enacted states 100 gm. Congress requested to make technical correction to 1 kg.

²Does 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						
NARCOTICS										
Opium II, III, V	Dover's Powder, Paregonic, Parepectolin	Analgesic, antidiarrheal	High	High	Yes	3-6	Oral, smoked	Euphoria,	Slow and shallow	Watery eyes,
Morphine II, III	Morphine, MS-Contin, Roxanol, Roxanol-SR	Analgesic, antitussive	High	High	Yes	3-6	Oral, smoked, injected	drowsiness,	breathing,	runny nose,
Codeine II, III, V	Tylenol w/Codeine, Empirin w/Codeine, Robitussin A-C, Fiorinal w/Codeine	Analgesic, antitussive	Moderate	Moderate	Yes	3-6	Oral, injected	respiratory depression,	clammy skin, convulsions, coma,	yawning, loss of appetite, irritability.
Heroin I	Diacetylmorphine, Horse, Smack	None	High	High	Yes	3-6	Injected, sniffed, smoked	constricted pupils,	possible death	tremors, panic
Hydromorphone II	Dialaudid	Analgesic	High	High	Yes	3-6	Oral, injected	nausea		cramps, nausea,
Meperidine (Pethidine) II	Demerol, Mepergan	Analgesic	High	High	Yes	3-6	Oral, injected			chills and sweating
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 ²	Analgesic, antidiarrheal, antitussive	High-Low	High-Low	Yes	Variable	Oral, injected			
DEPRESSANTS										
Chloral Hydrate IV	Noctec	Hypnotic	Moderate	Moderate	Yes	5-8	Oral	Slurred speech,	Shallow respiration,	Anxiety, insomnia
Barbiturates II, III, IV	Amytal, Butisol, Fiorinal, Lotusate, Nembutal, Seconal, Tuinal, Phenobarbital	Anesthetic, hypnotic, anticonvulsant, sedative	High-Mod	High-Mod	Yes	1-16	Oral	disorientation, drunken behavior	clammy skin, dilated pupils,	tremors, delirium, convulsions.
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	without odor of alcohol	weak and rapid pulse, coma,	possible death
Methaqualone I	Quaalude	Sedative, hypnotic	High	High	Yes	4-8	Oral		possible death	
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			

¹ Designated a narcotic under the CSA

² 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						
STIMULANTS											
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, Dexadrine, Obedrol	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, Ionamin, Mofliat, Plegine, Sancrex, Tenuate, Tepanil, Prelu-2	Weight control	Possible	High	Yes	2-4	Oral, injected			
HALLUCINOGENS											
LSD	I	Acid, Microdot	None	None	Unknown	Yes	8-12	Oral	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	Bufotenine, Ibogaine, DMT, DET, Psilocybin, Psilocin	None	None	Unknown	Possible	Variable	Smoked, oral, injected sniffed			
CANNABIS											
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			

¹ Designated a narcotic under the CSA

² Not designated a narcotic by the CSA

MINNESOTA CRIMES AND PENALTIES—DRUGS

Sale	Possession	Penalty ¹
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 a schedule 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
<p>Drug-related offenses also include failure to purchase drug tax stamps, money laundering and racketeering, with a potential fine of three times gross profits.</p>	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

¹Penalties 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.

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S U M M E R ' 9 2



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)

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Second 5-week term July 23 to August 26
10-week term June 16 to August 26

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Term Dates:

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Fall Quarter

September 23-December 11

Fall Semester

September 23-February 8

Winter Quarter

January 6-March 21

Spring Semester

February 17-June 13

Spring Quarter

March 30-June 13

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