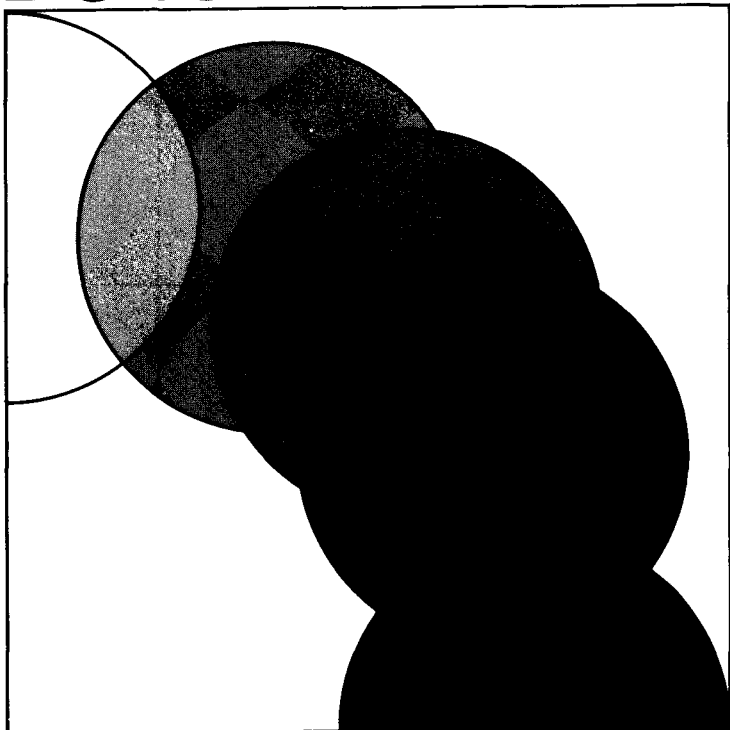


University of Minnesota Bulletin



Extension
Classes 75
76

Twin Cities
June 30, 1975
Continuing
Education &
Extension





UNIVERSITY OF MINNESOTA
Continuing Education and Extension

extension classes

general information

101 Wesbrook Hall
University of Minnesota
Minneapolis, Minnesota 55455

373-3195

counseling and program advising

314 Nolte Center
University of Minnesota
Minneapolis, Minnesota 55455

373-3905

**Extension Classes Information and
Registration Offices open Monday-Thursday,
7:45 a.m. to 8 p.m., and Friday from
7:45 a.m. to 4:30 p.m.
(see office hours, page 27)**

SENIOR CITIZENS: Be sure to see "Persons 62 and Over," page 45.

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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 373-3195). Unfortunately, some students are mailed duplicate copies. If you have a duplicate or unwanted copy, please return it to 101 Westbrook Hall, University of Minnesota, 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 May. Telephone 376-7500 with questions concerning INFO.

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ways to earn credits 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 Counseling Department (373-3905) will provide further information on these options.

1. Extension Classes

Register for an Extension class at any of several convenient locations near you! See page 174.

2. Correspondence Courses

You may earn credits by taking University correspondence courses. See page 43.

3. TV, Radio Courses

U of M credit is available for several radio and television courses. See pages 43 and 189.

4. Women's Programs

Continuing Education for Women offers daytime liberal arts seminars and courses both on and off-campus for credit. (Men are welcome in the classes too!) Telephone 373-9743.

5. Credit by Examination

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

6. CLEP Program

You may earn credits by taking the College Level Examination Program (CLEP) examinations. See page 43.

7. Independent Study

You may register for "independent study"—a Y registration—and earn credits without attending class. See page 42.

8. 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 42.

9. University College

You may earn up to 15 credits for an independent project by registering for University College 3075. See page 43.

10. Cooperative Programs

Receive up to 45 "blanket" credits toward a General College degree for technical courses taken and completed at approved institutions. See page 65.

11. Directed Study, Research Projects

Earn credit by designing directed study and/or research projects around your job activities or involvement in the community. For information call 373-3919. See page 42.

questions & answers

Questions most often asked about Extension Classes:

Most answers to questions about Extension Classes are found in this Bulletin.

1. How do I register? What hours can I register? (See page 11)
2. Can I earn a degree entirely through Extension? Which ones? (See page 66)
3. I have been attending college elsewhere. How can I continue my educational program through Extension? (See page 49)
4. When does registration for classes begin? End? (See page 11)
5. How do I get the credits I've earned in Extension entered on my college transcript? (See page 40)
6. What do I have to do to use my G.I. benefits to take Extension Classes? (See page 37)
7. Are there admission requirements for Extension Classes? (See page 34)
8. Are there ways to get credits without attending class? (See page 41)
9. Can I get any financial assistance to take Extension Classes? (See page 34)
10. What is the difference between certificate and degree credit? (See page 79)
11. Are classes offered at off-campus locations near my home? (See page 174)
12. What are "Informal Courses"? (See page 45)
13. Can I take classes on weekends? (See page 184)

More questions?

Call Extension Classes 373-3195

The idea that our major public universities have a clear responsibility to serve large numbers of people with diverse educational backgrounds and goals is not new. It has been at the heart of American public higher education for almost a century.

But while the University of Minnesota has long had the good fortune of providing educational services to hundreds of thousands of persons, we have only begun to see and appreciate the true potential in the area of continuing, or as I prefer to call it, lifelong education. When I say "we," I make no distinction between educators and students.

For many reasons, economic, demographic, and social, a growing number of Americans will enroll in these programs in the years immediately before us. This is encouraging primarily because it is an educationally stimulating development both for our institutions and for our students.

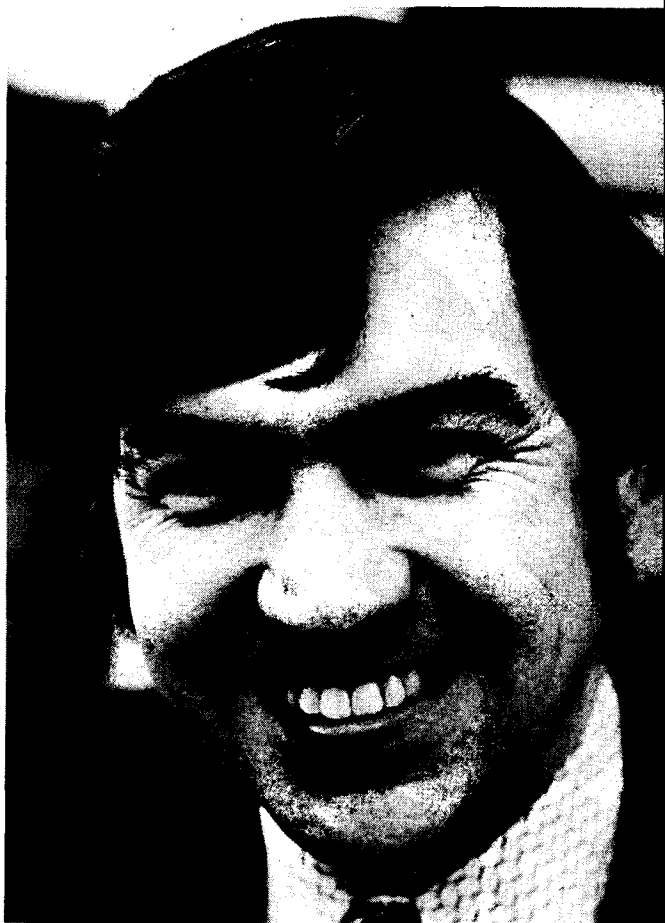
I look forward to the continued growth of the University of Minnesota's continuing education and extension programs.

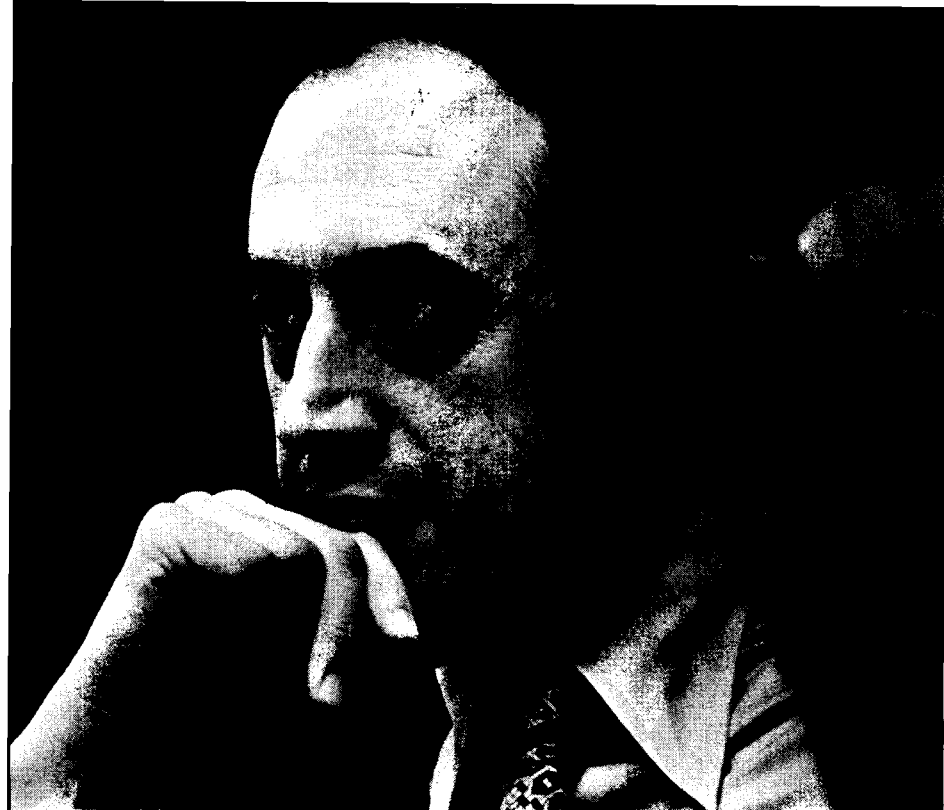
C. Peter Magrath
President, University of Minnesota

In a society which changes as rapidly as ours does, the citizen of the last third of this century must consider his education not just a pre-service once-for-all preparation, but a continuing series of activities to meet specific educational objectives. The Department of Extension Classes provides opportunities for students to work with University faculty to achieve their objectives. We welcome you to the programs and activities listed in this bulletin and trust that they will help make lifelong learning a reality for you.

Harold A. Miller

Dean, Continuing Education and Extension





Even old hands at taking Extension classes will find in the following pages a number and variety of opportunities which may be surprising—fifteen hundred courses (many new), different ways to learn, and various entertainment, social, athletic, and cultural activities. Whether you want to revitalize your life, earn a degree, or advance occupationally—or all three—you will probably find the programs you need described in the following pages.

Then again, maybe you won't. If you don't, let us hear from you. We can't be all things educational to all people, but there is a good deal more of the University's vast educational resources that we can help offer if the demand is sufficient. Write us a letter, or call: don't only give us your requests for courses. Get in touch also if you have a question about our procedures or if you have a complaint.

I think you'll find us willing, and usually quite able, to help.

Theodore L. Campbell
Director, Extension Classes

university of minnesota

Board of Regents

The Honorable Neil C. Sherburne, Lakeland, Chairman; The Honorable Erwin L. Goldfine, Duluth; The Honorable Lauris D. Krenik, Madison Lake; The Honorable George Latimer, St. Paul; The Honorable Robert Latz, Golden Valley; The Honorable L. J. Lee, Bagley; The Honorable Lester A. Malkerson, Minneapolis; The Honorable Wenda Moore (Mrs. Cornell), Minneapolis; The Honorable Lloyd H. Peterson, Paynesville; The Honorable George W. Rauenhorst, Olivia; The Honorable Loanne R. Thrane (Mrs. Ralph), Chanhassen; The Honorable David C. Utz, M.D., Rochester.

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Walter H. Bruning, Vice President for Administrative Operations
Lyle A. French, Vice President for the Health Sciences
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CONTINUING EDUCATION AND EXTENSION

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Donald Z. Woods, associate dean for Instructional Systems
Eleanor S. Fenton, associate dean for Continuing Education
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Gerald A. Klement, senior administrative officer

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William R. VanEssendelft, program director	Marie Ward, editorial assistant

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Keith D. Buckley, associate director	John Kleinbaum, counselor
Udine C. Drews, program adviser	W. Winston Minor, counselor
Mari E. Forbush, program adviser	F. James Moynihan, counselor
Bonnie L. Gray, counselor	Darryl P. Sedio, counselor
Jacquelyn A. Henning, program adviser	Susan L. Thornburg, counselor
	Fran Van Slyke, tuition assistance
	Stacy Vavoulis, program adviser

Extension Research

Clara Kanun, director

Instructional Systems Departments and Centers; Directors

Conferences, Alan Brown, director, 131 Nolte Center for Continuing Education
Counseling, Vera M. Schletzer, 314 Nolte Center for Continuing Education
Extension Classes, Theodore L. Campbell, 170 Wesbrook Hall
Independent Study, Roger C. Young, 33 Wesbrook Hall
University Media Resources, Burton Paulu, 540 C Rarig Center
Duluth Continuing Education and Extension Center, James J. Kafka, 431 Administration Building, Duluth Campus
Morris Continuing Education and Extension Center, Roger S. McCannon, 226 Engineering Building, Morris Campus
Rochester Continuing Education and Extension Center, Russell A. May, director, 2120 East Center Street, Building 4, Rochester

Continuing Education Division; Directors

Continuing Education in the Arts, Dale D. Huffington, 320 Wesbrook Hall
Continuing Business Education, H. Merrell Arnold, 334 Business Administration
Continuing Education in Dentistry
Continuing Education in Education, Reynold Willie, 206 Burton Hall
Continuing Education in Engineering and Science, Morris E. Nicholson, 11 Mines and Metallurgy
Continuing General College Education, Dewain O. Long, 106 Nicholson Hall
Continuing Legal Education, John B. Wirt, 338 Nolte Center for Continuing Education
Continuing Medical Education, Douglas Fenderson, 1350 Mayo Building
Continuing Pharmacy Education, Thomas M. McKennell, 318 Harvard Street
Continuing Education in Social Work, William Hoffman, 321 Nolte Center for Continuing Education

Community Relations and Extension Services Programs; Directors

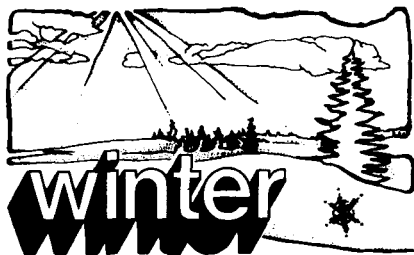
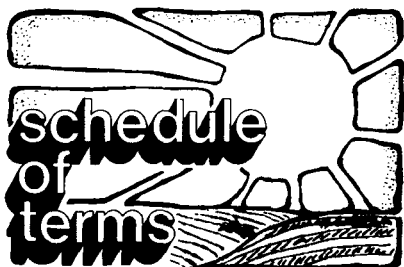
Audio-Visual Library Service, Willard D. Philipson, 3300 University Ave. S.E.
Community Programs, Carol L. Olson, 206 Wesbrook Hall
Delinquency Control Program, Richard J. Clendenen, 219 Temporary North of Mines
Fire-service Information, Research, Education, Frank E. Oberg, 3300 University Ave S.E.
Labor Education Service, John J. Flagler, 417 Business Administration
Minnesota Marine Advisory Service, Dale Baker, 325 Administration Building, Duluth Campus
Continuing Education for Women, Edith Mucke, 200 Wesbrook Hall
Continuing Education in Public Policy, William C. Rogers, 306 Wesbrook Hall
Communication Services, Carol Flynn, 120 Shops Building

Human Rights

The Board of Regents has committed itself and the University of Minnesota to the policy that there shall be no discrimination in the treatment of persons because of race, creed, color, sex, or national origin. This is a guiding policy in the admission of students in all colleges and in their academic pursuits. It is also to be a governing principle in University-owned and University-approved housing, in food services, student unions, extracurricular activities, and all other student and staff services. This policy must also be adhered to in the employment of students either by the University or by outsiders through the University and in the employment of faculty and civil service staff.

The University of Minnesota abides by the provisions of Title IX, federal legislation forbidding discrimination on the basis of sex, and abides by all other federal and state laws regarding equal opportunity.

how and when to register



Fall Quarter: September 29-December 17

Fall Semester: September 29-January 24

Winter Quarter: January 5-March 20

Spring Semester: February 9-June 12

Spring Quarter: March 29-June 12

Although classes vary in length of term, all credits are quarter credits.

Note: Extension classes are **rarely** canceled for any reason. However, in the event that Extension classes are to be canceled because of some emergency, the University of Minnesota radio station, KUOM (770 on the dial), will make such an announcement at 4 p.m. on the day in question. Announcements will be made on other stations also. In Cambridge, KABG-FM radio will make announcements concerning cancellations due to weather conditions for Extension Classes being taught in Cambridge.

fall quarter

classes september 29-december 17

mail registration

Campus Office (101 Wesbrook Hall)

August 18, Monday, to August 22, Friday

Postcard requests for limited enrollment classes accepted by mail (see page 23).

August 25, Monday, to August 29, Friday

Office will begin mailing limited class cards and registration forms to students whose requests are honored (see page 23).

August 25, Monday, to September 19, Friday

Registration accepted by mail for nonlimited enrollment classes. Mail registrations post-marked after midnight September 19 must include late fee (see late registration this page).

Procedures for mail registration appear on page 22.

in-person registration

Campus Office (101 Wesbrook Hall)

September 11, 15-19 12 noon to 8 p.m.
September 12 12 noon to 4:30 p.m.
(Closed Saturday)

MacPhail Office (1128 LaSalle Ave.)

September 11, 19 12 noon to 8 p.m.
September 12 12 noon to 4:30 p.m.
September 15-18 12 noon to 6 p.m.
(Closed Saturday)

St. Paul Registration-Information Booth (American National Bank Building, Skyway level, 5th and Minnesota) for nonlimited classes.

September 11-19 9 a.m.-5 p.m.
(Closed Saturday)

Registration accepted at the following locations only for classes taught there: Richfield District Office, Carl Sandburg Junior High School, Roseville District Office (see addresses, page 28). See also Minnetonka School District, page 28.

September 11-17 8:30 a.m. to 4 p.m.
September 18-19 8:30 a.m. to 8 p.m.
(Closed Saturday)

SEPTEMBER 19, FRIDAY: The last day for registration and payment of tuition without a late fee.

late registration

Campus Office (101 Wesbrook Hall)

September 22-23 12 noon to 8 p.m.

MacPhail Office (1128 LaSalle Ave.)

September 22-23 12 noon to 6 p.m.

September 24-26 *All offices closed to process registrations*

September 29: Late registration resumes by mail or in-person with \$5 late fee through the first week of classes (see office hours, page 27). For information regarding registration and late fees during or after the second week of classes, see page 25.



SEPTEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	FEBRUARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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other important dates

September 29, Monday

Fall Quarter classes begin

November 7, Friday

Last day for official cancellation of classes with automatic "W"

November 27-29

Thanksgiving day holidays; all offices closed and all classes dismissed

December 11-17

Final examination period

December 17, Wednesday

Last day of Fall Quarter

fall semester

classes september 29-january 24

mail registration

Campus Office (101 Wesbrook Hall)

August 18, Monday, to August 22, Friday

Postcard requests for limited enrollment classes accepted by mail (see page 23).

August 25, Monday, to August 29, Friday

Office will begin mailing limited class cards and registration forms to students whose requests are honored (see page 23).

August 25, Monday, to September 19, Friday

Registration accepted by mail for nonlimited enrollment classes. Mail registrations post-marked after midnight September 19 must include late fee (see late registration this page).

Procedures for mail registration appear on page 22.

in-person registration

Campus Office (101 Wesbrook Hall)

September 11, 15-19 12 noon to 8 p.m.

September 12 12 noon to 4:30 p.m.
(Closed Saturday)

MacPhail Office (1128 LaSalle Ave.)

September 11, 19 12 noon to 8 p.m.

September 12 12 noon to 4:30 p.m.

September 15-18 12 noon to 6 p.m.
(Closed Saturday)

St. Paul Registration-Information Booth (American National Bank Building, Skyway level, 5th and Minnesota) for nonlimited classes.

September 11-19 9 a.m. to 5 p.m.
(Closed Saturday)

Registration accepted at the following locations only for classes taught there: Richfield District Office, Carl Sandburg Junior High School, Roseville District Office (see addresses, page 28).

September 11-17 8:30 a.m. to 4 p.m.

September 18-19 8:30 a.m. to 8 p.m.
(Closed Saturday)

SEPTEMBER 19, FRIDAY: The last day for registration and payment of tuition without a late fee.

late registration

Campus Office (101 Wesbrook Hall)

September 22-23 12 noon to 8 p.m.

MacPhail Office (1128 LaSalle Ave.)

September 22-23 12 noon to 6 p.m.

September 24-26 **All offices closed to process registrations**

September 29: Late registration resumes by mail or in person with \$5 late fee through the first week of classes (see office hours, page 27). For information regarding registration and late fees during or after the second week of classes, see page 25.



SEPTEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	FEBRUARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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other important dates

September 29, Monday

Fall Semester classes begin

November 26, Wednesday

Last day for official cancellation of classes with automatic "W"

November 27-29

Thanksgiving Day holidays; all offices closed and all classes dismissed

December 19, Friday

Christmas recess begins; classes dismissed until January 5

December 25-26

Christmas holidays; all offices closed

December 31-January 2

All offices closed

January 5, Monday

Fall Semester classes resume

January 19-24

Final examination period

January 24, Saturday

Last day of Fall Semester

winter quarter

classes january 5-march 20

mail registration

Campus Office (101 Westbrook Hall)

November 3, Monday, to November 7, Friday

Postcard requests for limited enrollment classes accepted by mail (see page 23).

November 10, Monday, to November 11, Tuesday

Office will begin mailing limited class cards and registration forms to students whose requests are honored (see page 23).

November 17, Monday, to December 29, Monday

Registration accepted by mail for nonlimited enrollment classes. Mail registrations post-marked after midnight December 29 must include late fee (see late registration this page).

Procedures for mail registration appear on page 22.

in-person registration

Campus Office (101 Westbrook Hall)

December 3-4, 8-11 8 a.m. to 8 p.m.

December 5, 12 8 a.m. to 4:30 p.m.
(Closed Saturday)

MacPhail Office (1123 LaSalle Ave.)

December 3-4 8:30 a.m. to 8 p.m.

December 5, 8-12 8:30 a.m. to 4:30 p.m.
(Closed Saturday)

St. Paul Registration-Information Booth (American National Bank Building, Skyway level, 5th and Minnesota) for nonlimited classes.

December 3-12 9 a.m. to 5 p.m.
(Closed Saturday)

Registration accepted at the following locations only for classes taught there: Richfield District Office, Carl Sandburg Junior High School, Roseville District Office (see addresses, page 28). See also Minnetonka School District, page 28.

December 5, 8-9, 12 8 a.m. to 4 p.m.

December 10-11 8:30 a.m. to 8 p.m.
(Closed Saturday)

late registration (no late fee until december 30)

Campus Office (101 Westbrook Hall) and MacPhail Office (1128 LaSalle Ave.)

December 15-29: Late registration accepted by mail or in person with no late fee 8-4:30 p.m.

December 31-January 2: All offices closed for holidays and to process registrations. Registration accepted after December 29 with \$5 late fee by mail only.

December 31-January 2 *All offices closed to process registrations*

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



winter quarter

SEPTEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	FEBRUARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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other important dates

December 25-26

Christmas holidays; all offices closed

January 5, Monday

Winter Quarter classes begin

February 5-6

All offices closed to process Spring Semester registrations

February 13, Friday

Last day for official cancellation of classes with automatic "W"

February 16, Monday

President's Day, holiday; all offices closed

March 15-20

Final examination period

March 20, Saturday

Last day of Winter Quarter

spring semester

classes february 9-june 12

mail registration

Campus Office (101 Wesbrook Hall)

January 5, Monday to January 9, Friday

Postcard requests for limited enrollment classes accepted by mail (see page 23).

January 12, Monday

Office will begin mailing limited class cards and registration forms to students whose requests are honored (see page 23).

January 12, Monday, to February 4, Wednesday

Registration accepted by mail for nonlimited enrollment classes. Mail registrations post-marked after midnight February 4 must include late fee (see late registration this page).

Procedures for mail registration appear on page 22.

in-person registration

Campus Office (101 Wesbrook Hall)

January 26-29	12 noon to 8 p.m.
January 30	12 noon to 4:30 p.m.
February 2-4	12 noon to 8 p.m.
	(Closed Saturday)

MacPhail Office (1128 LaSalle Ave.)

January 26-29	12 noon to 6 p.m.
January 30	12 noon to 4:30 p.m.
February 2-3	12 noon to 6 p.m.
February 4	12 noon to 8 p.m.
	(Closed Saturday)

St. Paul Registration-Information Booth (American National Bank Building, Skyway level, 5th and Minnesota) for nonlimited classes.

January 26-February 4	9 a.m. to 5 p.m.
	(Closed Saturday)

Registration accepted at the following locations only for classes taught there: Richfield District Office, Carl Sandburg Junior High School, Roseville District Office (see addresses, page 28).

January 26-February 4	8:30 a.m. to 4 p.m.
FEBRUARY 4, WEDNESDAY:	The last day for registration and payment of tuition without a late fee.

February 5-8

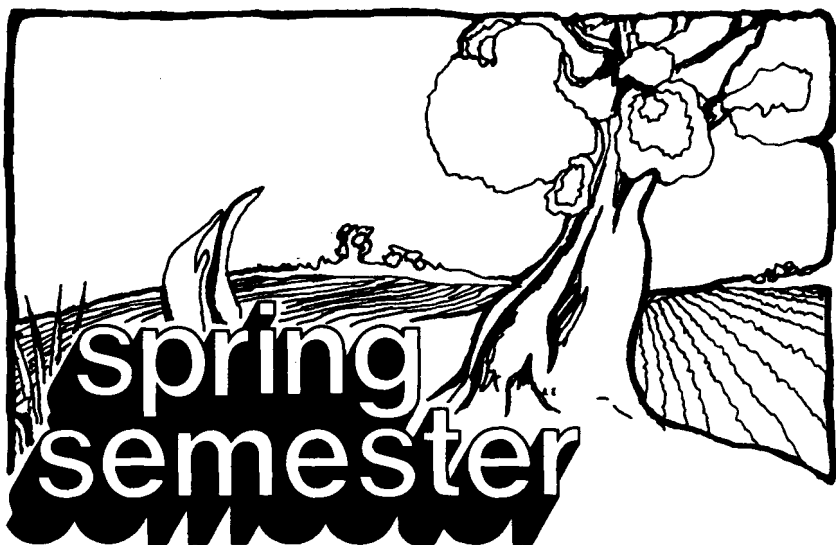
All offices closed to process registrations

late registration

Campus Office (101 Wesbrook Hall) and MacPhail Office (1128 LaSalle Ave.)

February 5-6: Late registration accepted with \$5 late fee by mail only. (All offices closed to process registration.)

February 9: Late registration resumes by mail or in-person with \$5 late fee through the first week of classes (see office hours, page 27). For information regarding registration and late fees during or after the second week of classes, see page 25.



SEPTEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	FEBRUARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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other important dates

February 9, Monday

Spring Semester classes begin

February 16, Monday

President's Day, holiday; all offices closed

March 20, Saturday

Spring Semester recess begins; classes dismissed until March 29

March 25-26

All offices closed to process Spring Quarter registrations

March 29, Monday

Spring Semester classes resume

April 9, Friday

Last day for official cancellation of classes with automatic "W"

May 31, Monday

Memorial Day, holiday; all offices closed

June 7-12

Final examination period

June 12, Saturday

Last day of Spring Semester

spring quarter

classes march 29-june 12

mail registration

Campus Office (101 Wesbrook Hall)

February 16, Monday, to February 20, Friday

Postcard requests for limited enrollment classes accepted by mail (see page 23).

February 23, Monday, to February 24, Tuesday

Office will begin mailing limited class cards and registration forms to students whose requests are honored (see page 23).

March 1, Monday, to March 24, Wednesday

Registration accepted by mail for nonlimited enrollment classes. Mail registrations post-marked after midnight March 24 must include late fee (see late registration this page).

Procedures for mail registration appear on page 22.

in-person registration

Campus Office (101 Wesbrook Hall)

March 15-18, 22-24 8 a.m. to 8 p.m.

March 19 8 a.m. to 4:30 p.m.
(Closed Saturday)

MacPhail Office (1128 LaSalle Ave.)

March 15, 24 8:30 a.m. to 8 p.m.

March 16-18, 22-23 8:30 a.m. to 6 p.m.

March 19 8:30 a.m. to 4:30 p.m.
(Closed Saturday)

St. Paul Registration-Information Booth (American National Bank Building, Skyway level, 5th and Minnesota) for nonlimited classes.

March 15-24 9 a.m. to 5 p.m.
(Closed Saturday)

Registration accepted at the following locations only for classes taught there: Richfield District Office, Carl Sandburg Junior High School, Roseville District Office (see addresses, page 28). See also Minnetonka High School, page 28.

March 15-19, 22 8:30 a.m. to 4 p.m.

March 23-24 8:30 a.m. to 8 p.m.
(Closed Saturday)

MARCH 24, WEDNESDAY: The last day for registration and payment of tuition without a late fee.

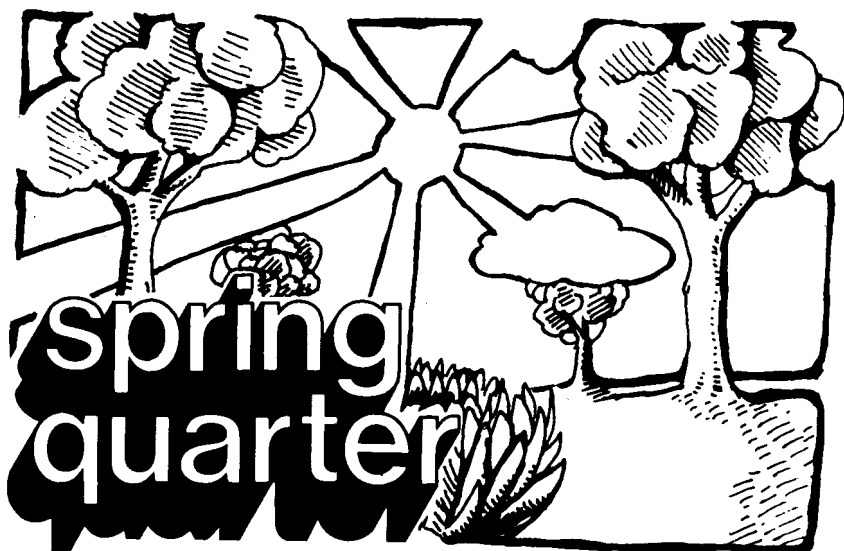
March 25-26 *All offices closed to process registrations*

late registration

Campus Office (101 Wesbrook Hall) and MacPhail Office (1128 LaSalle Ave.)

March 25-26: Late registration accepted with \$5 late fee by mail only. (All offices closed to process registration.)

March 29: Late registration resumes by mail or in person with \$5 late fee through first week of classes (see office hours, page 27). For information regarding registration and late fees during or after the second week of classes, see page 25.



SEPTEMBER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	FEBRUARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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other important dates

March 29, Monday

Spring Quarter classes begin

May 7, Friday

Last day for official cancellation of classes with automatic "W"

May 31, Monday

Memorial Day, holiday; all offices closed

June 7-12

Final examination period


June 12, Saturday

Last day of Spring Quarter

register in person or by mail

Be sure to read the registration information section before you register.

Note: Registration procedures differ for limited and for nonlimited classes. If you have further questions after reading the information on registration procedures, call 373-3195. (Experience of the Extension Classes' office shows that most of the questions students ask are answered on these pages in the Bulletin.)

 Continuing Education and Extension UNIVERSITY OF MINNESOTA										Department of Extension Classes REGISTRATION FORM					OFFICE USE ONLY	
DEPARTMENT		COURSE NO		COURSE TITLE AS APPEARS IN BULLETIN						NON-TRANSCRIPT REGISTRATION		<input type="checkbox"/> PRICE OVER \$50 <input type="checkbox"/> UNDER 16 <input type="checkbox"/> OTHER				
SECTION	CREDIT	DAY	HOUR	LOCATION	ROOM	GRADE BASE		(Graduate Credit Requested Use Bulletin) <input type="checkbox"/> If you have been admitted to Graduate School at the University of Minnesota and are now registering for the first time since admission, check this box <input type="checkbox"/>		<input type="checkbox"/> A/N <input type="checkbox"/> S/N <input type="checkbox"/> AUD						
TUITION		SPECIAL FEES		COURSE FEES		LATE FEE		COURSE TOTAL		ENROLLMENT PERIOD IS _____						
OFFICE USE ONLY										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 type="checkbox"/> (5)						
NAME LAST			FIRST		MIDDLE		BIRTH DATE (USE NUMERICS)		MONTH / DAY / YEAR							
LOCAL STREET ADDRESS (INCLUDE APT. NO. IF APPROPRIATE)						SOCIAL SECURITY NO.										
CITY			STATE ABBREV.		ZIP CODE		HOME PHONE		SEX <input type="checkbox"/> M <input type="checkbox"/> F							
OCCUPATION						BUSINESS PHONE		EXT.		SPECIAL TERM <input type="checkbox"/> (6)						
PREVIOUS U of M ATTENDANCE		NONE <input type="checkbox"/>		CONTINUING EDUCATION and EXTENSION IS _____		DAY SCHOOL COLLEGE & YEAR _____		19 _____		START DATE						
										MONTH / DAY / YEAR						
										END DATE						
										MONTH / DAY / YEAR						

how to register by mail

for nonlimited enrollment classes (those which have no limit on number of registrants)

1. To obtain official registration forms for nonlimited classes, fill out the "non-limited" portion of the request postcard in the back of this Bulletin and mail it to 101 Wesbrook Hall. (The postcard requests will be processed in the registration office two weeks prior to each registration period.)
2. Upon receiving the official registration forms, fill them out using a ballpoint pen on a hard surface. (If all copies are not clearly legible, forms will have to be returned to the sender.)
3. Return the forms with a check or money order payable to the University of Minnesota for the full amount of tuition and fees, if any. (Checks or money orders for late registrations [postmarked after midnight of the last day of official registration] must include the late fee specified on page 25. Checks must be for the exact amount of tuition and fees.)

Note: No person registering under authorization from military, federal, state, foreign agency, institution, company, scholarship or loan fund may register by mail without permission from the Special Registration office, Department of Extension Classes, 138 Wesbrook Hall, Minneapolis campus (373-4871). Normally, such registrations must be made in-person. This in-person restriction does not apply to Veterans registering under the G.I. Bill.

for limited enrollment classes (those which have a limit on number of registrants)

Registration is limited in those courses marked with an asterisk (*). Students may register in such classes only after they have obtained limited class reservation cards.

Students may obtain limited class reservation cards in two ways:

I. By mail in advance. Complete the limited class section on the request postcard in the Bulletin and mail according to the dates listed on page below.

Note: If the class requested is filled when the request postcard is drawn (**selection is random**) the student will be notified that the class is closed. If the class is not filled, a limited class reservation card and registration forms will be sent. Following are the days when the request postcards will be drawn:

*Request postcards received during the five-day pre-registration period (see below) will be processed first on the Monday following the five-day pre-registration.

*Request postcards received on the Friday preceding the five-day registration period will be processed second.

Request postcards will not be honored during the in-person registration periods.

Note: The limited class reservation cards, forms, tuition and fees must be returned by deadlines indicated on the limited class reservation card. Mail registrations must be postmarked on or before the due date. Registrations received via campus mail after the due date will be considered too late to be accepted. If fees are not paid by the date indicated, the reserved place will be released. No cash will be accepted before in-person registration.

Billing for tuition: A person whose tuition and fees are to be billed to a company, scholarship or the military, **MUST COMPLETE REGISTRATION IN PERSON** and present an authorization, along with the limited class reservation card, not later than the last day of the official registration period for the term in which he is registering. See registration dates on pages 12-21.

This in-person restriction does not apply to Veterans registering under the G.I. Bill.

II. In-person, during registration periods only. Limited class reservation cards may be obtained during in-person registration periods for classes which have not been filled during the mail pre-registration period.

Closed classes—Limited 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. If a student has an unusual and compelling reason to be admitted to a closed class he may state his case to the instructor of the class. **Written permission of the instructor is required for admission to any closed class (no late fee through the first week of classes).** Starting the second week of classes, late registrations will be assessed the appropriate late fee. **Exception:** Because of classroom limitations, students usually may not be admitted to closed classes which meet in any off-campus Extension Center.

limited enrollment class registration dates fall quarter and semester

August 18-22 Initial 5-day period for receipt of limited class postcard requests in the Extension Classes campus office.

August 25 Office will begin mailing reservation cards and registration forms to students whose requests are honored; students whose requests *cannot* be honored will also be notified by mail. Postcard requests will not be honored during in-person registration periods.

winter quarter

- November 3-7** Initial 5-day period for receipt of limited class postcard requests in the Extension Classes campus office.
- November 10** Office will begin mailing reservation cards and registration forms to students whose requests are honored; students whose requests cannot be honored will be notified by mail. Postcard requests will not be honored during in-person registration periods.

spring semester

- January 5-9** Initial 5-day period for receipt of limited class postcard requests in the Extension Classes campus office.
- January 12** Office will begin mailing reservation cards and registration forms to students whose requests are honored; students whose requests cannot be honored will be notified by mail. Postcard requests will not be honored during in-person registration periods.

spring quarter

- February 16-20** Initial 5-day period for receipt of limited class postcard requests in the Extension Classes campus office.
- February 23** Office will begin mailing reservation cards and registration forms to students whose requests are honored; students whose requests cannot be honored will also be notified by mail. Postcard requests will not be honored during in-person registration periods.

how to register in person

for limited enrollment classes (those which have a limit on number of registrants and are preceded by an * in the course listing)

1. If the pre-registration by mail period is over, pick up limited class reservation cards during in-person registration periods. (For registration dates, see pages 12-20). (Reservation cards may be obtained at the campus and MacPhail offices for limited classes offered at any location, and at Richfield, Sandburg, and Roseville District office **only** for classes being offered at those locations.)
2. Complete the official registration forms, and present them to the cashier with a check and/or money order for the full amount of tuition and fees payable to the University of Minnesota.

for nonlimited enrollment classes (those which have no limit on number of registrants)

1. Obtain official registration forms at the campus, or MacPhail offices (listed on page 27) no earlier than two weeks prior to the opening of the in-person registration period, or during in-person registration at any of the Extension Classes' offices.

The official registration form shown below is for semester, quarter, special term and special class courses, including noncredit and reduced tuition courses. Check the course description in this Bulletin for the type of course. Each description provides information necessary for completing the registration form displayed here. Courses are listed under departmental or subject heading (alphabetically arranged)—where several classifications are possible cross references are given. See index in the back of this Bulletin.

2. Fill in all information requested. Please use a ballpoint pen and press hard. Be sure to fill in your birth date.

3. Have all forms checked by the tally clerk.
4. Pay the cashier. **You are not registered until your tuition and fees are paid.** (Checks must be for the full amount of tuition and/or fees and made payable to the University of Minnesota.)

late registration and additions

All registrations, whether initial or added, received either in person or by mail after the close of the official registration period as designated in the **How and When to Register** section in the front of this Bulletin will be considered late registrations and will be subject to a late fee:

Through the first week of classes \$ 5 (if accepted)
 During or after the second week of classes \$10 (if accepted)

(No registration will be accepted during the second week of classes unless a student has attended one of the first two class meetings. After the second class meeting of any class a student must have written permission of the instructor to register for that class.)

On a trial basis, there is no late registration fee for classes held off campus at neighborhood centers (with the exception of classes scheduled at Sandburg Junior High School, Richfield Senior High School, Kellogg High School, St. Paul Ramsey Hospital, or Minnetonka High School where normal late registration fees as outlined above apply) until Monday of the second week of classes (all terms). Read about neighborhood locations on pages 31, 45, and 174.

No registration will be accepted during the last two weeks of the term. Beyond this point any registration accepted will be subject to a \$20 late fee. The following conditions must be met for a student to register during the second week of classes:

Quarter and Semester Classes—No registration will be accepted unless the student has attended the first class meeting or registers in time so that he can attend the second class meeting. If the class meets twice a week, the registration must be made at a date that will permit him to attend both class sessions during the second week.

Special Term and Special Class—The rule for quarter and semester classes will apply. The decision will be made on the basis of the length of the special term or special class.

No registrations during and after the third class meeting of any term will be accepted unless the student has the written consent of the instructor.

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.

Those students registering late for Informal Courses (see page 45) must pay a \$5 late fee. No registrations for Informal Courses will be accepted after the end of the second week of classes.

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.

how to register for courses at neighborhood centers

For registration information about classes being held off campus at neighborhood locations, see the section beginning on page 193.



office hours

campus office

(minneapolis campus)

101 Westbrook Hall, University of Minnesota
Minneapolis, Minnesota 55455 (373-3195).

office hours*

Monday through Thursday	7:45 a.m.-8 p.m.
Friday	7:45 a.m.-4:30 p.m.
Monday through Friday	
June 15-26	7:45 a.m.-6 p.m.
June 29-Sept. 7, 1976	7:45 a.m.-4:30 p.m.
Saturday	CLOSED

macphail office

(downtown minneapolis)

1128 LaSalle Avenue, Minneapolis, Minnesota 55403 (373-1925)

office hours

Monday through Friday	8:30 a.m.-5:15 p.m.
Saturday	8:30 a.m.-4:30 p.m.
Saturday (July, August)	CLOSED

counseling department

(minneapolis campus)

314 Nolte Center (373-3905) See page 176.

office hours

Monday through Friday	8 a.m.-12 noon 1-4 p.m.
Evenings	by appointment

* See Registration Hours, pages 12-20.

The offices below are open for registration during registration hours only. See Registration Hours, pages 12-20.

richfield district office

Registrations will be taken at the Richfield District Office only for those classes being taught at Richfield Senior High School and Richfield East Junior High School.

Richfield District Office, Richfield Senior High School, 7001 Harriet Avenue, Richfield, Minnesota 55423 (861-7511).

Richfield East Junior High School, 70th and 12th Ave. S., Richfield, Minnesota 55423.

carl sandburg junior high school office

Registrations will be taken at Carl Sandburg Junior High School only for those classes being taught at that location.

Carl Sandburg Junior High School, 2400 Sandburg Lane, Golden Valley, Minnesota 55427 (545-2571).

minnetonka school district

Registration materials may be obtained at the Minnetonka School District Administration Building and mailed to Extension Classes.

Minnetonka School District Administration Building, Community Services Office, 261 School Avenue, Excelsior, Minnesota 55331 (474-5401). Minnetonka Senior High School, Highway 7, Excelsior, Minnesota 55331.

roseville district office

Registrations will be taken at the Roseville District Office only for those classes being taught at Kellogg Senior High School and at Alexander Ramsey Senior High School.

Roseville District Office, 1251 West County Road B2, Roseville, Minnesota 55113 (636-0677).

Kellogg Senior High School, 15 East County Road B2, Little Canada, Minnesota 55113.

Alexander Ramsey Senior High School, 1261 W. Hwy. 36, Roseville, Minnesota 55113.

out-state offices

duluth office

James Kafka, Director, 431 Administration Building, University of Minnesota, Duluth, Minnesota 55812 (218-726-8113). Courses offered in Duluth are listed in a separate bulletin which may be obtained from the Duluth Office.

morris office

Roger S. McCannon, Director, University of Minnesota, Morris, Minnesota 56267 (589-2482). Courses offered in Morris are listed in a separate bulletin which may be obtained from the Morris Office.

rochester office

Russell A. May, Director, Continuing Education and Extension, 2120 East Center Street, Building 4, Rochester, Minnesota 55901 (507-288-4584). Courses offered in Rochester are listed in a separate bulletin which may be obtained from the Rochester Office.

bookstores

The evening schedule listed on the next page has been established by University bookstores. **Note that not all bookstores are open every night.**

Pick Up Books Before Class—Textbooks may be purchased before the first night of class at campus bookstores. Lists of course offerings and required books are in the bookstores.

Special Arrangements for Book Pick-up—If a student needs a book from the West Bank Bookstore but cannot come to campus until Saturday, he can call the West Bank Bookstore (which does not have Saturday hours), and ask to have the book sent to the Nicholson Bookstore, where he can pick it up Saturday morning. The same procedure applies to having books sent from the Nicholson and/or Engineering Bookstore to the West Bank Bookstore, for students who prefer to pick up their books on the West Bank.

If a Course is Canceled—Books for canceled courses may be returned for a full refund through the second week of classes **if the student has a sales receipt for the books and has not written in them.**

Resale of Books—Students may sell books for courses scheduled in the following term. Books bought at University bookstores will be purchased by University bookstores at the beginning of the following term.

***nicholson bookstore**

The Nicholson Hall Bookstore sells books for courses in the College of Liberal Arts (except for those CLA departments listed below in the Harold Smith west bank bookstore), Education, and General College.

Telephone: 373-3688

special hours:

8 a.m.-7:30 p.m., Monday through Thursday, for the first week of Fall Quarter and Fall Semester.

8 a.m.-6:30 p.m., Monday through Thursday for the second week of Fall Quarter and Fall Semester.

8 a.m.-7:30 p.m., Monday through Thursday, for the first week of Winter and Spring Quarters and Spring Semester.

regular hours:

8 a.m.-4:30 p.m., Monday through Friday, fall through spring.*

10 a.m.-2:00 p.m., Saturday, fall through spring.*

***main engineering bookstore**

The Main Engineering Bookstore sells books for courses in the Institute of Technology.

Telephone: 373-3244.

special hours:

8 a.m.-7:30 p.m., Monday through Thursday, for the first week of each quarter and semester.

regular hours:

8 a.m.-4:30 p.m., Monday through Friday, fall through spring.*

***harold d. smith bookstore (west bank)**

The West Bank Bookstore sells books for courses in the College of Business Administration, as well as for these College of Liberal Arts departments: history, political science, geography, sociology, criminal justice studies, Afro-American studies, American Indian studies, theatre arts, studio art, economics, and family social science.

Telephone: 373-4450.

special hours:

8 a.m.-7:30 p.m., Monday through Thursday, for the first week of each quarter and semester.

8 a.m.-6:30 p.m., Monday through Thursday for the second week of Fall Quarter and Semester.

regular hours:

8 a.m.-6:30 p.m., Monday and Thursday, fall through spring.*

8 a.m.-4:30 p.m., Tuesday, Wednesday and Friday, fall through spring.*

Books from other bookstores can be delivered to the Harold D. Smith Bookstore for pick-up in the evening.

***coffey hall bookstore (st. paul campus)**

Coffey Hall Bookstore sells book for courses taught on the St. Paul campus.

Telephone: 373-0800

special hours:

8 a.m.-6:30 p.m. for the first week of each quarter and semester.

regular hours:

8 a.m.-4:30 p.m., Monday through Friday, fall through spring.*

*See summer bookstore hours in May issue of Info. Call 376-7500. See maps showing locations of bookstores in back of bulletin.

b. dalton bookseller

(rosedale, southdale shopping centers)

This year, as a special service to Extension Class students, B. Dalton Bookseller has agreed to carry books at their Rosedale and Southdale stores for courses offered at certain off-campus neighborhood locations. (*This service is on a one-year trial basis.*) Books required for these courses will also be available at the campus bookstores.

Please note which B. Dalton store is matched with your location before going to purchase books. In all cases, B. Dalton encourages you to call ahead to reserve a copy of the books you will need.

Books will be available at B. Dalton for a limited time during each registration period.

Fall Quarter and Semester—September 15 to October 10

Winter Quarter —December 29 to January 16

Spring Semester —January 26 to February 20

Spring Quarter —March 15 to April 9

Due to the highly specialized nature of many of the books purchased for these classes, books must be returned to B. Dalton for refund, accompanied by a sales slip, during these same dates.

b. dalton in rosedale will carry books for the following locations:

(*Phone ahead to reserve your book: 636-1341, Rosedale store*)

Brooklyn Center High School

Irondale High School, New Brighton

Kellogg High School, Little Canada

St. Paul Ramsey Hospital

St. Paul Sunray Library

St. Stephens Church, West St. Paul

The Talmud Torah of St. Paul

Hillside Junior High School, Maplewood

b. dalton store hours, rosedale (w. highway 36 and fairview ave. n., roseville)

Monday-Friday—9:45 a.m. to 9:45 p.m.

Saturday —9:45 a.m. to 6 p.m.

Sunday —12 noon to 6 p.m.

b. dalton in southdale will carry books for the following locations:

(*Phone ahead to reserve your book: 920-2677, Southdale store*)

Elim Church, Robbinsdale

Jewish Community Center, St. Louis Park

Jonathan Community Center, Chaska

Minnetonka Senior High School, Excelsior

Nicollet Junior High School, Burnsville

Richfield Senior High School

Sandburg Junior High School, Golden Valley

b. dalton store hours, southdale (france ave. s. at w. 66th street, edina)

Monday-Friday—9:45 a.m. to 9:45 p.m.

Saturday —9:45 a.m. to 9 p.m.

Sunday —12 noon to 6 p.m.

CHANGING SHELTER

YOU'RE THE ONLY KILLING SCENE HERE

CHANGING SHELTER

June 6, 7
7:30 & 9:30 PM

ALL FROM DISTRICT

FOR

FOOD

TONY WISER

THURS. MAY
INTERNATIONAL ARMS TRADE

ECKANKAR
SECOND INTERNATIONAL
CREATIVE ARTS FESTIVAL

spring
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take a break

registration information

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admission

Admission to Extension Classes is open; anyone may register for Extension Classes. There are no entrance requirements; registrants need not possess a high school diploma. One need only have a desire to learn.

Registration in specific programs or classes may require prerequisite courses or experience. (See **prerequisites**, page 38)

Students wishing to register for graduate credit, refer to page 40.

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 must pay Extension Classes tuition to attend Extension Classes.

A student who has been dropped from any unit of the University or who has been placed on probation should clear with his college before registering for Extension Classes; otherwise, there is no assurance that the credits will be accepted by the college from which he wishes to earn a degree.

tuition and fees

The 1975-76 tuition for Extension Classes is:

\$14.50 a credit	For 1XXX and 3XXX level courses Certificate courses Entrance credit courses Noncredit courses (does not necessarily apply to reduced tuition courses)
\$15.50 a credit	For 5XXX level courses
\$16.50 a credit	For 8XXX level courses

A student who concurrently takes day courses and Extension courses must register on separate forms and pay both day and Extension fees (see day school students, above).

The full amount of the tuition and other fees is payable at the time of registration. Special 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. A \$2 handling fee is charged for all checks returned by a bank. Students should contact the cashier at 138 Wesbrook (376-7243) 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. After fees are paid, retain pink copy of registration. 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 orchestra 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 52.

financial aids and loans

All students who plan to register under the authority or with the assistance of any federal, state, or foreign agency—military service, institution, company, scholarship or loan fund, must register in person in 138 Wesbrook Hall on the Minneapolis campus.

Military personnel should read the listing on pages 36-38.

Students registering under the authority of the Cold War Veterans Bill (Chapter 34, Title 38, U.S. Code), should refer to page 37.

Law Enforcement Education Program (LEEP)—Persons engaged in work in law enforcement may be eligible for financial assistance through LEEP. Contact the office of Student Financial Aid (373-5698).

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 that may be available for Extension Classes.

Low-Income Adult Scholarships—Tuition scholarships are available under the CEE Tuition Assistance Program for low-income adults who wish to attend Extension Classes. Tuition assistance covers full tuition for a maximum of two classes a quarter or semester. Eligibility is based on monthly net income, number of dependents and special expenses. Information available at 317 Nolte Center (376-4500).

Extension Loan Fund—Extension students who require financial assistance to pay tuition may be eligible for a loan not to exceed \$50 in any semester, quarter or special term. Such loans are payable within 2 months from date of receipt. The interest charge is approximately 8%. Applications should be made in 138 Westbrook Hall during any official in-person registration period for Extension Classes. Because only limited funds are available, students who need assistance should inquire as soon as possible during the in-person registration periods. No loan applications will be accepted after the second week of the term. Applications taken after the close of official registration periods will be subject to late fees. Contact Extension Classes, Federal Building, Hall (373-4871). Students who have an overdue, unpaid balance on a previous loan at the University may apply for another loan only with permission from the Assistant Bursar who is located at the West Bank Bursar's Office (373-7915).

Handicapped students financial aid—Blind students may call the Extension office (373-4662) concerning tuition exemption for Extension Classes. Counseling regarding other financial assistance is available through the Minnesota State Services for the Blind and the Visually Handicapped, 1745 University Avenue, St. Paul, Minnesota 55119. **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 (725-4100). **Financial aid for other handicapped students** may be available through the Minnesota Division of Vocational Rehabilitation. Information concerning that program may be obtained from the Division of Vocational Rehabilitation Liaison Office (N592 Elliott Hall, University of Minnesota 376-7026), or from the Division of Vocational Rehabilitation office in your area.

Federally Insured Loans—Under the Federally Insured Loan Program, a student registered for at least eight credits in day or Extension Classes and working toward a degree program may borrow from a bank or other financial institution. A graduate or an undergraduate student may borrow as much as \$2,500 a year, since the ceiling on loans was raised from \$1,500 to \$2,500 as of March 1, 1973. This process takes a considerable time period so students should apply three to four months before the funds are required. Repayment begins in the 10th month after the student has ceased his course of study. At that time all students pay seven percent interest.

Further information: Office of Student Financial Aid, 107 Armory (373-4021).

Basic Opportunity Grant—The BOG is a federal aid program designed to provide financial assistance for part-time and full-time students working toward degrees or certificates. Generally, to be eligible, students must not have attended a

post-secondary educational institution before April 1, 1973. The maximum award is \$1400, less the amount the student and his family are expected to contribute. The amount of the grant is based on the family contribution, the amount of funds available for the program, and the cost of education at the University, since the grant cannot exceed one-half of that cost. Further information: 373-4021.

Funds may be made available for several new financial aid programs for part-time and full-time Extension students. Information was not available at the time of printing. Call 376-4500 for up-to-date information.

Bank loans—Students should be aware that most banks in the Twin Cities area offer a "line of credit" service to handle small, intermittent loan needs.

Plans vary among banks, but in all cases the borrower must have a checking account with the bank, and a line of credit for a fixed dollar amount. The borrower can then write checks which would normally overdraw his account. The loan is repaid through automatic deductions from the checking account, with finance charges typically running slightly over 12 percent on an annual percentage rate. Students should contact a bank for further information.

Regents' Scholarships—University staff members working at least 75% time are eligible to apply for Regents' Scholarships through the Training Division. Regents' Scholarships cover tuition only for approved classes. All course fees, special fees and late fees must be paid by the student. Further information about eligibility and application procedures can be obtained from the Training Division, 404 Johnston Hall, 373-4366.

Students registering with Regents' Scholarships for non-limited courses offered through the Department of Extension Classes must register in person. Late fees go into effect at the end of the in-person registration period as specified in the calendar at the beginning of the Bulletin. Students wishing to register for limited classes with Regents' Scholarships must wait until the first week of classes. If space is still available in the class, students may register in person without a late fee during the first week of classes. Students who have obtained instructor's written permission to register for limited classes may register with Regents' Scholarships during the in-person registration period for that term. **No** mail registrations will be accepted. **No** refunds will be given to students wishing to apply Regents' Scholarships toward limited classes for which they have already registered and paid fees.

Other financial aids—For information about the National Direct Student Loan, the Supplementary Educational Opportunity Grant, the College Work-Study Program, the Basic Opportunity Grant and the Minnesota State Scholarship and Grant Program, contact Student Financial Aid, 107 Armory (373-4021).

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 or 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 75 percent per 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 will be made. Registration must be made in person at 101 Westbrook Hall, Minneapolis campus.

veterans

After reading the information below, questions can be directed to the Extension Veterans Office, 138 Westbrook Hall (373-5777); Veterans Assistance Office, 6 Morrill Hall (373-9891); or Veterans Counselor, 314 Nolte Center (373-3905).

Cold War Veterans (Chapter 34, Title 38, U.S. Code)—A G.I. bill providing educational benefits for eligible veterans became effective June 1, 1966. Eligibility is based on active military service on or after February 1, 1955. Maximum period of training is 45 months, but this period is reduced by training under other Veterans Administration programs.

Application for training under this bill may be made by requesting VA Form 22-1990. The application form must be completed and submitted to 138 Westbrook with a photostatic copy of DD 214 (discharge papers) and Cold War Veterans information sheet when registering for Extension Classes. **Do not** submit original documents.

Registration—Each time a veteran registers for Extension Classes and wishes certification to the Veterans Administration, a Cold War Veterans information sheet must be completed. This sheet will be mailed when the appropriate box is checked on the request postcard in the back of this bulletin. **Cancellation and transfer**—When a veteran cancels or transfers classes, he 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 on form A19a. In-person registration is required for those veterans registering for the first time under the G.I. Bill.

Payments—The following table shows how monthly payments are determined by the Veterans Administration:

MINIMUM CREDITS	DEPENDENTS			
	None	One	Two	Each Dependent Over Two
Full Time 12	\$270	\$321	\$366	\$22
¾ Time 9	203	240	275	17
½ Time 6	135	160	182	11

Less than ½ time—Reimbursement of tuition and fees only.

Credits—1) Both degree and certificate credits are applicable. 2) 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 must register for 8 winter quarter credits and likewise, 4 spring semester credits and 8 spring quarter credits.) 3) Over one-half of the credits earned must be through classroom instruction.)

Tuition and fees—1) Veteran must pay at the time of registration. He will be reimbursed later or paid a monthly allowance. 2) **Advance pay**—This will enable the veteran to have an advance check waiting when registering. Forms can be

picked up at the Extension Veterans Office. Arrangements must be made for picking up checks; none will be mailed. The dates for applying for advance pay begin four weeks before each in-person registration period and lasts for one week. No advance payments will be issued for summer classes. 3) **60-day deferments**—This can be used only ONCE during an academic year and cannot be used in combination with advance payments. Tuition must be paid 60 days after the last day of official in-person registration. No exceptions will be made; failure to pay fees will result in cancellation of all classes through the Veterans Administration and a hold placed on the student's records. Application may be made through the Extension Veterans Office.

Tutorial assistance—Veterans enrolled under G.I. Bill are eligible for tutorial assistance in those courses in which they are showing academic deficiency. The supplementary assistance allowance will be paid at the rate of the monthly cost of tutorial assistance not to exceed \$60 a month.

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 \$720. No charge will be made against the student's basic entitlement to educational assistance for any tutorial assistance received. Eligible students should contact the Veterans Office, 138 Wesbrook (373-5777).

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).

State of Minnesota Department of Veterans Affairs—Under some circumstances World War II and Korean Veterans whose educational benefits under Public Law 346 and 550 have been used and exhausted (not interrupted) may be eligible for tuition assistance from the State of Minnesota Department of Veterans Affairs. Such veterans, if they believe themselves eligible, should contact State of Minnesota Department of Veterans Affairs, Veterans Service Building, St. Paul, Minnesota 55101 (726-1454).

Discharge Review Service—A Discharge Review Service is available at 6 Morrill Hall for veterans who are in need of having their discharges reviewed by a court of law and upgraded to an honorable status. The service has a staff of professionals, lawyers, and concerned veterans to help review such discharges. There is no fee charged for the service. Veterans who are interested in such a service should contact the Veterans Assistance Office (373-9891).

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. However, courses with two or more parts must be taken in sequence unless otherwise specified. Most advanced courses do have prerequisites and cannot usually be carried satisfactorily unless the student has had the stated previous course or its equivalent. In some instances, students who have had a reasonable equivalent of study, training, or experience related to the course desired may be exempted from the prerequisite by the instructor. Students who are in doubt as to their qualifications for a course, but believe they are qualified, should register for the course and consult the instructor at the first class session. If the instructor decides that a student is not qualified, he should write a note to this effect, and send it to the Extension Classes office. This action will permit the student to transfer to another course without penalty or to cancel with a full refund, pro-

vided this action is taken before the end of the second week of classes (see **refunds in Rules, Regulations and Policies** section). A prerequisite course may not usually be taken for credit after the advanced course has been satisfactorily completed.

grades—a-n and s-n

A-N Grading System—Four permanent grades, A (highest), B, C, and D (lowest), indicate acceptable completion of a course. The permanent grade of N (no credit) is assigned when the student does not earn a D or higher and is not assigned an incomplete. A student who cancels officially or drops out of class after the midpoint of any semester, quarter, or special term and is not doing passing work at the time, will receive an N.

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 one year becomes an N. When an I is changed to a permanent grade (within the one-year period), the I is removed from the student's record.

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 through the ninth week of any semester, or the sixth week of any quarter, 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 doing passing work at the time of cancellation. If he is not doing passing work, the instructor will assign the grade of N (no credit). It is advisable, therefore, that any student considering cancellation of a class after the ninth week of any semester, or the sixth week of any quarter, or midpoint of any special term, discuss the matter with his instructor.

The symbol V (visitor) indicates registration as an auditor or visitor.

S-N Grading System—The S-N system represents an alternative to the A-N 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 I.

A student 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 he intends to take his 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-N 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-N 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** (there is no fee for changing). Changes can be made in person or by writing or calling the Department of Extension Classes, 101 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-3195). If the student does not indicate the grading system desired on the registration form, the A-N system will apply.

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. A student's grade point average is determined by dividing the sum of grade points by the sum of credits attempted, and passed. Credits attempted in classes taken on the S-N grading system are not included in determining grade point average.

credit and no credit registrations

credits

All credits listed in the class descriptions are **QUARTER** credits even though many classes meet on a semester-length schedule. All credits are clearly labeled as to use. 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 a course so designated may be used on a degree program. A student who seeks a degree should be aware that all degree credits attempted in Extension Classes must be submitted at time of admission to the college from which the degree is sought.

A few Extension courses carry a number of credits different from the number of credits carried by the same course offered in day classes. If a course carries the same course number as a day course, it will 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 a student has been formally admitted to the college from which he expects to obtain a degree, these credits are not considered to meet the residence requirements of individual colleges of the University. See *University Degree Programs*, page 61.

2. "**Certificate credit**" means that the course so marked may be used in appropriate Extension certificate programs. Certificate credit courses are University-level courses but do not carry degree credit.
3. "**Entrance credit**" designates a course which 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).

Recording Extension Credits—Credits earned in Extension are entered initially on an Extension record. A College of Liberal Arts, College of Business Administration, College of Education, Institute of Technology or General College student wishing to have degree credits earned in Extension Classes put on his degree transcript, should ask the record clerk (in Morrill Hall) of the college in which he is registered, to transfer the credits. A student wishing to have credits earned in Extension transferred to another institution should ask the Office of Admissions and Records (373-2149), to forward a transcript to that institution.

Use at Other Institutions—The applicability of credits earned in Extension, as in day classes, toward a degree at another institution is determined by that institution.

graduate credit

Only courses numbered with first digits of "5" or "8" may be taken for graduate credit. In addition, courses so numbered must carry in the course description

a statement indicating the availability of graduate credit to qualified students, in order to be usable on a graduate program.

Students intending to pursue graduate work through Continuing Education and Extension (CEE) should be familiar with the instructions in this Bulletin and in the Graduate School Bulletin. Graduate School, 322 Johnston Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-5817).

Planning a University of Minnesota Graduate Program—The student intending to use courses taken through CEE toward a graduate degree is responsible for planning a coherent and relevant program. He is expected to review his plans with the Director of Graduate Studies or with a qualified faculty adviser in the field of his choice.

Procedures—At the time of registration the student wishing graduate credit must indicate this on the registration form. The instructor is thereby notified and, on the student's completion of the course, the instructor indicates on the grade report whether or not the work was done at the graduate level. The entry is then made on the student's CEE transcript. When and if the student applies for and is admitted to the Graduate School and submits his graduate program, he also submits his CEE transcript, which constitutes petition to use the courses he selects from that transcript. The inclusion on a CEE transcript of courses taken at the graduate level does not guarantee either admission to the Graduate School or acceptance of courses on a graduate program.

Except with respect to the Master of Arts in English, the Graduate School will accept only up to 12 applicable credits of courses taken through CEE on any advanced degree program once the student is admitted to the Graduate School. (A department or an adviser may set a maximum below this level for its majors.) The student may take more than 12 credits through CEE, but he will be able to apply no more than 12 credits to his program.

All requirements for the master's degree must be completed in seven years. The seven-year program begins with the oldest work included on the official degree program, once it is accepted by the Graduate School.

Use of Graduate Level Work Elsewhere—A student intending to use CEE course work at the graduate level for other than a University of Minnesota graduate degree must indicate on his registration form that he is taking a course for graduate credit. His CEE transcript will show whether or not he took a course for graduate credit. The use of a course so marked is the prerogative of the student and the institution to which he then submits his transcript and is not the responsibility of either CEE or the Graduate School of the University of Minnesota.

Fee—A student who concurrently takes day courses and CEE courses must register on separate forms and pay both day and CEE fees.

credits obtainable without required class attendance

If through personal experience or occupation, a student has gained knowledge which he believes should qualify him for University credit, or if a person wishes to work on his own to earn credit for a project, several alternatives are available. Students may obtain information on these alternatives by calling the Continuing Education and Extension Counseling Department (373-3905) or the Extension Individual Learning Opportunities (ILOE) Office (373-3973). A handbook which describes the alternatives is available from the ILOE office, 314 Nolte Center. Following is a summary of the various options available.

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 in 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 the Counseling Department, 314 Nolte Center (373-3905) or Extension Individual Learning Opportunities Office (373-3973).

extra credit "x" registration

Students may register in a degree credit course for 1, 2, or 3 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 the Counseling Department, 314 Nolte Center (373-3905) or Extension Individual Learning Opportunities Office (373-3973).

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 the Counseling Department, 314 Nolte Center (373-3905) or Extension Individual Learning Opportunities Office (373-3973).

special examination

A student who, through independent study, experience, or study at a non-collegiate institution, has 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. He must be a University Extension student at the time he takes the examination and must obtain approval from the department offering the course. There is a \$20 fee. Contact the Counseling Department, 314 Nolte Center (373-3905).

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 small fee to Extension Classes students who may be considering entering certain degree programs. A student will receive credit upon passing one or more tests, provided he has a satisfactory score and has 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 the Counseling Department, 314 Nolte Center (373-3905) or Extension Individual Learning Opportunities Office (373-3973).

university college independent study

University College can grant up to 15 credits to any one student for an independent undergraduate study project done outside the confines of formal course work. The student need not be a University College registrant; however, he must have permission from his college office to pursue a program of independent study in University College. He must also have an appropriate faculty member supervise his project. Ordinarily, projects that can be done through departmental readings courses or directed studies projects are not acceptable for UC 3075. Further information may be obtained from the Counseling Department, 314 Nolte Center (373-3905); or from the University College Office, 105 Walter Library (373-4638).

independent study through correspondence

The Department of Extension Independent Study offers a wide variety of courses. Courses marked in this Bulletin with a ★ are also taught through Extension Independent Study. Independent Study courses can be used toward fulfilling distribution requirements in most university undergraduate degree programs; and all Extension certificate programs accept such credits. Beginning fall 1974, credits earned through the Department of Extension Independent Study may be used to satisfy residence requirements. Interested degree students should check with their college offices for confirmation. The **Extension Independent Study Bulletin** is available from the Department of Extension Independent Study, 45 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-3256).

radio and television courses

Continuing Education and Extension offers courses via University Radio KUOM (770 k.c.) or over local television stations. For information contact the Department of Extension Independent Study, 45 Wesbrook Hall, (376-4925).

television courses through extension independent study

Television Independent Study brings the University to you. It provides a method of study for independent learners through an integrated teaching system. Two courses are offered each quarter: fall, winter and spring. To request information regarding television independent study, telephone 376-4925. Also see page 189.

Non-credit viewers may purchase a study guide from the Department of Independent Study, 27T Wesbrook Hall, University of Minnesota, Minneapolis 55455.

All registrations for television courses are through the Extension Independent Study office, 27T Westbrook Hall. Telephone 376-4925. The Department of Extension Classes does not accept registrations for television classes; therefore, do not use the postcards in the back of this Bulletin for such registrations.

auditors

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. 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.

Requests for change from credit registration to audit registration are made in person or by writing or calling the Department of Extension Classes, 101 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-3195). After the sixth week of a quarter class or the ninth week of a semester class, requests for change must be approved by the instructor; approval is granted only if the student is doing passing work at the time of the request. No changes can be made during the last two weeks of any term. No student whose tuition and fees are paid in whole or in part by military, Veterans Administration, company or 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 **tuition reduced plans**, below.)

tuition-reduced plans (no credit)

Regular Extension credit courses marked with a ♦ symbol after the number and course title in **course offerings**, see page 105, are open for no-credit registration at reduced tuition.

Registration dates (pages 12-20) and procedures (page 22) for ♦ courses are no different than for any nonlimited credit class.

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

♦ **Half-price plan**—Any class marked with a ♦ may be taken for no credit at one-half the regular tuition. (A \$10 transfer fee will be charged for transfer from half-price to credit registration, or from credit registration to half-price.)

♦ **Plus-60 plan**—Individuals age 60 or older may register for the marked classes for only \$3 (not refundable).

♦ **Youth plan**—A young adult, age 12 to 16, may register for \$3 (not refundable) if accompanied by an adult registered for credit or no-credit in the same class. The adult must present a current registration receipt at the time the youth registers, and must assume the responsibility for judging the appropriateness of the class sessions for his young guest. Only unusually mature and genuinely interested young persons who can benefit from college-level lectures and discussions designed for adults should be invited to attend.

informal courses (no credit only)

The new Extension program of Informal Courses (IC) offers short, no-credit general interest courses. Unless specified with individual course descriptions, registration dates and procedures are the same as for credit classes. Individuals age 60 or older, or youth between the ages of 12 and 16, may register for most Informal Courses for \$3. See page 282 for more information.

classes for neighborhood centers

In addition to classes which are scheduled on the Twin Cities campuses of the University of Minnesota, Extension Classes are held in the following community locations:

Brooklyn Center (High School)
Burnsville (Nicollet Junior High School)
Cambridge (High School)
Chaska (Jonathan Community Center and Minnesota Landscape Arboretum)
Golden Valley (Sandburg Junior High School)
Little Canada (Kellogg High School)
Maplewood (Hillside Junior High School)
Minneapolis (Downtown WCCO Radio Building)
Minnetonka-Excelsior (Minnetonka Senior High School)
New Brighton (Irondale High School)
Richfield (Senior High School)
Robbinsdale (Elim Church)
Roseville (Alexander Ramsey High School)
St. Louis Park (Jewish Community Center)
St. Paul (Ramsey Hospital, Sunray Shopping Center Library, and The Talmud Torah of St. Paul)
West St. Paul (St. Stephens Church)

See pages 193 and 174 for course offerings and detailed information.

off-campus and special courses

An existing credit course may be scheduled anywhere off campus (in a school, church, business, or other neighborhood meeting place) for a sufficiently large group. Also, special noncredit classes can be developed upon request. (Courses of both kinds must be self supporting.) Information available in 201 Wesbrook Hall (373-5166).

persons 62 and over

NOTE: As this Bulletin goes to press, a state law allowing persons 62 or over to register in courses free (for no credit) or for \$2 per credit hour (for credit) has gone into effect.

For further information, telephone 373-3195.



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 the first class session.

Students are urged to save and carry their fee statements which are required as identification 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.

A duplicate fee statement may be obtained for fifty cents 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 obtainable without required class attendance**, page 41.) A student who cannot attend a class session should arrange with his instructor—in advance, if possible—to make up the work.

transferring classes

Students who wish to transfer classes, or between class sections, after being officially registered can do so either in person at 101 Wesbrook Hall, or by mail (call 373-3195 for transfer forms). No transfer by mail will be done for reduced tuition courses.

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 unless the transfer will permit the student to attend class(es) the second week.

Transfer During the Third Week or After (Quarter, Semester, Special Term, Special Class)—No transfer will be approved unless the student has attended the second week of the class into which he wishes to transfer, and has obtained written permission from the instructor of the class he wishes to enter.

There will be no transfer fee if: (1) University requests transfer be made; (2) transfer is required by an N grade in prerequisite course (see **grades**, page 39); or (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.

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**, page 34).

The student is requested to present his fee statement at the time of transfer.

Veterans—Any veteran registered under the G.I. Bill must notify the Extension Veterans Office, 138 Westbrook (373-5777) when transferring classes. This is especially important when it changes the credit load.

transfers within the university

A student may take Extension classes without going through formal transfer procedures. However, if the student plans to complete a degree program through the Department of Extension Classes, he should consult the Counseling Department, 314 Nolte Center (373-3905). Please read the section on day school students, page 34; **degree programs**, page 61; and **graduate credit**, page 40.

transfers from other institutions

A student who has had university or college work other than at the University of Minnesota, and who intends to work on a degree or certificate program in Extension, should have a transcript with him when he sees an Extension adviser. (See advising and counseling, page 176.) Transcripts may be obtained from the registrar of the institution previously attended.

grade reports and transcripts

Extension students can secure transcripts showing all credits earned in Extension Classes by calling or writing the Office of Admissions and Records, Window 17, Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-2149). (Extension grades are not automatically recorded on [college] day school transcripts. Students must request this transfer. See recording Extension credits page 40.) Reports of students' grades are sent by the University's Office of Admissions and Records and cannot be furnished by the Extension offices. Students are asked to allow a month's time from the close of a term for Admissions and Records to get grades to them. A student who needs a grade sooner may leave a self-addressed postcard with the instructor, who will mail a grade to the student when it is determined.

records

Students have the right to inspect their University records under provisions of the federal Educational Rights and Privacy Act, as amended in late December, 1974. Educational records, such as contained in the Office of Admissions and Records and other campus and college offices, are available. Some information and files are not available. These include confidential materials received prior to January 1, 1975, and health, counseling and police records.

In addition, under Minnesota law, individuals will be informed upon their request of the content and meaning of information contained in their University student records (except medical, psychiatric, police and records confidential by statute).

Most student records are kept in the Office of Admissions and Records and in other campus and college offices. Students may request to see files in any office they believe has a file or record in their name.

If students who have been informed about the contents of their file wish to contest the accuracy or completeness of information in it, they may do so. A written request for corrective action should be submitted to the office where that information is maintained.

cancellations

cancellations (how to drop a course)

Any student who wishes 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, Minneapolis, Minnesota 55455. By so doing, he will, if he is eligible, receive a refund (see **refunds**, page 51), and will likewise insure entry of the appropriate symbol on his grade report. If a student officially cancels from a class before or during the ninth week of any semester, or the sixth week of any quarter, or mid-point of any special term, he will automatically receive a "W" (withdrawal) on his grade report. This symbol means "official cancellation without grade." If a student cancels after the above-stated period, the instructor may give him a "W" if the student is doing passing work. It is advisable that the student inform his instructor of the reason for canceling.

Do not stop payment on a check. If a stop payment is issued on a check submitted as payment of tuition:

- 1) It is considered to be a cancellation of the classes registered for.
- 2) A hold will be placed on the student's record until:
 - a) a \$2 check handling fee is paid, and
 - b) the tuition normally held in accordance with the refund policy is paid.

No student is permitted to cancel during the last two weeks of any quarter, semester, or special term (this includes final examination week). Cancellations must be made in person or by letter (telephone calls not acceptable).

No instructor is authorized to accept cancellation of any registration.

The effective date of cancellation will be the day on which the cancellation is received in an Extension Classes office, regardless of the date of the student's last attendance. (Cancellations by mail are effective the date of postmark.) It is important, therefore, that whenever a student stops attending a class, he should officially cancel by filling out the appropriate forms at any Extension Classes office.

Veterans—Any veteran registered under the G.I. Bill must notify the Extension Veterans Office, 138 Wesbrook (373-5777) when canceling a class. This is especially important when it changes the credit load.

cancellation of, or change in, scheduled classes (made by department of extension classes)

While the Department sincerely regrets to do so, it is forced 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.

cancellation of class meetings because of severe weather conditions, other emergencies

Extension Classes are rarely canceled for any reason, including weather cancellations. However, in the event that Extension Classes are to be canceled, the University of Minnesota radio station, KUOM (770 AM on the dial), will

broadcast such an announcement at 4 p.m. on the day in question (8 a.m. for Saturday classes). 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. In Cambridge, KABG-FM radio will make announcements concerning cancellations due to weather conditions for Extension Classes being taught in Cambridge.

refunds

Refunds for classes from which students withdraw will be made in accordance with the following schedule:

1. Full refund of all tuition and special fees will be made:
 - A. When a class is canceled by Extension Classes; when the hour or day of the class is changed by Extension Classes after a student has registered in it; or 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 class. In the last two cases, the student must, before the end of the second week of classes:
 1. Ask the instructor for a note with an appropriate statement.
 2. Present this note, together with his fee statement, in person at 138 Westbrook Hall, or by mail. After the second week of classes the regular refund regulations will apply. It is the student's responsibility to obtain and present his note as above.
 - B. To any student who has been recalled, or who has enlisted, upon presentation of military orders, provided the student would not be entitled to an appropriate grade at such time.
 - C. To students who have been ill or hospitalized and wish consideration for a full refund. They should obtain a doctor's statement (on his letterhead) indicating that in the opinion of the doctor the student was unable to continue for medical reasons.
2. A \$3 cancellation fee will be charged for cancellation of classes before the first class meeting in any semester, quarter, or special term. The balance of the tuition and special fees will be refunded.
3. Late fees and/or transfer fees are not refundable.
4. Refunds for cancellation of classes after the opening date of each semester, quarter, or special term (except as indicated in item 2 above) will be made as follows:

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

Cancellations by mail are effective the date of postmark. For refund purposes, the week starts on Monday; Saturday and Sunday postmarks are considered part of the previous week.

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

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

See refunds for athletic facilities fees, page 54; health service fees, page 56; Regents' Scholarships, page 36; reduced tuition courses, page 44.

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

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 new position; 2) to get a general education; or 3) to meet the minimum requirements to qualify for or to establish a trade or business.

Also, students may obtain a one-way educational transportation deduction for travel expenses incurred while driving from work to campus. This deduction is applicable only in the following situations: 1) education needed to meet the express requirements of employer, or requirements of law or regulations for keeping salary, status or employment, if the requirements imposed serve a bona fide business purpose; or 2) education needed to maintain or improve skills required in performing the duties of present employment, or trade or business. For information call the local office of the Internal Revenue Service at 291-1422.

grievance procedures

An established "grievance procedure" exists in the Department of Extension Classes. If a student believes he has a justifiable complaint about a grade or about classroom procedures, he should first confer about the problem with his instructor. Most problems can be worked out in this way. If a solution satisfactory to him is not reached, he should state the complaint in writing to the Director of Extension Classes, 170 Westbrook Hall, who will confer with the appropriate academic department chairman. If these procedures do not bring about a solution satisfactory to the student, the CEE or the academic department's grievance committee (a student-faculty 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.

committee on student relations and academic standing

This is a committee concerned with academic standing in each college and school of the University, including Continuing Education and Extension, made up of the faculty and chaired by an administrative officer. Its purpose is to make, interpret, and enforce regulations, and to make exceptions to those regulations when they may do an educational disservice to the student. For procedure information call the Counseling Department, 373-3905.

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.

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.

campus activities, services and facilities

art rentals

The University Art Gallery maintains a rental collection of framed original prints, watercolors, and drawings. Extension students may rent art pieces for use in the home or current place of residence. Original posters may be purchased for \$1.04 each. Rental office is open the first one or two weeks of each quarter (watch **Info** for exact dates) 9-11 a.m. and 2-4 p.m., Monday through Friday, and 5:30-7:30 p.m. on the first night of each quarter and semester. The Rental Office is M-16 Northrop Auditorium (one flight up in the northwest corner of Northrop). The cost is \$1.25 per item plus sales tax per quarter. After the open rental period, students may rent compositions by appointment only (373-5685).

athletic facilities

A Continuing Education and Extension student may use the athletic facilities of the University during scheduled recreation hours by paying a fee equivalent to that paid by day school students. The current fee is \$4.76 a quarter or \$7.06 a semester, which can be paid at the time of registration.

The athletic facilities include pools, gymnasiums, skating rink, tennis courts, fields, diamonds, track, and golf courses. However, there is a separate user charge for the ice rink, tennis courts and golf courses. Separate locker and towel rental is also available.

Payment of the fee entitles the student to use the facilities during the term for which he or she is registered, except that students registered for Spring Quarter or Spring Semester may use the facilities during the summer until the opening date of Welcome Week (September 23). Since facilities are heavily used, often to capacity, their use may be restricted occasionally.

The fee is paid in the Extension Classes office and will be entered on a receipt separate from the fee statement. Students must present this receipt when they wish to use the facilities. If the student cancels classes, he must surrender his facility fee receipt at the time of cancellation. The athletic facilities fee will not be refunded after the second week of classes. No refund will be made without surrender of the athletic facilities fee statement.

athletic tickets

Any student enrolled for at least three credits in Extension Classes may purchase one student athletic ticket under any or all of the following plans:

Plan No. 1—\$18 FOOTBALL TICKET. Admits to all home, regularly scheduled football games (seven games); All games will have reserved seating. Also admits to all regularly scheduled home baseball, gymnastics, basketball, and wrestling home intercollegiate events—general admission seating.

Plan No. 2—\$26 BASKETBALL TICKET. Admits to all home, regularly scheduled intercollegiate basketball games. Seating is reserved.

Plan No. 3—\$16 HOCKEY TICKET. Admits to all home, regularly scheduled intercollegiate hockey games. Seating is non-reserved in a designated student staff area.

Plan No. 4—\$6 SWIMMING, GYMNASTICS, TENNIS, WRESTLING AND BASKETBALL TICKET. Admits to all home, regularly scheduled intercollegiate games in these five sports. Seating is non-reserved in a general admission area. Plan No. 1 is applicable if Plan No. 1 has been purchased.)

Married students may purchase a spouse athletic ticket for use by spouse only, though any or all of the above plans may be purchased. The spouse's ticket need not be the same plan(s) as the student's.

All tickets purchased are non-transferable. Tickets may be cancelled by either the student or the Athletic Ticket Office. Athletic tickets must be purchased through the Athletic Ticket Office. If a ticket is canceled, the refund is based on the refund procedure noted on the ticket.

When and Where to Purchase Football (Plan No. 1) Ticket in Advance: Williams Arena lobby on University Avenue across from the Stadium, Monday, Sept. 15 through Saturday, Sept. 20.

Hours—9 a.m.-4 p.m. daily, except Saturday, Sept. 20, from 10 a.m. to noon. Athletic ticket sales will continue at Bierman Field Athletic Building after Sept. 20.

Sale of Plans No. 2, 3 and 4: The special plans will be available in the Williams Arena lobby during the week of September 15-20, 1975. Call for details at that time.

Regulations governing purchase, transfer, and cancellation of advance tickets are available on request to the Athletic Ticket Office, Bierman Field Athletic Building (373-3181).

1975 Home Football Schedule

Sept. 20 Western Michigan	Oct. 18 Michigan State
Sept. 27 Oregon	Nov. 1 Michigan
Oct. 4 Ohio University	Nov. 8 Northwestern
	Nov. 22 Wisconsin

Advance Spring Sale: Each spring an advance sale is conducted whereby students may apply for athletic tickets under Plan No. 1. Tickets are picked up at Williams Arena during Welcome Week in September. Proof of enrollment is required to order in the spring. A paid fee statement must be presented, however, to claim ticket in the fall. (You do **not** need your fee statement to pick up tickets for the first football game of the season, as fee statements will **not** be ready at that time.) Students who register by mail will receive their fee statements by return mail in the order in which registrations are processed. If the adjacent seat is purchased for the spouse, proof of marriage is required. Application may be made by mail in the spring sale. For an application, call the Athletic Ticket Office (373-3181).

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.

car pool service

The Department of Extension Classes has initiated a computer-assisted car pool service.

To join a pool, call 373-3195, and request a car pool application for each evening you are planning to take an Extension Class. Mail the application(s) to 101 Wesbrook Hall, no later than the last day of in-person registration during any term (see **How and When to Register** sections, pages 12-20).

By the second week of the term you will receive a computer print-out which lists the names, addresses and telephone numbers of students working or living near you who are interested in car-pooling. You must make your own contacts for specific arrangements.

The more students who participate, the better the service will be. (Extension Classes cannot guarantee a car pool match for students.) For more information, call the University of Minnesota Transit Services Office (373-0374). Be sure to indicate that you want information on the Extension Classes student pool.

health service

Extension Classes students registered for six or more Extension credits (or Extension and day credits) may enroll for University Health Service benefits. The cost of the service (\$25.50 per quarter or \$38.25 per semester) entitles students to use the University Health Service (see East Bank campus map in this Bulletin).

(Health Service hours: 8 a.m.-7 p.m., Monday-Friday; Saturday, 8 a.m.-6 p.m. Closed Sunday and holidays.)

Medical care and health counseling are provided to students who pay the above fee. No charge is made for general care or for consultations with a specialist on physical or mental health problems. Intensive investigation and/or treatment of pre-existing, chronic conditions are not covered by the Health Service; however, such services may be arranged for, but at the student's expense.

Fee-paying students also receive diagnostic laboratory and x-ray services up to \$100.00 per quarter; needed diagnostic procedures costing more than this amount which are not collectable from the student's private insurance are the student's obligation. Physical therapy and x-ray therapy are provided up to a limit of \$250.00 per quarter. Charges are made on a cost basis for prescription drugs, glasses, and dentistry.

The Health Service Fee does not include hospitalization benefits nor coverage for services related to hospitalization including surgery. Students who have this type of coverage will be expected to provide the name of the insurance carrier along with their group and contract numbers at the time of registration. Students who do not have private hospitalization and surgical coverage, including benefits for inpatient medical care, must complete an application form for this coverage at the time of registration; the premium for this coverage, along with the Health Service fee of either \$25.50 or \$38.25, will be paid in Extension Classes and will be entered on a receipt separate from the fee statement. This receipt (available in 101 Wesbrook Hall) must be presented when using the Health Service.

Students who cancel their registration before the first week of classes will receive a 100% refund of the health service fee upon surrender of the health service receipt. Students wishing a refund of the health service fee during the first two weeks of classes must present a statement from the health service stating they have not used any of the facilities, in addition to the health service receipt. The health service fee is not refundable after the second week of classes.

Students interested in enrolling in the Health Service Plan should do so at the time of registration and may not enroll in the plan after the second week of the term.

For additional information on these and other benefits, call 373-3195 and request the booklet, "Your Health Service," or pick it up at 101 Westbrook Hall.

library

The library resources of the University of Minnesota are housed in 35 separate units located on the Minneapolis and St. Paul campuses. The library units which are generally open in the evening and on weekends are the St. Paul Campus Library, Walter Library (East Bank) and Wilson Library (West Bank). If you have questions about library resources, hours, services, etc., call GENERAL LIBRARY INFORMATION (373-2424).

Continuing Education and Extension students are entitled to use University library facilities and to borrow books from the University of Minnesota libraries. Extension students are subject to all library regulations, including those covering loan periods, fines on overdue books, and recalls of books needed by other patrons or for course reserves. **Presentation of a current fee statement is required when borrowing books.**

locker rental service

The rental rate is 60 cents or \$1 a term. Padlocks are provided (without charge) while the locker is in use. Locker rental offices for East Bank campus locations are located in 224 Northrop Memorial Auditorium; 110 Anderson Hall (for West Bank lockers); and 212 McNeal Hall (for St. Paul lockers). Further information available at 224 NMA (373-0374).

lounges and study areas

There are many lounges, libraries, and classrooms open during the evening to Extension students who want to study, relax, or talk with classmates and friends. To receive information on all of the East and West Bank and St. Paul campus lounge and study areas, call 373-3195.

minnesota orchestra

For information on special rates for the Minnesota Orchestra, call the Orchestra Subscription Office, 339-2244.

parking facilities

Ample parking is available for Extension students. (See maps in this **Bulletin**.)

Parking for handicapped students—Handicapped students can purchase quarterly or daily parking permits for parking in several on-campus locations, enabling them to move from class to class by car. For information on costs and parking locations, call 373-4190.

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 around the clock for communication with University Police and the emergency operator. Calls can be made to University Information from 7:30 a.m. to 6:30 p.m. After 6:30, the phone number of a staff member who is on call will be given. Campus phones **cannot** be used for placing off-campus calls. For a map showing phone locations, call 373-1234.

police assistance

University Police provides assistance to Extension students—whether the problem is a locked car or closed University garage. Free ambulance service is provided to all students and staff while they are on campus. Students should make note of the University Police number, **373-3550**.

publications

Info

Info, a newsletter for University Extension students, is published monthly (except 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 376-7590.

Student-Staff Directory

A University student-staff directory is available at any Twin Cities campus bookstore (except the Medical Bookstore) to Extension students with a current fee statement. The directory contains phone numbers and addresses of all University offices, faculty and staff members, and day students.

The Minnesota Daily

The University of Minnesota student newspaper, the **Minnesota Daily**, is available by mail subscription. The **Daily** covers campus and community activities and also includes "Hot Flashes," a weekly entertainment calendar in Thursday's issue. Subscription rates are \$5 a quarter (50 issues), and \$15 a year (180 issues). **Minnesota Daily**, 10 Murphy Hall, University of Minnesota, Minneapolis, MN 55455 (373-3385).

Connect

Connect, a handbook on student organizations and activities (printed by the Student Activities Center and Orientation Office) may be picked up in 101 Wesbrook Hall or the Student Activities Center, 317 17th Ave. S.E.

Individual Learning Opportunities in Extension

A convenient handbook, **Individual Learning Opportunities in Extension**, is available to help students develop their own projects and/or study on their own to receive credit. The handbook focuses on the following ways to obtain credit: extra credit (X) registration, credit by examination, (Y) registration (course content learned without attending classes), directed studies (working independently in areas not covered in regular departmental offerings) and directed instruction (credit for helping to teach a course). Students may pick up this free handbook at 101 Wesbrook Hall or call (373-3195).

Field Experience Catalog

The Field Experience Catalog informs students about the enormous range of resources available to those who wish to earn a portion of their academic credits through community-based learning experiences. Over 200 programs are listed for your convenience. To obtain a free copy, call 373-7550.

Calendar

A Twin Cities campus **Calendar** is available to all Extension students. The quarterly calendar lists University concerts, athletic events, theatre offerings, lectures, art exhibits, music performances, and other cultural activities. University Relations (373-2126).

theatre, artists course, and special lectures

Educational and cultural events are continually offered on the University campuses. Many are open to the student body and to the public without charge. University Theatre Ticket Office (373-2337); Department of Concerts and Lectures (373-2345).

transportation between campuses

Bus transportation between the Minneapolis and St. Paul campuses is available on special buses labeled "Intercampus" and numbered 13. The Minneapolis campus terminal is at Jones Hall (intersections of 15th Avenue and Pillsbury Drive). The St. Paul terminal is at the St. Paul Student Center on Buford at Eckles. Buses leave these terminals at 10-minute intervals until 6:25 p.m. and at 20-minute intervals from 6:25 to 7:25 p.m. Service after 7:25 is as follows:

Leave Jones Hall: 7:45 p.m., 8:25, 9:05, 9:45, 10:25, 11:05.

Leave St. Paul Student Center: 8:05 p.m., 8:45, 9:25, 10:05, 10:45.

There is no charge for riding the bus unless one enters or exits at bus stops other than those on campus (see **Student-Staff Directory** for route map and bus stops).

Buses stop at 29th and Como, at Carter and Eckles, and at Fitch and Gortner for students using parking lots near those locations. Parking is free at the 29th and Como lot, although there is a charge to board the bus. Bus fare discount cards can be obtained at Bursar's office, 115 Morrill Hall, for \$3. One card allows 20 rides.

The West Bank bus runs Monday through Friday from 7:15 a.m. to 6:25 p.m. The West Bank terminal is in front of Blegen Hall. On the East Bank the bus terminal is on the N.W. corner of Pillsbury Drive and 15th Avenue (across from Eddy Hall). Bus schedules and further information (373-0374): 224 NMA.

student representation, 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, in 1975-76 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 5 years and be carrying, at the time of election, 3 credits in Extension Classes (semester, quarter and special term registrations count equally). Students wishing to become candidates may file for candidacy at 180 Webbrook Hall, Minneapolis campus; or call 376-7500 to have filing forms mailed.

Dates for filing are March 6 through April 7

Upon application for candidacy, the candidate must provide proof of his eligibility: transcripts indicating he is in good standing and meets 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 May 3-9. Please read the following carefully:

Eligibility for voting—To be eligible to vote in the election a student must be registered 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 paid fee statement with ballot. Fee statement will be returned by mail immediately. For ballot or information call 376-7500.

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 his 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 Student Board, or in talking with members about a particular concern, should call 376-7500.

degrees^{and} certificates

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degrees

associate in arts (A.A.)

The General College of the University offers a two-year program of liberal and general studies leading to the Associate in Arts degree. The academic requirements for the A.A. degree are: (1) 90 passing credits and (2) passing the General College Degree Comprehensive Examination.

Of the 90 credits required for the degree, 45 must be taken in University of Minnesota courses; 30 of these resident credits must be taken in General College courses, including those offered through the Department of Extension Classes. (A list of General College courses offered through Extension Classes is found in **course offerings.**)

There are no required courses in the program of the college, nor are there requirements for broad groups of courses. Instead, two kinds of comprehensive examinations are used. A student may take the Entrance Comprehensive Exam at any time he decides to work toward an Associate in Arts degree. Results of this testing (which includes, for example, measures of arithmetic and language skills, and of organizational and abstract reasoning abilities) help him identify strengths and weaknesses in his preparation for college work. In the light of the test results, a student may plan his courses with a General College adviser.

The Degree Comprehensive Examination is to be taken when the student nears completion of the required 90 credits. This exam, which is a degree requirement, covers the main curriculum areas of the college—natural sciences, social sciences, humanities and communication skills. It centers on the relationships that exist among these areas and is designed to measure the extent to which a student has overcome his weaknesses and broadened his perspectives in demonstrating a general knowledge in the liberal arts. Arrangements for taking the tests, test interpretation and program planning can be made in the General College office, 106 Nicholson Hall, telephone 373-4104.

bachelor of applied studies (B.A.S.)

bachelor of general studies (B.G.S.)

Students admitted to baccalaureate programs in General College work toward certificate programs and/or toward the bachelor of general studies (B.G.S.) or bachelor of applied studies (B.A.S.) degrees. The basic requirement for admission is an associate in arts (A.A.) degree or its equivalent. Prospective students prepare their own curriculum in consultation with a counselor. They may be asked to defend and justify their proposals before a faculty-student admissions committee.

Both the B.A.S. and B.G.S. degree programs are highly individualized. In addition to taking course work in subject matter areas, students may earn credit for supervised work experience related to their programs, for non-collegiate post-high school education, for independent study, for participation in community projects, and for other unconventional learning experiences.

A minimum of 180 credits, including the 90 credits necessary for an A.A. degree, is required for both the B.A.S. and B.G.S. degrees. After the first 90 credits (A.A.), 45 credits in both baccalaureate degree programs must be taken in General College courses.

The B.G.S. degree requires a minimum of 36 credits in a "concentration" chosen by the student. The "concentration" may best be described as a group of related interdisciplinary courses or credits which provides for in-depth study. Also required are 80 credits from the four main instructional categories defined by the University of Minnesota Council on Liberal Education. The B.A.S. degree requires at least 60 credits in a "concentration" and a minimum of 44 credits in the Council on Liberal Education categories. Both degrees require a minimum of 8 credits of writing.

It is anticipated that most, if not all, of the credits required for both of these baccalaureate degrees in the General College can be completed through Extension. Persons holding A.A. degrees or nearing completion of A.A. degrees may learn more about General College baccalaureate programs by making an appointment with a counselor, 10 Nicholson Hall, 373-4400.

general college occupational options

(For more information on the following programs call the Counseling Department, 373-3905)

Occupational programs in the General College provide for a variety of arrangements toward their completion. In a few of them acceptance by a supervisor or advisory committee is necessary before the occupational specialty courses may be taken. In some, the specialty courses are available only in day classes but much of the general education course work is available in Extension Classes. Some of the programs leading to General College degrees are combinations of course work in another post-high school institution and the General College; in most of these cases the General College component can be taken exclusively through Extension. Further information about any of the following programs may be obtained by making an appointment with a counselor in the General College Student Personnel Office, 10 Nicholson Hall, 373-4400, or in the Extension Counseling Office, 314 Nolte Center, 373-3905.

DENTAL ASSISTING: This two-year program of General College, School of Dentistry courses and supervised experience in the University of Minnesota Dental Clinic is available in part through Extension Classes. Dental Assistant courses and clinic work are available in day classes only. General College course work may be taken either in day or Extension Classes prior to beginning the Dental Assistant sequence. An A.A. degree and the Certificate in Dental Assisting are awarded upon the completion of the full program.

ELECTRONICS TECHNOLOGY: Students planning to enter programs at Northwestern Electronics Institute, Control Data Institute, or Brown Institute, or who have completed one of the programs recently, can be granted up to 45 credits toward the A.A. degree. The remainder of the credits, to a total of 90, 30 of which must be in General College courses, may be taken in Extension.

FLIGHT TRAINING: General College will grant 19 credits upon completion of the Commercial Pilot Program at University of Minnesota Flight Facilities. The remainder of the credits necessary for the A.A., including 5 credits in Basic Ground School AEM 3009, may be taken in Extension.

HEALTH AND RELATED OCCUPATIONS: Students planning to enter or who have completed programs in health-related occupations may receive up to 45 credits in General College toward a two-year associate in arts degree or up to 90 credits towards a bachelor of applied studies degree. Eligible students are those who are licensed, registered, or certified in a health occupation, and who have completed hospital-based education programs accredited by either the Minnesota Board of Nursing or the American Medical Association's Council on Medical Education. Such health workers include registered or licensed practical nurses, certified laboratory assistants, cytology technologists, histologic technicians, medical office assistants, medical record technicians, radiation therapy technologists, radiologic technologists, and others.

HUMAN SERVICES GENERALIST: Most of the General College program, including 15 credits for field work, is available in Extension.

LAW ENFORCEMENT: General College will grant up to 12 credits for completion of an approved police academy training program. Additional credits to complete the requirement for the A.A. may be taken in Extension.

LEGAL ADMINISTRATOR: If a student is admissible to a four-year Baccalaureate Program in the General College, most or all of this program will be available in Extension Classes. (See page 63)

LEGAL ASSISTANT: This program and the A.A. degree can be completed entirely in Extension.

MARKETING: With the addition of supervised work experience to the sequence, the Certificate in Marketing will again become available to Extension students.

MEDICAL LABORATORY ASSISTANT: Students planning to enter this program at the Medical Institute of Minnesota or the St. Paul Technical-Vocational Institute, or who have completed one of these programs recently, can be granted elective credits toward an A.A. degree. The remaining credits to a total of 90, can be taken in Extension Classes; 30 of these credits must be in General College course work.

RADIOLOGIC TECHNOLOGY: Students accepted by the University of Minnesota Hospital School of Radiologic Technology may use General College credits taken in day or Extension Classes to complete requirements for an A.A. degree.

RECREATION FOR SPECIAL GROUPS: Much of the course work for this program can be taken in Extension Classes. Specialty courses in recreation programming and in field work are not available through Extension.

VETERINARY MEDICAL TECHNICIAN: This training is available at the Medical Institute of Minnesota, and elective credits are granted toward an A.A. Extension Classes can provide at least one-half of the credits.

VOCATIONAL TEACHER EDUCATION: All of the College of Education credits in the Department of Industrial Education and the General College credits necessary for completion of an A.A. degree are available in Extension Classes.

VOCATIONAL-TECHNICAL COOPERATIVE PROGRAMS: In order to provide a wide range of opportunities in occupational programs, the General College grants blanket credit toward its degree programs for courses of study completed at all Minnesota public vocational technical schools. The purpose of these arrangements is to combine college courses in general education with specific vocational preparatory programs. Fifty-three major job classifications, some including as many as 20 occupations, are available in the vocational technical schools, and the number of credits which can be accepted varies according to the length of the program. For any completed program, the remaining credits necessary for General College degrees are available in Extension.

associate in liberal arts (A.L.A.)

The Associate in Liberal Arts degree, administered by the College of Liberal Arts, is awarded to students who complete 90-credit programs devoted largely to general education. Students who wish to transfer to professional or other education find the degree useful as evidence of achievement in the liberal arts. It is equivalent to about half of the bachelor's degree program. A student seeking the A.L.A. through Continuing Education and Extension should arrange early consultation with a member of the Committee on Student Relations and Academic Standing (373-3905).

Part of the degree program may also be met with credits transferred from other accredited colleges and universities.

The current A.L.A. degree requirements:

1. 90 credits acceptable to CLA, 45 of them on A-N grading.
2. At least 45 University of Minnesota credits.
3. Satisfaction of CLA English composition requirement.
4. Satisfaction of four of the following: (a) Foreign language study through the college 3rd-quarter level, or exemption based on 3 or more years of high school work (one language only, or exemption by examination); (b) 8 to 10 credits in Group A of the B.A. Group Distribution requirements (see page 68); (c) 12 to 15 credits in Group B; (d) 16 to 20 credits in Group C; (e) 12 to 15 credits in Group D.

A copy of "Procedures for Obtaining the A.L.A. Degree Through Extension" may be obtained from Extension Classes, 101 Westbrook Hall, or the Counseling Department, 314 Nolte Center.

For the **CLA Bulletin**, call 373-2153. For a list of CLA courses that meet Group Distribution requirements offered through Continuing Education and Extension, call 373-3905.

bachelor of arts (B.A.)

The Bachelor of Arts degree may be earned from the College of Liberal Arts in 17 major fields through Continuing Education and Extension. Part of the degree program may also be met with credits transferred from other accredited colleges and universities. A student wishing to earn the B.A. degree through Continuing Education and Extension should talk with a member of the Committee on Student Relations and Academic Standing (373-3905) as soon as he has made his decision.

A candidate for the B.A. degree must complete 180 credits with grades of A, B, C, or S, 75 of them in 3000 and 5000 level courses (45 awarded in CLA courses). He must also satisfy the English composition, foreign language, and Group Distribution requirements. These are defined in statements of graduation requirements, page 67. Finally, a B.A. candidate must complete a major sequence in the field of his choice and complete at least 30 credits in 3000 or 5000 level courses from areas outside his major.

Most students prefer to concentrate on the English composition, foreign language, and Group Distribution requirements in their first two years, leaving the last two years free for work on their major field and electives. Though it is usually desirable to meet these requirements as early as possible, 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 majors that may be completed entirely in Extension Classes are:

American Studies
Anthropology
Architecture

Art History
Art, Studio
Child Psychology

Economics
English
History
Humanities
Classical Civilization
Interdepartmental

Journalism (Advertising Sequence)
Philosophy
Political Science
Psychology
Social Welfare
Sociology

The following majors may be nearly completed in Extension Classes; a few courses must be taken in day classes. In some cases the department concerned may be willing to allow substitutions.

Computer, Information, and Control Sciences (major currently available through I of T)
Family Studies
Mathematics
Speech Communications

While a basic description of the major requirements can be found by checking the course listings given under the department in the Bulletin, a copy of the **1974-76 College of Liberal Arts Bulletin** is essential for the CLA degree candidate. It may be obtained by calling the Bulletin Bureau, 373-2153. Full description of degree requirements is on pages 8-13. In addition, a copy of "Procedures for Obtaining the Bachelor of Arts Degree Through Extension" should be obtained from Extension Classes, 101 Wesbrook Hall, or the Counseling Office, 314 Nolte Center.

changes in graduation plans

CLA graduation requirements have changed several times since 1957; Extension B.A. candidates usually follow the requirements in use at the time of their admission to CLA. Those entering degree programs in Fall 1972 or afterward must meet the requirements stated above, which differ from 1970 requirements principally in specifying A, B, C, or S grade records instead of C averages. Details of other requirements (for both 1970 and 1972 plans) are shown here. A student may usually follow a requirement plan more recent than that under which he became a degree candidate, but the reverse is not permitted. (Students admitted to CLA and registered in classes before Summer Session 1967 follow the 1957 requirements, unless they choose a later plan, as do those with 39 previously earned credits who were thus admitted and registered before Summer Session 1969. The 1967 requirements apply to those admitted and registered between Summer Session 1967 and Summer Session 1970.)

english, language and distribution requirements

English-Composition 1001-1002 or Communication 1001-1002 or equivalent or exemption

Foreign Language-Route I or Route II

Route I: Complete a minimum of 23 credits or be validated at that level by the appropriate language department. Background from high school usually relates to this requirement as follows:

High school study

4 years
3 years
2 years
1 year

Additional study in college

at least 3 cr at higher level in same language
at least 8 cr at higher level in same language
at least 13 cr at higher level in same language
at least 18 cr at higher level in same language

Students with two or more years of Latin in high school may satisfy this requirement by continuing in Latin on the above schedule to the 23 credit minimum or by taking 15 credits in another language; high school study in the other language may also count, in accordance with the schedule in II A below.

Route II. Complete a minimum of 27 credits in the following combination:

A. At least 15 credits in a single foreign 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 is available in CLA offices and in the Counseling Department, 314 Nolte Center. Courses elected for this purpose may not be used to satisfy the group distribution requirements.

group distribution requirements

At least 48 credits in four groups, distributed as follows:

Group A—Communication, Language, Symbolic Systems
8-10 credits (normally 2 courses)

Group B—Physical and Biological Sciences
12-15 credits (normally 3 courses)

Group C—Man and Society
16-20 credits (normally 4 courses)

Group D—Artistic Expression
12-15 credits (normally 3 courses)

Special notes on Group Distribution Requirements.

1. A maximum of 12 credits from any one department may be used for Group Distribution requirements, even though courses from some departments may be used in more than one group. 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 meet Distribution requirements by examination. (The CLEP examinations may be used for partial fulfillment.) Extension students may call the Counseling Department (373-3905) for this information.
4. Honors courses or sections may be substituted for regular courses or sections (unless otherwise specified).
5. Extension students may call 373-3905 for a copy of CLA courses meeting Group Distribution requirements offered through Extension Classes.

A copy of "Procedures for Obtaining the Bachelor of Arts Degree Through Extension" may be obtained from Extension Classes, 101 Westbrook Hall, or the Counseling Office, 314 Nolte Center.

bachelor of science (B.S.)

The Bachelor of Science degree is offered by the Departments of Communication Disorders, Economics, the School of Social Work, and the Urban Studies

program. Its requirements are substantially those of the B.A. program except that the foreign language requirement is not included and the major concentration may be more extensive.

For further information call the Counseling Office, 373-3905.

bachelor of elected studies (B.E.S.)

The experimental Bachelor of Elected Studies degree is open to a limited number of Extension students. This degree offers wide latitude in individual program planning toward a degree. B.E.S. candidates must meet the usual CLA quality standards (see first sentence, paragraph two, under "Bachelor of Arts," page 66) but are exempted from English composition, foreign language, and major requirements. They design their programs to meet their particular needs and desires, and may include up to 30 credits in courses not normally acceptable for a CLA degree.

For information about admission to the program, call the Counseling Office, 373-3905.

college of liberal arts honors program

The College of Liberal Arts (CLA) Honors Program, which provides special educational opportunities to highly motivated and academically skillful students, is open to Extension students. Many of the program's opportunities are available in the late afternoons or evenings, and involve independent research or tutorial projects.

Honors activities—including honors courses and colloquia (small discussion groups for freshmen and sophomores)—are open to all students, whether or not the students are enrolled in CLA or in the program. Other activities (College Honors Seminars for juniors and seniors) are restricted to students enrolled in the program. Extension students who meet the program's requirements are also eligible to graduate with one of the traditional Honors designations, **cum laude**, **magna cum laude**, **summa cum laude**.

All interested Extension students should call the Honors Division Office (373-5116), and arrange to talk with a staff member. A special honors curriculum can be developed for each Extension student, depending on his availability to participate.

Mainly, the Honors Program's purpose is to provide special educational opportunities to students who want and need them; certification for graduation with honors is a secondary function. Thus, admission standards to the program are designed to identify those who are genuinely interested in the offerings, rather than only those whose claim is based on above average grades.

bachelor of science in business (B.S.B.)

The Bachelor of Science in Business degree from the College of Business Administration may be earned through Continuing Education and Extension. A student wishing to complete the B.S.B. degree through Extension should talk with a member of the Extension Committee on Student Relations and Academic Standing (373-3905) as soon as he has made this decision.

A candidate for the degree completes a minimum of 180 credits, part of which may be earned in other accredited colleges or universities. Usually the first 90 credits involve the completion of certain prebusiness requirements through Extension courses or while registered in the College of Liberal Arts of the University of Minnesota. After completion of the prebusiness requirements, it is necessary that formal application be made to the College of Business Administration for admission. Under any circumstances, a minimum of 40 credits must be earned after such application and admission.

Honors—Students with the appropriate grade point average may graduate with “distinction” or “high distinction.” For more information, call the College of Business Administration (373-3701) or the Counseling Office (373-3905).

NOTE—Acct 1050-1051; Econ 1001, 1002; Math 1131 or 1111 or 1201, 1142; Psy 1001; Soc 1001; QA 1050, the core requirement for the B.S.B.; and the 20 credits of C.B.A. elective courses cannot be taken on S-N grading.

Students are referred to the **College of Business Administration Bulletin** for full information on prebusiness requirements and B.S.B. requirements. The bulletin may be obtained by calling 373-2153.

A copy of “Procedures for Obtaining the Bachelor of Science in Business Degree Through Extension” should be obtained from Extension Classes, 101 Westbrook Hall, or the Counseling Department, 314 Nolte Center.

pre-business requirements

I. Communication, Language, Symbolic Systems

A. Freshman English—8 credits

Comp 1001-1002

Comm 1001-1002

Exemption from the requirement

B. Mathematics—10 or more credits

Math 1131 or 1111 or 1201—College Algebra

Math 1142 or 1211 and 1221—Calculus

Students with inadequate preparation may be required to take Math 0009 before taking Math 1131 or 1111 or 1201. High school trigonometry or Math 1008 is a prerequisite for Math 1201. Students who plan to take course work in mathematics beyond the level of elementary calculus should take Math 1211 and 1221 rather than Math 1142.

II. The Physical and Biological Sciences—8 credits (4 with laboratory)

In one or more natural sciences to be selected from the following courses:

Ast 1008, 1009 or 1011, 1021

BioC 1301, 1302†

Biol 1011†, 1101, 1102, 1103†, 1104, 1105, 1106†, 3051, 1107

Bot 1009, 1012, 3071

Chem 1004-1005†

EBB 3001

GC 1111, 1112, 1113, 1131†, 1132, 1137, 1161, 1162, 1163, 1166, 1171, 1172, 1177, 1181

GCB 3002

Geol 1001†, 1002†, 1008, 1011†, 1012, 1013

I of T 3101, 3201, 3301, 3401, 5311

NSci 1004†, 1005, 1006†, 3011†, 3101, 3201, 3301, 3401

Phys 1014, 1024, 1015†, 1025†, 1031†, 1032†, 1041†, 1042†, 1051†, 1052†, 1061†,

1271-1281-1291†, 1275-1285-1295†, 3801†, 5091

III. Man and Society—17 credits (all four courses are required)

Econ 1001, 1002

Psy 1001 or GC 1281

Soc 1001 or GC 1211 or 1212

IV. Artistic Expression—8 credits

Afro-American Studies (all courses)

American Indian Studies (all courses)

†Indicates with laboratory

AmSt 1101 through 3970
Arch 1021, 5051, 5052, 5053, 5054, 5055, 5056
Art History (all courses)
Art Studio (all courses)
Clas 1001 through 1042
GC 1311, 1312, 1313, 1331, 1333, 1338, 1361, 1362, 1365, 1367, 1371, 1372, 1373,
1374, 1381, 1384, 1391, 1471, 1472, 1481, 1483, 1485, 1486, 1536, 1811, 1812,
1815, 1816
English Literature (all courses)
Foreign Literature
Humanities (all courses)

Spch 1101, 1102, 1103, 1104, 1105, 3201, 3202, 3203, 3204, 5201
Theatre (all courses)

V. Business Courses—12 credits

Acct 1050, 1051
QA 1050 (or) GC 1454

VI. Students planning to enter the BSB Accounting Program are required to complete Comp 1027.

VII. Electives to complete at least 80 credits required for admission.

Requirements for Graduation

UPPER DIVISION REQUIREMENTS

For graduation from the College of Business Administration, a student is required to:

1. Complete a minimum of 180 quarter credits of which a minimum of 45 credits must be taken at the University of Minnesota (of which a minimum of 40 credits must be taken after admission to the College of Business Administration). The 45 credits which must be taken at the University of Minnesota are in residence and are normally the last 45 credits in the degree program.
2. Have a minimum grade *average* of C (2.00): (a) overall, (b) on all work taken after admission to the College of Business Administration, and (c) on all Upper Division business administration courses.
3. Complete Upper Division course requirements for the appropriate degree program as listed below. Prebusiness course requirements as listed above must also be completed and cannot be used to satisfy the Upper Division requirements listed below. Upper Division credit is granted for course work in calculus beyond the required introductory course or courses.

REQUIRED UPPER DIVISION COURSES

(For students entering the College of Business Administration Summer Session 1972 or later)

Bachelor of Science in Business—Regular Program

1. 24 credits of fixed core group courses:
Mgmt 3001—Fundamentals of Management
BFin 3000—Finance Fundamentals
Mktg 3000—Principles of Marketing
BA 3002—Business and Society
Econ 3101—Microeconomic Theory
OAM 3055—Introduction to Management Sciences (Mis 3099 is a prereq)

12-13 credits (three courses) from the following:

- BLaw 3058—Introduction to Law, and the Law of Contracts and Agency
- IR 3002—Industrial Relations Systems: Labor Markets and the Management of Human Resources
- Ins 3100—Risk Management and Insurance
- Tran 3054—Fundamentals of Transportation
- Mgmt 3004—Business Policy: Strategy Formulation and Implementation

2. 20 credits of business administration electives. These must be at the Upper Division level (numbered 3000 and above) and must be in at least two different subject areas in the College of Business Administration.
3. 8 credits of course work numbered 3000 and above in one of the following departments: economics, mathematics, psychology, or sociology.
4. 8 credits of course work numbered 3000 and above in any department of the University outside of the College of Business Administration. These need not be all in one area.
5. Additional electives (Upper Division or Lower Division) to complete the 180 quarter-credit requirement for graduation.

Bachelor of Science in Business—Accounting Program

1. 24 credits of fixed core group courses:
 - Mgmt 3001—Fundamentals of Management
 - BFin 3000—Finance Fundamentals
 - Mktg 3000—Principles of Marketing
 - BA 3002—Business and Society
 - Econ 3101—Microeconomic Theory
 - OAM 3055—Introduction to Management Sciences (MIS 3099 is a prerequisite)
- 12-13 credits (three courses) from the following:
 - BLaw 3058—Introduction to Law, and the Law of Contracts and Agency
 - IR 3002—Industrial Relations Systems: Labor Markets and the Management of Human Resources
 - Ins 3100—Risk Management and Insurance
 - Tran 3054—Fundamentals of Transportation
 - Mgmt 3004—Business Policy: Strategy Formulation and Implementation
2. 16 credits of specified accounting courses:
 - Acct 3105-3106, 3107—Intermediate Accounting
 - Acct 3220-3221—Cost Accounting
 - Acct 5125—Auditing Principles and Procedures
3. 12 credits (three courses) of accounting elective courses (Acct 3199 and 3299 may not be used to satisfy this requirement).
4. 5 credits in management information systems courses:
 - MIS 3099—Programming Computers Using Fortran
 - MIS 5100—Computers and Systems Design
5. 8 credits of course work numbered 3000 and above in one of the following departments: economics, mathematics, psychology, or sociology.
6. 8 credits of course work numbered 3000 and above outside of accounting. May be either inside or outside College of Business Administration.
7. Additional electives (Upper Division or Lower Division) to complete the 180 quarter-credit requirement for graduation.

institute of technology (B.S.)

Through registration in Extension Classes students may earn a Bachelor's degree in Computer, Information and Control Sciences and all but approximately 20 credits towards a Bachelor's degree in Electrical Engineering and 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 seeking to complete degrees in the above fields primarily through evening study should contact an adviser in the appropriate department at an early date. For specific degree requirements please consult the **Institute of Technology Bulletin** (for CICS see page 74 of this Bulletin).

SEQUENCES LAST TAKEN			1975-1976			1976-1977			1977-1978			1978-1979
F	W	S	F	W	S	F	W	S	F	W	S	
3010	3011	3012	3050 3400	3051 3401	5050 3402	3100	3101	5100	4th Yr. E.E. Course if offered			→
3050 3400	3051 3401	5050 3402	3100	3101	5100	4th Yr EE Course if offered			Day School and/or UNITE			
3100	3101	5100	5055	5051	5053	Day School and/or UNITE						
5055	5051	5053	Day School and/or UNITE									
.	.	1510	3010	3011	3012	3050 3400	3051 3401	5050 3402	3100	3101	5100	→
.	.	1510			1510	3010	3011	3012	3050 3400	3051 3401	5050 3402	→
.	.	1510			1510			1510	3010	3011	3012	→
.	.	1510			1510			1510			1510	→

*Could take: Math 3211 or 3221 or 3231; Math 3091 or 3092; Phys 1291/1295; M.E. 3301-3303; AEM 3036, ENGL 3085; Etc.

Honors—Students with the appropriate grade point average may graduate with "distinction" or "high distinction." For more information, call the Institute of Technology (373-3227) or the Counseling Office (373-3905).

The following are tentative schedules designed to assist students in Electrical Engineering and Computer, Information and Control Sciences in planning a program of studies leading toward the completion of a certificate or degree program. Every effort will be made to adhere to these schedules, but they are subject to change owing to unforeseen circumstances. Courses in addition to those listed may also be offered.

electrical engineering

(See course offerings section)

computer, information, and control sciences (CICS)

(see Institute of Technology Bulletin for full course descriptions)

To be offered 1976-77:

CICS 1100 Introduction to Fortran Programming I 2 credits
CICS 1101 Introduction to Fortran Programming II 2 credits
CICS 3001 Perspectives on Computers and Society 4 credits
CICS 3101 A Fortran Introduction to Computer Programming 4 credits
CICS 3105 Fundamentals of Algorithms and Languages I 4 credits
CICS 3107 Introduction to Assembly Language Programming 4 credits
CICS 5101 Structure and Programming of Software Systems I 4 credits
CICS 5102 Structure and Programming of Software Systems II 4 credits
CICS 5103 Introduction to Assemblers 4 credits
CICS 5122 Advanced Data Structures 4 credits
CICS 5401 Introduction to Formal Languages 4 credits
CICS 5504 Formal Methods in Computer Construction 4 credits

To be offered 1977-78:

CICS 1100 Introduction to Fortran Programming I 2 credits
CICS 1101 Introduction to Fortran Programming II 2 credits
CICS 3001 Perspectives on Computers and Society 4 credits
CICS 3101 A Fortran Introduction to Computer Programming 4 credits
CICS 3105 Fundamentals of Algorithms and Languages I 4 credits
CICS 3107 Introduction to Assembly Language Programming 4 credits
CICS 5101 Structure and Programming of Software Systems I 4 credits
CICS 5102 Structure and Programming of Software Systems II 4 credits
CICS 5104 System Simulation: Languages and Techniques 4 credits
CICS 5121 Introduction to Data Structures 4 credits
CICS 5201 Computer Engineering 4 credits
CICS 5301 Numerical Analysis 4 credits
CICS 5302 Numerical Analysis 4 credits
CICS 5400 Introduction to Automata Theory 4 credits
CICS 5501 Artificial Intelligence and Heuristic Programming 4 credits

To be offered 1978-79:

CICS 1100 Introduction to Fortran Programming I 2 credits
CICS 1101 Introduction to Fortran Programming II 2 credits
CICS 3001 Perspectives on Computers and Society 4 credits
CICS 3101 A Fortran Introduction to Computer Programming 4 credits
CICS 3105 Fundamentals of Algorithms and Languages I 4 credits
CICS 3106 Fundamentals of Algorithms and Languages II 4 credits
CICS 3107 Introduction to Assembly Language Programming 4 credits
CICS 5101 Structure and Programming of Software Systems I 4 credits

CICS 5102 Structure and Programming of Software Systems II 4 credits
 CICS 5103 Introduction to Assemblers 4 credits
 CICS 5122 Advanced Data Structures 4 credits
 CICS 5502 Introduction to Operating Systems 4 credits
 CICS 5503 Introduction to Compiler Construction 4 credits

mechanical engineering

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 were offered through Extension in the 1974-75 academic year. They do not include all requirements for the Bachelor's degree in Mechanical Engineering.

Year	Course Numbers	Quarter (F W S)	Semester (F S)	Total Hours
1	Math 1211, 1212, 1231 Chem 1004, 1005	5 5 5	5 5	25
2	Phys 1271 (1275), 1281 (1285) Math 3221 CICS 3101 Comp 1001 or Comm 1001	5 4 4	5 5	23
3	Phys 1291, 1295 AEM 3036, 3016 EG 1025 EE 1510 Comp 1002 or Comm 1002	4 4	5 4 4 4	25
4	CE 3400 EE 3010 Liberal Education	5 5 5	4 4	23
5	ME 3201, 3203, 3205 ME 3301, 5342, 3303	4 4 4 4 4 4		24
6	ME 3900 Liberal Education Elective	5 5 4 4	4	22

University College (B.A., B.S.)

The name University College means many things to many people because under this single rubric are several degree-granting units, each of which has its own particular set of goals and procedures. This unusual situation of "colleges within a college" is the result of University College's unique mission within the larger University of Minnesota: to house undergraduate experimental programs of collegiate scope. By their nature, most of University College's specific programs are, therefore, experimental and not permanent features in the college. From year to year new programs can be added and programs which have completed their experimental phase will go under some other auspices. Presently, University College has four degree-granting programs: the Inter-College Program, the Experimental College, the University Without Walls, and University Scholars Program. Extension students interested in working toward a degree through one of these programs should contact the Extension Counseling Department, 314 Nolte Center (373-3905) or the individual programs for additional information.

The Inter-College Program (ICP) is a traditional course (credit) based program but has no fixed curriculum and draws from the entire University for its courses. An applicant for admission arranges a study program which fits his/her individual needs. Each program has a major concentration area or areas which contain a minimum of 60 upper division credits from two or more colleges. An applicant must have 80-90 credits, at least 15 of which have been taken at the University of Minnesota, before (s)he is eligible for admission. Students accepted in the Program may work toward either a B.A. or B.S. degree. Further information is available at 105 Walter Library, University of Minnesota, Minneapolis, Mn. 55455 (373-4638).

The Experimental College (EC) is a learning community of students and staff which admits both freshmen and more advanced undergraduates. Student programs are individually designed and negotiated with staff and other students through quarterly learning contracts; there are no formal courses as such, but the student may include in his/her program formal courses from other colleges of the University. The Experimental College strives primarily to maximize the individual student's freedom, while also expecting a student to participate in the governance of the college and in the attempt to create an interdependent-learning atmosphere in the college. Further information is available at 1507 University Ave. S.E. (Dome City), Minneapolis, Mn. 55455 (373-9782).

The University Without Walls (UWW) allows students to obtain a baccalaureate degree through individually tailored and self-directed study projects, usually outside of regular courses and according to the student's own time schedules. UWW is intended for the student who has clear educational goals but who because of assorted barriers cannot take advantage of other University offerings. It features the use of faculty both from the University and the non-academic community in addition to the main UWW staff, and bases the student's readiness for graduation on the demonstration of knowledge and competency as judged by a "Graduation Committee." Further information is available at 201 Westbrook Hall, University of Minnesota, Minneapolis, Mn. 55455 (373-3919).

University Scholars Program. University College has introduced a new baccalaureate degree program designated the University Scholars Program. It allows a student and faculty member to design a degree program based on individually tailored learning experiences which may include travel, internships, independent reading and research as well as traditional classroom instruction. The program is directed toward students whose needs are not met by the University's current degree offerings. It is open to any University of Minnesota student who has completed two years of college. **Students must be nominated for the program by a faculty member** who agrees to serve as the student's adviser in the program, supervising and assessing the student's work. Additional information and applications may be obtained from the University College Office, 105 Walter Library, telephone 373-4638.

master of arts (M.A.) in english

The Department of English, in cooperation with the Graduate School, offers a Master of Arts through Continuing Education and Extension. This program is designed to provide an opportunity for extending a student's knowledge of British and American literature and the English language.

requirements for the master of arts degree in english (plan B)

COURSEWORK: (44 credits): No fewer than seven courses in British and American literature and the English language; 8 credits in one or more "Related Fields;" one quarter of seminar work. For further details, consult the English Department section of the current **Graduate School Bulletin**.

EXAMINATION: A written examination for the M.A. is given in the fall and spring quarters and during the first term of Summer Session. It will emphasize close analysis and explication. For further details, consult the Director of Graduate Study in the Department of English.

LANGUAGE: A reading knowledge of one of the following languages is required: Greek, Latin, French, German or Italian.

ADMISSIONS PROCEDURES: The standards for admission to the M.A. program are listed in the current **Graduate School Bulletin** under the General Information and English Department sections. The bulletin and necessary application forms for admission to the Graduate School may be obtained from the Graduate School Office in 310 Johnston Hall (373-5817).

Candidates will be admitted fall and winter quarters. In the appropriate space on the application form, the applicant should indicate that he or she is applying for the M.A. program offered through CEE. In addition, the Department of English requires the applicant to submit the following: the applicant's scores on the aptitude portion of the Graduate Record Examination, and three letters of recommendation from persons in a position to comment on the applicant's academic ability and promise for success in graduate study.

Applicants to the Graduate School should make their own arrangements to take the Graduate Record Examination, which will be offered on the University of Minnesota, Minneapolis campus. Application forms are available at the Student Counseling Bureau, 101 Eddy Hall (373-4193) and should be mailed to the Educational Testing Service, Princeton, N.J., at least four weeks in advance of the testing date.

Applicants should request to have their Graduate Record Examination Scores and letters of recommendation sent directly to the Director of Graduate Study in the Department of English, 207 Main Engineering, by Aug. 29, 1975 for fall quarter, 1975, and by Dec. 5, 1975 for winter quarter, 1976. (Students wishing to apply for fall, 1976, candidacy may take the Graduate Record Examination on the University of Minnesota, Minneapolis Campus, in December 1975, January, February, April or June 1976.)

Candidates are admitted for the M.A. program with the clear understanding that satisfactory completion of the M.A. requirements will not necessarily, or even probably, result in admission to the Ph.D. program. A Graduate Advisor in English will be available for advising candidates and prospective candidates for the M.A. in English offered through Extension.

The Graduate School will accept up to 12 applicable credits earned through Extension before admission, once the student is admitted to the Graduate School (see Graduate Credit, page 40).

For further information on the M.A. degree in English, contact the Counseling Office at 314 Nolte Center (373-3905).

master of arts (M.A.) in speech-communication

(late afternoon and evenings)

Recognizing the importance of communication in a great variety of professional settings, increasing numbers of persons working in business, education, industry, government, and service organizations have asked that work in speech-communication be made available to them. As a result, the Department of Speech-Communication in cooperation with the Graduate School and Continuing Education and Extension is offering a series of courses scheduled in late afternoon (4:15-6:00 on a M-W and a T-Th basis). These courses, added to graduate level courses offered in the evening through Extension Classes, should make it possible for graduate students to finish a Master's degree, Plan B, in two academic years. See this year's course offerings section for speech-communication classes. Students may register in these courses either through Extension or through the Graduate School.

(But see note below on 12 credit transfer limit.)

requirements for the master of arts degree in speech-communication (plan B)

COURSEWORK: Students must take a minimum of 20 quarter credits in Speech-Communication and a minimum of 8 quarter credits in one or more related fields outside the major. The balance of the credits to be taken to meet the 44 credit minimum requirement for the degree will be chosen by agreement between the adviser and the student.

EXAMINATION: Students must pass a final written examination. This examination is composed by the individual student's faculty committee, who follow an outline developed by the student and his adviser.

LANGUAGE: There is no language requirement for the M.A. degree in Speech-Communication.

PLAN B PROJECT: Students must submit a "Plan B Project." The Project should demonstrate the student's ability to complete relevant research or to report that research in a useful form. It may represent an application of the student's academic work to his professional field. Each student registers for 4 credits of Independent Study (Spch 5970), which may be included on the student's degree program, in order to **plan** the Project. The Graduate School indicates that it should take approximately 120 clock hours to **complete** the Project. A student should not expect to complete the project during the Independent Study course.

ADMISSIONS PROCEDURES: All students seeking to pursue the M.A. degree in Speech-Communication must be admitted to the Graduate School. The Graduate School Bulletin and application forms may be obtained in 310 Johnston Hall, or by calling 373-5817. Applicants are expected to take the Miller Analogies Test. This one-hour test is administered on most college campuses, and at the University of Minnesota it is available at the Student Counseling Bureau, 101 Eddy Hall. Call 373-4193 for information. Please read the instructions on the Graduate School application carefully. It is best to apply early, and application (official transcripts, MAT, etc.) must be complete in every way at least four weeks before the opening of the quarter in which the applicant wishes to begin graduate study.

TWELVE CREDIT TRANSFER RULE: At present graduate students may transfer to a graduate program no more than twelve credits of coursework registered for through Extension Classes (CEE).

For further information on the M.A. degree in Speech-Communication, contact William S. Howell (373-2569) or George L. Shapiro (373-4144), or contact the CEE Counseling Office at 314 Nolte Center (373-3905). A brochure is available from the Department of Speech-Communication, 317 Folwell Hall.

certificates

Students not certain they can devote the time necessary to earn a college degree are urged to consider seriously a certificate program. These programs are generally regarded by business and industry as valuable professional and technical preparation for employment and promotion in areas requiring extensive knowledge. With careful planning a certificate can be, if the student wishes, a stepping stone to a degree.

Thirty-four intensive certificate programs are conducted by Continuing Education and Extension. 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 subject matter in the areas represented. Certificate credit classes are not, however, usually transferable to a degree program.

Work on a certificate may be done in extension classes, independent study, day school, summer session, or any combination of these. (Certificate programs marked with the symbol ★ are available entirely through the Independent Study Department.) 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 at the University of Minnesota. In those certificates requiring 12 or fewer credits, all work must be done at the University of Minnesota. Courses need not be taken in order, except as prerequisites make it necessary.

Certificate requirements may be modified from time to time. Although there is no time limit on the use of credits, no certificate will be granted that represents a certificate program more than 7 years out of date. No student may apply for more than three certificates.

A student interested in pursuing a certificate program is urged to secure a copy of Procedures for Obtaining a Continuing Education and Extension Certificate and to complete an Application for Admission to Certificate Programs at the earliest possible time so proper counseling can be given. Both forms are available at the Minneapolis Campus Office, 101 Westbrook Hall; or the Extension Counseling Department, 314 Nolte Center. Advice and information about the various programs, including transfer of credits, may be secured from the Extension Counseling Office.

Students interested in taking courses toward certificate programs on the S-N grading system should first consult an Extension Counselor at 314 Nolte Center, 373-3905.

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.

Upon completion of a specified program with at least a C average, the student is awarded a certificate. All certificates are dated and awarded as of each quarter of the academic year. Students receiving senior certificates may participate in the June commencement exercises.

continuing education and extension honors

All Extension Certificates may now be earned with Honors. A student earning 3.00 to 3.49 grade point average, overall, will be awarded a certificate "with distinction." A student earning 3.50 grade point average, or better, overall, 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. The Honors Program is not retroactive.

Colleges here 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 the Counseling Department, 373-3905.

adult psychiatry certificate

(Training Program for Mental Health Workers)

The Adult Psychiatry Certificate was developed cooperatively by the Department of Continuing Education in Social Work and the Metropolitan Medical Center.

training program for mental health workers

(9 Credits)

This is a clinically oriented program designed to upgrade knowledge relevant to practice for persons employed in the field of mental health. Course content will deal with individual behavior, groups, family and current modes of treatment. The program will extend over three quarters.

Faculty will be from the Minneapolis Clinic of Psychiatry and Neurology and the Metropolitan Medical Center. All classes will be held at the Metropolitan Medical Center, 900 South 8th Street, Minneapolis, in the Lower Level Conference Room.

The program will be limited to 75 students. Preference will be given to those currently employed in the field of mental health or upon special permission from the program coordinator, Ms. Mary Jones, 338-7744, extension 424.

The program must be taken in its entirety at the University of Minnesota.

Ad Py 0101C Training Course for Mental Health Workers (3 credits)

Ad Py 0102C Training Course for Mental Health Workers (3 credits)

Ad Py 0103C Training Course for Mental Health Workers (3 credits)

behavior analyst certificate

(36 to 44 credits)

The Behavior Analyst Certificate program was developed in response to the growing need for persons trained at the post-graduate level in behavior modification and analysis. Designed for persons holding a B.A., B.S., 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 or patients with whom the student wishes to work.

While graduates are not qualified as clinical or counseling psychologists, psychometricians or psychotherapists, at the doctoral level they are trained for positions in the following areas: state or county agencies (such as state hospitals or county welfare agencies); mental health clinics; special schools (such as those for the educable or trainable mentally retarded); private psychiatric or psychological treatment facilities as therapists working with psychiatrists or psychologists; special education classrooms; sheltered workshops; schools for the physically handicapped; day activity centers and private residential facilities for the mentally ill or retarded. The positions graduates might hold, which are usually designated "counselor," "social worker," "psychologist," "occupational therapist," "physical therapist" or "psychiatric nurse" would depend on their prior training, the area of concentration in the course of certificate training, and the specific regulations of their agency.

Prerequisites:

A master's degree, bachelor's degree, R.N. or equivalent from an accredited college.

Preferred majors: psychology, sociology, social work, education, nursing.

Specific courses required: introductory psychology, learning (operant and classical conditioning), individual differences, personality development and abnormal behavior.

Grade-point average of 3.0. Factors such as experience, current responsibilities, and date of graduation will also be considered in admitting students to the program.

Students lacking any of these prerequisite courses may be required to include them in their program work. Students claiming competence in the above areas may be required to pass qualifying examinations.

Admission procedure: Applications should be submitted to: **Behavior Analyst Certificate Program, University of Minnesota, Continuing Education and Extension Counseling Department, 314 Nolte Center, Minneapolis 55455. Deadline for receipt of applications is October 1.** 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. Applicants will be notified by November 1 of their acceptance into the program. It may be necessary, therefore, for applicants to begin the course work before being notified of their admittance. Students wishing to register before notification of admission to the program has been received, should register fall, winter and spring quarters for

Psy 3960 Topics in Psychology: Introduction to Behavior Analysis and

Psy 3970 Directed Studies: Practicum in Behavior Analysis (a total of 12 credits in each course.)

A student may select one of five areas of concentration—Developmental Disabilities, Emotionally Disturbed Children, Adult Mental Health Management, Chemical Dependency, or Study Skills—but individualized programs are also possible. (25% of which must be University of Minnesota credits.) A minimum of 36 to 44 credits will be required for the certificate.

For a more complete description of the program, including a list of courses applicable in each area of concentration, call 373-3905, or write **Behavior Analyst Certificate Program, University of Minnesota, Continuing Education and Extension Counseling Department, 314 Nolte Center, Minneapolis 55455.**

commercial art certificate

(60 credits)

The Commercial Art Certificate was developed by the Department of Studio Arts for students wishing to specialize in the area of commercial art. Students may choose either an illustration emphasis or lay-out emphasis.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 16 credits at the University of Minnesota.

Core requirements (28-32 credits):

ArtS 1201	Introduction to Commercial Art
ArtS 3202	Commercial Drawing I
ArtS 3203	Commercial Drawing II
ArtS 3220	Commercial Art Media and Studio Techniques
ArtS 1101	Drawing I
ArtS 1104	Color
Dsgn 3450	Perspective and Presentation Sketches

Concentration Requirement:

A. Illustration Emphasis Requirements (20-28 credits):

- ArtS 3231 Commercial Illustration I
- ArtS 0240C Commercial Illustration II
- ArtS 3110 Drawing (Life)

B. Lay-out Emphasis Requirements (20-24 credits):

- ArtS 3251 Advertising Design I
- ArtS 3252 Advertising Design II
- ArtS 0260C Advertising Design III

General Requirements (4-12 credits):

ArtS 0280C Portfolio and Visual Presentation Techniques

Electives (8 credits):

Studio Arts courses chosen from 1XXX, 3XXX and 5XXX levels, selected Home Economics and Journalism courses. ArtS 1701 is recommended.

For further information, call the Extension Counseling Office, 373-3905.

early childhood studies certificates

The Early Childhood Studies Certificates were developed in response to the increasing demand for specialized training for child care employees in the area of Early Childhood Studies and are offered by General College through Continuing Education and Extension.

It is possible for a student to move from a course of study for a certificate into a planned program leading to the General College Bachelor of Applied Studies Degree or a Bachelor of General Studies Degree. Anyone who contemplates such long-range objectives should consult an Extension advisor before proceeding further so as to avoid any loss of credits or possible future rejection from the degree program.

For more information on the program and a listing of the quarterly offerings, please write to the Department of Continuing Education in Social Work, 321 Nolte Center, University of Minnesota, Minneapolis, 55455; or call (612) 373-5831.

early childhood studies certificate

(45 credits)

This certificate, requiring the satisfactory completion of 45 credits of course work, is the equivalent of one academic year of full-time study. All of the credits received in completing the Early Childhood Studies Certificate—45 credits are automatically credited toward the Early Childhood Studies Certificate—90 credits and represents half of its required work load. Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Group I—General Education (30 Credits)

Group II—Career-Related (12 Credits)

Group III—Supervised Practicum or Field Work (3 Credits)

early childhood studies certificate

(90 credits)

The Early Childhood Studies Certificate—90 credits is a continuation of the Early Childhood Studies Certificate—45 credits, expanding the General Education, Career-Related and Field Work requirements to provide a broader base of general knowledge and an opportunity for specialization. The completion of the cer-

tificate of 90 credit-hours represents the equivalent of two academic years of full-time university-level study. Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota.

Group I—General Education (60 Credits)

Group II—Career-Related (24 Credits)

Group III—Supervised Practicum or Field Work (6 Credits)

fire protection certificate

(44 credits)

The Fire Protection Certificate program was planned by the Fire Service Information Research and Education Center, Continuing Education and Extension, and other members of the public and business sector responsible for fire protection. It is designed to expand the educational opportunities for persons employed by or concerned with municipal, institutional, and industrial fire protection; insurance inspection or rating bureaus; and manufacturers of protective equipment and systems.

The Fire Protection courses will be available only through the Department of Independent Study. The courses are marked with a double asterisk. Three of them are currently being offered. Additional core courses will become available at the rate of one or two each year thereafter. It may be possible to offer group study opportunities in the future, depending on the number of students who may be interested in registering together and meeting regularly at a central location. Students may transfer credits for equivalent courses to this program from other institutions accredited by the University of Minnesota although a minimum of 12 credits must be earned at the University of Minnesota.

English Requirement (4 credits)

Spch 0001C; or Spch 1101; or Comm 1001; or Engl 1001

Core Requirements (26 credits)

Chem 1004 General Principles of Chemistry or Applied Chemistry
FPRO 0001C Introduction to Fire Protection**
FPRO 0002C Hazardous Materials and Processes I**
FPRO 0003C Hazardous Materials and Processes II**
FPRO 0004C Fire Prevention**
FPRO 0005C Fire Protection and Life Safety Systems in Building Design**
FPRO 0006C Institutional and Industrial Fire Protection**
FPRO 0007C Fire Department Administration**

Spread Requirement (14 credits)

Pol 1001 American Government and Politics
Soc 1002 American Community or Soc 1001 Introduction to Sociology or Soc 5951
Minority Group Relations
Psy 1001 General Psychology

foster care education certificate

(15 credits)

The overall objective of this certificate program is to improve services to children in foster homes by increasing the competency and clarity of the role definition of foster parents. No effort is made to develop or transmit an "ideal" social worker or foster parent role, rather they are expected to actively engage in efforts to develop a greater understanding of the stresses experienced by foster children and to clarify their own part in assisting foster children to cope with these stresses.

The program is planned primarily for foster parents and social workers who are or will be providing foster care to children or youth under auspices of a recognized social agency.

The program must be taken in its entirety at the University of Minnesota.

Each of the following courses will be for three quarter credits and should be taken in the order indicated:

- SW 0010C New Directions for Foster Parenthood
- SW 0011C Child and Adolescent Development
- SW 0012C Challenges to the Foster Child
- SW 0013C The Child and the Community
- SW 0020C (3 one-credit Special Topic Institutes)

For further information on this program and a listing of the quarterly offerings, write to the Department of Continuing Education in Social Work, 321 Nolte Center, University of Minnesota, Minneapolis, 55455; or call (612) 373-5831.

general studies certificate*

(45 credits)

The General Studies Certificate program is designed to recognize students' achievement after the completion of the equivalent of one year of college course work. There are no required courses in the program but students are encouraged to take advantage of courses in most of the general education curriculum areas of the General College—natural sciences, social sciences, business studies, humanities, and communications. Of the 45 credits required for the certificate, a minimum of 30 credits must be taken in General College courses. (A list of General College courses offered through Extension is found in the course offerings section.)

Students wishing to continue their education toward the Associate in Arts degree from the General College will find that all credits from this program will be accepted. For AA degree requirements, see University Degree Programs; Associate in Arts (AA) on page 62.

human services certificate

(46 credits)

The Human Services Certificate was developed in response to the increasing demand for specialized certificates for paraprofessional staff in community service. Paraprofessionals engaged in the human services and in community development efforts in agencies such as public and private schools, nursery school, neighborhood health clinics, poverty agencies, housing authorities, social agencies, and community libraries may find the certificate useful for their personal development as well as their certification needs for advancing employment opportunities.

The certificate provides both background knowledge and career-related course work. Students have 22-27 credits of core requirements, generic to all fields of human services and 3-8 credits of elective choices within the basic social sciences. The remaining 16 credits (the concentration requirement) are approved supervised work experience and/or related credits planned by the student and the counselor, depending upon student interest and job requirements. The certificate is flexible and should provide a variety of educational opportunities for the paraprofessional staffs.

Students interested in following a degree program may, with careful planning, transfer credits earned for this certificate toward a degree in General College or the College of Liberal Arts.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Students should consult an Extension counselor before taking courses in the Concentration Requirement. Appointments may be arranged by calling 373-3905.

Core Requirements (22-27 credits):

- GC 1421 Writing Lab: Personal Writing or Comp 1001 Introductory Composition; or Comm 1001 Communication
- GC 1461 Oral Communication: Basic Principles or Spch 1101 Fundamentals of Speech
- GC 1471 Creative Problem Solving
- GC 3621 Counseling and Work Regarding Community Resources
- GC 1283 Psychology of Human Development or Psy 1003 Application of Psychology to Living
- GC 1211 Man in Society: His Personal Role or Soc 1001 Introduction to Sociology
- PubH 3001 Personal and Community Health

Concentration Requirement (GC 1627 Human Services Practicum) in one of the following fields (16 credits):

Education	Welfare	Minority Studies—American
Urban Problems	Family Nutrition	Indian
Community Library	Community Health	Minority Studies—Afro-
Community Organizer	Day Care	American
Family Work	Youth Care	

Electives: Additional courses from the following areas to make a minimum of 46 credits total for the certificate.

- GC 1285 Cultural Anthropology or Anth 1002 Introduction to Anthropology: Cultural Anthropology
 - GC 1295 Economic Perspectives—General View
 - GC 1722 Parent-Child Relationships or FSoS 1025 Parenthood
 - Geog 1301 Human Geography
 - GC 1233 United States: Problems of Government or Pol 1001 American Government and Politics
 - GC 1281 Psychology of Modern Society or Psy 1001 General Psychology
 - CPsy 3301 Child Psychology
 - SSci 3203 Structure and Dynamics of Poverty
 - Rhet 1147 Efficient Reading
- Up to 6 credits in art, music, literature, humanities, in either General College or Liberal Arts courses

interior design certificate

(60 credits)

Note: All of the Interior Design courses for the Certificate are now assigned to the Design Department in the College of Home Economics. The courses involved are essentially the same in content. Moving them from the Studio Art Department facilitated relationships with the 4-year degree program in Interior Design. Some classes offered as part of the Interior Design program may, upon petition, be used in a degree program. See page 159 for old and new numbers.

All courses used in the certificate program will be in the x4xx series to better differentiate from the degree program courses which will be in the x5xx series.

The Interior Design Certificate is awarded upon successful completion of a program of courses in interior design and related fields. The interior design courses have been approved by the American Institute of Interior Designers. Completion of the certificate should indicate a background of proficiency in the field of home furnishings and decorating.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 16 credits at the University of Minnesota.

Core Requirement (47-48 credits)

- Dsgn 1420 Use of Color
- Dsgn 1450 Drafting; Basic Drafting Techniques
- Dsgn 1455 Interior Design I
- Dsgn 1456 Interior Design II
- Dsgn 3450 Perspective and Presentation Sketches
- Dsgn 3451 Interior Design Rendering
- Dsgn 3455 Seminar in Interior Design
- Dsgn 3456 Seminar in Interior Design
- Dsgn 3477 Contract Design Seminar
- ArtH 1001 Introduction to the Visual Arts
- Comp 1001 Introductory Composition or Comm 1001 Communication or Comp 0004C Business Correspondence
- Psy 1003 Application of Psychology to Living

Spread Requirement: Additional courses selected from the following groups to make a minimum of 60 credits total for the certificate.

1. History of Art, French, Humanities, Literature
2. Ceramics, Drawing and Painting, Sculpture, Printmaking, Photography
3. Dsgn 0400C Home Design and Planning
Dsgn 1428 Layout for Interior Design
Dsgn 3412 History of Traditional Furniture
Dsgn 3463 Interior Design: Housing, Dynamics and Policy
Dsgn 3467 Interior Design: Housing and the Urban Environment
Dsgn 3460, 3461 Interior Design Clinic
4. Dsgn 3459 Interior Design Business
Sal 0001C Salesmanship
GC 1513 Principles of Small Business Operations
Comp 0004C Business Correspondence
Spch 0001C Beginning Speech: Communication or Spch 1102 Communication in the Modern World

liberal arts certificate*

(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 1 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. Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

English Requirement (8 credits):

Comp 1001-1002—Introductory Composition or Comm 1001-1002—Communication or equivalent

Spread Requirement (32 credits) 8 credits in each of the following fields:

- Communication, Language, Symbolic Systems: accounting, computer science, composition (other than freshman English requirement) journalism, language, philosophy, mathematics, speech, statistics
- Physical and Biological Sciences: astronomy, biology, botany, chemistry, ecology, geology, physics
- Man and Society: anthropology, economics, family studies, geography, history, political science, psychology, social science, sociology
- Artistic Expression: art, architecture, classics, humanities, literature, music, theatre arts

Electives: Additional liberal arts courses to make a minimum of 45 credits total for the certificate. For a listing of courses under the spread requirement, students may call 373-3905 for a copy of CLA courses meeting the above Group Distribution requirements offered through Extension.

mathematics and science certificate*

(45 credits)

Students transferring credits to this program from other institutions accredited by the University of Minnesota 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 (24 credits):

Comp 1001 Introductory Composition or Comm 1001 Communication
Math 1211 Analysis I
Math 1221 Analysis II
Math 1231 Analysis III
Math 3211 Analysis IV

Electives: Additional courses to make a minimum total of 45 credits, selected from the following areas:

Astronomy
Chemistry
Engineering
Geology
Mechanics and Materials
Physics

police administration certificate*

(46 credits)

The Police Administration Certificate program was planned by departments of Continuing Education and Extension in cooperation with the Public Administration Center and police administrators and other municipal officials. Increasing numbers of police officers are being selected from applicants with college experience. The certificate provides an organized program of study, most of which can be transferred to a degree curriculum.

Some of the courses required in this certificate are available only through the Department of Independent Study of the University of Minnesota. The courses are marked with a double asterisk**

English Requirement (8 credits):

Comp 1001-1002 or Comm 1001-1002 or Comp 1001- and 4 additional credits selected from Comp 1002, Hum 1001, Hum 1002, Hum 1003, Hum 1004, Comp 0006C.

Core Requirement (16 credits):

Soc 3101 Elements of Criminology
PoAd 0015C** Methods in Police Supervision
PoAd 0016C** Methods of Criminal Procedure
PoAd 0017C** Methods of Police Planning, Management and Organization
PoAd 0018C** Methods of Criminal Investigation

Spread Requirement (22 credits):

PoL 1001 American Government and Politics
Psy 1001 General Psychology
Soc 1001 Introduction to Sociology

8 additional credits selected from:

Pol 1025 World Politics
Soc 5141 Delinquent Behavior
Hist 1301, 1302 American History

chemical dependency counseling certificate

(18-27 credits and completion of internship)

The basic courses for this program are offered by the School of Public Health through Continuing Education and Extension. Requirements for the certificate include completion of the basic courses taken consecutively, plus a successful internship program. Additional coursework may also be available on an invitational basis.

The courses are designed to train individuals to assist professional counselors working with alcoholism and other forms of drug abuse. While planned specifically for paraprofessionals interested in chemical dependency counseling careers, the courses are also offered on a limited basis to educators, clergymen, nurses, law enforcement personnel, social workers, psychologists, and other professional persons who feel this additional special training would help them in dealing with or disseminating information about alcoholism and other drug abuses. The sequence is not to be considered in lieu of a professional degree in counseling, nor does successful completion guarantee employment.

A separate rotating internship experience in approved and affiliated institutions under professional supervision will be provided on the basis of the availability of placements for selected applicants who have successfully completed the basic courses. Successful completion of the internship program will lead to the certificate. Prior or concurrent institutional experience may be submitted in part by petition to the Internship Review Committee. Details of the internship program will be provided to students applying for enrollment in the courses.

Persons wishing to apply for admission to the program should write to Mr. Dennis A. Armstrong, Program Coordinator, Chemical Dependency Counseling Program, 5400 Powell Hall, University of Minnesota, Minneapolis, Minnesota 55455. An application blank will be sent to the applicant. Deadline for application for the Fall Quarter is August 1 and November 1 for the Winter Quarter.

Students interested in continuing their education at the University of Minnesota may wish to use their Public Health credits toward the Human Services Certificate offered through Extension (see page 84) or the Human Services Generalist Program offered through General College (see page 64).

Since the Human Services Generalist Program is highly selective, students should be sure to call 373-5701 before applying for admission to the program.

No credits may be transferred to this program from other institutions, except for possible experience substitution on the internship, outlined above.

Requirements (16 credits and completion of internship):

PubH 3030 Fundamental Aspects of Drug Abuse and Dependency
PubH 3031 The Disease Process and Social Implications of Drug Dependency
PubH 3032 Counseling the Alcoholic and Other Drug Dependent Persons
PubH 3036 Basic Helping Skills
PubH 3035 Internship in Alcohol and Drug Abuse
PubH 5036 Group Counseling Techniques Related to Chemical Dependency Treatment
 (optional)

physicians assistant in ophthalmology certificate

The Physicians Assistant in Ophthalmology Certificate was planned by the Department of Ophthalmology and Continuing Education and Extension. The objec-

tive 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 physicians assistants in ophthalmology.

Requirement for the certificate will include completion of four special ophthalmology courses (totaling 30 credits), and one year of full-time day attendance at St. Paul-Ramsey Hospital. In addition, a one-year externship will be required. Applications to the program will be accepted until August 1. Notification of acceptance will be given in late August. Interested students wishing to receive more information about the program should write to: Program Director, Educational Study Association, 1575 University Avenue, St. Paul, Minnesota 55104.

social work certificate

(Personal Social Services Program—24 credits)

Over the past year, a new undergraduate Bachelor's Degree in Social Welfare, approved by the Council on Social Work Education, has been developed and is available to qualified students beginning in September of 1975 through the School of Social Work. As a result, the Certificate Program, as presently constituted and offered under the auspices of the Department of Continuing Education in Social Work, will be phased out at the end of the 1975-76 academic year. Any and all students presently and/or previously enrolled in the Certificate Program and who are working towards the Certificate will have an opportunity to complete the Certificate Program by, but no later than, June of 1976.

Students may enroll in any of these and/or other specialized and topical courses offered through Continuing Education and Extension by the Department of Continuing Education in Social Work, most of which are designed to be immediately relevant to individual work settings, and receive certificate credit. None of these certificate credit offerings are presently applicable toward the social work degree program (undergraduate or graduate), although they may be accepted by other colleges and schools. **Any individuals interested in more detailed information on this program, or information on other programs offered through this Department, may obtain a copy of the annual Departmental brochure by writing to the Department of Continuing Education in Social Work, 321 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455, or by calling (612) 373-5831.**

The program must be taken in its entirety through the University of Minnesota; if there is sufficient demand, classes may be offered in out-state areas.

Prerequisites: Bachelor's degree in another discipline and current employment in a social welfare setting or consent of Director

Core Requirements: (18 credits):

- SW 0204C American Social Policy: Issues and Perspectives
- SW 0206C Psychosocial Theories of Personality Development
- SW 0207C Systems View of Personality Development
- SW 0208C Basic Concepts of Social Work Practice
- SW 0209C Personal and Social Treatment
- SW 0211C Community Organization and Development

Spread Requirements (6 credits):

6 additional certificate credits from the Continuing Education in Social Work course offerings.

accounting certificates

The Junior Accounting Certificate program is 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 businessmen who wish to have a basic grounding and understanding of the elementary principles of accounting and corporation finance.

The courses required for the Senior Accounting Certificate provide very nearly the same background in accounting practice and theory as is available to students who graduate with a 4-year degree with specialization in this field. The full program forms a sound background for the continuation of independent study in preparation for the Certified Public Accountant examinations.

junior accounting certificate

(52 credits)

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 13 credits in accounting courses at the University of Minnesota.

Requirements:

Comp 1001-1002 Introductory Composition or Comm 1001-1002 Communication or equivalent

Econ 1001, 1002 Principles of Economics

Math 1131 Finite Mathematics or Math 1111 College Algebra and Analytic Geometry or equivalent

Acct 1050-1051 or Acct 1024-1025, 1026 Principles of Accounting

Acct 3105-3106, 3107 Intermediate Accounting

Acct 3220-3221 Cost Accounting

BFin 3000 Finance Fundamentals

QA 1050 Elementary Managerial Statistics

senior accounting

(93 credits)

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits in accounting courses at the University of Minnesota.

Requirements:

Comp 1001-1002 Introductory Composition or Comm 1001-1002 Communication or equivalent

Comp 1027 Advanced Writing

Econ 1001, 1002 Principles of Economics

Math 1131 Finite Mathematics or Math 1111 College Algebra and Analytic Geometry or equivalent

Math 1142 Introduction to Calculus of One and Several Variables

QA 1050 Elementary Managerial Statistics

Acct 1050-1051 or Acct 1024-1025, 1026 Principles of Accounting

Acct 3105-3106, 3107 Intermediate Accounting

Acct 3220-3221 Cost Accounting

12 credits of accounting electives

BFin 3000 Finance Fundamentals

BLaw 3058 Business Law

Sixteen credits from the following:

Econ 3101 Microeconomic Theory

BA 3002 Business and Society

IR 3002 Industrial Relations Systems

Ins 3100 Risk Management and Insurance

OAM 3055 Introduction to Management Science

Tran 3054 Fundamentals of Transportation

Mktg 3000 Principles of Marketing

Mgmt 3001 Fundamentals of Management

Mgmt 3004 Business Policy: Strategy Formulation and Implementation

MIS 3099 Elementary Fortran

business administration certificates

These certificate programs have been approved by the College of Business Administration 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 4-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.

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 an Extension adviser before proceeding further so as to avoid any loss of credits or possible future rejection into the degree program.

junior business administration certificate*

(45 credits)

This certificate, requiring the satisfactory completion of 46 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 Junior Certificate are automatically credited toward a Senior Certificate and represent half of its required work load.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Prebusiness Requirement (34 credits)

Comp 1001-1002 Introductory Composition or Comm 1001-1002 Communication or equivalent

Econ 1001, 1002 Principles of Economics
QA 1050 Elementary Managerial Statistics

Acct 1050-1051 or Acct 1024-1025, 1026 Principles of Accounting

Math 1131 Finite Mathematics or Math 1111 College Algebra and Analytic Geometry or equivalent

Core Requirement (12 credits) Three courses selected from the following:

Econ 3101 Microeconomic Theory
BA 3002 Business and Society
OAM 3055 Introduction to Management Science
MIS 5100 Computers and Systems Design
IR 3002 Industrial Relations Systems
Ins 3100 Risk Management and Insurance
Trans 3054 Fundamentals of Transportation

BFin 3000 Finance Fundamentals
Mktg 3000 Principles of Marketing
BLaw 3058 Business Law
Mgmt 3001 Fundamentals of Management
Mgmt 3004 Business Policy: Strategy Formulation and Implementation
Math 1142 Introduction to Calculus of One and Several Variables
MIS 3099 Elementary Fortran

senior business administration certificate

(90 credits)

The Senior Business Administration Certificate is a continuation of the Junior Certificate, expanding the core and spread requirement to provide a broader base of general knowledge and an opportunity for specialization. The completion of the certificate requirement of 91 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.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota.

Prebusiness Requirement (39 credits):

Comp 1001-1002 Introductory Composition, or Comm 1001-1002 Communication or equivalent
Econ 1001, 1002 Principles of Economics
Acct 1050-1051 or Acct 1024-1025, 1026 Principles of Accounting
QA 1050 Elementary Managerial Statistics

Math 1131 Finite Mathematics or Math 1111 College Algebra and Analytic Geometry or equivalent
Math 1142 Introduction to Calculus of One and Several Variables

Core Requirement (24 credits): Six courses selected from the following:

OAM 3055 Introduction to Management Science
MIS 5100 Computers and Systems Design
BA 3002 Business and Society
BFin 3000 Finance Fundamentals
Mktg 3000 Principles of Marketing
BLaw 3058 Business Law
IR 3002 Industrial Relations Systems

Ins 3100 Risk Management and Insurance
Tran 3054 Fundamentals of Transportation
Mgmt 3001 Fundamentals of Management
Mgmt 3004 Business Policy: Strategy Formulation and Implementation
MIS 3099 Elementary Fortran

Electives in the College of Business Administration: At least 16 additional 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, man and society, and artistic expression to make a minimum of 90 credits for the certificate.

Note: Students contemplating continuing toward a degree from the College of Business Administration should select electives which could become part of the degree program. These students are therefore urged to complete the pre-business degree requirements.

credit and financial management certificate

(60 credits)

The Credit and Financial Management Certificate program was developed cooperatively by Continuing Education and Extension and the College of Business Administration of the University of Minnesota and the North Central Credit and Financial Management Association. The program is directed to students seeking careers in trade credit management, commercial bank and finance company loan management, and ultimate 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 adviser to his customers. Analyzing lines of credit requires that he be familiar with all financial and marketing aspects of his customer's business. He must also be able to communicate and work with top management of his company toward the integration of sales and financial goals, and thus is in a unique position to advance to senior management positions.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 16 credits at the University of Minnesota.

Completion of the certificate qualifies the student for the Associate and Fellow Awards of the National Institute of Credit. Persons interested should telephone or write Mr. E. Norman Eck, 330 Plymouth Building, Minneapolis, Minnesota 55402, telephone 336-8356.

Core Requirement (52 credits):

Acct 1050 or Acct 1024-1025 Principles of Accounting	Mgmt 3001 Fundamentals of Management
Acct 3160 Analysis of Financial Statements	Mktg 3000 Principles of Marketing
BLaw 3058-3078, 3088 Business Law	Mktg 0087C Credits and Collections
Econ 1001, 1002 Principles of Economics	Comp 0004C Business Correspondence
BFin 3000 Finance Fundamentals	Spch 0001C Beginning Speech—Communication
BFin 0002C Credit and Financial Management Problems	

Electives (8 credits):

Acct 3105 Intermediate Accounting	Spch 5411 Small Group Communication
Acct 3220 Cost Accounting	Mktg 3080 Industrial and Governmental Procurement
Econ 3751 Money and Banking	Tran 3054 Fundamentals of Transportation
BFin 3100 Financial Management	Comp 0003C Review of Business English
Ins 3100 Risk Management and Insurance	
Mgmt 3002 Psychology in Management	

*Students interested in the Fellow Award of the National Institute of Credit are advised that the course Spch 5411 Small Group Communication is required to qualify for the award.

industrial relations certificate

(45 credits)

This program of study is arranged and coordinated by the Department of Industrial Relations of the College of Business Administration. 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 M.A. and Ph.D. programs. See **Graduate School Bulletin**.

Caution: Courses at the 3xxx level are taught primarily for juniors and seniors. Courses taught at the 5xxx level are taught primarily for juniors, seniors, and graduate-level students.

Students transferring to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Core Requirement (33 credits):

Econ 1001, 1002 Principles of Economics	IR 3010 Human Relations and Applied Organization Theory
IR 3002 Industrial Relations Systems: Labor Markets and the Management of Human Resources	Psy 1001 General Psychology
IR 3007 Collective Bargaining Negotiations and Modern Labor Relations	Psy 3801 Introduction to Statistical Methods
	Soc 1001 Introduction to Sociology

Electives (12 credits):

Econ 3501 Labor Economics	Econ 5534 Economic Security
Econ 5541 Contemporary Labor Issues	Econ 5561 Economics of Collective Bargaining
Econ 3551 Labor Economics	IR 3000 Topics in Industrial Relations
Econ 5537 Labor Market Behavior and Regulation	

IR 0007C Occupational Safety and Health	Psy 5501 Vocational Psychology
IR 8017 Union Government and Policies	OAM 3055 Introduction to Management Science
IR 0001C, 0002C Supervision I, II	Soc 5201 Introduction to Social Psychology
MIS 5101 Introduction to Management Information Systems	Soc 5411 Formal Organization
Psy 3124 Psychology of Individual Differences	IEOR 0100C Industrial Engineering and Management
Psy 5044 Psychology of Motivation and Conflict	IEOR 0210C Motion and Time Study
Psy 3011 Introduction to the Psychology of Learning	IEOR 0408C, 0409C Corporate Standard Data I, II
	Mgmt 3002 Psychology in Management

information systems analysis and design certificate

(53 credits)

The Information Systems Analysis and Design Certificate Program was developed by Continuing Education and Extension and the College of Business Administration working cooperatively with Minnesota firms. The program is directed toward students either seeking careers in computer data processing or those already working in the field who wish to improve their skills. The course sequence is arranged so that it is applicable to individuals entering with a high school or vocational-technical school diploma, or to students who have already completed a Bachelor's Degree.

Starting with introductory computer programming courses, the certificate program works toward the development of sophisticated skills useful in the design of large scale computer-based management information systems. The Information Systems Analysis and Design Certificate Program is structured to provide education and training that will open the way for advancement to a more responsible position in computer data processing.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 15 credits at the University of Minnesota.

Core Requirement (12-13 credits)

MIS 5100 Computers and Systems Design	Acct 1050-1051 or Acct 1024-1025, 1026 Principles of Accounting
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Programming Requirement (6 credits):

MIS 3098 Elementary Cobol	MIS 5098 Intermediate Cobol
MIS 3099 Elementary Fortran	

Concentration Requirement (35 credits):

MIS 5101 Introduction to Management Information Systems	QA 1050 Elementary Managerial Statistics
MIS 5102 Introduction to Systems Analysis	MIS 0140C Mathematical Foundations of Systems Analysis
MIS 5103 Data Structures and File Processing	MIS 0151C Administration and Control of Management Information Systems
MIS 0131C Database Management Systems	Mgmt 3001 Fundamentals of Management
MIS 0132C Data Communication Systems	

management of administrative services certificates

The Management of Administrative Services Certificate program has been developed by Continuing Education and Extension in cooperation with the College of Business Administration 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. In addition to the certificates granted by Continuing Education and Extension on completion of the prescribed programs, the student may be entitled to certificates of the Administrative Management Society. Persons interested in the latter certificates may telephone or write Education Director, Administrative Management Society, 218 South 10th Street, Minneapolis, Minnesota 55403, telephone 339-0544.

associate in management of administrative services certificate

(45 credits)

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Core Requirement (41-43 credits):

Comp 0003C Review of Business English
or Comp 0004C Business Correspondence,
or Comp 1001 Introductory Composition,
or Comm 1001 Communication or equivalent

Econ 1001, 1002 Principles of Economics
Acct 1050-1051 or Acct 1024-1025, 1026
Principles of Accounting

Math 1131 Finite Mathematics or Math
1111 College Algebra and Analytic
Geometry or equivalent
BLaw 3058 Business Law
MIS 5100 Basic Computer Systems
Psy 1001 General Psychology
Psy 3801 Introduction to Statistical
Methods

Electives: Additional courses to be selected from the list of requirements or electives for the senior certificate to make a minimum of 45 credits total for the certificate.

fellow in management of administrative services certificate

(90 credits)

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota.

Core Requirement (44-46 credits):

Comp 0003C Review of Business English
and Comp 0004C Business Correspondence
or Comp 1001-1002 Introductory
Composition or Comm 1001-1002
Communication or equivalent

Econ 1001, 1002 Principles of Economics
Acct 1050-1051 or Acct 1024-1025, 1026
Principles of Accounting

BLaw 3058 Business Law
MIS 5100 Computers and Systems Design
Math 1131 Finite Mathematics or Math
1111 College Algebra and Analytic
Geometry or equivalent
Psy 1001 General Psychology
Psy 3801 Introduction to Statistical
Methods

Group Requirements (36 credits):

Group I—At least four courses from the following (16 credits):

IR 3002 Industrial Relations Systems
Mgmt 3002 Psychology in Management
BFin 3000 Finance Fundamentals

Ins 3100 Risk Management and Insurance
Mktg 3000 Principles of Marketing

Group II—At least five courses from the following (20 credits):

BFin 3100 Financial Management
Tran 3054 Fundamentals of
Transportation

Acct 3255 Managerial Costs or
Acct 3220 Cost Accounting

Acct 3160 Analysis of Financial
Statements
IR 3010 Human Relations and Applied
Organization Theory

Mgmt 3001 Fundamentals of Management
BLaw 3088 Business Law

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
Production
Management
Industrial Relations
Insurance

Marketing
Office Management
Real Estate
Transportation
English
Humanities
Social Science
Speech

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:

- a. Engineers and scientists who formulate ideas and create new products and services.
- b. Engineering technicians who help develop, test, and apply these ideas and creations.
- c. Skilled workers who make the products and perform routine services.

It is the responsibility of our colleges and universities to provide training opportunities for persons capable of becoming professional engineers, scientists and engineering technicians. Vocational and 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 both at the engineer and 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 Series in Engineering and Science, represents a unification and expansion of previous Continuing Education and Extension Certificate programs offered in cooperation with the Institute of Technology of the University of Minnesota. Students already pursuing programs in this area should have no difficulty in identifying the new title of their certificate objective. Any question may be directed to the Continuing Education and Extension Counseling Department, 314 Nolte Center for Continuing Education, University of Minnesota; 373-3905.

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. An application for admission to certificate programs should be completed by the student so that advisers can give effective counseling. This blank is available at any Extension office.

undergraduate development certificate in computer, information, and control sciences—45 credits

The initial Undergraduate Development Certificate in Computer, Information, and Control Sciences (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 non-technical topics. Students subsequently pursuing degree programs will be required to make up these deficiencies. Potential degree students should make early contact with the Department of Computer, Information, and Control Sciences.

The UDC in Computer, Information, and Control Sciences—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 institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Core Requirement (27 credits):

Math 1311-1321-1331	Computer Calculus I-II-III or	Comp 1001-1002	Introductory Composition or equivalent
Math 1211-1221-1231	Analysis I-II-III	CICS 3001	Perspectives on Computers and Society

Concentration Requirement (16 credits):

CICS 1100-1101	Introduction to Fortran Programming I-II or	CICS 3105-3106	Fundamentals of Algorithms and Languages I-II
CICS 3101	A Fortran Introduction to Computer Programming	CICS 5101	Structure and Programming of Software Systems I

Electives:

††Non-Technical electives to make a minimum of 45 credits for the certificate.

undergraduate development certificate in computer, information, and control sciences—90 credits

This certificate continues the development of the undergraduate core curriculum begun in the Undergraduate Development Certificate in Computer, Information, and Control Sciences—45 credits. The CICS 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 CICS adviser.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, including those taken for the UDC in Computers, Information, and Control Sciences—45 credits.

Core Requirement (17 credits):

Math 3211 Analysis IV
Math 3221 Introduction to Linear Algebra
and Linear Differential Equation

Math 3091 Elementary Probability and
Statistics with Applications
CICS 5102 Structure and Programming
of Software Systems II

Concentration Requirement (12 credits in one area):

AREA A

CICS 5103 Introduction to Assemblers
CICS 5503 Introduction to Compiler
Construction
CICS 5504 Formal Methods in Compiler
Construction or
CICS 5505 Optimization in Compilers

AREA B

CICS 5121 Introduction to Data
Structures
CICS 5122 Advanced Data Structures
Plus 4 additional credits relating to data
structure

AREA C

CICS 5400 Introduction to Automata
Theory
CICS 5401 Introduction to Formal
Languages
CICS 5501 Artificial Intelligence and
Heuristic Programming

Related Technical Requirement (8 credits):

Courses chosen in this group should reflect areas in which the student sees 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 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 non-technical electives group requirement (see below) in order to form a coherent, expanded related technical area.

Electives: (8 credits)

Courses from non-technical or biological science electives*, to make a minimum of 90 credits, including those from the 45 credit UDC in Computer, Information and Control Sciences.

undergraduate development certificate in engineering and science—45 credits

The UDC in Engineering and Science—45 credits is designed to provide the student with the fundamentals of mathematics, physics, and broad technical communications skills which will enable him to handle certain engineering support assignments in any engineering field and will give him the necessary background for more specialized or advanced study either as an engineer or as an engineering technician. 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 of the student to the Institute of Technology.

Refer to the introductory statement of the UDC at the beginning of this section.

††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.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 12 credits at the University of Minnesota.

Prerequisite: High school graduate or equivalent; 2 years of algebra and 2 years of geometry, including trigonometry.

Core Requirement (37 credits):

Math 1211	Analysis I	Phys 1271-1275-1281-1285	General
Math 1221	Analysis II		Physics and Lab
Math 1231	Analysis III	Comp 1001-1002	Introductory
EG 1025	Engineering Graphics; or CICS		Composition or equivalent
1100-1101	Introduction to Fortran Programming I-II or CICS 3101 A Fortran Introduction to Computer Programming		

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 the technician who desires to widen and deepen his 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 institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, including those taken for the UDC in Engineering and Science—45 Credits.

Prerequisite: Completion of 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.

Core Requirement (25 credits):

Math 3211 Analysis IV
Math 3221 Introduction to Linear Algebra
and Linear Differential Equations

Phys 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 3231 Vector Analysis
AEM 1015 Statics
AEM 3016 Deformable Body Mechanics
AEM 3036 Dynamics
EE 1510 Elements of Electrical
Engineering

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 physics or Engl 3085 (I of T) or additional courses from the spread requirement to make a minimum of 90 credits total for the certificate.

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 institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, 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 3211 Analysis IV
Math 3221 Introduction to Linear Algebra
and Linear Differential Equations or
Math 1250 Calculus V
Chem 1004-1005 General Principles of
Chemistry
Phys 1291-1295 General Physics and
Laboratory

AEM 1015 Statics
AEM 3016 Deformable Body Mechanics
AEM 3036 Dynamics
CE 3010 Data Analysis and Optimization
in Civil Engineering
CE 3400 Fluid Mechanics
CE 3605 Introduction to Structural
Analysis

††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 1975-1977 I of T bulletin).

Concentration Requirement (20 credits): Select courses from the list below in the fields desired.

- CE 3010 Data Analysis and Optimization in Civil Engineering (if not taken in core requirement)
- CE 3100 Surveying
- CE 3101 Photogrammetry
- CE 3102 Survey Design and Analysis
- CE 3200 Introduction to Transportation Engineering
- CE 3300 Elements of Soil Mechanics
- CE 3400 Fluid Mechanics (if not taken in core requirement)
- CE 3500 Introduction to Environmental Engineering
- CE 3605 Introduction to Structural Analysis (if not taken in core requirement)
- CE 3700 Introduction to Construction Materials
- CE 5405 Hydrology

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 mathematics and physics with an opportunity to choose technical elective courses at the third year level of an electrical engineering curriculum. It is designed to help engineering technicians assume a role of increased responsibility in working with electrical 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 institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, 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 3211 Calculus IV | Phys 1291-1295 General Physics and Laboratory |
| Math 3221 Introduction to Linear Algebra and Linear Differential Equations | Third Year Electrical Engineering courses (3XXX-5XXX) |
| Math 3231 Vector Analysis | |
| EE 1500-1501 Circuit Analysis or EE 1510 Elements of Electrical Engineering | |

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.

undergraduate development certificate in electrical engineering—135 credits

(Includes 90 credits from Undergraduate Development Certificate in Electrical Engineering)

An increasing number of employers are recognizing the value of an individual

††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 1975-1977 I of T bulletin).

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 in some cases arrangements may be made upon completion of this certificate 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 institutions accredited by the University of Minnesota 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 3050	Electronics I	EE 3400-3401-3402	Junior Electrical Engineering Laboratory
EE 3051	Electronics II	EE 5051	Introduction to Logic Design
EE 5050	Nonlinear Electronic Circuits	EE 5053	Design: Digital Circuits
EE 3100	Electromagnetic Fields I	EE 5055	Linear Electronic Circuits
EE 3101	Electromagnetic Fields II	Engl 3085	Technical Writing for Engineers
EE 5100	Electromagnetic Fields III	Math 3061	Operation Methods for Linear Systems
EE 5000	Linear System Analysis		
EE 5001	Linear System Analysis		
EE 3010-3011-3012	Circuits, Signals and Systems		

NOTE: Students working toward a degree should check with an I of T adviser before choosing 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 institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, including those taken for 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 1975-1977 I of T bulletin).

Prerequisite: Completion of the UDC in Engineering and Science—45 credits.

Core Requirement (26 credits):

CICS 3101 A Fortran Introduction to Computer Programming
Math 3221 Introduction to Linear Algebra Equations and Linear Differential Equations
Stat 3091 Probability and Statistics or
ME 3900 Introduction to Engineering Statistics
IEOR 5000 Introduction to Industrial Engineering Analysis
Engl 3085 Technical Writing for Engineers
Phys 1291-1295 General Physics and Laboratory

Concentration Requirements: Select at least four courses from those listed below:

IEOR 0210C Motion and Time Study
IEOR 0330C Manufacturing Cost Analysis
IEOR 0360C Inventory and Production Control
IEOR 0408C, 0409C Corporate Standard Data I and II
IEOR 0410C Introduction to Operations Research
IEOR 0510C Statistical Quality Control
IEOR 0511C Advanced Statistical Quality Control
IEOR 0610C Statistics and Process Improvement
IEOR 0611C Statistical Process Control

undergraduate development certificate in mechanical engineering—90 credits

(Includes 45 credits from Undergraduate Development Certificate in Engineering)

The Undergraduate Development Certificate in Mechanical Engineering—90 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 bachelor's degree program.

Students transferring credits to this program from other institutions accredited by the University of Minnesota must take a minimum of 24 credits at the University of Minnesota, 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 (38 credits):

CICS 3101 A Fortran Introduction to Computer Programming
Math 3221 Introduction to Linear Algebra and Linear Differential Equations or Math
1250 Calculus V
AEM 3016 Deformable Body Mechanics
AEM 3036 Dynamics
Phys 1291-1295 General Physics and Laboratory
ME 3201 Mechanical Engineering Systems Analysis
ME 3203 Analysis of Mechanism Systems
ME 3301 Thermodynamics
ME 3303 Applied Thermodynamics

Electives: Additional electives from the following courses to make a minimum of 90 credits including credits from UDC in Engineering and Science—45 credits.

ME 3205 Engineering Systems Design
ME 5342 Heat Transfer
ME 5344 Thermodynamics of Fluid Flow

Note: EG 1025 Engineering Graphics is required if not already taken in the UDC Engineering and Science—45 credits.

course offerings

Courses in this section are listed alphabetically by department. See page 392 for a list of **departments and department abbreviations**, and page 394 for **buildings** and their abbreviations.

Course numbering is explained on page 390.

See index (page 403) for page numbers of individual departments.

Symbols appear on page 390, and **maps** begin page 395.

Abbreviations and addresses for off-campus classes appear on page 391.

A ♦ in the margin indicates course may be taken for half price. See page 44 for details.





accounting (Acct)

Your attention is called to the Accounting Certificate Program; page 90; and General College business studies.

David Beckley, Senior Accountant, Haskins & Sells
James Bevacqua, Internal Auditor, Burlington Northern
Robert L. Black, Assistant Professor of Accounting
William Cummings, CPA, own practice
Gordon Davis, Professor of Accounting
James Dodge, Assistant Controller, Northland Aluminum Products
Will Dombrowske, Treasurer, Assistant Secretary, Electric Machinery
William Duma, Vice President, First National Bank of St. Paul
James Fisher, Manager of Financial Analysis and Reporting, General Mills
Edmund Gottlieb, Partner, Breitman, Orenstein & Schweitzer, CPAs
Jack Gray, Professor of Accounting
Sabray Heakel, Professor of Accounting
Herbert Ihle, Director, Control & Finance for Grocery Products, Pillsbury
Fred Jacobs, Assistant Professor of Accounting
Barry Jones, Financial Analyst, General Mills, Inc.
Larry Kahler, Auditor, Peat, Marwick, Mitchell & Co.
Thomas Kaliher, CPA, own practice
Robert Katz, Partner, Alexander Grant & Co.
Roger Katzenmaier, Vice President, Wilkerson, Guthman & Johnson, CPAs
Willis Kerns, General Accounting Supervisor, Ford Motor Company
Joseph Kimmel, Director, Financial Planning, Oven Eze Foods, Pillsbury
Charles Ladd, Senior Consultant, Peat, Marwick, Mitchell & Co.
William Lang, Accountant, Control Data Corp.
Steve Lukas, Corporate Accounting Manager, Cardiac Pacemakers, Inc.
Dennis Mertz, Senior Accountant, Budget Analyst, Robert Engelhart & Co.
Al Miller, Senior Pricing Analyst, Honeywell, Inc.
Lynn Odland, Manager, Haskins & Sells
Leon Radde, Manager of Corporate Audit, Investors Diversified Services
Leonard Rapoport, Partner, Alexander Grant & Co.
Floyd Romslo, Assistant Professor, School of Public Health
Robert Ronay, Administrative Assistant in Accounting
Joe Toone, Manager, Federal Income Taxes, Bemis Company
Dick Wallen, Assistant Professor of Accounting
Ron Weber, Teaching Associate in Management Sciences
Wayne Wilson, Operations Analyst, Honeywell, Inc.
John Zehnder, International Financial Accountant 3M Company
Robert K. Zimmer, Professor and coordinator of Accounting

S-N registration not permitted in Accounting unless specifically indicated in course description.

***Acct 0130C-0131C INCOME TAX ACCOUNTING.** 3 certificate credits each semester (4 degree credits on completion of both courses consecutively). \$43.50 each semester.

Principles involved in determining taxable net income and computation of federal and state income taxes for individuals, partnerships, and corporations. (Prereq 1026 or 1051 for 0130C; 0130C for 0131C. Limited to 35 students)

Fall Sem 0130C Sec 1 **M—8:15-9:55**, BlegH 230, Rapoport

Spring Sem 0131C Sec 2 **M—8:15-9:55**, BlegH 230, Rapoport

(See also Acct 5300, Advanced Taxation.)

first year accounting courses

Acct 1050 PRINCIPLES OF ACCOUNTING I. 4 degree credits \$8050, 1024-1025.

Introduction to basic financial accounting concepts and their application to the recording and reporting of business events. (No prereq)

Acct 1051 PRINCIPLES OF ACCOUNTING II. 4 degree credits \$8051, 1026.

Accounting analysis and reports for management and investor decision making. (Prereq 1050 or 1024 and 1025)

Acct 1025 PRINCIPLES OF ACCOUNTING. 3 degree credits.

Second course of old sequence. **Last time offered.** (Prereq 1024)

The first-year accounting courses are designed to meet the needs of three groups of students: (a) those who plan to use accounting information for business management purposes; (b) those who intend to be practicing accountants (and who expect, therefore, to 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 courses are not for professional bookkeepers.

Persons with prior background or training may receive credit in one or more of these courses by passing an advanced standing examination. Students accepting credit will pay \$20 for each examination. These examinations will be given at the following times in 632 Business Administration Building (West Bank):

Acct 1050 Wednesday, Sept. 3, 7 p.m.
Wednesday, Dec. 10, 7 p.m.
Wednesday, Mar. 10, 7 p.m.

Acct 1025 Thursday, Sept. 4, 7 p.m.
Thursday, Dec. 11, 7 p.m.

Acct 1051 Friday, Sept. 5, 7 p.m.
Friday, Dec. 12, 7 p.m.
Thursday, Mar. 11, 7 p.m.

Please call the Accounting Department (373-3599) to register your name at least three days prior to the examination.

The two courses (1050-1051) are scheduled on three plans:

1. Regular semester class schedule for 4 credits each of two semesters for full first-year course.
2. Quarter basis; two 1½ hour classes each week, 4 credits each quarter.
3. Combined course, meeting twice weekly in 2½-hour sessions, Spring Semester only.

For students who wish regular class periods in order to take two classes the same evening or who do not wish to spend the time necessary for the more concentrated scheduling.

For those who wish to concentrate on completion of the course Spring Semester in order to begin advanced courses in the following term.

Symbols, abbreviations, off-campus class locations begin on page 389.

Acct 1025 PRINCIPLES OF ACCOUNTING. 3 degree credits, \$43.50.★

Second course of 1024-1025, 1026 sequence. **Last time offered.** Elaborates on the recording, reporting, and interpreting of business events for investors and creditors. (Prereq 1024)

Fall Qtr Sec 1 **Sa**—9 a.m.-11:30, BlegH 110

Acct 1050-1051 PRINCIPLES OF ACCOUNTING. 4 degree credits each term, \$58 plus \$2 special fee. Total \$60 each term.

Methods of recording, reporting, and interpreting business events. Use of accounting as a tool of business management. (No prereq for 1050; 1024-1025 or 1050 for 1051)

MINNEAPOLIS CAMPUS, WEST BANK

Fall Qtr	1050	Sec 1	MTh —6-7:45, BlegH 230
		Sec 2	MTh —8-9:45, BlegH 110
Fall Sem	1051	Sec 3	MTh —6-7:45, BlegH 110
		Sec 4	Sa —9 a.m.-11:30, BlegH 125
Winter Qtr	1050	Sec 5	Sa —10:15 a.m.-12:45, BlegH 205**
		Sec 6	MTh —6-7:45, BlegH 230
		Sec 7	MTh —8-9:45, BlegH 110
Spring Sem	1051	Sec 8	MTh —6-7:45, BlegH 110
		Sec 9	MTh —8-9:45, BlegH 125
		Sec 10	Sa —9 a.m.-11:30, BlegH 110
Spring Qtr	1051	Sec 11	Sa —9 a.m.-11:30, BlegH 125
		Sec 12	Sa —10:15 a.m.-12:45, BlegH 135**
		Sec 13	MTh —6-7:45, BlegH 110
		Sec 14	MTh —8-9:45, BlegH 110
	1051	Sec 15	MTh —6-7:45, BlegH 145
		Sec 16	MTh —8-9:45, BlegH 145

(For additional help, a supervised accounting lab will be open M and W—7:30-9:30; T—5:30-9:30; and Sa—11:30 a.m.-2:00, BA 630)

****Part of an integrated series in accounting and economics. See page 166.**

SANDBURG JUNIOR HIGH SCHOOL, GOLDEN VALLEY

Fall Sem	1050	Sec 17	Th —7-9:30, room 209
Spring Sem	1050	Sec 18	Th —7-9:30, room 209
	1051	Sec 19	Th —7-9:30, room 204

(For additional help, a supervised accounting lab will be open Th, 5:30-7:00, room 209)

RICHFIELD SENIOR HIGH SCHOOL

Fall Sem	1050	Sec 20	M —7-9:30, room 141
Spring Sem	1050	Sec 21	M —7-9:30, room 141
	1051	Sec 22	M —7-9:30, room 142

(For additional help, supervised accounting lab will be open M, 5:30-7:00, room 141)

KELLOGG HIGH SCHOOL, LITTLE CANADA

Fall Sem	1050	Sec 23	W —7-9:30, room 168-170
Spring Sem	1050	Sec 24	W —7-9:30, room 168-170
	1051	Sec 25	W —7-9:30, room 167-169

(For additional help, a supervised accounting lab will be open W, 5:30-7:00, room 168-170)

Symbols, abbreviations, off-campus class locations begin on page 389.

ST. PAUL RAMSEY HOSPITAL

Fall Sem 1050 Sec 26 **M**—6:20-8:50, Education Bldg 401 (Limit 35 students*)
Spring Sem 1051 Sec 27 **M**—6:20-8:50, Education Bldg 401 (Limit 35 students*)

Acct 1050-1051 PRINCIPLES OF ACCOUNTING (COMBINED). 8 degree credits, \$116 plus \$4 special fee. Total \$120.

This course covers 1050-1051 in one semester. (No prereq. Registrations will be accepted for the entire course only. Not recommended for people without accounting experience)

Spring Sem Sec 28 **MTh**—6-8:30, BlegH 220

***Acct 3105-3106-3107 INTERMEDIATE ACCOUNTING.** 3 degree credits each term, \$3160 for 3107. \$43.50 each term.

Second-year accounting for students intending to specialize in accounting or in business finance. **3105:** Historical review of search for accounting principles, present value analysis and price level indices, nature and measurement of income and funds flow. **3106:** Accounting for acquisition and subsequent measurement of business assets. **3107:** Accounting for equities, including creditors' equity and owners' equity for corporations, proprietorships, nonprofit organizations and consolidated entities. Analysis and interpretation of financial statements. (Prereq 1025 or 1050 and Econ 1001 and 1002 for 3105 [see page 108 for advanced standing examinations]; 3105 and Math 1131 or equiv or # for 3106; 3105 for 3107. Limited to 35 students).

Fall Qtr 3105 Sec 1 **Th**—7-9:30, Sandburg JHS 214, Golden Valley

Sec 2 **W**—7-9:30, Kellogg HS 237, Little Canada

Fall Sem 3105 Sec 3 **W**—6-7:45, BlegH 255

Sec 4 **W**—8-9:45, BlegH 255

3107 Sec 5 **W**—6-7:45, BlegH 330

Winter Qtr 3106 Sec 6 **Th**—7-9:30, Sandburg JHS 214, Golden Valley

Sec 7 **W**—7-9:30, Kellogg HS 237, Little Canada

Spring Sem 3106 Sec 8 **W**—6-7:45, BlegH 110

Sec 9 **W**—8-9:45, BlegH 110

Spring Qtr 3107 Sec 10 **Th**—7-9:30, Sandburg JHS 214, Golden Valley

Sec 11 **W**—7-9:30, Kellogg HS 237, Little Canada

***Acct 3160 ANALYSIS OF FINANCIAL STATEMENTS.** 4 degree credits, \$3107. \$58.

Interpretation and analysis of financial statements for credit, investment, and managerial purposes. (Prereq 1026 or 1051 or #. For nonaccounting majors. Limited to 35 students)

Spring Sem Sec 1 **M**—6-8:30, BlegH 210

***Acct 3220-3221 COST ACCOUNTING.** 3 degree credits each semester, \$3255. \$43.50 each semester.

3220: Practices, principles and procedures of handling production costs for use in inventory valuations and income determination. Job order, process, and standard cost systems. A brief introduction to standard cost as a tool of cost control. **3221:** Use of cost information in managerial decision-making. (Prereq 1026 or 1051, Econ 1001 and 1002 and Math 1131 or equiv or # for 3220 [see page 108 for advanced standing examinations]; 3220 for 3221. Limited to 35 students)

Fall Sem 3220 Sec 1 **M**—6-7:45, BlegH 225

Sec 2 **M**—8-9:45, BlegH 225

Spring Sem 3221 Sec 3 **M**—6-7:45, BlegH 225

Sec 4 **M**—8-9:45, BlegH 225

***Acct 5125 AUDITING PRINCIPLES AND PROCEDURES.** 4 degree credits, \$62.

Verification of financial data, including consideration of auditing procedures and their application. Preparation of working papers and audit reports is emphasized. (Prereq 3102 or 3107. Limited to 35 students. May not be taken for graduate credit)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Sem Sec 1 T—6-8:45, BlegH 230
 Sec 2 T—6-8:45, BlegH 240
 Sec 3 Sa—9 a.m.-11:45, BlegH 230

***Acct 5180 ADVANCED ACCOUNTING.** 4 degree credits, \$62.

Consolidated statements, fiduciary and fund accounting, partnership accounting, foreign exchange. (Prereq 3102 or 3107 or 13107. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 W—6:20-8:50, BlegH 210
 Sec 2 W—6:20-8:50, BlegH 330

***Acct 5270 REPORTING FOR MANAGEMENT CONTROL.** 4 degree credits, \$62.

Responsibility accounting; transfer pricing problems; capital budgeting; management control systems. Cases covering both profit and not for profit organizations. (Prereq 3220. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 W—6:20-8:50, BlegH 335

***Acct 5300 CURRENT TOPICS IN ADVANCED TAXATION.** 4 degree credits, \$62.

(Prereq 5135 or 0131C or §. May be repeated for credit. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 Th—6-8:45, BlegH 205

(See also Acct 0130C, Income Tax Accounting)

***Acct 5300 CURRENT TOPICS IN MANAGERIAL ACCOUNTING.** 4 degree credits, \$62.

Modern internal auditing; development of audit programs, performance of computer audits and internal auditor's role in the overall management process. (Prereq 3220-3221 or 3201 and §. May be repeated for credit. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 M—6:20-8:50, BlegH 205

adult psychiatry (AdPy)

(Your attention is called to the Adult Psychiatry Certificate, page 80 and GC 3612, Mental Health.)

TRAINING PROGRAM FOR MENTAL HEALTH WORKERS

The first course, AdPy 0101C, will be offered Fall Quarter for 3 certificate credits. Tuition is \$43.50. The course is designed to provide students with an understanding of human growth and behavior in a continuum that ranges from normal to abnormal. Formal presentation will be followed by small group discussions. (Prereq §. Limited to 75 students)

The second course, AdPy 0102C, will be offered Winter Quarter for 3 certificate credits. Tuition is \$43.50. The course is designed to provide students with an understanding of a variety of theories of psychotherapy, such as behavior modification, transaction analysis, ego psychology, etc., and to the ways in which these may be applied to clinical practice. Formal presentations will be followed by small group discussions. (Prereq 0101C. Limited to 75 students)

The third course, AdPy 0103C, will be offered Spring Quarter for 3 certificate credits. Tuition is \$43.50. The course is designed to survey various psychological frameworks that can be utilized in working with groups and families. Formal presentations will be followed by small group discussions. (Prereq 0102C. Limited to 75 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

The classes will be held Wednesday afternoons from 3-6:00 p.m. at Metropolitan Medical Center.

Registration forms are available only through the Department of Continuing Education in Social Work, 321 Nolte Center for Continuing Education, University of Minnesota, Minneapolis, Minnesota 55455. To obtain registration forms, or any further registration information, write to the above address or call Jan Johnson at 373-5831.

aerospace engineering and mechanics (AEM)

(See also Professional Recognition Program in Engineering and Science, page 222 and application of Commercial Pilot Program to AA degree, page 64)

Stewart E. Almleaf, Ground School Director, Commercial Pilot—Single and Multi engine Land, Single Engine Sea, Instrument Rating, Flight Instructor—Airplanes and Instrument, and Advanced Ground Instructor

Gordon S. Beavers, Professor of Aerospace Engineering and Mechanics

Michael G. Bohn, Chief Flight Instructor

William L. Garrard, Associate Professor of Aerospace Engineering and Mechanics

John P. Moran, Associate Professor of Aerospace Engineering and Mechanics

ground school courses for air pilots— general information

The University's ground school course is designed to prepare prospective pilots for the Federal Aviation Agency's written and oral examinations for certification as private pilots.

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 BASIC GROUND SCHOOL FOR PRIVATE PILOTS. 5 degree credits. \$72.50 No-credit registration (\$50) may be made at Anoka County Airport for courses held there.

The course covers air navigation, radio aids, meteorology, flight theory, analysis of flight maneuvers, aircraft and engine operation. Federal Aviation regulations, aircraft flight instruments, and other subjects pertaining to safe, efficient, and economical operation of aircraft.

Open to all pilots and prospective pilots, regardless of their educational or flight-experience background. Designed primarily to prepare for the Federal Aviation Agency's written and oral examinations for certification as a Private Pilot.

The Aerospace Engineering and Mechanics Department awards 5 degree credits to students who have satisfactorily completed the course, and who have also received 3 hours of certified dual flight instruction from any certified flight instructor at any airport and at any time. Evidence to substantiate this flight instruction should be submitted to the ground school instructor in the form of a pilot's log book or flight school invoices.

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	TTh —7-9:40, Aero 209, Almleaf
	Sec 2	TTh —6:30-9:00, University Flight Facilities, Anoka County Airport, 2289 County Rd J; Bohn
Winter Qtr	Sec 3	TTh —7-9:40, Aero 209, Almleaf
	Sec 4	TTh —6:30-9:00, University Flight Facilities, Anoka County Airport, 2289 County Rd J; Bohn
Spring Qtr	Sec 5	TTh —7-9:40, Aero 209, Almleaf
	Sec 6	TTh —6:30-9:00, University Flight Facilities, Anoka County Airport, 2289 County Rd J; Bohn

AEM 1015 STATICS. 4 degree credits, \$58.

Vector Algebra. Principles of statics. Application of the equations of equilibrium to the analysis of simple structures and machines. Statically determinate beams. Cables. Nature and influence of friction. (Prereq Math 1231; AEM 1015 may be substituted for AEM 3092)

Fall Qtr Sec 1 **M**—6-9:20, Aero 225, Beavers

AEM 3016 DEFORMABLE BODY MECHANICS. 4 degree credits, \$58. ★

Principles of statics; equilibrium conditions. Uniaxial loading and deformation. Stress and strain at a point. Material behavior; linear elasticity. Torsion. Bending of beams of symmetrical section. (Prereq mathematics through differential equations and linear algebra; AEM 3016 may be substituted for AEM 3093)

Spring Sem Sec 1 **T**—6:20-8:40, Aero 225, Moran

AEM 3036 DYNAMICS. 4 degree credits, \$58.

Review of particle dynamics. Mechanical systems and the rigid-body model. Equilibrium. Kinematics and dynamics of plane systems. Technical applications. (Prereq mathematics through differential equations and linear algebra)

Fall Qtr Sec 1 **M**—6-9:20, MechE 108, Garrard

afro-american studies (Afro)

(See also Engl 5593, Black Writers of the U.S.; Geog 3141, Africa; Hist 1431, History of Africa; and other ethnic studies courses, page 168)

Reginald Buckner, Assistant Professor of Afro-American Studies and Music Education

Onwuchekwa Jemie, Associate Professor of Afro-American Studies and English

Jason Orwenyo, Assistant Professor of Afro-American Studies

Anna Stanley, Teaching Associate in Afro-American Studies

John Taborn, Associate Professor of Afro-American Studies

Anita Tucker, Assistant Professor of Afro-American Studies

Afro 1025 BLACK AMERICANS: SOCIALIZATION, PERSONALITY, AND BEHAVIOR.

 4 degree credits, \$58. (◆\$29)

Development of the Black psyche and of the Black person and his culture. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 105, Taborn

Afro 3081-3082† BLACK PHILOSOPHY.

 5 degree credits each quarter, \$72.50 each quarter. (◆\$36.25)

The history, culture, and social thought of Blacks in the United States as basis for development of a system of logical reasoning. The clarity and continuity that link past, present, and future. The variables and the constant. (No prereq for 3081; 3081 for 3082)

Fall Qtr **3081** Sec 1 **Th**—6:30-9:00, BlegH 255, Stanley

Winter Qtr **3082** Sec 2 **Th**—6:30-9:00, BlegH 255, Stanley

new

Symbols, abbreviations, off-campus class locations begin on page 389.

Afro 3102 AFRO-AMERICAN LITERATURE. 4 degree credits, \$58. (◆\$29)

A survey of Afro-American prose, poetry, and drama since 1939. Richard Wright to Amiri Baraka and the Black Arts Movement. (No prereq)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 240, Jemie

Afro 3108 BLACK MUSIC: A HISTORY OF JAZZ. 4 degree credits, \$58. (◆\$29)

Origins, growth, and development of jazz; the economic and sociological factors that influenced its musical development. (Prereq 1301, 3105 or 3301 or #)

Spring Qtr Sec 1 T—6:20-8:50, BlegH 220, Buckner

(See also Mus 5711, American Popular Music; and Mus 5950, Music in Minnesota)

Afro 3401 HISTORY OF PAN-AFRICANISM FROM 1900 TO THE PRESENT. 4 degree credits, \$58. (◆\$29)

Describes and analyzes the thoughts of major figures, including DuBois, Garvey, Cesaire, C.L.R. James, Nkrumah, Fanon, Malcolm X, and Stokely Carmichael in relation to the events of their time. (No prereq)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 435, Orwenyo

agriculture, college of

See course listings for:

FOOD SCIENCE AND NUTRITION

HORTICULTURE

SOIL SCIENCE

PLANT PATHOLOGY

COLLEGE OF AGRICULTURE PROFESSIONAL EXPERIENCE PROGRAM

Juniors and seniors enrolled in College of Agriculture programs may participate in the Professional Experience Program (PEP). Preliminary planning to enter the program must be completed the quarter prior to entering the program.

PEP is designed so students may experience real life work for 12 weeks during the fall, winter and spring quarters, and during the summer. A maximum of six credits will be given to those who satisfactorily complete the program. Generally students will be salaried by cooperating firms and agencies. Registration for the program is through the Department of Extension Classes with a fee of \$140 a registrant.

Additional information about PEP is available from the College of Agriculture office, 227 Coffey Hall on the St. Paul campus (373-0923), or from departmental offices and undergraduate advisers of the college.

agricultural education

(See Vocational and Technical Education)

air pollution

(See Public Health)

Symbols, abbreviations, off-campus class locations begin on page 389.

american indian studies (Amin)

(See also GC 1221, Minnesota History; and other ethnic study courses, page 168)

Roger Buffalohead, Assistant Professor of American Indian Studies
Rich Lundy, Lecturer in American Indian Studies

Amin 1101, 1102 AMERICAN INDIAN HISTORY: A SURVEY. 4 degree credits each quarter, \$58 each quarter. ★1101 (◆\$29)

Indian history with emphasis upon pluralistic beginnings, Indian-white contacts, the impact of federal Indian policy, and persistence and change in American Indian cultures. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Ojibwe and Dakota [see page 68])

Fall Qtr 1101 Sec 1 T—6:20-8:50, BlegH 250

Winter Qtr 1102 Sec 2 T—6:20-8:50, RarigC 610

Amin 3036 DAKOTA HISTORY AND CULTURE. 4 degree credits, \$58. (◆\$29)

The study of Dakota history, language and culture based primarily on the oral and written traditions of the Dakota people. These traditions provide an extensive account of tribal origins, migrations, and relationships with other culture groups. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Ojibwe and Dakota [see page 68])

Fall Qtr Sec 1 W—6:20-8:50, BlegH 260, Lundy

Amin 3061 AMERICAN INDIANS IN THE MODERN WORLD. 4 degree credits, \$58. (◆\$29).

Brief review of the history of Indian-White contacts. Impact of federal policy on American Indians. Adaptation of American Indian cultures to contemporary social conditions. (Prereq Anth 1002 or Amin 1101, 1102 or 3. May be applied to the CLA foreign language requirement, Route II for Ojibwe and Dakota [see page 68])

Spring Qtr Sec 1 W—6:20-8:50, BlegH 260

Amin 5131 INDUSTRIALIZATION, EMPLOYMENT, AND THE AMERICAN INDIAN. 4 degree credits, \$62.

Sources of unemployment on Indian reservations; efforts to promote industrialization and economic development; employment and economic problems of urban Indians. (Prereq 3061 or 3. May be applied toward the CLA foreign language requirement, Route II for Ojibwe and Dakota [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, BlegH 260

(See also GC 1081-1082, Personnel Selection Techniques)

american studies (AmSt)

(Courses meet same distribution requirements as College of Liberal Arts, Humanities)

(See also Humanities, History, General College, and Informal Courses)

William H. Agee, Lecturer in American Studies

William Wallach, Lecturer in American Studies

Marcia Pankake, Lecturer in American Studies

Jon Pankake, Lecturer in American Studies

Darrell R. Shreve, Teaching Associate in Afro-American Studies

Symbols, abbreviations, off-campus class locations begin on page 389.

Did you know that a major in American Studies can be completed in the evening?

Those courses required in the major are offered every two years. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses

12 credits from 1101, 1102, 1103, 3111, 3112, 3113

Major Requirements

The major is offered under interdepartmental major provisions

44 credits in adviser-approved courses, 8 to 12 in each of four fields: American history, American literature, American art and philosophy, social sciences in the United States (courses in participating departments accepted for the degree are listed in the bulletin Program in American Studies and in the annually revised list of approved courses)
3301-3302

12 credits in courses dealing with foreign civilizations chosen in consultation with adviser.

You need not be majoring in American Studies to register for these classes.

AmSt 1101 AMERICAN LIFE. 4 degree credits, \$3111. \$58. (◆\$29)★

Individualism and the American Dream. Readings of varying length from a variety of authors, including Franklin, Tocqueville, Emerson, Thoreau, Whitman, Lewis, Farrell, and Fitzgerald. Industrial and union folk songs. Social obligations and the problem of conformity. (No prereq. Meets concurrently with 3111)

Fall Qtr Sec 1 **Th**—7-9:30, Kellogg HS 237, Little Canada, Wallach

Sec 2 **Th**—6:20-8:50, LindH 305, Agee

Spring Qtr Sec 3 **M**—6:20-8:50, LindH 305

Sec 4 **T**—7-9:30, Nicollet JHS, Burnsville

AmSt 1102 AMERICAN LIFE. 4 degree credits, \$3112. \$58. (◆\$29)★

Religion in an increasingly secular American society, from Puritanism to the present. Readings of varying length from Edwards, Hawthorne, Paine, Jefferson, Melville, William James, Eliot, Niebuhr, Tillich, and others. Studies of American religious utopias; the conflict between science and religion; the social gospel; the "Honest to God" controversies; the "new morality". (No prereq. Meets concurrently with 3112)

Fall Qtr Sec 1 **M**—6:20-8:50, LindH 305

Winter Qtr Sec 2 **M**—6:30-9:00, St Stephens Church, WStP

Sec 3 **Th**—7-9:30, Kellogg HS 237, Little Canada, Wallach

Sec 4 **Th**—6:20-8:50, LindH 305, Agee

AmSt 1103 AMERICAN LIFE. 4 degree credits, \$3113. \$58. (◆\$29)

Two topics are investigated: (a) American attitudes toward the environment (nature, the city, and the machine). Readings from Jefferson, Crèvecoeur, Mark Twain, and Poole. The natural and urban-technological landscapes in painting. The rise of the skyscraper. The architecture of Frank Lloyd Wright. (b) The image of himself and his society held by the modern Afro-American. Readings from Washington, Ellison, King, Carmichael, and Cleaver. The development of jazz. Folk songs and the humor of protest. (No prereq. Meets concurrently with 3113)

Spring Qtr Sec 1 **Th**—6:20-8:50, Ph 145, Agee

AmSt 1103 AMERICAN LIFE. 4 degree credits, \$3113. \$58. (◆\$29.)

The rise of American nationalism and its relation to American life and thought, and American religious and philosophic attitudes. (No prereq. Meets concurrently with 3113)

Winter Qtr Sec 2 **M**—6:20-8:50, LindH 203

Spring Qtr Sec 3 **Th**—7-9:30, Kellogg HS 237, Little Canaca, Wallach

Symbols, abbreviations, off-campus class locations begin on page 389.

AmSt 3111 INTRODUCTION TO AMERICAN CIVILIZATION. 4 degree credits, \$1101. \$58.

See course description for AmSt 1101. (Additional work required for 3111) (No prereq. Meets concurrently with 1101)

Fall Qtr	Sec 1	Th —7-9:30, Kellogg HS 237, Little Canada, Wallach
	Sec 2	Th —6:20-8:50, LindH 305, Agee
Spring Qtr	Sec 3	M —6:20-8:50, LindH 305
	Sec 4	T —7-9:30, Nicollet JHS, Burnsville

AmSt 3112 INTRODUCTION TO AMERICAN CIVILIZATION. 4 degree credits, \$1102. \$58.

See description for AmSt 1102. (Additional work required for 3112.) (No prereq. Meets concurrently with 1102)

Fall Qtr	Sec 1	M —6:20-8:50, LindH 305
Winter Qtr	Sec 2	M —6:30-9:00, St Stephens Church, WSTP
	Sec 3	Th —7-9:30, Kellogg HS 237, Little Canada, Wallach
	Sec 4	Th —6:20-8:50, LindH 305, Agee

AmSt 3113 INTRODUCTION TO AMERICAN CIVILIZATION. 4 degree credits, \$1103. \$58.

See course description for AmSt 1103. (Additional work required for 3113). (No prereq. Meets concurrently with 1103)

Spring Qtr	Sec 1	Th —6:20-8:50, Ph 145, Agee
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AmSt 3113 INTRODUCTION TO AMERICAN CIVILIZATION. 4 degree credits, \$1103. \$58.

The rise of American nationalism and its relation to individualism in American life and thought, religious and philosophic attitudes. (No prereq. Meets concurrently with 1103)

Winter Qtr	Sec 2	M —6:20-8:50, LindH 203
Spring Qtr	Sec 3	Th —7-9:30, Kellogg HS 237, Little Canada, Wallach

american studies topics courses

Topics courses in American Studies may be taken at the 1920 or 3920 level. Students registering for 3920 should expect to do additional work. Topics courses may be repeated, but no more than 12 credits may be applied toward graduation.

(See other bicentennial courses, page 172)

***AmSt 1920 or 3920 TOPICS: AMERICAN VALUES IN TRANSITION.** 4 degree credits, \$58.

Part of an integrated series "Values in Transition: an Examination of Forces Acting on the Individual in Modern America." (See page 166). Success in modern America. Reform and the welfare state. The struggle to meet human needs in a complex society. (Prereq concurrent registration in Hist 1310. Limited to 50 students)

Fall Sem	Sec 1	T —6:20-8:00, LindH 305, Agee
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***AmSt 1920 or 3920 TOPICS: AMERICAN VALUES IN TRANSITION.** 4 degree credits, \$58.

Part of an integrated series "Values in Transition: an Examination of Forces Acting on the Individual in Modern America." (See page 166). Community or conformity? The struggle for individual autonomy in an increasingly collectivized society. Perspectives on contemporary America—conflicting views of the American present and future. (Prereq concurrent registration in Soc 1002. Students registered in Fall Sem part of series will be given registration priority. Limited to 50 students)

Spring Sem	Sec 2	T —6:20-8:00, Ph 145, Agee
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Symbols, abbreviations, off-campus class locations begin on page 389.

AmSt 1920 or 3920 TOPICS: 1776—THE CULTURE OF THE REVOLUTIONARY ERA. 4 degree credits, \$58. (♦\$29)



The focus will be on a few key personalities (Franklin, Washington, Jefferson, Adams, Paine) as well as events and issues. Literature, painting, music and architecture of the period will be covered. The objective will be to see how the Revolutionary Americans viewed the world and interpreted their experience, to understand their ideals and the methods by which they sought to realize them. (No prereq)

Fall Qtr Sec 3 **W**—6:20-8:50, LindH 305, Agee

AmSt 1920 or 3920 TOPICS: 1876—CENTENNIAL AMERICA—PROGRESS AND CONFLICT. 4 degree credits, \$58. (♦\$29)



A broad study of the culture of the America of a century ago, with special attention to events of the Centennial year of 1876. Topics include the Centennial Exposition at Philadelphia; "Custer's Last Stand" as viewed by whites and by Indians; the culture of a "business society"; the end of "Reconstruction" in the South, and the "corrupt bargain" which resolved the electoral crisis of 1876; the conflict between an expanding society and nature; the rise of modern architecture; the American scene in painting. An attempt will be made to assess the successes and failures of the American "experiment" after a century of national life. (No prereq)

Winter Qtr Sec 4 **W**—6:20-8:50, LindH 305, Agee

AmSt 1920 or 3920 TOPICS: 1976—BICENTENNIAL AMERICA—REALITY AND PROMISE. 4 degree credits, \$58. (♦\$29)



Is America fulfilling the promises implicit in the revolution of two centuries ago? An examination of contemporary American culture, its problems and prospects for the future. Authors include Dickey, Galbraith, Heilburner, Wakefield, and Vonnegut. Motion pictures, painting, music and architecture, as well as any special features of our bicentennial celebration which seem relevant, will be explored. (No prereq)

Spring Qtr Sec 5 **W**—6:20-8:50, LindH 305, Agee

AmSt 1920 or 3920 TOPICS: DEMOCRACY'S NIGHTMARE: AMERICAN VISIONS OF AUTHORITARIANISM. 4 degree credits, \$58. (♦\$29)



Examination of an undercurrent of American life represented by a simultaneous fear of and fascination with authoritarianism. Despite the continued forms of democratic government, critics of American life have continually summoned up spectres on varying kinds of authoritarianism, illustrated in *The Federalist Papers*, *Walden II*, *The Crucible*; works of Plato and Dostoyevski, DeTocqueville, Sinclair Lewis; and various films. (No prereq)

Fall Qtr Sec 6 **M**—6:20-8:50, Bklyn Ctr HS 12, J Pankake, M Pankake

AmSt 1920 or 3920 TOPICS: IMAGES OF THE CITY. 4 degree credits, \$58. (†\$29)



The Depression; Terkel's *Hard Times*. Artistic treatments of concerns and themes of the decade; Odets' *Waiting for Lefty* or *Awake and Sing*, a Steinbeck novel, labor songs. Historiographical debates, Warren's *All the King's Men*, films, and an autobiography of a central political figure. (No prereq)

Winter Qtr Sec 7 **M**—7-9:30, Jonathan Community Ctr, Chaska; Shreve

AmSt 1920 or 3920 TOPICS: IMAGES OF THE CITY. 4 degree credits, \$58. (♦\$29)



Examination of the historical role cities as specific social organizations have played in population migration, economic development, etc. Material from the muckrakers, painters (Henri, et. al.), architecture, novels, poems. Roles and images of particular key cities, e.g., New York, Chicago, San Francisco, Boston. (No prereq)

Spring Qtr Sec 8 **Th**—7-9:30, Cambridge HS library, Shreve

Symbols, abbreviations, off-campus class locations begin on page 389.

anatomy (Anat)

(See also Biology; Physical Medicine and Rehabilitation; and GC 1132, The Human Body)

James F. Pohtilla, Associate Professor of Physical Medicine and Rehabilitation

*Anat 0058 **ANATOMY OF THE EXTREMITIES.** No credit. \$43.50 plus \$8 course fee. Total \$51.50.

A review of the gross anatomy of the joint structures, muscular, peripheral nervous and circulatory systems. Lecture and laboratory will include demonstration and review of the dissected human body. **Must be taken S-N.** (Prereq registered physical therapist or occupational therapist. Limited to 30 students)

Fall Qtr Sec 1 W—6:20-9:00, ChRC 208, Pohtilla

anthropology (Anth)

(See also General College courses in social and behavioral sciences, and natural science)

Christy Caine, Instructor in Anthropology

Louis B. Casagrande, Instructor in Anthropology

Jennette Jones, Instructor in Anthropology

William L. Rowe, Professor of Anthropology

Did you know that a major in Anthropology can be completed in the evening?

Those courses required in the major are offered every two years. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses
1002, 3501, 3502

Major Requirements

Minimum of six 3xxx-5xxx-level courses to include: Group I: 10 cr in theory and topics courses (31xx or 51xx) Group II: 5 cr in archaeology (55xx), 5 cr in ethnography (32xx or 52xx) 10 cr of electives from any group. Anth 3211 and 5511 are open to sophomores with grades of C or higher in 1002.

You need not be majoring in Anthropology to register for these classes.

Anth 1002 INTRODUCTION TO ANTHROPOLOGY. 5 degree credits, \$72.50. (◆\$36.25)★

Origin of man and development of human cultures from earliest times to present. Varieties and range of human behavior as revealed through comparative study of cultures in all parts of the world. (No prereq)

Fall Sem Sec 1 W—6:20-8:50, ForH 155, Caine
Sec 2 T—7-9:30, Bklyn Ctr HS 75, Jones
Sec 3 Th—6:20-8:50, StP Ramsey Hosp, Education Bldg 401, Casagrande

Spring Sem Sec 4 M—6:20-8:50, ForH 155, Rowe
Sec 5 T—7-9:30, Jonathan Community Ctr, Chaska; Casagrande

Anth 3502 PRINCIPLES OF SOCIAL AND CULTURAL ANTHROPOLOGY. 5 degree credits, \$72.50. (◆\$36.25)

Theory and concepts of social and cultural anthropology, in the light of classic statements of anthropological theory and classic ethnographic accounts. (Prereq 1002 or 3)

Fall Sem Sec 1 W—6:20-8:50, ForH 120, Rowe

Symbols, abbreviations, off-campus class locations begin on page 389.

Anth 5112 SOCIAL ANTHROPOLOGY: KINSHIP AND MARRIAGE. 5 degree credits, \$77.50. (◆\$38.75)

Systems of kinship and marriage in cross-cultural perspective; relationship to economic, religious, and political institutions; significance of kinship studies for theory and methods in social anthropology. (Prereq 3502 or §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **Th**—6:20-8:50, ForH 115, Jones

Anth 5131 ANTHROPOLOGY OF RELIGION AND FOLKLORE. 5 degree credits, \$77.50. (◆\$38.75)

Varieties and range of religious beliefs and practices. Relation of religion to other aspects of culture. Comparative analysis of folklore, myth, and oral literature. (Prereq 3502 or §. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 **Th**—6:20-8:50, ForH 160, Jones

(See related courses, page 179)

Anth 5155 ANTHROPOLOGY AND SOCIAL ISSUES. 5 degree credits, \$77.50. (◆\$38.75)

Anthropological views about poverty, racism, the myth of the melting pot, the Third World, and the social responsibilities of anthropologists. (Prereq 1002. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **T**—6:20-8:50, ForH 160, Casagrande

Anth 5222 PEOPLES AND CULTURES OF MIDDLE AMERICA. 5 degree credits, \$77.50. (◆\$38.75)

Indian-Spanish speaking peoples of Middle America. Processes of acculturation that have produced contemporary cultures of Mexico and Central America. (Prereq 1002 or §. May be applied toward the CLA foreign language requirement, Route II for Spanish [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 **M**—6:20-8:50, ForH 60, Casagrande

(See also Chicano Studies)

Anth 5511 ARCHAEOLOGY OF NORTH AMERICA. 5 degree credits, \$77.50. (◆\$38.75)

Prehistoric archaeology of North America north of Mexico. Techniques, methods, and goals of prehistoric archaeology. (Prereq 1002. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **T**—6:20-8:50, ForH 285, Caine

arabic

(See Near and Middle Eastern Studies, page 315)

archaeology

(See Anthropology and Classics)

architecture (Arch)

(See also Landscape Architecture; Art History)

Robert E. Dedrich, Lecturer in Architecture and Landscape Architecture

Rod Henmi, Instructor in Architecture

Dennis Holloway, Assistant Professor of Architecture

John S. Myers, Professor of Architecture

Craig Rafferty, Assistant Professor of Architecture

Robert Russek, Instructor in Architecture

Ray Whitlow, Instructor in Architecture

George Winterowd, Professor of Architecture

Symbols, abbreviations, off-campus class locations begin on page 389.

Did you know that a major in Architecture can be completed in the evening?

Those courses required in the major are offered every three years. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses

Phys 1014-1024, 1015-1025 or 1121-1122; math, pre-calculus and Math 1211-1221; ArtS 1107, 1108, 1109 or 1101, 1102; Arch 1021.

Major Requirements

Arch 3081-3082-3083, 3091-3092-3093

Three courses chosen from 5051, 5052, 5053, 5054, 5055, 5056, 5057

Curriculum Alternatives—The 4-year CLA program, leading to a B.A., is primarily preprofessional training for admission to the Institute of Technology for 2 additional years of work toward the professional degree, bachelor of architecture, or 3 additional years of work for the master of architecture. Students who intend to seek professional degrees should include AEM 3092-3093,** ArtS 3140, and CE 3600-3601.** Also desirable are Arch 3061-3062** and 3067.** Students wishing a degree of specialization in environmental design should take Arch 1001, 1002, 1003, 1022, and 1023.

**These courses do not carry CLA credit.

The Institute of Technology Bulletin lists requirements for the B.Arch. degree; the Graduate School Bulletin lists those for the M.Arch.

You need not be majoring in Architecture to register for these classes.

Arch 1021 HISTORY OF ENVIRONMENTAL DEVELOPMENT: ARCHITECTURE. 4 degree credits, §LA 1021. \$58. (♦\$29)

An introduction to architecture, the philosophy and principles of architecture as an art, a survey of architectural history with emphasis upon the development of contemporary architecture from its roots in the 19th century until the present time. (No prereq. 1021 is a prereq for the architectural history sequence, 5051 through 5056. May be used as a refresher course to the State Board Examination)

Fall Qtr Sec 1 T—6:20-8:50, Arch 35

Winter Qtr Sec 2 T—6:20-8:50, Arch 25

Arch 1022 HISTORY OF ENVIRONMENTAL DEVELOPMENT: LANDSCAPE ARCHITECTURE. 4 degree credits. Tentatively scheduled for 1976-77.

Arch 1023 HISTORY OF ENVIRONMENTAL DEVELOPMENT: PLANNING. 4 degree credits. Tentatively scheduled for 1976-77.

(See other environmental concerns courses, page 170)

***Arch 1041-1042-1043 ART FOR ARCHITECTURE STUDENTS.** 2 degree credits per quarter, \$29 per quarter.

Freehand drawing from live models. Emphasis on development of accurate delineation. Various techniques and media are employed. (No prereq for 1041; 1041 for 1042, 1042 for 1043. Limited to 30 students)

Fall Qtr 1041 Sec 1 W—6:20-8:50, Arch 10, Henmi

Winter Qtr 1042 Sec 2 W—6:20-8:50, Arch 10, Russek

Spring Qtr 1043 Sec 3 W—6:20-8:50, Arch 10, Russek

***Arch 3081-3082-3083 ARCHITECTURAL DESIGN.** 6 degree credits each quarter. \$87 plus \$10 course fee. Total \$97 each quarter.

Basic exercises in composition of line, form, proportion, color, and texture. Elements of architectural design. Architectural drawing; model making; design process. (Prereq second year for IT students, junior for CLA students; and admission to the School of Architecture as a candidate for the professional degree for 3081; 3081 for 3082; 3082 for 3083. Courses meet concurrently and with 3091, 3092, 3093. Limited to 60 students. **A few Saturday sessions, 9 a.m.-12:00, will be arranged**)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	3081	Sec 1	MTh—6:20-8:50, WeH 301
	3082	Sec 2	MTh—6:20-8:50, WeH 301
	3083	Sec 3	MTh—6:20-8:50, WeH 301
Winter Qtr	3081	Sec 4	MTh—6:20-8:50, WeH 301
	3082	Sec 5	MTh—6:20-8:50, WeH 301
	3083	Sec 6	MTh—6:20-8:50, WeH 301
Spring Qtr	3081	Sec 7	MTh—6:20-8:50, WeH 301
	3082	Sec 8	MTh—6:20-8:50, WeH 301
	3083	Sec 9	MTh—6:20-8:50, WeH 301

*Arch 3091-3092-3093 **ARCHITECTURAL DESIGN**. 6 degree credits each quarter, \$87 plus \$10 course fee. Total \$97 each quarter.

NEW

Development of structures as an integral part of design; site planning. (Prereq 3083 for 3091; 3091 for 3092; 3092 for 3093. Courses meet concurrently and with 3081, 3082, 3083. Limited to 60 students. **A few Saturday sessions, 9 a.m.-12:00, will be arranged**)

Fall Qtr	3091	Sec 1	MTh—6:20-8:50, WeH 301
Winter Qtr	3091	Sec 2	MTh—6:20-8:50, WeH 301
	3092	Sec 3	MTh—6:20-8:50, WeH 301
Spring Qtr	3091	Sec 4	MTh—6:20-8:50, WeH 301
	3092	Sec 5	MTh—6:20-8:50, WeH 301
	3093	Sec 6	MTh—6:20-8:50, WeH 301

Arch 3061-3062 **BUILDING SYSTEMS**. 4 degree credits. **To be offered 1976-77.**

*Arch 3064-3065 **ENVIRONMENTAL MANAGEMENT AND CONTROL**. 5 degree credits each quarter. \$72.50 each quarter.

NEW

Environmental-mechanical considerations including comfort technology, space habitability, climate, psychometrics, control and management systems; waste management including plumbing systems and waste disposal techniques. Electrical systems, energy, power distribution and machinery; lighting systems, physiology of seeing, light sources and control; spatial acoustics, noise barriers, absorption. (No prereq for 3064; 3064 for 3065. Limited to 35 students)

Fall Qtr	3064	Sec 1	W—6:20-8:50, Arch 15, Diedrich
Winter Qtr	3065	Sec 2	W—6:20-8:50, Arch 15, Diedrich

(See other environmental concerns courses, page 170)

Arch 5053 **GOTHIC ARCHITECTURE**. 4 degree credits. **To be offered 1976-77.**

Arch 5055 **ENGLISH AND EARLY AMERICAN ARCHITECTURE**. 4 degree credits. **To be offered 1976-77.**

Arch 5056 **MODERN ARCHITECTURE**. 4 degree credits, \$62. (◆\$31)

History of development of architecture and urban design from early 19th century sources in Europe and America until the present time. (Prereq 1021. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—6:20-8:50, Arch 25, Winterowd.

Arch 5970 **DIRECTED STUDY**. Credits arranged. \$15.50 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. Qualified students may register for graduate credit at the University of Minnesota. Contact Prof. George Winterowd, 110c Arch, University of Minnesota, Minneapolis, Minnesota 55455 (373-2198).

(See other travel-study opportunities, page 177)

Symbols, abbreviations, off-campus class locations begin on page 389.

art education (ArEd)

(See also Education)

Mary Hiniker, Instructor in Art Education

Roberta Kremer, Instructor in Art Education

George K. Olson, Assistant Professor of Art Education

Robert J. Rice, Instructor in Art Education

Thomas C. Slettehaugh, Associate Professor of Art Education

Anna Smits, Instructor in Art Education

S-N registration not permitted in Art Education unless specifically indicated in course description.

***ArEd 3009 WEAVING WITHOUT A LOOM.** 4 degree credits, \$58.

Developing fundamental weaving skills employing inexpensive equipment and techniques without use of the floor loom. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 T—6:20-8:50, WuH 340, Smits

Winter Qtr Sec 2 T—6:20-8:50, WuH 340, Smits

Spring Qtr Sec 3 T—6:20-8:50, WuH 340, Smits

***ArEd 3010 INTRODUCTION TO WEAVING.** 3 degree credits, \$43.50 plus \$5 course fee. Total \$48.50.

Equipment, design, setting up and operation of floor and table looms. (No prereq. Limited to 30 students)

new

Fall Qtr Sec 1 **Sa**—9:30 a.m.-12:00, WuH 340, Smits

Spring Qtr Sec 2 **Th**—6:20-8:50, WuH 340, Smits

***ArEd 3030 PUPPETRY.** 3 degree credits, \$43.50.

Construction, manipulation, and stage technique for basic puppet types. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **Th**—6:20-8:50, WuH 220, Olson

***ArEd 5001 ART MEDIA TECHNIQUES.** 1 degree credit (maximum 12 cr) \$15.50 plus \$2 course fee. Total \$17.50.

Lectures, demonstrations, discussions, critique sessions, exploring and learning various techniques and processes in creativity; handling specific media with each offering focusing on a single topic. (**This offering will focus on textile design with emphasis on batik and tie-dying.**) (No prereq. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 **Oct. 23**, 10 a.m.-3:30,

Oct. 30, 10 a.m.-3:30, WuH 120, Rice

(register Oct 9-23)

***ArEd 5001 ART MEDIA TECHNIQUES.** 1 degree credit this offering (maximum 12 cr) \$15.50, plus \$2 course fee. Total \$17.50.

Lectures, demonstrations, discussions, critique sessions, exploring and learning various techniques and processes in creativity; handling specific media with each offering focusing on a single topic. (**This offering will focus on jewelry.**) (No prereq. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 2 **Apr. 10**, 10 a.m.-3:30,

Apr. 17, 10 a.m.-3:30, WuH 120, Olson

(register Mar 26-Apr 9)

Symbols, abbreviations, off-campus class locations begin on page 389.

***ArEd 5020 ADVANCED CONTEMPORARY CRAFTS.** 4 degree credits, \$62 plus \$5 course fee. Total \$67.

new

Indepth experiences in techniques of metal jewelry with emphasis on design criteria, equipment, materials, and process. (Prereq 3020. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, WuH 120, Kremer

(See also GC 3616, Crafts for Special Groups)

***ArEd 5316 INTERCULTURAL EDUCATION THROUGH ART.** 3 degree credits, \$46.50.

new

Approaches to international understanding through recognition of aesthetic contributions of diverse peoples to American life. (No prereq. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

**Spec Term Sec 1 Feb. 6—6-9:00,
Feb. 7, 14—10 a.m.-6:00,
Feb. 15, 1-6:00, WuH 230, Slettehaugh
(register Jan 23-Feb 6)**

Workshops in Art Education

A variety of topics in art education are available to teachers throughout the state. Many of these are offered as two or three-day workshops—ArEd 5001 ART MEDIA TECHNIQUES—focusing on a variety of topics. Topics such as the following will be offered through this course: printmaking, weaving, stichery, photography, painting, book-binding, jewelry making. The course will be set up for any group on request. For further information call or write Huldah Curl, Continuing Education in Art, 322 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455; telephone 373-5147.

art history (ArtH)

(See also IC 0031, Art and Architecture of the Jewish People, page 287.)

Frederick M. Asher, Associate Professor of Art History
Frederick Cooper, Associate Professor of Art History
William D. Coulson, Assistant Professor of Classics
Robert Poor, Associate Professor of Art History
Herbert G. Scherer, Assistant Professor and Librarian in Art Library
John Steyaert, Assistant Professor of Art History
M. Alison Stones, Associate Professor of Art History
Michael Stoughton, Assistant Professor of Art History
Donald R. Torbert, Professor of Art History
Melvin Waldfogel, Professor of Art History

Did you know that 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 Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses

4 studio arts cr; 5 qtrs or equiv in a foreign language (Route II does not satisfy this requirement)

Major Requirements

3008, 3009, 3011, 3012, 8 additional art history cr at the 3xxx-level, 12 art history cr at the 5xxx-level

You need not be majoring in Art History to register for these classes.

Arth 1001 INTRODUCTION TO THE VISUAL ARTS. 4 degree credits, \$3001. \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32.)

A comprehensive survey of the main problems of meaning, form, and style in the visual arts (architecture, sculpture, painting, and graphic arts, and photography) of the various cultures and periods. The course attempts to enable students to interpret works of art critically by relating them to their geographic, historical, and social origins, and by placing them within the proper phases in the evolution of art. The course touches on the main periods of art history, and is designed to familiarize students with the critical and technical vocabulary used in the literature of art. (No prereq. Meets concurrently with 3001)

Fall Qtr	Sec 1	T—6:20-8:50, Arch 25, Torbert
	Sec 2	Th—6:20-8:50, Mpls Institute of Arts, room 211, 2400 S 3 Ave, Scherer (will utilize collections and galleries. Limit 50 students*)
Winter Qtr	Sec 3	T—6:20-8:50, Jones 207B, Torbert
Spring Qtr	Sec 4	T—6:20-8:50, Arch 25, Torbert

(See also Phil 3502, Introduction to Aesthetics; Architecture; General College; and History)

Arth 1015 ART IN WESTERN CIVILIZATION. 4 degree credits. \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)★

Selected major themes within the broad context of Western culture. Introduction to arts of the Western world but not an inclusive historical survey. Course includes Sir Kenneth Clark's series of 13 hour-length films entitled **Civilisation**. (No prereq.)

Fall Sem	Sec 1	W—6:20-8:00, Arch 25, Waldfogel
Spring Sem	Sec 2	W—6:20-8:00, Arch 25, Waldfogel

Arth 1016 INTRODUCTION TO ASIAN ART. 4 degree credits, \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

Selected major themes of Indian and Far Eastern art. Introduction, not an inclusive historical survey. (No prereq.)

Spring Qtr	Sec 1	M—6:20-8:50, Jones 207B, Asher
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Arth 3001 INTRODUCTION TO THE VISUAL ARTS. 4 degree credits, \$1001. \$58 plus \$3 course fee. Total \$61.

See course description for Arth 1001. (No prereq. Meets concurrently with 1001)

Fall Qtr	Sec 1	T—6:20-8:50, Arch 25, Torbert
	Sec 2	Th—6:20-8:50, Mpls Institute of Arts, room 211, 2400 S 3 Ave, Scherer (will utilize collections and galleries. Limit 50 students*)
Winter Qtr	Sec 3	T—6:20-8:50, Jones 207B, Torbert
Spring Qtr	Sec 4	T—6:20-8:50, Arch 25, Torbert

Arth 3008 HISTORY OF ANCIENT ART. 4 degree credits, \$1008. \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32.)

The architecture, sculpture, and painting of selected early cultures, with particular stress on those contributing to the development of Western art. (No prereq)

Fall Qtr	Sec 1	M—6:20-8:50, Jones 207B, Asher
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Arth 3009 HISTORY OF MEDIEVAL ART. 4 degree credits, \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

Medieval architecture, painting, and sculpture from Early Christian to Gothic. (No prereq)

Spring Qtr	Sec 1	T—6:20-8:50, Jones 207B, Stones
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*ArH 3011 **HISTORY OF RENAISSANCE AND BAROQUE ART.** 4 degree credits, \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

◆ The major monuments in architecture, sculpture, and painting from the early 14th century through the Baroque. The collections and galleries of the institute will be utilized. (No prereq. Limited to 60 students)

Spring Qtr Sec 1 Th—6:20-8:50, Mpls Institute of Arts, room 211,
2400 S 3 Ave, Stoughton

ArH 3013 **INTRODUCTION TO FAR EASTERN ART.** 4 degree credits, \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

◆ Selected major themes within broad context of Far Eastern art. The arts of China and Japan (not an inclusive historical survey). (No prereq)

Fall Qtr Sec 1 Th—6:20-8:50, Jones 207B, Poor

ArH 3014 **ART OF INDIA.** 4 degree credits. \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

◆ Indian sculpture and architecture from the pre-historical Indus Valley civilization through the major historical periods. Emphasis will be on the Hindu and Buddhist art from 300 B.C. to 1200 A.D. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Indic [see page 68])

Winter Qtr Sec 1 M—6:20-8:50, Jones 207B, Asher


ArH 3162 **ROMAN ART AND ARCHAEOLOGY.** 5 degree credits, \$Clas 3162. To be offered 1976-77.

ArH 3467 **MODERN ART.** 4 degree credits, \$58 plus \$3 course fee. Total \$61. (♦\$29 plus \$3 course fee. Total \$32)

◆ Major directions in late 19th and 20th century art in all media. Includes the influence of advertising mass media and advanced technology on the development of modern art. (No prereq)


Winter Qtr Sec 1 Th—6:20-8:50, Jones 207B, Cooper

ArH 5013 **HELLENISTIC ART AND ARCHAEOLOGY.** 4 degree credits, \$Clas 5103. \$62. (♦\$31)

◆  Greek architecture, sculpture, ceramics, painting, and minor arts from the 4th century B.C. to the end of the Hellenistic period. City planning, public buildings, and topography of such sites as Athens, Olynthos, Corinth, Priene, Pergamon. (Prereq §. May be applied toward the CLA foreign language requirement, Route II for Greek [see page 68]. Meets concurrently with Clas 5103. Qualified students may register for graduate credit at the University of Minnesota)


Winter Qtr Sec 1 Th—6-8:30, Arch 25, Coulson

ArH 5234 **EARLY AND HIGH GOTHIC SCULPTURE.** 5 degree credits, \$77.50 plus \$3 course fee. Total \$80.50 (♦\$38.75 plus \$3 course fee. Total \$41.75)

◆  Style and iconography of Gothic sculpture, especially in France and Germany. (Prereq 3009 or grad or §. Qualified students may register for graduate credit at the University of Minnesota)


Spring Qtr Sec 1 M—6:20-8:50, Jones 207A, Steyaert

ArH 5324 **15TH CENTURY PAINTING IN NORTHERN EUROPE.** 5 degree credits, \$77.50 plus \$3 course fee. Total \$80.50 (♦\$38.75 plus \$3 course fee. Total \$41.75)

◆  Painting in the Netherlands, France and Germany during the late Gothic period; its influence. (Prereq 3009 or 3011, grad or §. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6:20-8:50, Jones 207A, Steyaert

ArH 5326 **16TH CENTURY PAINTING IN NORTHERN EUROPE.** 4 degree credits, \$62 plus \$3 course fee. Total \$65. (♦\$31 plus \$3 course fee. Total \$34)

◆  Northern Renaissance painting in Germany, the Netherlands, and France. (Prereq 3011, grad or §. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—6:20-8:50, Jones 207A, Steyaert

ARTH 5347 BAROQUE ART IN ENGLAND, FRANCE AND THE LOWLANDS. 4 degree credits, \$62 plus \$3 course fee. Total \$65. (◆\$31 plus \$3 course fee. Total \$34)

French sculpture, painting and architecture. Flemish and Dutch painting, and English painting and architecture of the 17th century. Major artists: Rembrandt, Rubens, Poussin, Jones. (Prereq 3011, grad or †. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, Jones 207B, Stoughton

ARTH 5766 CHINESE PAINTING. 5 degree credits, \$77.50 plus \$3 course fee. Total \$80.50(◆\$38.75 plus \$3 course fee. Total \$41.75)

Major works from the 4th to the 17th centuries. Development of the landscape tradition and the literary genre of later Chinese painting. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-8:50, Jones 207B, Poor

ARTH 5767 JAPANESE PAINTING. 4 degree credits, \$62 plus \$3 course fee. Total \$65. (◆\$31 plus \$3 course fee. Total \$34)

Japanese pictorial arts from earliest to modern times; works that best exemplify development of indigenous traditions. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 **Th**—6:20-8:50, Jones 207B, Poor

artistic expression

(See General College)

art statewide

A variety of credit and non-credit courses and workshops in art are offered throughout the state. Examples are Advanced Painting, Painting for Amateurs, Sculpture in Wax and Clay, 20th Century Art, Survey of Oriental Arts, Weaving with a Backstrap Loom, Macrame, Stage Set Design, Good Design for Inexpensive Publications, and Woodblock Printmaking. Courses and workshops can be set up for an interested group on request. For further information call or write Huldah Curl, Director, Continuing Education in Art, 322 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455; telephone 373-5147.

arts, studio (Arts)

(See also General College courses in artistic expression, and Phil 3502, Introduction to Aesthetics)

Guy Baldwin, Assistant Professor of Art

Karl Bethke, Associate Professor of Art

Ralph Brown, Lecturer in Art

Peter Busa, Professor of Art

Victor Caglioti, Assistant Professor of Art

Thomas Cowette, Assistant Professor of Art

David L. Feinberg, Assistant Professor of Art

Gary Hallman, Assistant Professor of Art

Raymond Hendler, Professor of Art

Symbols, abbreviations, off-campus class locations begin on page 389.

Curtis Hoard, Associate Professor of Art
David Husom, Lecturer in Art
Donald Jardine, Lecturer in Art
Henning Jensen, Lecturer in Art
Frederick Klein, Lecturer in Art
George Morrison, Professor of Art
Malcolm Myers, Professor of Art
Wayne Potratz, Assistant Professor of Art
Zigmunds Priede, Professor of Art
Eleanor Quirt, Lecturer in Art
William Roode, Assistant Professor of Art
Thomas Rose, Assistant Professor of Art
Herman Rowan, Professor of Art
Herman Somberg, Associate Professor of Art
James Smith, Lecturer in Art
Saul Warkov, Assistant Professor of Art
Harry C. Webb, Lecturer in Photography

All Studio Arts classes will meet for the time period scheduled. Each credit demands, on the average, three hours a week of the student's time. Those students who wish to receive degree credits in these courses are required to do work outside of class commensurate with the class work. Unless otherwise indicated, students may register for any unit number of these sequences in any quarter or semester, provided units are satisfactorily completed in the order listed or the instructor's consent is obtained for registration in an advanced unit on the basis of background and ability.

NOTE: Students who find sections closed should examine the possibility of another course which may serve the same purpose. The Department of Studio Arts may be able to accommodate those students who place their names on a list requesting the opening of an additional section. Telephone: 373-3663. Advanced standing credit will be granted in special cases for work done elsewhere—consult the chairman of the department; telephone 373-3663.

Did you know that a major in Studio Arts can be completed in the evening?

Those courses required in the major are offered yearly. Interested students should discuss plans with an Extension counselor (373-3905).

In addition, an ArtS counselor will be available two nights a week.

B.A. MAJOR SEQUENCE

Required Preparatory Courses:

One art history course at the 1xxx level, ArtS 1401, 1101, 1301, or 1302
12 cr from 1102, 1104, 1301, 1302, 1510, 1520, 1701, 1801

Major Requirements

At least 28 cr, but no more than 40, in studio courses at 3xxx-5xxx levels
8 3xxx-5xxx-level art history cr

B.F.A. MAJOR SEQUENCE

This program, leading to a 4-year professional degree, offers high concentration in studio arts work. It is oriented toward professional work or admission to the M.F.A. program.

Admission—Usually limited to students with 3.00 average in studio arts courses. Applicants, either CLA or transfer, apply for admission no earlier than their final sophomore quarters. Applications are to be made on the form available at the Studio Arts or Humanities and Fine Arts offices. Admission will be based on a student's scholastic record, a portfolio or slides of his work, and the recommendations he offers. It is expected that transfer students will present at least 15 credits in beginning studio experience, or the equivalent, at application.

Accepted candidates are subject to review, and candidacy may be terminated if performance is unsatisfactory. In case of termination, a candidate may transfer to a B.A. program.

Required Preparatory Courses:

1401, 1101, 1104, 1301 or 1302, 1510 or 1520, 1701, 1801.
12 additional 1xxx-level studio arts elective cr
12 art history cr

Major Requirements

28 cr in one studio arts field of specialization.
24 additional 3xxx-5xxx-level studio arts elective cr (especially recommended: 5400)

You need not be majoring in Studio Arts to register for these courses.

ArtS 1401 INTRODUCTION TO STUDIO ART. 4 degree credits, \$58. (◆\$29)

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)

Fall Qtr Sec 1 Th—6-9:45, AudCB 125, Hendler
Winter Qtr Sec 2 Th—6-9:45, AudCB 125, Hendler
Spring Qtr Sec 3 Th—6-9:45, AudCB 125, Hendler

***ArtS 0001C COLOR PHOTOGRAPHY I.** 3 certificate credits, \$43.50 plus \$10 special fee. Total \$53.50.

A foundation course in the growing field of color photography, designed to provide the student with practical knowledge and experience in basic color work. Course includes: (a) lecture demonstrations of equipment, color processes, and techniques; and (b) supervised camera assignments in the studio and on outdoor field trips. (No prereq. Limited to 30 students)

Fall Sem Sec 1 T—6-7:40, AgEng 102, StP Campus, Webb
Sec 2 T—8:15-9:55, AgEng 102, StP Campus, Webb
Spring Sem Sec 3 T—6-7:40, AgEng 102, StP Campus, Webb

***ArtS 0002C COLOR PHOTOGRAPHY II.** 3 certificate credits, \$43.50 plus \$10 special fee. Total \$53.50.

A workshop course in which the student participates in supervised photographic projects. Course includes lecture demonstrations, field trips, and attention to such subjects as color portraiture, color experiments, color printing, and special problems. (Prereq 0001C or I. Limited to 30 students)

Spring Sem Sec 1 T—8:15-9:55, AgEng 102, StP Campus, Webb

(See also photography courses in physics and journalism)

ArtS 0003C home design course is now in the College of Home Economics Interior Design Program. See Dsgn 1400C.

***ArtS 0240C COMMERCIAL ILLUSTRATION II.** 4 certificate credits each quarter (maximum 12 cr). \$58 plus \$5 course fee. Total \$63 each quarter.

new

Further development of illustration skills with encouragement of individual directions, i.e. soft line/hard line illustration, fashion illustration, cartooning, portraiture, story, industrial packaging, etc. (Prereq 0231C or I. Limited to 25 students)

Spring Qtr Sec 1 Th—6-9:45, ArtB 150, Smith

***ArtS 0260C ADVERTISING DESIGN III.** 4 certificate credits each quarter (maximum 12 cr). \$58 plus \$5 course fee. Total \$63 each quarter.

new

Continued development of lay-out skills with emphasis on creative approaches to individual projects and ideas. Exposure to actual working

Symbols, abbreviations, off-campus class locations begin on page 389.

conditions. Advertising psychology, consumer relations and business management. Orientation in agency, studio and corporation procedures. (Prereq 0252C or F. Limited to 25 students)

Spring Qtr Sec 1 **M**—6-9:45, ArtB 160, Klein

***ArtS 0280C PORTFOLIO AND VISUAL PRESENTATION TECHNIQUES.** 4 certificate credits. Will not be offered 1975-76.

(See also 3-level commercial art courses; and GC 1051, Commercial Art for Non-Professionals)

***ArtS 1101 BASIC DRAWING.** 4 degree credits, \$58 plus \$5 course fee. Total \$63.

An introduction to studio work; exploration of contemporary and traditional methods. Work from nature, various drawing and painting mediums. (No prereq. Limited to 25 students)

Fall Qtr	Sec 1	M —6-9:45, ArtB 140, Hendler
	Sec 2	M —6-9:45, Kellogg HS 200, Little Canada, Quirt
	Sec 3	M —6-9:45, ArtB 150, Somberg
	Sec 4	T —6-9:45, ArtB 160, Caglioti
	Sec 5	T —6-9:45, ArtB 140, Feinberg
	Sec 6	Th —6-9:45, ArtB 160, staff
	Sec 7	Sa —8:30 a.m.-12:15, ArtB 151, Rowan
Winter Qtr	Sec 8	M —6-9:45, ArtB 140, Hendler
	Sec 9	M —6-9:45, Sandburg JHS 218, Golden Valley, Quirt
	Sec 10	T —6-9:45, ArtB 140, Caglioti
	Sec 11	W —6-9:45, ArtB 140, Caglioti
	Sec 12	Sa —8:30 a.m.-12:15, ArtB 151, Rowan
Spring Qtr	Sec 13	M —6-9:45, ArtB 140, Hendler
	Sec 14	M —6-9:45, ArtB 150, Somberg
	Sec 15	T —6-9:45, ArtB 140, Feinberg
	Sec 16	T —6-9:45, ArtB 160, Caglioti
	Sec 17	W —6-9:45, ArtB 150, Feinberg
	Sec 18	W —6-9:45, ArtB 140, Priede
	Sec 19	Sa —8:30 a.m.-12:15, ArtB 151, Rowan

***ArtS 1102 DRAWING.** 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Work from life and nature. Introduction to color and pictorial structure. (Prereq 1101. Limited to 25 students)

Fall Qtr	Sec 1	W —6-9:45, ArtB 160, Priede
	Sec 2	Th —6-9:45, ArtB 140, Rowan
Winter Qtr	Sec 3	W —6-9:45, ArtB 160, Priede
	Sec 4	Th —6-9:45, ArtB 140, Rowan
Spring Qtr	Sec 5	W —6-9:45, ArtB 160, Cowette
	Sec 6	Th —6-9:45, ArtB 140, Rowan
	Sec 7	Th —6-9:45, ArtB 160, Quirt

***ArtS 1104 COLOR.** 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Introduction to color and pictorial organization. This will provide students with training in basic techniques preparatory to advanced courses in painting and printmaking. (Prereq 1101. Limited to 25 students)

Fall Qtr	Sec 1	Th —6-9:45, ArtB 141, Bethke
Winter Qtr	Sec 2	Th —6-9:45, ArtB 141, Bethke
Spring Qtr	Sec 3	Th —6-9:45, ArtB 141, Bethke

***ArtS 1105 BEGINNING PAINTING.** 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Introductory course to painting medium. Studio work in various media from nature, still life, and other sources. Emphasis on individual expression and development. (Prereq 1104. Limited to 25 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	W—6-9:45, ArtB 161, Somberg
Winter Qtr	Sec 2	W—6-9:45, ArtB 161, Somberg
Spring Qtr	Sec 3	W—6-9:45, ArtB 161, Somberg

ArtS 1119, 1121 drafting courses, are now in the College of Home Economics Interior Design Program. See Dsgn 1450 and 3450.

***ArtS 1201 INTRODUCTION TO COMMERCIAL ART.** 4 degree credits, \$58.

Scope of the field of commercial art, history and contemporary practices. Function of agencies, studios and corporations. Marketing, print and broadcast. Relationship to the business community and the consumer. Materials and terminology. Lectures, audio visual material and field trips. (No prereq. Limited to 25 students)

Fall Qtr	Sec 1	W—6-8:00, AudCB 125
Winter Qtr	Sec 2	W—6-8:00, AudCB 125
Spring Qtr	Sec 3	W—6-8:00, AudCB 125

Your attention is called to the Commercial Art Certificate, page 81.

***ArtS 1301 BASIC SCULPTURE.** 4 degree credits, \$58 plus \$20 course fee. Total \$7.

Beginning course. Intensive study of structure with emphasis on form and space. Construction in metal and plaster. (No prereq. Limited to 25 students)

Fall Qtr	Sec 1	W—6-9:45, ArtB 65, Baldwin
Winter Qtr	Sec 2	W—6-9:45, ArtB 65, Baldwin
Spring Qtr	Sec 3	W—6-9:45, ArtB 65, Rose

***ArtS 1302 BASIC SCULPTURE.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

Natural form is studied. Imaginative approaches are encouraged. Construction in clay, plaster, wood. Mold-making and casting. (No prereq. Limited to 25 students)

Fall Qtr	Sec 1	W—6-9:45, ArtB 50, Rose
Winter Qtr	Sec 2	W—6-9:45, ArtB 50, Potratz
Spring Qtr	Sec 3	W—6-9:45, ArtB 50, Potratz

ArtS 1401 INTRODUCTION TO STUDIO ART.

(First course listing in this section)

***ArtS 1510 INTAGLIO.** 4 degree credits each quarter (maximum 8 credits). \$58 plus \$15 course fee. Total \$73 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. Limited to 25 students)

Fall Qtr	Sec 1	T—6-9:45, ArtB 170, Myers
Winter Qtr	Sec 2	T—6-9:45, ArtB 170, Myers
Spring Qtr	Sec 3	T—6-9:45, ArtB 170, Myers

***ArtS 1520 LITHOGRAPHY.** 4 degree credits each quarter (maximum 8 cr). \$58 plus \$15 course fee. Total \$73 each quarter.

An introduction to planographic printing from stones and plates. Emphasis is directed to the basic techniques of drawing, processing, printing and presentation of prints. Class periods are devoted to lecture, demonstrations and critiques. Some reading and attending of art exhibitions is expected. (No prereq. Meets concurrently with 3520, 5520. Limited to 20 students)

Spring Qtr	Sec 1	Sa—1:30-4:15, ArtB 176, Priede
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(See also related journalism courses)

Symbols, abbreviations, off-campus class locations begin on page 389.

***Arts 1701 INTRODUCTION TO PHOTO MEDIUM.** 4 degree credits, \$58 plus \$15 course fee. Total \$73.

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. (No prereq. Limited to 20 students)

Fall Qtr	Sec 1	T—6-9:45, ArtB 131, Hallman
	Sec 2	T—6-9:45, MacP Bsmt, Husom
	Sec 3	Th—6-9:45, ArtB 131, Hallman
	Sec 4	Th—6-9:45, MacP Bsmt, Husom
Winter Qtr	Sec 5	T—6-9:45, ArtB 131, Hallman
	Sec 6	T—6-9:45, MacP Bsmt, Husom
	Sec 7	Th—6-9:45, ArtB 131, Hallman
	Sec 8	Th—6-9:45, MacP Bsmt, Husom
Spring Qtr	Sec 9	T—6-9:45, ArtB 131, Hallman
	Sec 10	T—6-9:45, MacP Bsmt, Husom
	Sec 11	Th—6-9:45, ArtB 131, Hallman
	Sec 12	Th—6-9:45, MacP Bsmt, Husom

(See also photography courses in physics and journalism)

***Arts 1702 PHOTOGRAPHIC NON-SILVER PROCESSES.** 4 degree credits, \$58 plus \$15 course fee. Total \$73.

new

Will explore photographic non-silver processes. For students with some previous experience with photographic equipment and techniques. Course will include lectures and labs with emphasis on individual projects and instruction. (Prereq 1701 or §. Limited to 20 students)

Fall Qtr	Sec 1	Sa—8:30 a.m.-12:15, ArtB 131, Husom
Winter Qtr	Sec 2	Sa—8:30 a.m.-12:15, ArtB 131, Husom
Spring Qtr	Sec 3	Sa—8:30 a.m.-12:15, ArtB 131, Husom

***Arts 1801 CERAMIC PROCESSES.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

Clay work by hand and forming on potter's wheel. Ceramics as creative expression. Technical considerations of clays, glazes and kilns. Pottery and sculptural approaches. (No prereq. Limited to 24 students)

Fall Qtr	Sec 1	M—6-9:45, ArtB 10
	Sec 2	T—6-9:45, ArtB 10
	Sec 3	W—6-9:45, ArtB 10
Winter Qtr	Sec 4	M—6-9:45, ArtB 10
	Sec 5	T—6-9:45, ArtB 10
	Sec 6	W—6-9:45, ArtB 10
Spring Qtr	Sec 7	M—6-9:45, ArtB 10
	Sec 8	T—6-9:45, ArtB 10
	Sec 9	W—6-9:45, ArtB 10

***Arts 3110 DRAWING.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$10 course fee. Total \$68 each quarter.

Portraiture and life drawing from the model, still life, and nature. Principles of anatomy. (Prereq 1102. Limited to 25 students)

Fall Qtr	Sec 1	M—6-9:45, ArtB 151, Busa
	Sec 2	W—6-9:45, ArtB 141, Busa
Winter Qtr	Sec 3	M—6-9:45, ArtB 151, Busa
	Sec 4	W—6-9:45, ArtB 141, Busa
Spring Qtr	Sec 5	W—6-9:45, ArtB 141, Busa

***Arts 3120 PAINTING.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$10 course fee. Total \$68 each quarter.

Introduction to media and problems in painting. Individual projects and instruction. (Prereq 1105 and 8 cr of 3110 or §. Meets concurrently with 3150. Limited to 25 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	W—6-9:45, ArtB 151, Feinberg
	Sec 2	Th—6-9:45, ArtB 161, Roode
Winter Qtr	Sec 3	W—6-9:45, ArtB 151, Feinberg
	Sec 4	Th—6-9:45, ArtB 161, Roode
Spring Qtr	Sec 5	M—6-9:45, ArtB 161, Caglioti
	Sec 6	Th—6-9:45, ArtB 151, Roode

ArtS 3135 and 3136 housing courses are now in the College of Home Economics Interior Design Program. (See Dsgn 3467 and 3463)

***ArtS 3150 PAINTING.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$5 course fee. Total \$63 each quarter.

Oil and acrylic painting. (Prereq 1101 or §. Not open to ArtS majors. Meets concurrently with 3120. Limited to 25 students)

Fall Qtr	Sec 1	W—6-9:45, ArtB 151, Feinberg
	Sec 2	Th—6-9:45, ArtB 161, Roode
Winter Qtr	Sec 3	W—6-9:45, ArtB 151, Feinberg
	Sec 4	Th—6-9:45, ArtB 161, Roode
Spring Qtr	Sec 5	M—6-9:45, ArtB 161, Caglioti
	Sec 6	Th—6-9:45, ArtB 151, Roode

***ArtS 3160 WATERCOLOR.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$5 course fee. Total \$63 each quarter.

Introduction to transparent watercolor, gouache, casein, and tempera. General course introducing the student to a variety of drawing and painting mediums. Figure, still life, landscape, and abstract design. (Prereq 1101, 1104 and §. Meets concurrently with 5160. Limited to 15 students)

Fall Qtr	Sec 1	M—6-9:45, ArtB 141, Myers
	Sec 2	Sa—8:30 a.m.-12:15, ArtB 161, Brown
Winter Qtr	Sec 3	M—6-9:45, ArtB 141, Myers
	Sec 4	Sa—8:30 a.m.-12:15, ArtB 161, Brown
Spring Qtr	Sec 5	M—6-9:45, ArtB 141, Myers
	Sec 6	Sa—8:30 a.m.-12:15, ArtB 161, Brown

***ArtS 3202 COMMERCIAL DRAWING I.** (old 3114). 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Contemporary drawing techniques; emphasis on the study of visual relationships in objects and the figure and their application to studio practice. Two-dimensional drawing media. (Prereq 0201C, 1104 or §. Limited to 25 students)

Fall Qtr	Sec 1	T—6-9:45, ArtB 141, Olson
Winter Qtr	Sec 2	T—6-9:45, ArtB 141, Olson
Spring Qtr	Sec 3	T—6-9:45, ArtB 141, Olson

***ArtS 3203 COMMERCIAL DRAWING II** (old 3115). 4 degree credits, \$58 plus 5 course fee. Total \$63.

Extensive practice with emphasis on development of visual and technical skills. Transparent and opaque washes; ink line, dry brush, etc. (Prereq 0202C or §. Limited to 25 students)

Fall Qtr	Sec 1	W—6-9:45, ArtB 150, Jensen
Winter Qtr	Sec 2	W—6-9:45, ArtB 150, Smith

(Your attention is called to the Commercial Art Certificate, page 81)

***ArtS 3220 COMMERCIAL ART MEDIA AND STUDIO TECHNIQUES** (old 3116). 4 degree credits each quarter. (maximum 8 cr). \$58 plus \$5 course fee. Total \$63 each quarter.

Art Techniques, color systems and processes, keyline and production communication; elements of typography, lettering and calligraphy. Principles of reproduction processes and materials in relationship to the visual statement. Material supported by field trips. (Prereq 0202C or §. Limited to 25 students)

Winter Qtr Sec 1 **Th**—6-9:45, ArtB 150, Jensen

Spring Qtr Sec 2 **Th**—6-9:45, ArtB 161, Jensen

***ArtS 3231 COMMERCIAL ILLUSTRATION I** (old 3117). 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Projects in various media involving all advertising subject matter. Advertising and story illustration with emphasis on current trends. (Prereq 0220C and 4 cr of 3110 or §. Limited to 25 students)

Fall Qtr Sec 1 **Th**—6-9:45, ArtB 150, Smith

***ArtS 3251 ADVERTISING DESIGN I.** (old 3118). 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Lay-out techniques, materials and structure. Application of type style and copy fitting. (Prereq 8 cr of 0220C or §. Limited to 25 students)

Fall Qtr Sec 1 **M**—6-9:45, ArtB 160, Klein

***ArtS 3252 ADVERTISING DESIGN II.** (old 3119). 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Continued development of lay-out skills. Basic advertising psychology; typography, photographic techniques, color separation, printing and production techniques. Art directing photography and art. (Prereq 0251C or §. Limited to 25 students)

Winter Qtr Sec 1 **M**—6-9:45, ArtB 160, Klein

***ArtS 3301 DIRECT METAL SCULPTURE.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

Welding and brazing. (Prereq 1301, 1302. Meets concurrently with 3304, 5310 and 5340. Limited to 15 students)

Spring Qtr Sec 1 **T**—6-9:45, ArtB 65, Baldwin

***ArtS 3302 PLASTICS MEDIA: WOOD, STONE CARVING.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

See course description for 1302. (Prereq 1301, 1302. Meets concurrently with 5320. Limited to 15 students)

Winter Qtr Sec 1 **T**—6-9:45, ArtB 35, Rose

***ArtS 3303 CAST METAL SCULPTURE.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

Lost wax and sand casting in bronze, aluminum, iron. (Prereq 1301, 1302. Meets concurrently with 5330. Limited to 15 students)

Fall Qtr Sec 1 **T**—6-9:45, HoIB, Potratz

***ArtS 3304 CONSTRUCTIONS, KINETICS, ELECTRONIC SCULPTURE.** 4 degree credits, \$58 plus \$20 course fee. Total \$78.

Kinetics and mechanics. (Prereq 1301, 1302. Meets concurrently with 3301, 5310 and 5340. Limited to 5 students)

Spring Qtr Sec 1 **T**—6-9:45, ArtB 65, Baldwin

Symbols, abbreviations, off-campus class locations begin on page 389.

***Arts 3510 INTAGLIO.** 4 degree credits each quarter (maximum of 12 cr). \$58 plus \$15 course fee. Total \$73 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 4 cr of 1510 or †. Meets concurrently with 1510, 5510. Limited to 25 students)

Fall Qtr Sec 1 T—6-9:45, ArtB 170, Myers
Winter Qtr Sec 2 T—6-9:45, ArtB 170, Myers
Spring Qtr Sec 3 T—6-9:45, ArtB 170, Myers

***Arts 3520 INTERMEDIATE LITHOGRAPHY.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$15 course fee. Total \$73 each 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 4 cr of 1520 or †. Meets concurrently with 1520, 5520. Limited to 20 students.)

Spring Qtr Sec 1 Sa—1:30-4:15, ArtB 176, Priede

***Arts 3701 INTRODUCTION TO ART OF FILMMAKING.** 4 degree credits, \$58 plus \$30 course fee. Total \$88.

Lectures and practical aspects of making films. Production limited to descriptive and experimental work. (No prereq. Meets concurrently with 3720. Limited to 20 students)

Fall Qtr Sec 1 M—6-9:45, ArtB 120
 Sec 2 T—6-9:45, ArtB 120
Winter Qtr Sec 3 M—6-9:45, ArtB 120
 Sec 4 T—6-9:45, ArtB 120
Spring Qtr Sec 5 M—6-9:45, ArtB 120
 Sec 6 T—6-9:45, ArtB 120

(See other film courses, page 164)

***Arts 3710 INTERMEDIATE PHOTOGRAPHY.** 4 degree credits each quarter (maximum 8 cr). \$58 plus \$15 course fee. Total \$73 each quarter.

Continued work in photographic controls and processes. Introduction to related photosensitive media. Emphasis on creative process with attention to individual interests and requirements. (Prereq 1701 or †. Meets concurrently with 5710. Limited to 15 students)

Fall Qtr Sec 1 M—6-9:45, ArtB 131, Warkov
 Sec 2 W—6-9:45, ArtB 131, Warkov
Winter Qtr Sec 3 M—6-9:45, ArtB 131, Warkov
 Sec 4 W—6-9:45, ArtB 131, Warkov
Spring Qtr Sec 5 M—6-9:45, ArtB 131, Warkov
 Sec 6 W—6-9:45, ArtB 131, Warkov

***Arts 3720 FILM WORKSHOP.** 4 degree credits each quarter (maximum 12 cr). \$58 plus \$30 course fee. Total \$88 each quarter.

Practical study of motion picture as an art form. Production limited to descriptive and experimental work. (Prereq †. Meets concurrently with 3701. Limited to 20 students)

Fall Qtr Sec 1 M—6-9:45, ArtB 120
 Sec 2 T—6-9:45, ArtB 120
Winter Qtr Sec 3 M—6-9:45, ArtB 120
 Sec 4 T—6-9:45, ArtB 120
Spring Qtr Sec 5 M—6-9:45, ArtB 120
 Sec 6 T—6-9:45, ArtB 120

(See other film courses, page 164)

Symbols, abbreviations, off-campus class locations begin on page 389.

***ArtS 3810 CERAMIC DESIGN.** 4 degree credits each quarter (maximum 8 cr). \$58 plus \$25 course fee. Total \$83 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 1801 or †. Limited to 20 students)

Fall Qtr Sec 1 **Th**—6-9:45, HoLB 134, Hoard
Winter Qtr Sec 2 **Th**—6-9:45, HoLB 134, Hoard
Spring Qtr Sec 3 **Th**—6-9:45, HoLB 134, Hoard

***ArtS 5110 ADVANCED DRAWING.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$10 course fee. Total \$72 each quarter.

Primarily for painting majors. Drawing in all mediums from life and from imagination; history of drawing. (Prereq 12 cr of 3110 or †. Limited to 20 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6-9:45, ArtB 150, Morrison
Winter Qtr Sec 2 **T**—6-9:45, ArtB 150, Morrison
Spring Qtr Sec 3 **T**—6-9:45, ArtB 150, Morrison

***ArtS 5120 PROBLEMS IN PAINTING.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$10 course fee. Total \$72 each quarter.

An advanced course in oil and acrylic painting with emphasis on color theories as they apply to current trends in art. (Prereq 12 cr of 3120 or †. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6-9:45, ArtB 161, Caglioti
Winter Qtr Sec 2 **M**—6-9:45, ArtB 161, Caglioti
Spring Qtr Sec 3 **M**—6-9:45, ArtB 151, Busa

***ArtS 5160 WATERCOLOR.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$5 course fee. Total \$67 each quarter.

Advanced watercolor techniques, aesthetic directions. Individual concepts and development of sensibilities. (Prereq 3160 or †. Meets concurrently with 3160. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6-9:45, ArtB 141, Myers
Sec 2 **Sa**—8:30 a.m.-12:15, ArtB 161, Brown
Winter Qtr Sec 3 **M**—6-9:45, ArtB 141, Myers
Sec 4 **Sa**—8:30 a.m.-12:15, ArtB 161, Brown
Spring Qtr Sec 5 **M**—6-9:45, ArtB 151, Myers
Sec 6 **Sa**—8:30 a.m.-12:15, ArtB 161, Brown

***ArtS 5310 DIRECT METAL SCULPTURE.** 4 degree credits each quarter (maximum 16 cr). \$62 plus \$20 course fee. Total \$82 each quarter.

See course description for 3301. (Prereq 3301 and †. Meets concurrently with 3301, 3304 and 5340. Limited to 5 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6-9:45, ArtB 65, Baldwin

***ArtS 5320 PLASTICS MEDIA: WOOD, STONE CARVING.** 4 degree credits each quarter (maximum 16 cr). \$62 plus \$20 course fee. Total \$82 each quarter.

See course description for 3302. (Prereq 3302. Meets concurrently with 3302. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **T**—6-9:45, ArtB 35, Rose

Symbols, abbreviations, off-campus class locations begin on page 389.

***ArtS 5330 CAST METAL SCULPTURE.** 4 degree credits each quarter (maximum 16 cr). \$62 plus \$20 course fee. Total \$82 each quarter.

See course description for 3303. (Prereq 3303. Meets concurrently with 3303. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6-9:45, HolB, Potratz

***ArtS 5340 CONSTRUCTIONS, KINETICS, ELECTRONIC SCULPTURE.** 4 degree credits each quarter (maximum 16 cr). \$62 plus \$20 course fee. Total \$82 each quarter.

See course description for 3304. (Prereq 3304 and \$. Meets concurrently with 3301, 3304 and 5310. Limited to 5 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6-9:45, ArtB 65, Baldwin.

***ArtS 5510 ADVANCED INTAGLIO.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$15 course fee. Total \$77 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. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6-9:45, ArtB 170, Myers

Winter Qtr Sec 2 T—6-9:45, ArtB 170, Myers

Spring Qtr Sec 3 T—6-9:45, ArtB 170, Myers

***ArtS 5520 ADVANCED LITHOGRAPHY.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$15 course fee. Total \$77 each quarter.

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 1520 or \$. Limited to 20 students. Meets concurrently with 1520, 3520. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Sa—1:30-4:15, ArtB 176, Priede

***ArtS 5710 PHOTOGRAPHY.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$15 course fee. Total \$77 each quarter.

Advanced problems in photography. (Prereq 8 cr of 3710 and \$. Meets concurrently with 3710. Limited to 5 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6-9:45, ArtB 131, Warkov

Sec 2 W—6-9:45, ArtB 131, Warkov

Winter Qtr Sec 3 M—6-9:45, ArtB 131, Warkov

Sec 4 W—6-9:45, ArtB 131, Warkov

Spring Qtr Sec 5 M—6-9:45, ArtB 131, Warkov

Sec 6 W—6-9:45, ArtB 131, Warkov

(See also photography courses in physics and journalism)

***ArtS 5810 CERAMICS.** 4 degree credits each quarter (maximum 12 cr). \$62 plus \$30 course fee. Total \$92 each quarter.

Aesthetic awareness and development; techniques and materials. (Prereq \$. Limited to 20 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6-9:45, HolB, Hoard

Winter Qtr Sec 2 T—6-9:45, HolB, Hoard

Spring Qtr Sec 3 T—6-9:45, HolB, Hoard

Symbols, abbreviations, off-campus class locations begin on page 389.

winter quarter in mexico

Tlaxiaco, Oaxaco, Mexico is the site for a unique University program sponsored by Continuing Education and Extension. Under the guidance of experienced teachers, and with the aid of local craftsmen, students will learn, first hand, both the specific art and craft techniques and the cultural context in which those arts are nourished. In Tlaxiaco, craftsmen practice traditional methods in ceramic work, weaving, and metal work, within a cultural framework that is little affected by most aspects of contemporary urban culture. In addition, several famous archaeological sites—Teotihuacan, Tula, Mitla, Monte Alban and Cholula—are all within a day's drive.

Students will register for 12 credits of off-campus work. 8 of these credits will be from among the following Studio Art Courses:

ArtS 1420	Workshop: Photography
ArtS 3420	
ArtS 3420	Workshop: Film (Motion Picture Photography)
ArtS 1420	Workshop: Ceramic Design
ArtS 3420	
ArtS 3420	Workshop: Painting
ArtS 5420	

Other courses may be drawn from such fields as Linguistics, Anthropology, Spanish, and Related Arts (College of Agriculture).

"Winter Quarter in Mexico" is limited to 45 students. Interested students should apply Fall Quarter (no later than October 14) to Professor Dale Huffington, 320 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

Applications may be in the form of a letter and should state the applicant's interest in studying in Mexico. Both the preferred art courses and the type of study contemplated in the related field should be listed together with the applicant's reason for wanting the course. Knowledge of Spanish is recommended but not required.

If accepted, the applicant will be expected to work out a program of studies under the guidance of an adviser in both the Department of Studio Art and the department in which the related studies are planned, during the Fall Quarter prior to the Winter study in Mexico.

(See other travel-study opportunities, page 177)

astronomy (Ast)

Karlis Kaufmanis, Professor of Astronomy

Ivan Policoff, Associate Professor of Astronomy

Ast 1008 SOLAR SYSTEM. 3 degree credits, \$1011. \$43.50

Survey of what is known about the properties and motions of the planets and their satellites, comets, and meteors, illustrated by slides and telescopic observations. Non mathematical course. (No prereq)

Fall Qtr Sec 1 **M**—7-9:30, Sandburg JHS 213, Golden Valley, Policoff
 Sec 1 **M** (Limit 45 students*)

Fall Sem Sec 2 **T**—6:20-8:00, Ph 131, Kaufmanis

Ast 1009 STARS AND GALAXIES. 3 degree credits, \$1011. \$43.50

Discussion of constellations, properties and motions of stars, and the structure of the universe. Opportunity for the use of the telescope. Nonmathematical course. (No prereq)

Winter Qtr Sec 1 **M**—7-9:30, Richfield HS 341, Policoff (Limit 65 students*)

Spring Sem Sec 2 **T**—6:20-8:00, Ph 131, Kaufmanis

Symbols, abbreviations, off-campus class locations begin on page 389.



biology (Biol)

(See also Anatomy; GC 1132, The Human Body; and other environmental concerns courses, page 170)

Donald Gilbertson, Professor of Zoology

Eville Gorham, Professor of Ecology and Behavioral Biology

Norman Kerr, Professor of Zoology

William Schmid, Professor of Zoology

Biol 1011 GENERAL BIOLOGY. 5 degree credits, \$72.50 plus \$10 course fee. Total \$82.50 (♦\$22 lecture only)

An introduction to the principles of biology. The cell, metabolism, heredity, reproduction, ecology and evolution. Lectures will be presented over closed-circuit TV and by multi-media. Students must attend lectures on both Tuesday and Thursday and laboratory sessions on both Tuesday and Thursday. (No prereq)

Fall Qtr	Sec 1	Lect TTh —6-7:10, NH 45, Kerr Lab TTh —7:20-9:00, Kolth S160, S167, S170, S177, S179, S 183
Winter Qtr	Sec 2	Lect TTh —6-7:10, NH 45, Kerr Lab TTh —7:20-9:00, Kolth S160, S167, S170, S177, S179, S183
Spring Qtr	Sec 3	Lect TTh —6-7:10, NH 45, Kerr Lab TTh —7:20-9:00, Kolth S160, S167, S170, S177, S179, S183

Biol 1103 GENERAL BOTANY. 5 degree credits, \$3012. \$72.50 plus \$10 course fee. Total \$82.50.

Levels of organization of plants, plant function, plant growth and development, plant reproduction. (Prereq 1011 or ♪)

Spring Qtr	Sec 1	Lect TTh —6:10-7:20, BioSci 12, StP Campus Lab TTh —7:30-9:30, BioSci 182, StP Campus
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Biol 1106 GENERAL ZOOLOGY. 5 degree credits, \$72.50 plus \$10 course fee. Total \$82.50.

A general survey of the animal kingdom. Animal diversity is the major theme of the course, with emphasis placed upon animal phylogeny and evolution. Morphological, physiological, behavioral and ecological characteristics of various groups of animals are compared and contrasted in lectures and the laboratory. (Prereq 1011)

Winter Qtr	Sec 1	Lect T —7-9:30, Z313, Schmid Lab Th —7-10:00, Kolth P168
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***Biol 3011 ANIMAL BIOLOGY.** 5 degree credits, \$72.50 plus \$15 course fee. Total \$87.50

Ways by which different animal phyla have solved similar physiological problems. Laboratory includes survey of major animal group and physiological experiments. (Prereq 1011, Chem 1005. Limited to 20 students)

Fall Qtr	Sec 1	Lect T —6-8:30, Z102, Gilbertson Lab Th —6-10:00, Z 101D
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Symbols, abbreviations, off-campus class locations begin on page 389.

BIOL 3051 BIOLOGY AND THE FUTURE OF MAN. 4 degree credits, \$58. (◆\$29)

◆ A nontechnical discussion of biological factors affecting the state of the environment and the quality of life. Topics may include pollution, warfare, energy and mineral resources, food supply, population growth and control, genetics and eugenics, public health, the value of wilderness, and biological aspects of ethics and morals. **Must be taken S-N.** (No prereq)

Spring Sem Sec 1 **M**—6:20-8:40, Z 313, Gorham

botany (Bot)

Veta Bonnewell, Instructor in Botany

Barbara Coffin, Instructor in Botany

Tom Trow, Instructor in Botany

***Bot 1009 MINNESOTA PLANT LIFE.** 4 degree credits, \$58 plus \$5 special fee. Total \$63.

Nontechnical survey of all groups of plants native to Minnesota; identification and distribution. Class will occasionally meet at 6 p.m. and on Saturdays for field trips. (No prereq. Limited to 60 students)

Spring Qtr Sec 1 **MW**—6:20-8:50, Bo 301, Bonnewell

(See other Minnesota courses, page 190)

Bot 1012 PLANTS USEFUL TO MAN. 4 degree credits, \$58. (◆\$29)

◆ Survey of the role which plants have played in man's cultural and biological development. A discussion of economic and medicinal plants, including foods, fibers, spices, drugs, oils, proteins, fats and lumber. Lectures and open exhibits. (No prereq)

Fall Qtr Sec 1 **TTh**—6:30-8:00, BoB 6 (demonstration time arr), Coffin, Trow

business administration

Your attention is called to the Business Administration Certificate programs, page 91.

Please see the following alphabetical listings for course offerings:

ACCOUNTING
BUSINESS ADMINISTRATION
BUSINESS LAW
FINANCE
INDUSTRIAL RELATIONS
INSURANCE
MANAGEMENT
MANAGEMENT INFORMATION SYSTEMS
MARKETING
OPERATIONS ANALYSIS AND MANAGEMENT
QUANTITATIVE ANALYSIS
REAL ESTATE
SALESMANSHIP
TRANSPORTATION

(See also Economics and Business English and Hist 3841, American Business History)

Symbols, abbreviations, off-campus class locations begin on page 389.

For non-credit conferences or seminars in business administration, write or call Director, Continuing Business Education, 334C Business Administration; telephone 373-3835.

Executive (evening) Master of Business Administration (E.M.B.A.)

An evening program intended for and limited to persons who are full-time employees of business and other organizations in the Twin Cities metropolitan area leading to the master of business administration degree is offered under the auspices of the Graduate School of Business Administration and the University of Minnesota Graduate School. For information about this program, write or call:

Director of Graduate Study
 Graduate School of Business Administration
 Business Administration Building
 University of Minnesota
 Minneapolis, Minnesota 55455 (373-5505)

business administration (BA)

Rogene Buchholz, Assistant Professor of Management and Transportation
W. Bruce Erickson, Associate Professor of Management and Transportation
John Flagler, Professor of Labor Education
Delbert C. Hastings, Professor of Management Sciences
Robert J. Holloway, Professor of Marketing and Business Law
George O'Connell, Assistant Professor of Labor Education

***BA 3002 BUSINESS AND SOCIETY. 4 degree credits, \$58.**

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. (No prereq. May not be taken S-N. Limited to 60 students)

Fall Qtr	Sec 1	M —5:30-8:00, BlegH 120, Flagler
	Sec 2	T —5:30-8:00, BlegH 120
	Sec 3	W —6:20-8:50, StP Ramsey Hosp, Education Bldg 401, Buchholz
Winter Qtr	Sec 4	M —5:30-8:00, BlegH 120, Flagler
	Sec 5	T —5:30-8:00, BlegH 120, O'Connell
	Sec 6	W —5:30-8:00, BlegH 120, Erickson
Spring Sem	Sec 7	M —8:15-9:55, BlegH 120, Holloway**
Spring Qtr	Sec 8	M —5:30-8:00, BlegH 120, Erickson
	Sec 9	T —5:30-8:00, BlegH 120, Hastings
	Sec 10	W —7-9:30, Sandburg JHS 213, Golden Valley (Limit 45 students*) Flagler

**Part of an integrated series in business and economics. See page 166.

Symbols, abbreviations, off-campus class locations begin on page 389.

***BA 3003 BUSINESS AND THE NATURAL ENVIRONMENT.** 4 degree credits, \$58.

Business and its relationship to the natural environment (air, land, water, plants, animals). The use by industry of renewable and nonrenewable resources. Environmental deterioration caused by business to air, land, and water. Solutions to environmental problems. (No prereq. Limited to 60 students)

Fall Sem Sec 1 **M**—8:15-9:55, BlegH 120, Holloway

(See other environmental concerns courses, page 170)

***BA 3004 TOPICS IN BUSINESS AND SOCIETY.** 4 degree credits, \$58.

Concentration on such topics as limits to growth, minority employment, and consumerism. (Prereq 3002 or 3. Limited to 35 students)

Spring Qtr Sec 1 **T**—5:30-8:00, BlegH 260, Buchholz

new

business education

(See Vocational and Technical Education)

business finance

(See Finance)

business law (BLaw)

(See also General College Legal Paraprofessions, page 64; EdAd 8224, Legal Implications . . . and General College legal courses)

Albert O. Andrews, Jr., Lecturer in Business Law

John R. Carroll, Lecturer in Business Law

Charles Diessner, Lecturer in Business Law

Richard A. Hassel, Lecturer in Business Law

Thomas Lovett, Lecturer in Business Law

Thomas R. Mahler, Lecturer in Business Law

Richard A. Nordbye, Lecturer in Business Law

James E. O'Brien, Lecturer in Business Law

James D. Olson, Lecturer in Business Law

C. Harold Peterson, Lecturer in Business Law

Walter Robb, Lecturer in Business Law

Ross L. Thorfinnson, Lecturer in Business Law

James Van Valkenburg, Lecturer in Business Law

Dobson West, Lecturer in Business Law

Wells J. Wright, Lecturer and Coordinator of Business Law

Robert H. Zalk, Lecturer in Business Law

BLaw 0001C COMMON LEGAL PROBLEMS. 3 certificate credits, \$43.50.

Provides a comprehensive course in everyday legal principles, designed to assist the layman in recognizing his legal rights and more intelligently and efficiently managing his personal affairs. This course considers legal problems such as: purchase, sale, rental, or lease of homes and other real property; making of wills and handling of estates; preparation of income tax returns; rights of persons injured in accidents and liability of persons causing accidents; liability for various other types of tortious conduct; making of contracts; sale of personal property; negotiable instruments; formation and operation of small business as a sole proprietorship, partnership or corporation; workmen's compensation laws; rights and responsibilities within family, including divorce; collection of monies through garnishment, attachment, and mechanic's liens; criminal law. (No prereq)

Symbols, abbreviations, off-campus class locations begin on page 389.

- Fall Sem** Sec 1 **Th**—7-9:30, Kellogg HS 168-170, Little Canada
(Limit 45 students*)
- Spring Sem** Sec 2 **Th**—6:20-8:00, NH 209

BLaw 0098C BUSINESS LAW—LAW OF REAL PROPERTY. 3 certificate credits, \$43.50.
The study of the nature and classification of real estate; deeds and conveyances; landlord and tenant; recording and abstracting; torrens titles; mortgages; wills; probating of estates, etc. (No prereq)

- Spring Sem** Sec 1 **W**—6:20-8:00, BlegH 125, Carroll
Sec 2 **Th**—6:20-8:00, BlegH 155, Olson

BLaw 3058-3078, 3088 BUSINESS LAW. 4 degree credits each term, \$58 each term.*
Sequence of courses in Business Law in the fundamental principles of law for the business and professional man or woman. **3058:** Study of origin, history and development of law, systems of courts, legal procedure, and extensive study of law of contracts, the basic law affecting business transactions; and the law of the relationship of principal and agent, master and servant, employer and employee. **3078:** Partnerships, corporations, and the law of real property, including nature, creation, and terms of the relations, rights and liabilities of parties involved in business associations; together with study of the basic concepts and principles of real property law. **3088:** Study of the basic concepts of personal property, including rights of possessors, bailees, holders of security interests, etc.; and extensive study of the law of sales of goods contracts, and law of commercial paper under the Uniform Commercial Code, together with a brief study of the law of wills and estates. (No prereq for 3058; 3058 for 3078 and 3088)

- Fall Qtr** **3058** Sec 1 **T**—6:20-8:50, STP Ramsey Hosp, Education Bldg 401, VanValkenburg
Sec 2 **W**—7-9:30, Richfield HS 341 (Limit 45 students*)
Sec 3 **Th**—7-9:30, Sandburg JHS 213, Golden Valley; Diessner (Limit 45 students*)
- Fall Sem** **3088** Sec 4 **T**—6:20-8:50, BlegH 155, Nordbye
3058 Sec 5 **M**—8:15-9:55, BlegH 155**
Sec 6 **T**—6:20-8:00, BlegH 125, Robb (Limit 45 students*)
Sec 7 **W**—6:20-8:00, BlegH 125, Lovett (Limit 45 students*)
- Winter Qtr** **3078** Sec 8 **W**—8:15-9:55, BlegH 125, Lovett
3058 Sec 9 **T**—6:20-8:50, Minnetonka HS 120-121, Andrews
Sec 10 **T**—7-9:30, Kellogg HS 233, Little Canada; VanValkenburg (Limit 35 students*)
Sec 11 **W**—6:20-8:50, BlegH 135
Sec 12 **Th**—5-7:30, WCCO Radio Bldg 512, Mpls; Mahler (Limit 45 students*)
- 3078** Sec 13 **T**—6:30-9:00, Sandburg JHS 213, Golden Valley (Limit 45 students*)
- 3088** Sec 14 **W**—6:20-8:50, BlegH 145, West
- Spring Sem** **3058** Sec 15 **W**—8:15-9:55, BlegH 150, Robb
- Spring Qtr** **3058** Sec 16 **T**—7-9:30, Richfield HS 341, Hassel (Limit 45 students*)
Sec 17 **Th**—6:20-8:50, BlegH 250, VanValkenburg
- 3078** Sec 18 **T**—6:20-8:50, Sandburg JHS 213, Golden Valley; VanValkenburg (Limit 45 students*)
- 3088** Sec 19 **T**—6:20-8:50, Sandburg JH 214, Golden Valley; Nordbye (Limit 45 students*)

**Part of an integrated series in business and economics. See page 166.

business studies

(See General College)

Symbols, abbreviations, off-campus class locations begin on page 389.



chemistry (Chem)

(See also Professional Recognition Program in Engineering and Science, page 222)

Robert Brasted, Professor of Chemistry

Keith Coad, Lecturer in Chemistry

Edward Meehan, Professor of Chemistry

Thomas Morath, St. Thomas College Professor of Chemistry

A \$10 chemistry deposit card is required for all the courses in chemistry. Information concerning the procurement of this card will be given at the first meeting of each class. An equipment fee of \$3 and charges for laboratory material and breakage will be punched out of the deposit card. The balance, less charges for breakage, will be returned to the student at the end of the semester.

Chem 1004-1005† GENERAL PRINCIPLES OF CHEMISTRY. 5 degree credits each semester, \$72.50 plus \$5 special fee and \$6 course fee. Total \$83.50 each semester.

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, H.S. physics strongly recommended for 1004; 1004 for 1005)

Fall Sem 1004 Sec 1 **Lab T**—6-9:30, SmithH 210

Lect Th—6:20-8:30, SciCB 375, Brasted

Spring Sem 1005 Sec 2 **Lab T**—6-9:30, SmithH 210

Lect Th—6:20-8:30, SciCB 375, Brasted

Chem 1006 PRINCIPLES OF SOLUTION CHEMISTRY. 4 degree credits, \$58 plus \$5 special fee and \$6 course fee. Total \$69.

The lecture and laboratory work are concerned primarily with the descriptive chemistry of the elements, especially with the properties (including stereochemistry) of transition metal complex ions, their preparation, absorption spectrometry and some applications to physiological systems. Selected cations and anions are studied in the laboratory with regard to properties in aqueous solution and their detection. Both heterogeneous and homogeneous equilibria in solution are applied to separation techniques. Lecture material also includes oxidation reduction systematics and their use in estimating reaction spontaneity. Atomic, ionic and molecular structure serve as underlying bases for this study of simple and complex ions. (Prereq 1005 or 1032. Students attend twice a week)

Fall Sem Sec 1 **Lect T**—6:20-8:00, SmithH 325, Coad

Sec 1 **Lab Th**—6:20-9:30, SmithH 210

Chem 3100 QUANTITATIVE ANALYSIS. 3 degree credits, \$43.50

A survey of quantitative methods of analysis. Lecture. Not for chemistry majors. (Prereq 1005)

Fall Qtr Sec 1 **M**—6:30-8:45, SmithH 315, Meehan

***Chem 3301-3302 ELEMENTARY ORGANIC CHEMISTRY.** 5 degree credits each semester, \$72.50 plus \$6 course fee and \$5 special fee. Total \$83.50 each semester.

Symbols, abbreviations, off-campus class locations begin on page 389.

Important classes of organic compounds, both aliphatic and aromatic, together with some heterocyclic compounds. Laboratory work includes the preparation of typical substances. (Prereq 1005 or 1032 or equiv for 3301; 3301 or 3305H for 3302. Limited to 49 students)

Fall Sem 3301 Sec 1 **Lect T**—6-8:30, SmithH 225, Morath
Lab Th—6-9:30, SmithH 349
Spring Sem 3302 Sec 2 **Lect T**—6-8:30, SmithH 225, Morath
Lab Th—6-9:30, SmithH 349

chicano studies (Chic)

(See other ethnic studies courses, page 168; and Anth 5222, Peoples and Cultures of Middle America)

Alfredo Gonzales, Instructor in Chicano Studies

Marcella Trujillo, Instructor in Chicano Studies

Chic 3507 CHICANO LITERATURE AND CULTURE. 4 degree credits, \$58. (◆\$29)

An examination of the various genres that comprise Chicano literature in the U.S. and how the culture is viewed and interpreted by the media. (No prereq but Spanish recommended)

Fall Qtr Sec 1 **W**—6:20-8:50, ForH 115, Gonzales, Trujillo



child psychology (CPsy)

(See also Education; and GC 1722, Parent-Child Relationships)

Judith Brown, Administrator for special schools, Special Education Division, Minneapolis Public Schools

Robert Bruininks, Associate Professor of Special Education

S. Louise Carter, Graduate Assistant, Institute of Child Development

Dante Cicchetti, National Institute of Mental Health Trainee in Clinical Psychology

W. Andrew Collins, Associate Professor, Institute of Child Development

Suzanne Gecy, National Institute of Mental Health Trainee in Child Psychology

F. Robert Gordon, Graduate Assistant, Institute of Child Development

Seymour Gross, Director of Mental Health Services, Pilot City Health Center

Harold Grotevant, Eva O. Miller Fellow, Institute of Child Development

Roxane Gudeman, Institute of Child Development

Harold Ireton, Associate Professor, Department of Family Practice and Community Health

Daniel Keating, Assistant Professor, Institute of Child Development

Stanley Kriss, National Institute of Mental Health Trainee in School Psychology

Stanley Kuczaj, National Institute of Mental Health Trainee in Child Psychology

Murray Reed, Chief Psychologist, Wilder Child Guidance Clinic

Elliot Saltzman, National Institute of Child Health and Human Development Trainee in The Center for Research in Human Learning

Brian Vaughn, Institute of Child Development

Robert Wozniak, Assistant Professor, Institute of Child Development

Albert Yonas, Associate Professor, Institute of Child Development

Symbols, abbreviations, off-campus class locations begin on page 389.

Did you know that 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 Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses

Psy 1001 or 5 cr of introductory psychology; Psy 1004-1005.

Major Requirements

Minimum of 32 3xxx- or 5xxx-level cr (maximum of 52), to include 3301, 5303, Psy 3801; 12 cr from 5333, 5335, 5339, 5341, 5343, 5345, 5347; minimum of 8 cr from 5xxx-level child psychology or psychology courses except Psy 5031, 5054, 5071, 5701.

Majors may count toward graduation no more than 52 total 3xxx- and 5xxx-level cr in child psychology, psychology, psychological foundations, and special education.

You need not be majoring in Child Psychology to register for these classes.

Child Psychology courses may be taken A-N or S-N in CLA.

IC 0005 YOUR BRIGHT CHILD IN SCHOOL: WHERE TO START, WHAT TO DO

No credit. Keating

See Informal Courses, page 284.

CPsy 3301 CHILD PSYCHOLOGY. 4 degree credits, \$58. ★

Introduction to the science of child behavior; emphasis on critical review of theories and research. (Prereq 5 cr introductory psychology)

Fall Qtr Sec 1 **M**—7-9:30, Kellogg HS 167-169, Little Canada (Limit 35 students*) Carter

Sec 2 **T**—6:20-8:50, WuH 230, Gordon

Sec 3 **W**—7-9:30, Jonathan Community Ctr, Chaska; Vaughn

Winter Qtr Sec 4 **T**—4-6:30, CD 216, Gudeman

Sec 5 **W**—7-9:30, Richfield HS 141 (Limit 30 students*) Kriss

Spring Qtr Sec 6 **T**—6:30-9:00, Elim Church, Robbinsdale; Grotevant (♦\$28)

Sec 7 **Th**—4-6:30, CD 216, Yonas

CPsy 3303 ADOLESCENT PSYCHOLOGY. 4 degree credits, \$62. ★

Physical, cognitive, and social development during adolescence. (Prereq 5 cr introductory psychology. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:30-9:00, Sandburg JHS 212, Golden Valley (Limit 35 students*) Keating

Winter Qtr Sec 2 **T**—6:20-8:50, Bu 120, Keating

CPsy 5311 BEHAVIOR PROBLEMS. 4 degree credits, \$62.

Types, origin, development, and treatment of behavior difficulties in normal children. (Prereq CPsy 3301 or equiv. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, WuH 230, Cicchetti

Winter Qtr Sec 2 **W**—6:20-8:50, Bu 123, Ireton

Spring Qtr Sec 3 **M**—6:20-8:50, WuH 230, Reed

CPsy 5313 PSYCHOLOGY OF ATYPICAL CHILDREN. 4 degree credits, \$62.

Problems of research, assessment, and behavior associated with atypicality; evaluation of research in areas of major concern for sensory, language, intellectual, and physical deviation. (Prereq 3301 or equiv. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:20-8:50, CD 216, Brown

Symbols, abbreviations, off-campus class locations begin on page 389.

CPsy 5315 INTRODUCTION TO MENTAL RETARDATION. 4 degree credits, \$SpEd 5120, \$62.

Psychological and educational problems related to the mentally retarded. (Prereq 3301 or equiv. Meets concurrently with SpEd 5120. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:20-8:50, Pt 214, Bruininks

***CPsy 5319 CLINICAL PROCEDURES WITH CHILDREN.** 4 degree credits, \$62.

Survey of methods of clinical psychology; basic concepts and research problems in clinical work with children; primarily for students not majoring in clinical psychology. (Prereq 12 cr in psychology, child psychology, educational psychology, or sociology. Limited to 55 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:20-8:50, Pt 214, Gross

CPsy 5331 PROCESSES OF SOCIALIZATION OF CHILDREN. 4 degree credits, \$62.

Processes of social learning; identification, imitation, reward and punishment, internalization and object choice. (Prereq CPsy 3301 or graduate. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—7-9:30, Richfield HS 143, Gecy (Limit 30 students*)

Spring Qtr Sec 2 **Th**—6:20-8:50, Bu 120, Collins

CPsy 5343 COGNITIVE DEVELOPMENT. 4 degree credits, \$62. (♦\$31)

Development of cognitive processes; discussion of relevant theory, research literature and methodology. (Prereq 3301. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—7-9:30, Kellogg HS 233, Little Canada, Saltzman
(Limit 35 students*)

CPsy 5345 LANGUAGE DEVELOPMENT. 4 degree credits, \$62. (♦\$31)

Development of structure and function of language; factors influencing development, methodological problems, language scales; theories. (Prereq 3301. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—7-9:30, Sandburg JHS 204, Golden Valley, Kuczaj
(Limit 35 students*)

CPsy 5347 LEARNING IN CHILDREN. 4 degree credits, \$62. (♦\$31)

Introduction to current research on learning and problem solving in children; application to practical contexts. (Prereq 3301. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—7-9:30, Richfield HS 141, Wozniak (Limit 30 students*)

chinese

(See East Asian Languages)

civil and mineral engineering (CE)

(Your attention is called to the Professional Recognition Program in Engineering and Science, page 222; and environmental concerns courses, page 170.)

Symbols, abbreviations, off-campus class locations begin on page 389.

C. Edward Bowers, Professor of Civil and Mineral Engineering
 Ladislav Cerny, Associate Professor of Civil and Mineral Engineering
 G. Lee Christensen, Assistant Professor of Civil and Mineral Engineering
 Jesse E. Fant, Professor of Civil and Mineral Engineering
 Walter Maier, Associate Professor of Civil and Mineral Engineering
 Lyle P. Pederson, Assistant Professor of Civil and Mineral Engineering
 Eugene L. Skok, Jr., Assistant Professor of Civil and Mineral Engineering
 Charles C. S. Song, Associate Professor of Civil and Mineral Engineering
 Heinz Stefan, Associate Professor of Civil and Mineral Engineering

Your attention is called to the Undergraduate Development Certificate in Civil Engineering—90 credits, page 100.

CE 0005 REFRESHER COURSE FOR CIVIL ENGINEERS. No credit, \$58.

This course is for practicing engineers and consists of lectures and problem sessions relating to highways, soils, sanitary, structural and hydraulic engineering. (Prereq BCE or equivalent degree or completion of Parts I and II of the State Board Examination)

Winter Qtr Sec 1 T—6-9:30, Ex 193, Pederson, Bowers, Maier, Christensen, Cerny

CE 3300 ELEMENTS OF SOIL MECHANICS. 4 degree credits, \$58.

Physical properties of soils; relationships with water; stress distribution. Classification, compaction, and strength tests. Geological features and engineering properties of rocks. Five Saturday laboratories will be arranged. (No prereq. Knowledge of algebra and statics is desirable)

new

Fall Qtr Sec 1 Lect M—6-9:20, Ex 177, Pederson
 Lab Sa—to be arr.

CE 3400 FLUID MECHANICS. 4 degree credits, \$58.

Fluid statics and dynamics for liquid and gases. Kinematics of fluid flow, viscous effects and introduction to incompressible and compressible duct flow. (Prereq Math 3221)

new

Fall Qtr Sec 1 Lect W—6:20-9:00, Ex 148, Stefan
 Lab Sa—9 a.m.-12:00 (Oct. 4, 18, Nov. 1, 15, 29)

***CE 3700 INTRODUCTION TO CONSTRUCTION MATERIALS.** 4 degree credits, \$58 plus \$4 course fee. Total \$62.

Basic concepts of the behavior mechanisms of materials and the characterization of specific materials such as concrete, asphaltic mixes, metals, woods and other materials. Five Saturday laboratories will be arranged. (Prereq AEM 1015 or †. Limited to 20 students)

new

Spring Qtr Sec 1 Lect T—6:20-9:00, Ex 177, Skok
 Lab Sa—to be arr.

CE 5401 WATER RESOURCES ENGINEERING. 5 degree credits, \$77.50

Introduction to hydrology including precipitation and flood analysis; hydraulic engineering, including conduit flow, pumps, open channel flow, culvert flow, flow measurement and waves, hydraulic structures; introduction to the systems approach. (Prereq 3400 or AEM 5200 or †. Qualified students may register for graduate credit at the University of Minnesota)

new

Winter Qtr Sec 1 Lect T—6-9:20, Ex 148, Song
 Lab Sa—9 a.m.-12:00 (Jan. 10, 24, Feb. 7, 21, Mar. 6)

CE 5405 HYDROLOGY. 4 degree credits, \$62.

Hydrologic cycle, precipitation, evaporation, infiltration, runoff analysis, flood routing, statistical procedures in hydrology, urban hydrology, introduction to

Symbols, abbreviations, off-campus class locations begin on page 389.

mathematical models of medium and large watersheds. (Prereq 5401 or 5. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Lect T**—6:20-9:00, Ex 148, Bowers
Lab Sa—9 a.m.-12:00 (Apr. 3, 17, May 1, 15, 28)

CE 5610 DESIGN OF METAL STRUCTURES: INTRODUCTION. 4 degree credits, \$62.

Loads on civil structures, load-factor and working-stress philosophies of design. Design of tension, compression and flexural members and their connections. Codes, properties of structural metals. (Prereq 5600. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Lect W**—6:20-9:00, MinMet 116, Cerny
Rec Sa—to be arr.

CE 5611 DESIGN OF REINFORCED CONCRETE STRUCTURES. 4 degree credits, \$62.

Working stress and ultimate load philosophies of design and their relation to physical properties of steel and concrete. Design of continuous beams, columns, slabs, footings. Relation of code provisions to field and laboratory measurements. (Prereq 5600. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Lect W**—6:20-9:00, MinMet 116, Cerny
Rec Sa—to be arr.

civil defense

(See Emergency Services Education)

classical civilization

Did you know that a major in Classical Civilization can be completed in the evening? Those courses required in the major are offered every 4 years. Interested students should discuss your plans with an Extension counselor (373-3905).

Classical Civilization is an interdisciplinary major. This year Extension courses which apply toward the fulfillment of major requirements are offered in classics, art history, philosophy, humanities, English, Latin, anthropology, linguistics, and Spanish. Extension Counseling will send the full description of major requirements and a list of courses offered through Extension Classes in 1975-76 which may apply toward the degree.

classics

(See also Latin and Art History)

William Coulson, Assistant Professor of Classics
Gerald M. Erickson, Associate Professor of Classics
Rosanne Gulino, Teaching Associate in Classics
Jackson P. Hershbell, Associate Professor of Classics
A. Thomas Kraabel, Associate Professor of Classics
Helen Moritz, Instructor in Classics
Holly Morris, Teaching Associate in Classics
George Rochefort, Assistant Professor of Classics

Symbols, abbreviations, off-campus class locations begin on page 389.

James Ruebel, Assistant Professor of Classics
Robert P. Sonkowsky, Professor of Classics
Vicky Walsh, Teaching Associate in Classics

NOTE—Classics (Clas) courses require no knowledge of Latin or Greek.

You need not be majoring in Classical Civilization to register for these classes.

IC 0007 ROMAN SATIRE. No credit. Rochefort.

See Informal Courses, page 285.

Clas 1007 THE WORLD OF GREECE. 4 degree credits, \$5007. \$58. (◆\$29)

◆ General survey of Greek civilization from the world of Homer to the age of Alexander. The Greek view of life as seen in art, history, literature and philosophy. Special attention paid to the golden age of Greece in the fifth century B.C. and to the expansion of the Greek spirit under Alexander. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek [see page 68]. Meets concurrently with 5007)

Fall Qtr Sec 1 **M**—6-8:30, FolH 308, Hershbell

Clas 1008 THE WORLD OF ROME. 4 degree credits, \$5008. **To be offered 1976-77.**

Clas 1012 THE LAW OF THE ANCIENT ROMANS. 4 degree credits, \$5013. \$58. (◆\$29)

◆ **new** Introduction to Roman legal science and the history of Roman jurisprudence; fundamental concepts of the Roman legal system; comparison of private and criminal courts. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Latin [see page 68])

Fall Qtr Sec 1 **T**—6-8:30, FolH 303, Ruebel

Clas 1015 INTRODUCTION TO THE LANGUAGES AND THOUGHT OF GREECE AND ROME. 4 degree credits, \$58. (◆\$29)

◆ **new** For non-language students. The relationship of languages of Greece and Rome to the literature, philosophy, law, science, government, and physical environment. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68])

Spring Qtr Sec 1 **M**—6-8:30, FolH 303, Rochefort

Clas 1019 MAGIC, WITCHCRAFT, AND THE OCCULT IN GREECE AND ROME. 4 degree credits, \$58. (◆\$29)

◆ Reading, lecture, and discussion on magic and witchcraft in classical literature and mythology; on the practice of magic as observed from papyri, epigraphical and literary evidence; and on beliefs and practices concerning prophecy and the interpretation of dreams. Analysis of the changing role of witchcraft and divine possession from earlier to later antiquity with consideration of the relation of these phenomena to changes in economic and social conditions. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68])

Winter Qtr Sec 1 **T**—6-8:30, FolH 308, Erickson

Clas 1043 INTRODUCTION TO GREEK AND ROMAN ARCHAEOLOGY. 4 degree credits, \$58. (◆\$29)

◆ **new** Highlights of the archaeological evidence for ancient cultures in Greece and Italy from the Stone Age to the end of the Roman Empire. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68])

Fall Qtr Sec 1 **W**—6-8:30, FolH 303, Walsh, Morris, Gulino

Clas 1045 GREEK AND ROMAN MYTHOLOGY. 3 degree credits, \$5145. \$43.50 (◆\$21.75)

◆ Classical myths dealing with gods, demi-gods, and heroes. Attention to the myths as stories and as a basic component of the European cultural heritage, including artistic, religious, psychological, and anthropological interpretations. Distinctions between myth and legend, mythology and mythography. Special atten-

Symbols, abbreviations, off-campus class locations begin on page 389.

tion to the use of myths in modern literature. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68] Meets concurrently with 5145)

Winter Qtr Sec 1 **M**—6-8:30, FolH 308, Rochefort

Clas 1048 TECHNICAL TERMS OF SCIENCE, MEDICINE AND HUMANITIES. 3 degree credits, \$3048. \$43.50 (♦\$21.75)★



Computer assisted instruction in terminology derived from Greek and Latin. Programmed learning and self-pacing in order to acquire facility in specialized vocabularies of scientific and health-related fields. Some attention to humanistic terms. Flexible scheduling throughout the week and Saturday. (No prereq. Meets concurrently with 3048)

Spring Qtr Sec 1 **Th**—6:20-8:00, FolH 303 (first mtg only)

Clas 1122 GREEK ART, ARCHITECTURE AND ARCHAEOLOGY: AN INTRODUCTORY COURSE. 4 degree credits, \$5122. \$58. (♦\$29)



Survey of Greek art from the earliest times to 31 B.C. Attention paid to the main trends and concepts in architecture, sculpture and painting; also examination of the art in its social, literary and historical context. (No prereq. Meets concurrently with 5122. May be applied to the CLA foreign language requirement, Route II [see page 68]. For graduate credit register in 5122).

Spring Qtr Sec 1 **Th**—7-9:30, Nicollet JHS, Burnsville; Coulson

Clas 3048 TECHNICAL TERMS OF SCIENCE, MEDICINE, AND HUMANITIES. 3 degree credits, \$1048. \$43.50



See description for 1048. (Prereq jr. Meets concurrently with 1048)

Spring Qtr Sec 1 **Th**—6:20-8:00, FolH 303 (first mtg only)

Clas 3073 RELIGION IN ANTIQUITY: ROMAN, EARLY CHRISTIAN. 4 degree credits, \$5073. \$58. (♦\$29)



The Etruscans. Republican religion. The appeal of non-Roman cults. Ruler worship. Christians in Asia Minor, Egypt, and the West. Popular piety, Christian and non-Christian. Rabbinic Judaism. Varieties of Christianity in 2nd and 3rd centuries. Influence of Greco-Roman culture upon emerging Church. Constantine and Julian. (Prereq jr. May be applied toward the CLA foreign language requirement Route II for Latin [see page 68]. Meets concurrently with 5073)

Fall Qtr Sec 1 **Th**—6-8:30, FolH 308, Kraabel

Clas 3081 CLASSICAL EPIC IN TRANSLATION. 4 degree credits, \$5081, \$58. (♦\$29)



Homer's *Iliad* and *Odyssey*, Virgil's *Aeneid*; cultural context of epic, the heroic character, epic formulas, and poetic techniques. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68]. Meets concurrently with 5081)

Winter Qtr Sec 1 **Th**—7-9:30, Jewish Community Ctr, lower mtg room, StLPk, Moritz

Clas 3162 ROMAN ART AND ARCHAEOLOGY. 5 degree credits, \$ArH 3162. To be offered 1976-77.

Clas 5004 EROTICISM AND FAMILY LIFE IN THE GRECO-ROMAN WORLD. 4 degree credits, \$62. (♦\$31)



Analysis of Greek and Roman family life in the shaping of personality; diachronic change in modes of erotic expression; Narcissism and homosexuality; status of women; evolving views of sexual morality compared to present trends. Examples from art and literature. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6-8:30, FolH 308, Erickson

Clas 5007 THE WORLD OF GREECE. 4 degree credits, \$1007. \$62.

See course description for 1007. (No prereq. Meets concurrently with 1007 but requires additional work. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6-8:30, FolH 308, Hershbell

Clas 5008 THE WORLD OF ROME. 4 degree credits, \$1008. To be offered 1976-77.

Clas 5073 RELIGION IN ANTIQUITY: ROMAN, EARLY CHRISTIAN. 4 degree credits, \$3073. \$62.

See course description for 3073. (Prereq **3**. Meets concurrently with 3073 but requires additional work. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6-8:30, FolH 308, Kraabel

Clas 5081 CLASSICAL EPIC IN TRANSLATION. 4 degree credits, \$3081. \$62.

See course description for 3081. (No prereq. Meets concurrently with 3081 but requires additional work. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—7-9:30, Jewish Community Ctr, lower mtg room, StLPk; Moritz

Clas 5089 INTRODUCTION TO BIBLICAL ARCHAEOLOGY. 4 degree credits, \$62. (♦\$31)

Survey of 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 the study of ancient religions. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Hebrew [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6-8:30, FolH 308, Kraabel

(See related courses, page 179)

Clas 5103 HELLENISTIC ART AND ARCHAEOLOGY. 4 degree credits, \$ArH 5013, \$62. (♦\$31)

Greek architecture, sculpture, ceramics, painting, and minor arts from the beginning of the 4th century B.C. to the end of the Hellenistic period. City planning, public buildings, and the topography of such sites as Athens, Olynthos, Corinth, Priene, Pergamon. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek [see page 68]. Meets concurrently with ArH 5013. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6-8:30, Arch 25, Coulson

Clas 5122 GREEK ART, ARCHITECTURE AND ARCHAEOLOGY: AN INTRODUCTORY COURSE. 4 degree credits, \$1122. \$62.

See course description for Cla 1122. (No prereq. Meets concurrently with 1122. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—7-9:30, Nicollet JHS, Burnsville; Coulson

Clas 5145 GREEK AND ROMAN MYTHOLOGY. 3 degree credits, \$1045. \$46.50

See course description for Clas 1045. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Meets concurrently with 1045. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6-8:30, FolH 308, Rochefort

Symbols, abbreviations, off-campus class locations begin on page 389.

communication

(See Communication courses in English; General College; Speech; Study Skills; Rhetoric; and Public Health for Communications for health professionals)

computer, information, and control sciences (CICS)

Your attention is called to the Undergraduate Development Certificate in Computer, Information, and Control Sciences, 45 and 90 credits, page 97; Management Information Systems, page 301; and Computer, Information, and Control Sciences degree, page 74.

Donald Boyd, Assistant Professor of Computer, Information, and Control Sciences
Wolfgang Giloi, Professor of Computer, Information, and Control Sciences
Krzysztof Frankowski, Associate Professor of Computer, Information, and Control Sciences

William Franta, Assistant Professor of Computer, Information, and Control Sciences

Oscar Ibarra, Associate Professor of Computer, Information, and Control Sciences

Jay A. Leavitt, Associate Professor of Computer, Information, and Control Sciences

Kurt Maly, Assistant Professor of Computer, Information, and Control Sciences

William D. Munro, Professor of Computer, Information, and Control Sciences

Sartaj Sahni, Assistant Professor of Computer, Information, and Control Sciences

G. Michael Schneider, Assistant Professor of Computer, Information, and Control Sciences

Steven Weingart, Assistant Professor of Computer, Information, and Control Sciences

Did you know that a major in Computer, Information, and Control Sciences can be completed in the evening?

Those courses required in the major are offered every two years. Interested students should discuss plans with an Extension counselor (373-3905).

B.S. MAJOR SEQUENCE (Institute of Technology)

Required Preparatory Courses

Math 1311, 1321, 1331, 3142, 3211; Stat 3091 or 5121 for students intending to take additional work in statistics; at least one additional 3xxx- or 5xxx-level mathematics or statistics course (recommended: Math 5701)

Major Requirements

3001, 3105, 3106, 3107, 5102, 5104, 5107, 5121, 5201, 5301, 5400, 5501

Elective courses which form a coherent program in CICS and application areas; for example health sciences computing, transportation systems, environmental engineering, machine design, software systems, mathematics of computation, theory of computation, etc. These courses are to be selected from additional 5xxx-level CICS courses and adviser-approved courses from other departments.

You need not be majoring in CICS to register for these classes.

Symbols, abbreviations, off-campus class locations begin on page 389.

computer, information, and control sciences prerequisites in the institute of technology

The entrance requirement for the Institute of Technology and the prerequisite for Math 1311 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. However, if it has been two years or more since he took his last mathematics course, the student is strongly advised to register for Math 1201 or possibly Math 0009. A student who has completed Math 0009 or its equivalent (higher algebra) in high school or college (not a trade school) within the last 2 years may register for Math 1201. Math 0009 and Math 1201 take the place of the junior and senior mathematics courses in high school.

Note: Students with programming experience may apply for a waiver of CICS 1100-1101 or CICS 3101. Students who believe they are eligible should contact Extension Counseling (373-3905).

CICS 1100 INTRODUCTION TO FORTRAN PROGRAMMING I. 2 degree credits, \$29.

Introduction to computer programming using FORTRAN; elementary-intermediate level applications. A choice of problems is provided to allow for students from different academic disciplines. (Prereq Math 1211 or 1311 or 1611 or $\$$. Informal lab)

Fall Sem Sec 1 T—6-7:10, LindH 203, Sahn

CICS 1101 INTRODUCTION TO FORTRAN PROGRAMMING II. 2 degree credits, \$29.

Continuation of 1100. Extended applications including some numerical methods. Not open for credit to CICS majors. (Prereq 1100. Informal lab)

Spring Sem Sec 1 T—6-7:10, LindH 203, Weingart

CICS 3001 PERSPECTIVES ON COMPUTERS AND SOCIETY. 4 degree credits, \$58 plus \$4 special fee. Total \$62 (\diamond \$29 plus \$4 special fee. Total \$33)

The impact of computers on society. Partnership or confrontation. History of development. Potential for use. Computer utility. Privacy in a computer society. The future of computers. The ultimate machine. Computers in business, industry, art, music, the home. Meets concurrently with NSci 3201. (Prereq sophomore or $\$$)

Spring Qtr Sec 1 W—6-8:30, LindH 203, Schneider

CICS 3101 A FORTRAN INTRODUCTION TO COMPUTER PROGRAMMING. 4 degree credits, \$58 plus \$4 special fee. Total \$62.

Basic FORTRAN computer language with extensions. Programming applications and techniques. The binary number system and elements of computer organization and machine language. Integral laboratory. (Prereq Math 1231 or 1443. Some informal laboratory time is required and will be determined as the class progresses.)

Fall Sem Sec 1 W—6-7:40, Ex 193, Frankowski

Spring Sem Sec 2 W—6-7:40, Ex 193, Leavitt

CICS 3105 FUNDAMENTALS OF ALGORITHMS AND LANGUAGES I (formerly 1105). 4 degree credits, \$58 plus \$4 special fee. Total \$62.

Informal and formal approaches to algorithms, their properties, analysis, and synthesis (formulation) as well as the correspondence between programming language and the types of problems to be solved. Numerical algorithms will be discussed together with their implementation in a programming language (FORTRAN). (Prereq competence in a high-level language such as FORTRAN at a minimum level of 1100, although sophistication at the level of 1101 or 3101 is desirable or $\$$. Math 1231 or 1331 or 1621 or $\$$; informal lab)

Fall Qtr Sec 1 M—6-8:30, Ex 193, Maly

Symbols, abbreviations, off-campus class locations begin on page 389.

CICS 3107 INTRODUCTION TO THE STRUCTURE AND PROGRAMMING OF COMPUTER SYSTEMS. 4 degree credits, \$5101. \$58 plus \$4 special fee. Total \$62.

Organization and logical structure of computer systems. Representation of programs and data. Topics: number systems, primitive computer systems, programming in machine language. Extensions to more sophisticated systems, assembly language, sequencing, decision making, arithmetic, logical operations, character manipulation, iteration, sub-routines, data description, introduction to assembler software. (Prereq 1101 or 3101 or equivalent or \$. Intended for CICS majors; nonmajors should take 5101. Informal lab. Meets concurrently with 5101)

Fall Qtr Sec 1 Th—6-8:30, LindH 203, Weingart

CICS 5101 STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS I. 4 degree credits, \$3107. \$62 plus \$4 special fee. Total \$66.

This course serves as an introduction to assembly language programming. The topics covered are essentially the same as those listed for 3107, however, the emphasis and projects will be geared to non-majors. Topics include number bases and representation. Analysis of computer machine language instructions, addressing, indexing. Floating point arithmetic, looping, character manipulation, logical operations, subroutine linkage and transfer. Students write assembly language programs. (Prereq 1101 or 1105 or 3101 or \$, informal lab. Intended for nonmajors; CICS majors should take 3107. Meets concurrently with 3107. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 Th—6-8:30, LindH 203, Weingart

CICS 5102 STRUCTURE AND PROGRAMMING OF SOFTWARE SYSTEMS II. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Subroutine coding conventions, argument transfer, interrupts and traps; macros, I/O equipment and operations; buffers, conditional assembly and program segmentation. (Prereq 5101 or \$, informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—6-8:30, LindH 217, Franta

CICS 5104 SYSTEM SIMULATION: LANGUAGES AND TECHNIQUES. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Simulation methodology including random number generation, queueing, service-times, discrete random variables, design of experiments. Simulation languages, flow and event oriented; GPSS, SIMULA, SIMSCRIPT. Model building. Applications to job shops, business, operations research and operating systems. (Prereq 3107 or 5101, Stat 3091 or \$; informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6-8:30, Aero 309, Franta

CICS 5121 INTRODUCTION TO DATA STRUCTURES. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Basic concepts of data and their representation. Linear lists and strings; arrays and orthogonal lists; tree structures. Storage systems and structures. Applications. (Prereq 5101 or \$. Informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6-8:30, LindH 217, Sahni

CICS 5201 FUNDAMENTALS OF LOGIC SYSTEM DESIGN. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Mathematical fundamentals: Sets, set operations, relations, algebraic structures and boolean algebra, switching functions. Matrix notation and operations for the synthesis of combinational networks and iterative or sequential systems. State reduction and minimization. Design of synchronous flip-flop networks and microprograms for computer algorithms. (Prereq 3105 or \$. Informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6-8:30, LindH 217, Giloi

Symbols, abbreviations, off-campus class locations begin on page 389.

CICS 5301 NUMERICAL ANALYSIS. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

General concept of iteration formulas. Solution of equations. Newton's method. Linear systems. Finite differences. Interpolation. Numerical differentiation and integration. Introduction to initial value problems. (Prereq Math 3221 or Math 3142 and Math 3211 or §; a knowledge of FORTRAN is assumed; informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 Th—6-7:40, LindH 217, Leavitt

CICS 5302 NUMERICAL ANALYSIS. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

General theory of linear approximations. Norms. Error estimates. Convergence rates. Least squares. Orthogonal polynomials. Chebychev interpolation theory. Gaussian quadrature. Further solutions of equations. Multipoint iteration formulas. Starting values. Iterative schemes for linear algebra. Conditioning. Jacobi's method. Differential equations. Initial value problems. Systems of equations. Runge-Kutta. Stability. (Prereq 5301, Math 5601 or §. Informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 Th—6-7:40, LindH 217, Frankowski

CICS 5400 INTRODUCTION TO AUTOMATA THEORY. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Turing machines, computable functions, unsolvability of the halting problem. Finite state models: equivalence, minimization, synthesis of finite state systems, state assignment, decomposition. Survey of other automata. (Prereq 1106 or §; informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6-8:30, Aero 309, Boyd

CICS 5502 INTRODUCTION TO OPERATING SYSTEMS. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Definition and historical development of operating systems. Classification of systems as batch-processing, interactive and real-time systems. Abstractions and implementations of properties common to most systems. Concurrency and related control problems. Resource allocation. Storage allocation. Program modularity. Sharing. Multiplexing. Protection. Performance optimization. (Prereq 5102 or §, informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6-8:30, Arch 50, Boyd

CICS 5503 INTRODUCTION TO COMPILER CONSTRUCTION. 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Compiler structure. Simple compilation: scanning, statement recognition, expression translation, generation of reverse Polish, triplets, quadruplets, and assembly language code. Simple economization. Symbol table organization, memory organization and recursion. Self compilation by means of bootstrapping. Syntax directed translation via context-free grammars and other formalisms. Illustrative examples. (Prereq 5102 or §. Informal lab. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6-8:30, LindH 217, Maly

counseling, chemical dependency

(See Chemical Dependency Counseling Certificate, page 88; Public Health and Industrial Relations courses)

counseling and student personnel psychology (CSPP)

(See also Education)

Symbols, abbreviations, off-campus class locations begin on page 389.

Gordon Braatz, Assistant Professor of Clinical Psychology
Gayle K. Lumry, Associate Professor of Clinical Psychology
Warren F. Shaffer, Associate Professor of Educational Psychology
W. Wesley Tennyson, Professor of Educational Psychology
Robert G. Warnken, Professor of Psychology

S-N registration not permitted in CSPP unless specifically indicated in course description.

***CSPP 5110 COUNSELING PROCEDURES.** 3 degree credits, \$46.50.

For persons whose professional work includes counseling and interviewing; not for certification as school counselor. Emphasis on counseling relationship and principles of interviewing; case studies, role playing and demonstration. (No prereq. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—7-9:30, Richfield HS 144, Shaffer (Limit 30 students*)
Winter Qtr Sec 2 **M**—7-9:30, Bu 125, Shaffer
Spring Qtr Sec 3 **M**—7-9:30, Bu 120, Shaffer

CSPP 5130 INTRODUCTION TO GUIDANCE. 3 degree credits, \$46.50.

Philosophy, principles, and practices in development and operation of pupil personnel services; role of counselor, teacher, principal, and specialized personnel; guidance techniques and case studies. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6-8:30, Bu 123, Tennyson

***CSPP 5300 WORKSHOP: COUNSELING PSYCHOLOGY.** 3 degree credits this offering (maximum 12 cr) \$46.50.

For all counselors, teachers and administrators; aspects of intervention theory in relation to psychological principles; counseling; career development, assessment, psychological education and consultation. **Psychological assessment sequence.** **Fall: The clinical use of ability tests and deficit functioning; Winter: objective personality tests, primarily the MMPI; Spring: projective techniques; In the psychological assessment of adults.** (Prereq 1. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6-8:30, VA Hospital, Lumry, Warnken
Winter Qtr Sec 2 **M**—6-8:30, VA Hospital, Braatz, Warnken
Spring Qtr Sec 3 **M**—6-8:30, VA Hospital, Lumry, Braatz

criminal justice studies (CJS)

(See also Sociology; and GC 1235, The Law in Society)

Frederick Brown, Attorney, Popham, Haik, Schnobrich, Kaufman & Doty, Ltd.
John M. Callaway, Instructor in Criminal Justice Studies
Laurence Harmon, Director, Minn. Supreme Court Continuing Education for State Personnel

CJS 5101 CRIMINAL LAW. 4 degree credits, \$62.

An examination of the general part of the criminal law with special attention to its philosophical underpinnings. Particular coverage will be given of the substantive law of homicide, theft, conspiracy, and attempt and the defenses of insanity, self defense, and mistake of fact or law. (No prereq. May not be taken for graduate credit)

Winter Qtr Sec 1 **M**—6:20-8:50, BlegH 130, Brown

Symbols, abbreviations, off-campus class locations begin on page 389.

CJS 5102 CRIMINAL PROCEDURE. 4 degree credits, \$62.

Designed for non-law students. Considers the problems relating to the role of the police in the administration of criminal justice and judicial enforcement of limitations on police practices. Topics: criminal procedure, due process, equal protection of the laws, cruel and unusual punishment, arrest, search and seizure, police interrogation and confessions, double jeopardy, defense of entrapment, use of informers, right to counsel, rights of the indigent defendant. (No prereq. May not be taken for graduate credit)

Fall Qtr Sec 1 **MW**—6-7:40, BlegH 150, Harmon

***CJS 5106 LAW AND SOCIAL ISSUES.** 4 degree credits, \$62.

new

An examination of how far the law can go in serving pressing social issues which also impinge on individual liberties such as sexual relations, drug use, abortion, family relations, etc. (No prereq. Limited to 45 students. May not be taken for graduate credit)

Spring Qtr Sec 1 **TTh**—7-8:40, BlegH 125, Callaway

school of cross disciplinary studies

See course listings for:

RELIGIOUS STUDIES

URBAN STUDIES

WOMEN'S STUDIES



danish

(See Scandinavian Languages)

dentistry

For information on non-credit conferences or workshops in dentistry, please contact Dr. Robert D. Jeronimus, Continuing Education in Dentistry, 4 Owre Hall; telephone 373-7960.

design (Dsgn)

Your attention is called to the Interior Design Certificate, page 85; and to design courses in Summer in Finland, page 233.

Only courses which have 5 as the second digit may ordinarily be used in a degree program.

Symbols, abbreviations, off-campus class locations begin on page 389.

Richard Abell, Associate Professor of Interior Design
 Sheila Anderson, Lecturer in Interior Design
 Harris Birkeland, Instructor in Interior Design
 Alexander Dekker, Architect
 Hans Dekker, Architect
 Evelyn Franklin, Instructor in Interior Design
 Benjamin Gingold, Lecturer in Interior Design
 Alice I. Goacher, Director of Interior Design Program
 Marla Haapala, Lecturer in Interior Design
 Michael J. Hopkins, Design Consultant
 David H. Hozza, Lecturer in Interior Design
 Mary Litsheim, Teaching Assistant in Interior Design
 Glenn Miller, Interior Designer
 Virginia Nagle, Associate Professor of Interior Design
 Joseph Ordos, Associate Professor of Interior Design
 Phyllis Waggoner, Lecturer in Design

Degn 0400C HOME DESIGN AND PLANNING [replaces ArtS 0003C]. 3 certificate credits, \$43.50 plus \$1 special fee. Total \$44.50.

Basic principles and elements of residential environment design and planning. Design criteria, values, and methods. Techniques of programming, plan drawing, architectural criticism. Discussion of site and interior design concepts of family living, building materials and methods, climate control, building restrictions, financing, and the relationship of these factors to planning technique. Relationship of the professions of architecture, building contracting, and real estate to the functional, aesthetic, and technological components of residential environment. (No prereq)

Fall Qtr Sec 1 Th—6:20-8:50, Arch 40, Gingold

***Degn 1420 USE OF COLOR** (replaces 1520). 4 degree credits, \$58 plus \$3 course fee. Total \$61.

Basic theory and practical application of color in interior design and architecture. Analysis of color as a creative force in relation to residential and contract design. Problems in color harmony as well as relationship of color to space, form, texture, and light. Emphasis of color use by both the amateur home decorator and the professional. (No prereq. Limited to 25 students)

Fall Sem Sec 1 T—6:20-8:00, McNH 359, StP Campus, Waggoner

Spring Sem Sec 2 T—6:20-8:00, McNH 359, StP Campus, Waggoner

Sec 3 W—6:20-8:00, McNH 359, StP Campus, Waggoner

***Degn 1428 LAYOUT FOR INTERIOR DESIGN** (replaces 1528). 4 degree credits, \$58.

Organization and content of layouts for interior design. Experience in handling the tools and the materials and the use of design principles. Plan view, flat elevation, etc., as helps in presenting ideas used in interior design. Emphasis on creativity, imagination, and developing the ability to visualize. (No prereq. Limited to 35 students)

Fall Sem Sec 1 W—6:20-8:00, WuH 240, Hopkins

Spring Sem Sec 2 W—8:15-9:55, WuH 240, Hopkins

***Degn 1450 DRAFTING—BASIC DRAFTING TECHNIQUES** [replaces ArtS 1119]. 4 degree credits, \$58 plus \$1 special fee. Total \$59.

Instruction in use of drafting instruments. Emphasis on plans, elevations, etc., as related to interior design. (No prereq. Limited to 30 students)

Fall Sem Sec 1 M—6:20-8:50, Arch 40, A Dekker

Sec 2 W—6:20-8:50, Arch 55, H Dekker

Spring Sem Sec 3 W—6:20-8:50, Arch 40, A Dekker

Sec 4 T—6:20-8:50, Arch 55, H Dekker

Symbols, abbreviations, off-campus class locations begin on page 389.

***Dsgn 1455 INTERIOR DESIGN I** (replaces 1555). 4 degree credits, \$58 plus \$3 special fee. Total \$61.

Trends in resources for both residential and commercial use are studied. Basic design principles are applied to projects done by students. The subject matter includes floors and floor coverings, walls and wall coverings, lighting, cabinet woods and their finishes, furniture selection and arrangement, and the creation of a focal point on a room lacking a logical architectural reason. In six of the meetings, part of the class time is used to evaluate and assist students in the preliminary presentation of their projects. Displays of actual materials are arranged for the subject matter under consideration. Slides are used extensively. Demonstrations on how to build a color scheme show the student the importance of texture and color harmony. (No prereq. Limited to 50 students)

Fall Sem	Sec 1	M —6:20-8:00, Jones 11, Anderson
	Sec 2	T —6:20-8:00, McNH 305, StP Campus, Anderson
	Sec 3	W —6:20-8:00, Jones 11
	Sec 4	Th —6:20-8:00, Jones 10
Spring Sem	Sec 5	M —6:20-8:00, Jones 11, Anderson
	Sec 6	W —6:20-8:00, Jones 11, Anderson
	Sec 7	Th —6:20-8:00, Jones 11

***Dsgn 1456 INTERIOR DESIGN II** (replaces 1556). 4 degree credits, \$58 plus \$2 special fee. Total \$60.

Emphasis on the study of decorative fabrics; texture, design, and fiber content; historical background; displays of current fabrics and new wall coverings; studies of the work of designers; major accessories, including the use of fine arts; selection of lamps and hardware; how to display collections and add interior touches which add personality; window treatment and how to estimate yardage; work with color schemes; demonstration of elevation drawing; one field trip and several talks by practicing designers. (Prereq 1455 or old 1555 and 3451. Limited to 50 students)

Fall Sem	Sec 1	W —6:20-8:00, McNH 305, StP Campus, Anderson
Spring Sem	Sec 2	T —6:20-8:00, McNH 227N, StP Campus, Anderson

***Dsgn 1525 TWO DIMENSIONAL DESIGN I**. 3 degree credits, \$43.50. ★

new

Experiments with principles of two-dimensional design. (No prereq. Limited to 24 students)

Fall Qtr	Sec 1	TTh —6:20-8:50, McNH 316, StP Campus, Goacher
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***Dsgn 1531 FIBER-FABRIC DESIGN I**. 3 degree credits, \$43.50 plus \$10 special fee. Total \$53.50.

new

Orientation to sources and resources of textile media. Individual designing in textile construction techniques and/or applied media. Studio problems. (Prereq 1525. Limited to 20 students)

Spring Sem	Sec 1	W —6:20-8:00, McNH B9, StP Campus, Abell
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***Dsgn 1533 JEWELRY DESIGN I**. 4 degree credits, \$58 plus \$10 special fees. Total \$68.

new

Introduction to contemporary jewelry-making processes and materials. (Prereq 1525. Limited to 16 students)

Fall Sem	Sec 1	W —6:20-8:00, McNH 10, StP Campus, Ordos, Litsheim
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Dsgn 3412 HISTORY OF TRADITIONAL FURNITURE (replaces 3512). 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Furniture from its earliest forms to the present with emphasis on the 17th through the 19th centuries in France, England, and the United States. Includes study of Shaker, Southwest Pueblo and American Indians; antiquity; Middle Ages; Renaissance; and the Germanic nations. The course will conclude with a study of the modern period and current trends. Availability of forms and use in contemporary interiors discussed. (no prereq)

Spring Sem	Sec 1	Th —6:20-8:00, Jones 10, Haapala
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course offerings continued on page 206

of special interest

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- * athletic facilities at low rates, and discounted Big Ten sports tickets

All these, and more, are described within the pages of this Bulletin

(ALSO AVAILABLE THROUGH CONTINUING EDUCATION AND EXTENSION: classes by television, radio and newspaper, plus correspondence study — through the Department of Independent Study; and professional conferences to keep you informed about what's new in your field — through the Department of Conferences)

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COURSES are p... and
persons of all ages and... hands get
to broaden their views... Minnesota
personalities, chess, Rom... more! For a
list, see page 282.

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lectures
at topics have
" to
see p... for details.

DELIGHTS FOR THE FILM FREAK



Enroll in Cinema Courses for Credit or for Fun

Whether it's how films are made or you're interested in viewing the cinematographic achievements of others (some courses offer reduced tuition when you don't want credit), several Extension Classes may suit you.

INTRODUCTION TO THE ART OF FILMMAKING (Studio Art 3701) and **FILM WORKSHOP (Studio Art 3720)** meet concurrently for a practical study of motion pictures as an art form, with production limited to descriptive and experimental work. **FILM AND SOCIETY (General College 3374)** explores social issues raised in film and film's effect upon attitudes and behavior.

GERMAN LITERATURE IN TRANSLATION AND THE FILM (German 3604) will feature *The Trial*, *The Blue Angel*, *Aren't We Wonderful?*, *Marat Sade*, *The Bridge*, and *The Hunters are the Hunted*.

INGMAR BERGMAN (Scandinavian 5601) will show *Shame*, *The Hour of the Wolf*, *Persona*, *Wild Strawberries*, *Smiles of a Summer Night*, and *Sawdust & Tinsel*.

Other courses: **LITERATURE: THEATRE-FILM AND DRAMA (General College 1374)**, a history of American films. **MODERN FRENCH CINEMA: ITS LITERARY AND CULTURAL IMPACT (French 3604)**, the effects of French cinema on French arts and modern culture. **LITERATURE AND FILM (Spanish 3615)**, in Spain and Portugal.

(For related film courses, see **Art, Studio** in the course offerings. Also see **General College** and all language departments. Departments mentioned in parentheses above [as well as all others] are listed alphabetically in the course listings section of this Bulletin).

PEOPLE WHO NEED PEOPLE

Career opportunities in the health sciences take many forms, and there is a demand for professionals. To test your interests, you might try some of the classes being offered through Extension.

BIOLOGICAL SCIENCE: THE HUMAN BODY (General College 1132)
TECHNICAL TERMS OF SCIENCE, MEDICINE AND HUMANITIES (Classics 1047, 3047)
MEDICINE SINCE 1800: EMPHASIS ON AMERICA (History of Medicine 5026)
HUMAN PHYSIOLOGY (Physiology 1001)
MEDICAL ETHICS (Philosophy 5770)

(See related courses in the departments listed above in parentheses following courses titles, and in: **Family Planning Administration, Genetics and Cell Biology, Microbiology and Nursing**. Departments are listed alphabetically in the course listings sections of this Bulletin.)

If your interests lie in the helping professions – social work, counseling, public health, and others – you should check this Bulletin to see, among others, the following:

SOCIOLOGY OF AGING (Sociology 5957) and
SOCIOLOGY OF DEATH (Sociology 5956)
PERSONAL ENVIRONMENTAL HEALTH (General College 3114)
THE REHABILITATION PROCESS (General College 3615)
HISTORY AND DEVELOPMENT OF FAMILY PLANNING PROGRAM (Family Planning Administration 5245)
HUMAN NUTRITION (Food Science and Nutrition 5622)

(For other related courses, be sure to see course listings in the departments listed above in parentheses, and in the departments of **Counseling and Student Personnel Psychology, Family Social Science, Humanities and Public Health**. Departments are listed alphabetically in the course listings section of this Bulletin.)

When people come to know each other, there is a sharing of ideas and attitudes which does not occur in more formal and less personal settings.

The Mini-College sequences are essentially integrated courses designed on the basis of American Values in Transition. They are designed to provide a strong foundation in the social sciences and to provide an opportunity for the student to explore his or her own ideas and attitudes in relation to these areas, as well as to explore the ideas of others in the field. The professor, more than in traditional classes.

The Mini-College sequences are 35 to 50 minutes long. They are usually the first two courses in a sequence. The student must register for the first course in the sequence for the first semester. The second course in the sequence is a prerequisite for the second semester. If the student is not registered for the first course in the sequence, the student must register for the first course in the sequence for the second semester, if space is available.

If you are working on a degree, you must register for the Mini-College sequences in meeting CLA and BA distribution requirements, though you do not have to be working on a degree to register for a Mini-College.

Mini-College Sequences (*choose one or more*):

I. AMERICAN VALUES IN TRANSITION SEQUENCE

- Fall Semester:* American Values in Transition (*American Studies 1920, 3920*), section 1, Tuesdays, 6:20-8 p.m.
Topics in American History (*History 1310*), section 1, Tuesdays, 8:15-9:55 p.m.
- Spring Semester:* American Values in Transition (*American Studies 1920, 3920*), section 2, Tuesdays, 6:20-8 p.m.
American Community (*Sociology 1002*), section 3, Tuesdays, 8:15-9:55 p.m.

II. BUSINESS AND ECONOMICS SEQUENCE

- Fall Semester:* **Business Law (Business Law 305)**
Mondays, 6:15-7:55 p.m.
Principles of Economics (Economics 100) section 1,
Mondays, 8:15-9:55 p.m.
- Spring Semester:* **Business and Society (Business and Society 301)**
section 7, Mondays, 6:15-7:55 p.m.
Principles of Economics (Economics 100) section 22,
Mondays, 8:15-9:55 p.m.

III. ECONOMICS AND ACCOUNTING SEQUENCE

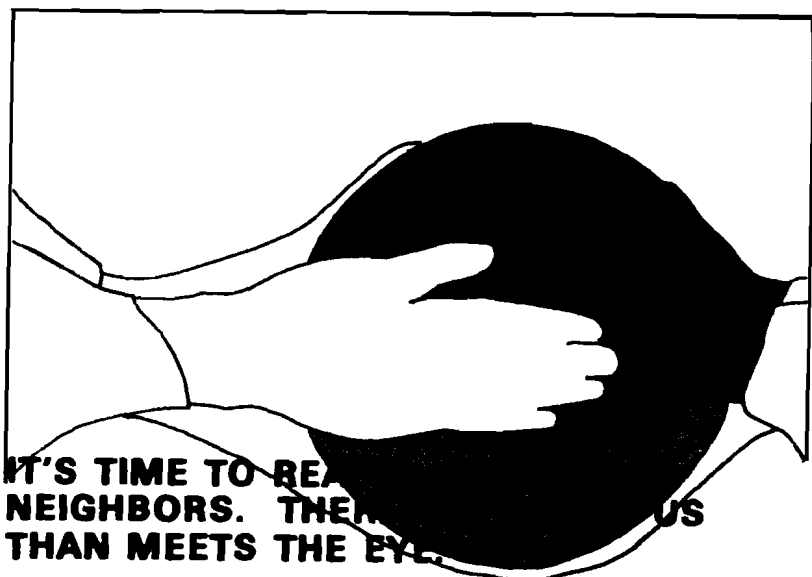
- Fall Semester:* **Principles of Accounting I (Accounting 1050)**
section 5, Saturdays, 10:15 a.m.-12:45 p.m.
Principles of Economics (Economics 100) section 1,
Mondays, 8:15-9:55 a.m.
- Spring Semester:* **Principles of Accounting II (Accounting 1050)**
section 6, Saturdays, 10:15 a.m.-12:45 p.m.
Principles of Economics (Economics 100) section 22,
Mondays, 8:15-9:55 a.m.

College sequences have a limited number of sections. Students are asked to make a commitment to the entire program. If you are taking more than one course in a term, students should register for all courses in advance. Extension classes will offer a more flexible schedule. Multiple-course students who are not able to attend over a long period of time — course to course — may be able to attend alone, building blocks toward a

PERSONAL INFORMATION SECTION

Write:

College Series
University of Minnesota
Department of Extension Classes
180 Westbrook Hall
Minneapolis, MN 55455



These courses can help us get to know and understand each other much better:

- THE SLAVIC HERITAGE (*Slavic 1501*)
- SCANDINAVIAN IMMIGRANT CULTURE AND ITS BACKGROUND (*Scandinavian 1504*)
- BLACK AMERICANS: SOCIALIZATION, PERSONALITY AND BEHAVIOR (*Afro-American Studies 1025*)
- INDUSTRIALIZATION, EMPLOYMENT AND THE AMERICAN INDIAN (*American Indian Studies 5131*)
- CHICANO LITERATURE AND CULTURE (*Chicano Studies 3507*)
- THEMES IN MODERN JEWISH THOUGHT (*Jewish Studies 3126*)
- AMERICAN INDIANS IN THE MODERN WORLD (*American Indian Studies 3061*)
- SOVIET RUSSIAN LITERATURE IN TRANSLATION: SOLZHENITSYN (*Russian 5203*)
- MINORITY GROUP RELATIONS (*Sociology 5951*)
- BLACK WRITERS OF THE UNITED STATES (*English 5593*)
- CULTURE, CIVILIZATION OF MODERN LATIN AMERICA: SOCIETIES IN CHANGE (*Spanish 1503*)
- BLACK MUSIC: A HISTORY OF JAZZ (*Afro-American Studies 3108*)
- SCANDINAVIAN MYTHOLOGY: (*Scandinavian 5501*)

For other courses of interest in ethnic studies, see the departments listed above. Departments are arranged alphabetically in the course listing section of this Bulletin.

(Department names and course numbers are given above in parentheses after course titles.)



LOOK FOR THE DIAMONDS

TO BRIGHTEN UP YOUR NIGHT

Hundreds of regular nonlimited Extension Classes are open for no credit. A diamond in the margin area means you can take the course for $\frac{1}{2}$ the regular credit tuition or for \$3. How?

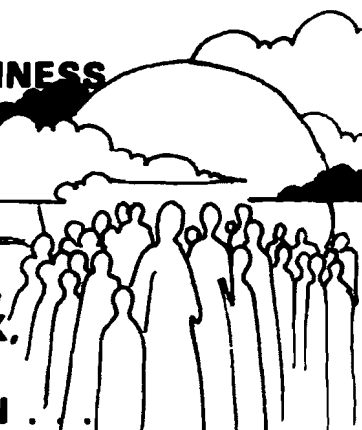
- ◆ – Anyone can take these classes for one-half tuition
- ◆ – Those 60 years and older pay only \$3 a course
- ◆ – Youth age 12 to 16 pay only \$3 when accompanied by an adult registered for the same course

When you register for reduced tuition, you do not submit work for evaluation and you don't compete for grades. But you *do* keep up with readings and lectures and take an active part in class discussions.

Now you have no excuse for not learning something new this year. Like how to expand your word power. Or what makes people laugh. Or how European architecture influences styles in the U.S. Look through the course listings to see what you can learn.

IS EVERYBODY'S BUSINESS

**THE AIR WE BREATHE,
THE WATER WE DRINK,
THE FOOD WE EAT,
THE ENERGY WE BURN . . .**



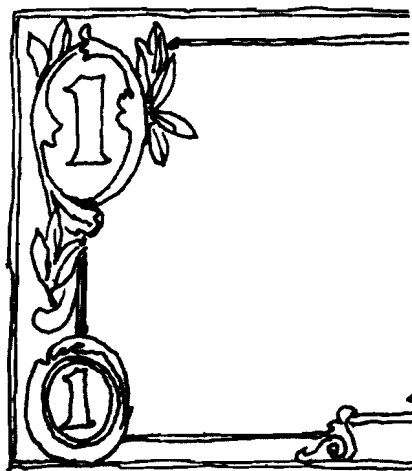
If you're concerned about our world (as all of us had better be) you might be interested in these diverse courses which deal with the use of our natural resources.

ENERGY, POWER, AND SOCIETY (*Natural Science 3301*) explores the need for energy and its use in society, while **CONSERVATION AND UTILIZATION OF NATURAL RESOURCES** (*General College 1113*) examines natural resources and the energy required to transform them into useful products.

MAN'S FOOD is the topic for *Food Science and Nutrition 1010*, and **BUSINESS AND THE NATURAL ENVIRONMENT** (*Business Administration 3003*) is a study of the use by industry of renewable and nonrenewable resources.

Other courses of interest: **WORLD POPULATION PROBLEMS** (*Sociology 5551*), **ECOLOGY FOR ENGINEERS AND PHYSICAL SCIENTISTS** (*Ecology and Behavioral Biology 3101*), **PLANT PROPAGATION** (*Horticulture 1036*), **ENVIRONMENTAL MANAGEMENT AND CONTROL** (*Architecture 3064*), **BIOLOGY AND THE FUTURE OF MAN** (*Biology 3051*), **PLANTS USEFUL TO MAN** (*Botany 1012*), and **THE LOGIC AND ETHICS OF SOCIAL COOPERATION** (*Philosophy 1410*).

(See related courses in the departments listed above in parentheses following course titles, and in *Civil Engineering*. Departments are listed alphabetically in the course listings section of this Bulletin.)



HERE IT IS: a practical course you will use almost every day of your life – presented just in time to help you deal with today's ever-changing economic conditions.

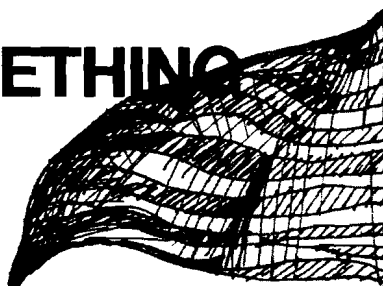
INDIVIDUAL AND FAMILY BUDGET PLANNING (Informal Courses 0001, page 283) is a five-session exercise in planning your budget. You will learn how to use credit, how to determine when to spend and when to save, and how to gain economic stability. This is more than a classroom exercise; real experiences drawn from your life style are examined.

No credit, tuition \$16, materials provided. Class sessions vary in length from one to two and one-half hours.

SAVE BEFORE YOU EVEN BEGIN! A second member of your household can enroll for half price. (We practice what we preach.) Senior citizens pay only \$3 for the course.

Classes are offered on the Minneapolis campus and at Richfield and Irondale High Schools.

BY LEARNING SOMETHING ABOUT AMERICA.



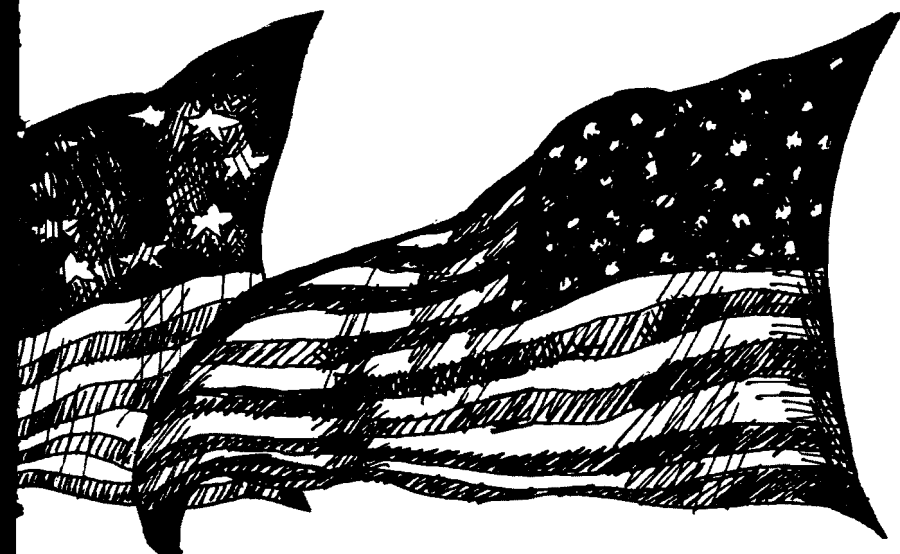
Take a look at this special three-quarter offering from the *American Studies* Department (course number 1920, 3920, "Introduction to American Civilization"):

These courses may be taken for reduced tuition; see page 44.

1776: THE CULTURE OF THE REVOLUTIONARY ERA (*fall quarter*) will focus on a few key personalities (Franklin, Washington, Jefferson, Adams, Paine) as well as events and issues. Literature, painting, music, and architecture will also be covered. The objective will be to see how the Revolutionary Americans viewed the world and interpreted their experience, to understand their ideals and the methods by which they sought to realize them.

1876: CENTENNIAL AMERICA – PROGRESS AND CONFLICT (*winter quarter*) is a broad study of the culture of the America of a century ago. Among topics to be covered are *Custer's Last Stand as Viewed by Whites and by Indians*, *The Conflict Between an Expanding Society and Nature*, and *The Rise of Modern Architecture*. An attempt will be made to assess the successes and failures of the American "experiment" after a century of national life.

1976: BICENTENNIAL AMERICA – REALITY AND PROMISE (*spring quarter*) examines contemporary American culture, its problems and prospects for the future. Authors include Dickey, Galbraith, Heilbruner, Wakefield, and Vonnegut. Motion pictures, painting, music, and architecture, as well as any special features of our Bicentennial celebration which seem relevant, will be explored.



(See the course listings section in this Bulletin for complete information on these and related courses offered by the *American Studies Department*. Departments are listed alphabetically).

OTHER COURSES FOR YOUR OWN BICENTENNIAL OBSERVANCE:

ENGLISH AND EARLY AMERICAN ARCHITECTURE (*Architecture Department 5055*)

PRACTICAL LAW (*General College 1534*)

PROBLEMS OF DEMOCRACY (*Political Science Department 5661*)

AMERICAN FAMILY HISTORY (*History Department 1310*)

CONTEMPORARY BOOKS AND PERIODICALS (*General College 1367*)

ERA OF THE AMERICAN REVOLUTION (*History Department 3804*)

AMERICAN POPULAR MUSIC (*Music Department 5711, 5712*)

AMERICAN LITERATURE: BEGINNINGS THROUGH HAWTHORNE
(*English Department 3411*)

THE LAW IN SOCIETY (*General College 1235*)

AMERICAN SHORT STORY (*English Department 3455*)

COLONIAL PERIOD OF AMERICAN HISTORY (*History Department 3802*)

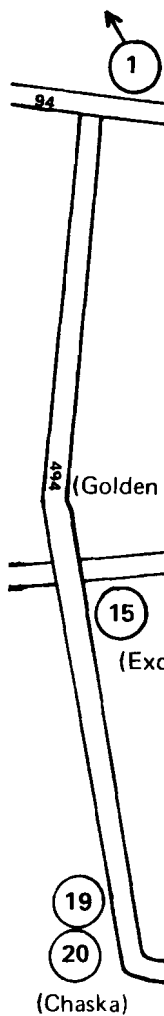
BIOGRAPHY: LINCOLN AND THE CIVIL WAR (*General College 1241*)

AMERICAN SHORT STORY (*English Department 3455*)

AMERICAN HISTORY: COLONIAL (*History Department 1301*)

(See related courses in the departments listed above in parentheses following course titles. Departments are listed alphabetically in this Bulletin in the course listings section).

- 1 Cambridge High School
- 2 Brooklyn Center High School
- 3 Irondale High School
- 4 Elim Church
- 5 Alexander Ramsey High School
- 6 Kellogg High School
- 7 Hillside Junior High School
- 8 St. Paul Campus
- 9 Minneapolis Campus
- 10 WCCO Radio Building (Downtown Minneapolis)
- 11 Sandburg Junior High School
- 12 Sunray Library
- 13 St. Paul Ramsey Hospital
- 14 Jewish Community Center
- 15 Minnetonka Senior High School
- 16 The Talmud Torah of St. Paul
- 17 St. Stephens Church
- 18 Richfield High School
- 19 Minnesota Landscape Arboretum
- 20 Jonathan Community Center
- 21 Nicollet Junior High School



**See pages 391 and 193
for addresses
and complete information.**

FREE* SERVICES HELP YOURSELF

Continuing Education and Extension's professional staff of counselors and program advisers is ready to help you identify your interests, and to help you formulate your educational and/or vocational goals.

If you ask. . .

How do I choose a career or major that will be consistent with my abilities and interests?

When should I apply for admission to a degree program and how do I go about it?

What additional training would I need for a new career?

In what order should I take my courses?

. . . then stop by 314 Nolte Center or call 373-3905

Advisers and counselors are available without appointment during registration hours (page 27), during the regular daytime hours (page 27), and evenings hours (by appointment only) Monday through Thursday evenings until 8 p.m.

Also ask about:

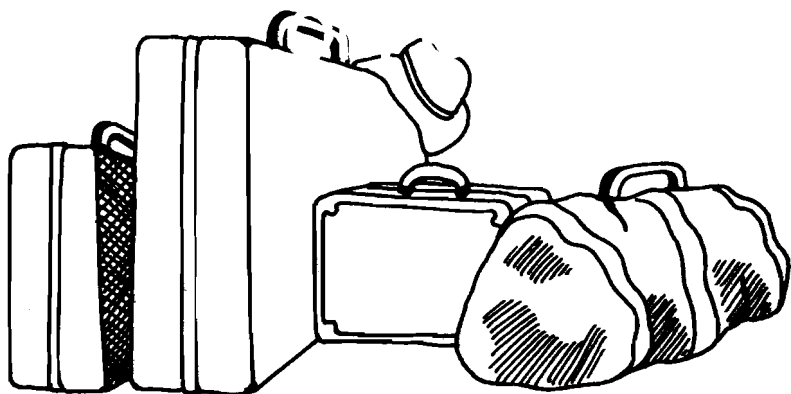
Individual appointments with advisers from the General College, Colleges of Education and Business Administration, and the Institute of Technology.

Veterans' counselor available in Nolte:

Vocational and personal counseling, program advising and testing are among the services available to veterans at 319 Nolte Center. The office also helps put veterans in touch with other assistance centers. The Veterans Affairs Counselor for Extension Classes can be reached at 373-3905 or 373-3973 during office hours, 9 a.m. to 4 p.m., Monday through Friday.

Information about Continuing Education and Extension is available on tape by telephone through the Digital Information Access Line (DIAL). See page 180 for details.

*A battery of tests is available for the asking to help you learn more about your abilities and interests, and for educational and vocational planning. There is a charge of \$25 for students, and \$50 for non-students.



UNIVERSITY IN LONDON See the Tower of London and study courses related to English literature and history in London September 29 through December 9, 1975. Classes are taught by British and University of Minnesota faculty. Students may apply by mail or in person no later than Friday, August 8, at the World Affairs Center, 306 Wesbrook Hall. The approximate cost is \$1,014, which includes 12 credits of tuition, 70 nights lodging (including full English breakfast) and overseas credit fees. Telephone 373-3709 for complete information. Also inquire about spring quarter (1976) in London.

WINTER QUARTER IN MEXICO Learn the art and craft techniques indigenous to Tlaxiaco, Oaxaco, from local craftsmen. Students may earn 12 credits (eight in studio arts and four in independent study). Cost for tuition, transportation, room and board is about \$550. Apply by October 13 (See **Arts, Studio** for complete information on registration procedures).

DIRECTED STUDY ABROAD Combine architectural research with local and/or foreign travel by registering for **Architecture 5970** through Extension Classes. The course content and number of credits are arranged in consultation with the School of Architecture. For more information, call 373-2198.

SUMMER IN FINLAND Study the Finnish culture and environment as they relate to family value systems, esthetics and lifestyles (nine credits may be obtained). For more information, see **Family Social Science**.

UNSURE OF YOUR STUDY SKILLS?

JUST ASK, AND WE'LL HELP YOU.

Get the help you need at the *Extension Classes Reading and Writing Skills Center*: note taking, outlining, theme writing, research writing, reading, grammar, footnoting, bibliographies, vocabulary, spelling and book review. There's no telephone, so just walk into 109 Nicholson Hall any MONDAY, TUESDAY, WEDNESDAY or THURSDAY between 9 a.m. and 3 p.m., or 5 p.m. and 8 p.m. FRIDAY we're open 9 a.m. to 3 p.m.

For those who need very basic or beginning level instruction in reading, the *Reading and Study Skills Center* at 104 Eddy Hall is open between 8 a.m. and 4 p.m. Telephone 373-4193 for an appointment. (Appointments may be scheduled in the evening).

Credit courses are also offered in communication skills (see the Communications Skills section of *General College* in the alphabetical course listings section of this Bulletin): FUNDAMENTALS OF USAGE AND STYLE (*General College 1405*) and COMMUNICATION SKILLS: INDIVIDUAL STUDY (*General College 1409*).

**FASCINATING QUESTIONS
TO MAKE YOU THINK.
ARE THERE ANY
"RIGHT" OR "WRONG"
ANSWERS?**



Does religion affect personality? **PERSONALITY AND RELIGION** (Philosophy 3521, 5521) explores the concept of conscience and the historical interpretation of religious scriptures.

Can you understand religious beliefs? Can it be proved that "God exists"? These and other topics are discussed in **PHILOSOPHY OF RELIGION** (*Philosophy 3521, 5521*).

Other philosophy and religion courses of interest include **SCIENCE AND RELIGION** (*Philosophy 1011*), **BLACK PHILOSOPHY** (*Afro-American Studies 3081, 3082*), **ANTHROPOLOGY OF RELIGION AND FOLKLORE** (*Anthropology 5131*), and **RELIGION AS A SOCIAL INSTITUTION** (*Sociology 5151*).

(See the alphabetical course listings section in this Bulletin for related courses in the departments of *American Studies, Anthropology, English, History, Psychology, Jewish Studies, Philosophy, Religious Studies and Sociology.*)

You don't have to trek all over campus to have your questions answered. Use **DIAL (Digital Information Access Line)** from your home or campus phone to save your time and your sanity.

It's easy: (1) *Select the tape you want to hear*

(2) *DIAL 373-1857 between 8 a.m. and 11 p.m. Monday through Friday; or between 10 a.m. and 8 p.m. Saturday and Sunday*

(3) *Request by number from the list below and call*

CONTINUING EDUCATION AND EXTENSION TAPES:

1113 Getting courses taken in Extension onto your transcript

1400 Locations and hours of on-campus bookstores

2100 Current Extension classes, registration information

2101 Program advising

2102 Counseling

2103 Independent Study

2104 Current Extension Evening Classes, general information

2105 Transfers to Extension

Classes; admission to degree programs

2106 Non-credit

classes

2107

2108

2109

2110

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2117

2118

2119

2120

2121

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2111 Independent Study courses about women

2112 Extension Student fall orientation and

season

2113

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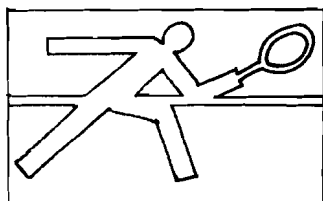
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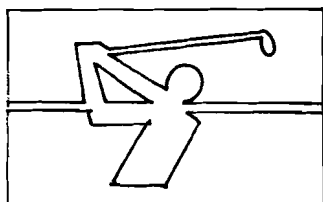
For a Dialing all available taped information about the University, stop at 107 Temporary North of Mines on the Minneapolis campus, or telephone 373-1234 and request that a brochure be mailed to you.

ACTIVITIES FOR MEN AND WOMEN

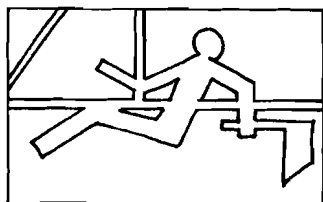


Enjoy competitive and non-competitive, organized or informal sports activities to help you keep in shape and to unwind from work or studies.

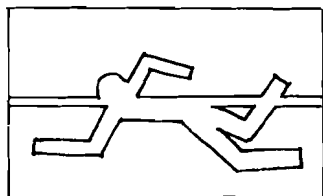
By paying an athletic services fee (\$4.76 a quarter or \$7.06 a semester — the same as day school students pay) you can participate in organized sports or use athletic facilities.



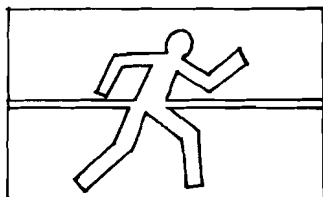
Some of the individual, dual, and team sports include badminton, basketball, bowling, fencing, handball, swimming and touch football. Extramural competition involves some intramural champions as well as individual players and teams representing various clubs.



For women, clubs are organized for aquatics, badminton, dance, field hockey, golf, horsemanship, judo, team sports, and tennis. For men, club activities are arranged for archery, bowling, cricket, fencing, gymnastics, judo, karate, rowing, rugby, scuba, soccer, weight lifting, whitewater canoe, and yoga.



For further information about these programs and activities, telephone 373-4200.



NOTE: Intercollegiate athletic tickets are available to students and their spouses at discount rates. See page 55



What's New?

Look at these courses. They're new to Extension this year. And there are more from many departments in the alphabetical course listings section of this Bulletin.

The Arts: ART OF INDIA (Art History 3014), FOLK MUSIC OF ENGLAND, IRELAND AND SCOTLAND (Music 3801), COMMERCIAL ART FOR NON-PROFESSIONALS (General College 1050), MAKEUP FOR THE ACTOR (Theatre Arts 1502)

Business: CURRENT TOPICS IN ADVANCED TAXATION (Accounting 5300), BUSINESS CYCLES (Economics 5141), ORGANIZED LABOR AND THE POLITICAL PROCESS: 1976 (Industrial Relations 3000)

Literature: SATIRE (English 3631), WHITMAN AND MARK TWAIN (English 5545), DOSTOEVSKY (Russian 5401), VICTORIAN SEMINAR (English 8330), CLASSICAL EPIC IN TRANSLATION (Classics 5081)

Current Affairs: WHITE-COLLAR CRIME (Sociology 5135), EXPERIMENTAL FOODS (Food Science and Nutrition 3403), URBAN STUDIES COLLOQUIUM (Urban Studies 3103), CLASSICAL FOUNDATIONS IN CHINA (History 1461, 3461)

Education: INTERCULTURAL EDUCATION THROUGH ART (Art Education 5316), SCHOOL COMMUNITY RELATIONS (Educational Administration 8230), EDUCATION OF THE DISADVANTAGED (Special Education 5180)

New and Different: MURDER, MYSTERY, AND MAYHEM: Whodunit? (General College 3031), EROTICISM AND FAMILY LIFE IN THE GRECO-ROMAN WORLD (Classics



5004), CREATIVITY AND CREATIVE PERSONALITIES (General College 1391), WEATHER AND CLIMATE (General College 1111), FUNDAMENTALS OF MUSHROOM IDENTIFICATION (Plant Pathology 3104)

Communications: PERSONAL WRITING (General College 1421), MAGAZINE WRITING AND EDITING (Journalism 3173), THE CREATIVE PROCESS AND THE MASS MEDIA (Speech 1104), WRITING FOR BUSINESS AND THE PROFESSIONS (General College 3531), SCIENTIFIC AND TECHNICAL WRITING (Rhetoric 3562)

Personal Growth: VOCATIONAL PLANNING (General College 1502), MARRIAGE AND FAMILY LIVING (General College 1721), DANCE THERAPY (Physical Education 3181), PHILOSOPHY AND POETRY (Philosophy 5760)

From the Sciences: ANIMAL BIOLOGY (Biology 3011), EVOLUTION AND MAN (General College 3115), PSYCHOLOGY OF HUMAN DEVELOPMENT (General College 1283), PHYSIOLOGICAL PSYCHOLOGY (Psychology 3061)

The World Around Us: EUROPEAN HERITAGE (Humanities 1011-1013), INTERNATIONAL MARKETING (Marketing 3040), CONTEMPORARY ISRAELI LITERATURE (Middle Eastern Languages 3315), BEGINNING PORTUGUESE (Portuguese 1002, 1003), CONTEMPORARY SOUTH ASIA (Indic 1506, 3506), FRANCE IN THE OLD REGIME (History 5211), MAN BEFORE HISTORY (Humanities 3009)

ALSO BE SURE TO CHECK EXTENSION CLASSES' OWN NEW PROGRAM, *Informal Courses*, IN THE ALPHABETICAL COURSE LISTINGS SECTION OF THIS BULLETIN FOR A LIST OF NEW, NO-CREDIT COURSES.

If you find it difficult to attend classes during the week, there's an alternative open to you: take classes on Saturdays.

Courses required in University degree and certificate programs, as well as courses for personal enrichment, are offered on weekends. Courses which meet requirements for the Associate in Liberal Arts (A/LA) degree, the liberal arts certificate, pre-business requirements for the Bachelor of Science in Business degree, and many other requirements for the certificate in accounting and business administration will be offered Saturdays on a rotating basis over the three-year period.

This year 45 classes are offered on Saturdays. If interest is high next year we will increase the offerings and experiment with new formats and times.

For a detailed description of the degree and certificate programs, consult the Degrees and Certificates section of this Bulletin.

Most classes, except as noted, are held on the Minneapolis campus of the University of Minnesota.

Accounting and Economics

PRINCIPLES OF ACCOUNTING
(Accounting 1025, 1050, 1051)
AUDITING PRINCIPLES AND PROCEDURES (Accounting 5125)
CURRENT TOPICS IN MANAGERIAL ACCOUNTING
(Accounting 5300)
PRINCIPLES OF ECONOMICS
(Economics 1001, 1002)
INDIVIDUAL AND FAMILY BUDGET PLANNING (Informal Courses 0001)

Business Law, Business Administration and Marketing

BUSINESS LAW (Business Law 3058)
BUSINESS AND SOCIETY
(Business Administration 3002)
PRINCIPLES OF MARKETING
(Marketing 3000)

Mathematics

COLLEGE ALGEBRA AND ANALYTIC GEOMETRY (Mathematics 1111)
INTRODUCTION TO CALCULUS OF ONE AND SEVERAL VARIABLES (Mathematics 1142)
STATISTICS (General College 1454)

Art

BASIC DRAWING (Art, Studio 1101)
INTRODUCTION TO WEAVING
(Art Education 3010)
WATERCOLOR (Art, studio 3160, 5160)
LITHOGRAPHY (Art, Studio 1520)
INTERMEDIATE LITHOGRAPHY (Art, Studio 3520)
ADVANCED LITHOGRAPHY
(Art, Studio 5520)

Biology and Horticulture

BIOLOGICAL SCIENCES PRINCIPLES (General College 1131)

BIOLOGICAL SCIENCE: THE HUMAN BODY (General College 1132)

PLANT MATERIALS (Horticulture 1021) to be held at the Minnesota Landscape Arboretum, Chaska.

Communications, Theatre and Literature

ORAL COMMUNICATIONS (General College 1461)

INTRODUCTORY COMPOSITION (Composition 1002 — see English Department)

BEGINNING ACTING: CREATIVE APPROACH (Theatre Arts 1321)

MIME AND THE ACTOR (Theatre Arts 1328)

ADVANCED ACTING (Theatre Arts 3321)

ALEXANDER TECHNIQUE FOR THE PERFORMING ARTS (Theatre Arts 5329)

INTRODUCTION TO AMERICAN LITERATURE: SOME MAJOR FIGURES AND THEMES (English 1016)

INTRODUCTION TO MODERN LITERATURE: POETRY (English 1017)

See individual departments (listed above following courses titles) for complete course descriptions in the class offerings sections of this Bulletin.

(Additional weekend offerings are often scheduled by University of Minnesota Continuing Education for Women, and Continuing Education and Extension's Department of Conferences.)

Psychology and Sociology

INTRODUCTION TO PSYCHOLOGY (Psychology 1001)

INTRODUCTION TO SOCIOLOGY (Sociology 1001)

AMERICAN COMMUNITY (Sociology 1002)

American Studies and Community

AMERICAN VALUES IN TRANSITION (American Studies 1920, 39)

TOPICS IN AMERICAN HISTORY (History 1000)

Philosophy and Classics

INTRODUCTION TO PHILOSOPHY (Philosophy 1002)

SCIENCE AND RELIGION (Philosophy 1011)

TECHNICAL TERMS OF SCIENCE, MEDICINE AND HUMANITIES (Classics 1048, 3048)

Physical Education

PADDLEBALL-HANDBALL (Physical Education 1036)

SWIMMING FOR CHILDREN (Physical Education 0001)

SPRINGBOARD DIVING FOR BOYS AND GIRLS (Physical Education 0100)

THURSDAY, SEPTEMBER 11

University programs and know kinds of classes you Extension? about your own education career plans? Relax. We've designed a special event just for you.

Plan to attend an informal orientation and coffee-talk session for new Extension students Thursday, September 11, in the Nolte Center lounge on the Minneapolis campus from 5 to 8 p.m.

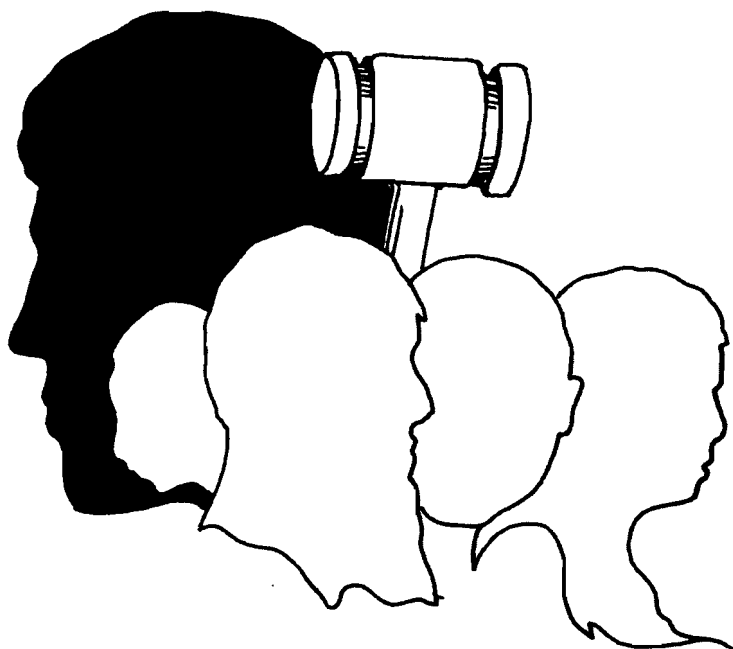
your experience with Classes with
can be both fun
offering free babys

answer any questions
verifying your education
be available to talk about
atives from the Study
to discuss the help they
programs.

Or come just to pick up
descriptive literature
language labs

Also tent
about U
Wilson

B



Solving bookstore problems. Gaining legislative support for Extension programs. Improving campus lighting. Seeking more graduate-level Extension classes. Helping find financial aid for Extension students.

These are the kinds of concerns and problems the Extension Classes Student Board tackles every year as a vital force in the University community.

To accomplish its work, the Board has met over the past year with the University president, the vice president for student affairs, and other administrative officials and Regents to voice concerns in open discussions and rewarding encounters.

Want to be part of this group? You can join the Board anytime during the year when you are registered for classes. Telephone 376-7500 for more information.

(Extension students can also be elected to the University Senate, the primary academic governing body of the University. Students on the Senate also serve on the Student Board. For more information about the Board and the Senate, see page 60 .)

TO GET THE BOOK YOU NEED, GO TO THE RIGHT BOOKSTORE

After you've registered for Extension classes, purchase your textbooks as early as possible to be assured of getting the materials you need.* Each bookstore has lists of textbooks required for each Extension course posted for you to consult.

B. Dalton Bookstore in **St. Paul and Southdale** will be selling books for Extension courses at neighborhood centers around the St. Paul area. *which carries a wide variety of books for Extension courses.*

Northern Bookstore in **St. Paul** carries books for Extension courses. *of*
Liberty Bookstore in **St. Paul** carries books for Extension courses. *w*
University Bookstore in **St. Paul** carries books for Extension courses. *und*
for Extension courses.

Hart Bookstore in **St. Paul** carries books for Extension courses. *Liberal*
College Bookstore in **St. Paul** carries books for Extension courses. *Arts*
Arts Bookstore in **St. Paul** carries books for Extension courses. *sociology, psychology, history, literature, drama, theatre, and music.*
(buy books for Extension courses.)
St. Paul carries books for Extension courses.

Main Engineering carries books for Extension courses. *Institute*
of Technology.

Coffey Hall sells textbooks for courses taught on the St. Paul campus.

*(Occasionally a student may have a problem obtaining textbooks. If it happens to you, and remains unresolved, write, explaining the problem, to the Extension Classes Director, University of Minnesota, 170 Wesbrook Hall, Minneapolis 55455; the matter will be considered).

TELEVISION INDEPENDENT STUDY

EARN UNIVERSITY DEGREE CREDIT AT HOME REGISTRATION IS EASY

Call 376-4925 and request registration forms. Mail them, along with tuition and fees, to 27T Wesbrook Hall, through the second week of the TV course without a late fee.

Home viewers not wishing to register for credit may purchase a study guide from Independent Study.

Television Independent Study is a joint effort of Extension Independent Study and Media Resources.

For more information, send for Television Guide, Department of Independent Study 27T Wesbrook Hall, Minneapolis, Minnesota 55455.

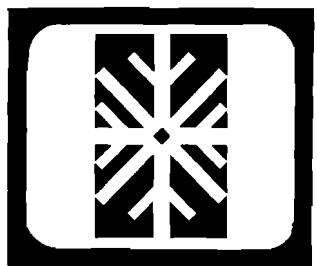


FALL 1975

PSYCHOLOGY AND RELIGION
(Psychology 1911 - 4 cr)

INTRODUCTION TO WOMEN'S
STUDIES

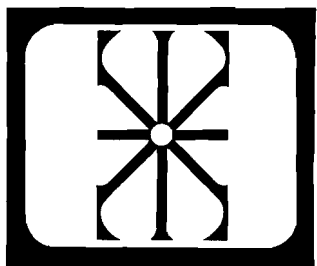
(Women's Studies 1005 - 4 cr)



WINTER 1976

SPECIAL TOPICS: DIVORCE
(Family Social Studies 5240 - 3 cr)

WORKSHOP:
SPECIAL TOPICS IN
RECREATIONAL
PROGRAMMING (Rec. 3800 - 3 cr)



SPRING 1976

AMERICAN POPULAR MUSIC
(Music 5711 - 4 cr)

AMERICAN THEATRE
(Theatre 5186 - 4 cr)

THAN LAKES AND SNOW



The only things 'outsiders' seem to know about our state are the winter temperatures (from the weather reports), and the number of lakes (from our license plates). Look what they don't know:

MUSIC IN MINNESOTA (*Music 5950*) includes a history of early music in the state, church music, and music provided by ethnic groups such as the Scandinavians and American Indians.

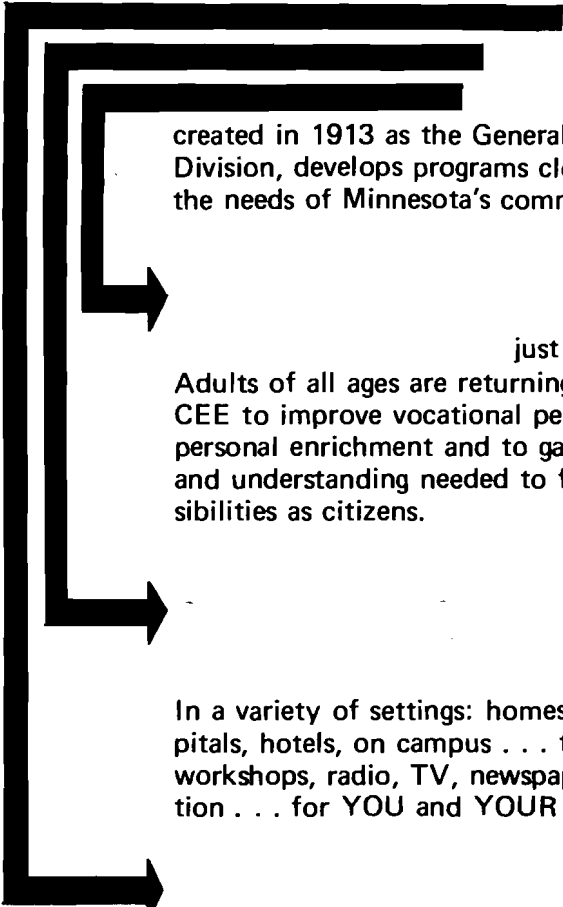
MINNESOTA PLANT LIFE (*Botany 1009*) surveys plants native to the state, and includes some Saturday field trips.

MINNESOTA BIOGRAPHY (*General College 3845*) studies the deeds of the famous and accomplishments of the worthy but obscure through biographies of typical Minnesotans, while **MINNESOTA ARTS AND LETTERS** (*General College 3846*) examines the state's art, architecture, landscape design and higher education.

An introduction to the people and institutions of the state through geography, exploration, frontier settlement, politics and economic development is provided by **MINNESOTA: HISTORY** (*General College 1221*).

Also, be sure to check out **MINNESOTA RESOURCES** (*General College 3841*), **MINNESOTA PARTIES AND POLITICS** (*General College 3844*) and **THE MINNESOTA OCCUPATIONAL SAFETY AND HEALTH ACT** (*Industrial Relations Department 0007C*).

(Names of the departments offering these courses, along with the course number, are given above in parentheses following course titles. Departments are listed alphabetically in this Bulletin in the course listings section.)



created in 1913 as the General Extension Division, develops programs closely attuned to the needs of Minnesota's communities.

just the desire to learn!
Adults of all ages are returning to school through CEE to improve vocational performance, receive personal enrichment and to gain the information and understanding needed to fulfill their responsibilities as citizens.

In a variety of settings: homes, businesses, hospitals, hotels, on campus . . . through lectures, workshops, radio, TV, newspapers, consultation . . . for YOU and YOUR NEIGHBORS.

Continuing Education and Extension Dept. EC
University of Minnesota
150 Wesbrook Hall
Minneapolis, Minnesota 55455
to learn about the special programs and departments listed on page 10 of this Bulletin.

¿ PARLEZ-USTED DEUTSCH ?



Need some help reading a foreign language? Courses in five foreign languages are offered through Extension Classes. You can study French, German, Italian, Russian or Spanish to fulfill requirements for a graduate degree (by successfully passing an examination at the end of the course), or just for fun.

Degree credit courses are offered in these languages and Arabic, Chinese, Dutch, Finnish, Greek, Japanese, Latin, Mandarin, Norwegian, and Swedish. See course listings for descriptions.

Graduate students should check language requirements in their field with their advisers.

Several reading language courses are also offered through Summer Evening Extension Classes. Telephone 373-3195 in March to request summer 1976 course information.

neighborhood centers

classes for neighborhood centers

The courses listed (by term) below will be held at off-campus, neighborhood centers in and around the Twin Cities area.

See the map on pages 174-175.

See the course listings section of this Bulletin (arranged alphabetically by department) for course descriptions.

See page 391 for addresses and abbreviations of neighborhood centers.

See page 392 for departmental abbreviations.

See the "How and When to Register" section of this Bulletin for registration locations and dates.

Books for classes at neighborhood centers will be available both at campus bookstores and at B. Dalton bookstores at Rosedale and Southdale shopping centers. For details, be sure to read the "Bookstores" section of this Bulletin.

On a trial basis, there is no late registration fee for classes held off campus at neighborhood centers (with the exception of classes scheduled at Sandburg Junior High School, Richfield Senior High School, Kellogg High School, St. Paul Ramsey Hospital, or Minnetonka High School where normal late registration fees apply—see the "How and When to Register" section of this Bulletin, late registration and additions, for details) until Monday of the second week of classes (all terms).

Disclaimer: 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. However, courses may be deleted or added by Extension Classes during the academic year without notification. Read **INFO** for Bulletin changes.

If you are registering for a limited class (one whose course number and title are preceded by a * in the course listings section of this Bulletin), be sure to read the registration information about limited classes on pages 23 and 24 of this Bulletin.

The list below is not all inclusive; other courses in this Bulletin are held at these and other off-campus locations and at the MacPhail Center, downtown Minneapolis. They are described in the **course listings section**.

minnesota landscape arboretum (chaska)

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus, or by mail—telephone 373-3195)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Quarter

Hort 1001 Fundamentals of Horticulture

Winter Quarter

Hort 1010 Home Landscape Gardening and Design

Spring Quarter

Hort 1021 Plant Materials I

brooklyn center high school

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at the Brooklyn Center High School community education office; or by mail—telephone 373-3195)

Fall Quarter

St 1920, 3920 Democracy's Nightmare: Visions
of Authoritarianism

GC 1540 Accounting Fundamentals

Fall Semester

Anth 1002 Introduction to Anthropology

Winter Quarter

GC 1542 Accounting Fundamentals
Rhet 1101 Communications I

Spring Quarter

Hum 1004 Humanities in the Modern World IV

cambridge high school

(Registration materials available at the high school guidance office; or by mail—telephone 373-3195 in Minneapolis)

Fall Quarter

GC 1553 Marketing: Principles of Management

Fall Semester

Swed 1101 Beginning Swedish

Winter Quarter

Hist 1310 Topics: The Family in American History

Spring Semester

Swed 1102 Beginning Swedish

Spring Quarter

AmSt 1920, 3920 Topics: Images of the City

neighborhood centers

elim church (robbinsdale)

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at Elim Church; or by mail—telephone 373-3195)

Fall Quarter

Engl 3252 The King James Bible as Literature
FScN 1603 Family Nutrition

Winter Quarter

GC 1471 Creativity: Creative Problem Solving
GC 3846 Minnesota Arts and Letters

Spring Quarter

CPsy 3301 Child Psychology

hillside junior high school (maplewood)

(Registration materials available at the Community Education and Services Office, 2055 E. Larpenteur Ave., Maplewood; at 101 Wesbrook Hall on the Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

GC 1113 Science in Context: Conservation and Utilization of
Natural Resources
Rhet 1222 Public Speaking

Winter Quarter

GC 1471 Creativity: Creative Problem Solving

Spring Quarter

GC 1311 Art: General Arts

irondale high school (new brighton)

(Registration materials available at the Community Education Department, 2959 N. Hamline Ave., St. Paul; at 101 Wesbrook Hall on the Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

IC 0001 Individual and Family Budget Planning
GC 1421 Writing Laboratory: Personal Writing
GC 1452 Applied Mathematics
GC 1221 Minnesota History

Winter Quarter

FScN 1603 Family Nutrition
GC 1112 Science in Context: Man and His Environment
Psy 1003 Application of Psychology to Living

Spring Quarter

GC 1331 Music: Instrumental Music and Its Traditions
GC 1534 Practical Law
GC 1721 Home Life: Marriage and Family Living

jewish community center (st. louis park)

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at the Jewish Community Center, 4330 S. Cedar Lake Rd.; or by mail—telephone 373-3195)

Fall Quarter

GC 1722	Home Life: Parent-Child Relationships
JwSt 3126	Themes in Modern Jewish Thought
Pol 1031	American Public Policy

Winter Quarter

Clas 3081, 5081	Classical Epic in Translation
Phil 3521, 5521	Philosophy of Religion

Spring Quarter

GC 1374	Literature: Theatre-Film and Drama
Hum 3101	The Meaning of Humanity: Society and Technology

jonathan community center (chaska)

(Registration materials available at the Jonathan Association Office; at 101 Wesbrook Hall on the Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

CPsy 3301	Child Psychology
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Winter Quarter

AmSt 1920, 3920	Topics: The Thirties
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Spring Semester

Anth 1002	Introduction to Anthropology
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kellogg high school (little canada)

(For registration information, see page 28)

Fall Quarter

Acct 3105	Intermediate Accounting
AmSt 1101	American Life
AmSt 3111	Introduction to American Civilization
ArtS 1101	Basic Drawing
CPsy 3301	Child Psychology
CPsy 5343	Cognitive Development
Comm 1001	Communication
BFin 3000	Finance Fundamentals
Hum 1001	Humanities in the Modern World I
IR 0001C	Supervision I: Elements of Supervision
Mktg 3000	Principles of Marketing
Math 0009	Intermediate Algebra
Math 1201	Pre-Calculus
Psy 1003	Application of Psychology to Living
SpEd 5112	Education of Learning-Disabled Children

neighborhood centers

Fall Semester

Acct 1050	Principles of Accounting
BLaw 0001C	Common Legal Problems
Econ 1001	Principles of Economics
Psy 1001	General Psychology

Winter Quarter

Acct 3106	Intermediate Accounting
AmSt 1102	American Life
AmSt 3112	Introduction to American Civilization
BLaw 3058	Business Law
Comm 1002	Communication
FRD 5402	Interpretation and Management of Forest Environments
Hum 1002	Humanities in the Modern World II
Math 1211	Analysis I
Pol 1001	American Government and Politics

Spring Semester

Acct 1050, 1051	Principles of Accounting
Econ 1002	Principles of Economics

Spring Quarter

Acct 3107	Intermediate Accounting
AmSt 1103	American Life
AmSt 3113	Introduction to American Civilization
FSoS 1001	Dynamics of Dating, Courtship and Marriage
GC 1513	Principles of Small Business Operations
Hum 1003	Humanities in the Modern World III
Ins 3100	Risk Management and Insurance
IR 3002	Industrial Relations Systems: Solar Markets and the Management of Human Resources
Math 1221	Analysis II
Soc 1001	Introduction to Sociology
Tran 3054	Fundamentals of Transportation

Symbols, abbreviations, off-campus class locations begin on page 389.

minnetonka high school (excelsior)

(For registration information, see page 28)

Fall Quarter

Comp 1001	Introduction to Composition
GC 1540	Accounting Fundamentals
GC 1221	Minnesota History
IR 3010	Human Relations and Applied Organization Theory

Fall Semester

Econ 1001	Principles of Economics
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Winter Quarter

BLaw 3058	Business Law
Comp 1002	Introduction to Composition
GC 1542	Accounting Fundamentals
IR 3002	Industrial Relations Systems: Labor Markets and the Management of Human Resources
Rhet 1147	Efficient Reading
Soc 1001	Introduction to Sociology

Spring Semester

Econ 1002	Principles of Economics
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Spring Quarter

IR 0001C	Supervision I: Elements of Supervision
MidE 3525	The Modern Arab World: 1915 to Present

nicollet junior high school (burnsville)

(Registration materials available at the School District Office, 900 W. 128th St., Burnsville; at 101 Wesbrook Hall on the Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

Engl 3455	American Short Story
GC 1295	Social Science: Economic Perspectives—General View
IR 0001C	Supervision I: Elements of Supervision

Winter Quarter

GC 1540	Accounting Fundamentals
GC 3845	Minnesota Biography
Psy 1003	Application of Psychology to Living

Spring Quarter

AmSt 1101	American Life
AmSt 3111	Introduction to American Civilization
Clas 1122, 5122	Greek Art, Architecture, Archaeology
FSoS 1025	Parenthood
GC 1542	Accounting Fundamentals

Symbols, abbreviations, off-campus class locations begin on page 389.

neighborhood centers

alexander ramsey high school (roseville)

(For registration information see page 28)

Fall Quarter

FSoS 1025 Parent hood

Winter Quarter

Soc 1001 Introduction to Sociology

st. paul-ramsey hospital

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

BA 3002 Business and Society
BLaw 3058 Business Law
GC 1235 The Law in Society
GC 1111 Science in Context: Weather and Climate

Fall Semester

Acct 1050 Principles of Accounting
Anth 1002 Introduction to Anthropology
Econ 1001 Principles of Economics
Psy 1001 General Psychology

Winter Quarter

GC 1357 Man's Religious Beliefs
GC 1421 Writing Laboratory: Personal Writing
GC 1282 Fields of Applied Psychology
Mgmt 3001 Fundamentals of Management

Spring Semester

Acct 1051 Principles of Accounting
Econ 1002 Principles of Economics

Spring Quarter

GC 1367 Literature: Contemporary Books and Periodicals
GC 1422 Writing Laboratory: Communicating in Society
GC 1212 Man in Society: Urban Problems
Mktg 3000 Principles of Marketing

Symbols, abbreviations, off-campus class locations begin on page 389.

richfield senior high school

(For registration information, see page 28)

Fall Quarter

BLaw 3058	Business Law
CPsy 5303	Adolescent Psychology
CPsy 5110	Counseling Procedures
CPsy 5331	Processes of Socialization of Children
CSPP 5110	Counseling Procedures
FSoS 1001	Dynamics of Dating, Courtship and Marriage
BFin 3000	Finance Fundamentals
IR 3002	Industrial Relations Systems: Labor Markets and the Management of Human Resources
Math 1201	Pre-Calculus
Math 1211	Analysis I
Math 1231	Analysis III
Hlth 5100	Driver Education I
Soc 1001	Introduction to Sociology
Spch 0001C	Beginning Speech-Communication

Fall Semester

Acct 1050	Principles of Accounting
Econ 1001	Principles of Economics
Psy 1001	General Psychology

Winter Quarter

Ast 1009	Stars and Galaxies
CPsy 3301	Child Psychology
Comp 1001	Introduction to Composition
Hum 1011	European Heritage
IR 3007	Collective Bargaining, Negotiations and Modern Labor Relations
Mgmt 3001	Fundamentals of Management
Math 1211	Analysis I
Math 1221	Analysis II
Sal 0001C	Salesmanship
Hlth 5101	Driver Education II

Spring Semester

Acct 1050, 1051	Principles of Accounting
Econ 1002	Principles of Economics

Spring Quarter

BLaw 3058	Business Law
CPsy 5347	Learning in Children
IC 0001	Individual and Family Budget Planning
IC 0030	Minnesota History
Comp 1002	Introduction to Composition
Mgmt 3002	Psychology in Management
Math 0009	Intermediate Algebra
Math 1221	Analysis II
Math 1231	Analysis III
Rhet 1147	Efficient Reading
Hlth 5602	The Driver Simulator
SpEd 5112	Education of Learning Disabled Children

sandburg junior high school (golden valley)

(For registration information, see page 28)

Fall Quarter

Acct 3105	Intermediate Accounting
Ast 1008	Solar System
BLaw 3058	Business Law
CPsy 5303	Adolescent Psychology
FSoS 1002	Dynamics of Marriage and Parenthood
Hist 1301	American History
IR 3007	Collective Bargaining Negotiations and Modern Labor Relations
Mgmt 3001	Fundamentals of Management
Math 0009	Intermediate Algebra
Math 1221	Analysis II
Rhet 1147	Efficient Reading

Fall Semester

Acct 1050	Principles of Accounting
Econ 1001, 1002	Principles of Economics
Math 1111	College Algebra and Analytic Geometry

Winter Quarter

Acct 3106	Intermediate Accounting
ArtS 1101	Basic Drawing
BLaw 3078	Business Law
CPsy 5345	Language Development
Comp 1001	Introductory Composition
Hist 1302	American History
IR 0001C	Supervision I: Elements of Supervision
Ins 3100	Risk Management and Insurance
Mktg 3000	Principles of Marketing
Math 1201	Pre-Calculus

Spring Semester

Acct 1050, 1051	Principles of Accounting
Econ 1001, 1002	Principles of Economics
Math 1142	Introduction to Calculus of One and Several Variables

Spring Quarter

Acct 3107	Intermediate Accounting
BA 3002	Business and Society
BFin 3000	Finance Fundamentals
BLaw 3078	Business Law
BLaw 3088	Business Law
Comp 1002	Introductory Composition
IR 3010	Human Relations and Applied Organization Theory
Math 1211	Analysis I
Psy 1003	Application of Psychology to Living
SpEd 5101	Education of Exceptional Children
SpEd 5150	Education of Emotionally Disturbed and Socially Maladjusted Children
Spch 0001C	Beginning Speech-Communication

sunray library (st. paul)

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at Sunray Library; or by mail—telephone 373-3195)

Fall Quarter

GC 1534 Practical Law

Fall Semester

Hum 1101 The Life of the Mind

Winter Quarter

GC 1367 Literature: Contemporary Books and Periodicals

GC 1401 Vocabulary Building: How to Expand Your Word Power

Spring Quarter

Psy 1003 Application of Psychology to Living

the talmud torah of st. paul

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at The Talmud Torah; at the United Jewish Fund, 790 Cleveland Ave. S., St. Paul; or by mail—telephone 373-3195)

Fall Quarter

Hebr 1504, 3504 Pagan Myths and the Bible

Winter Quarter

IC 0031 Art and Architecture of the Jewish People

wcco radio building (downtown minneapolis), room 512

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; or by mail—telephone 373-3195)

Fall Quarter

IR 3010 Human Relations and Applied Organization Theory

Winter Quarter

BLaw 3058 Business Law

Psy 5141 Psychology of Women

Spring Quarter

Mktg 3000 Principles of Marketing

Symbols, abbreviations, off-campus class locations begin on page 389.

neighborhood centers

st. stephens church (west st. paul)

(Registration materials available at 101 Wesbrook Hall, Minneapolis campus; at St. Stephens Church; or by mail—telephone 373-3195)

Fall Quarter

GC 1401	Vocabulary Building: How to Expand Your Word Power
GC 1241	Historical Biography: Lincoln and the Civil War
Psy 1003	Application of Psychology to Living

Winter Quarter

AmSt 1102, 3112	American Life: Introduction to American Civilization
Comp 1027	Intermediate Composition
GC 1331	Music: Instrumental Music and Its Tradition

Spring Quarter

FScN 1603	Family Nutrition
Hum 1101	The Life of the Mind

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 listings section of this Bulletin (arranged alphabetically by department) for course descriptions.

Buy books for classes offered on the St. Paul campus at the Coffey Hall bookstore. See the "How and When to Register" section of this Bulletin, pages 11 to 25.

Fall Quarter

Dsgn 1525	Two Dimensional Design I
Dsgn 5567	Housing Alternatives of the Family
EBB 3004	Fundamentals of Ecology
EdAd 8203	The Community School
FSoS 5240	Special Topics: Problems in Family Financial Management
FSoS 5200	Family Relationships
FScN 1010	Man's Food
FScN 1602	Principles of Nutrition
FScN 1700	Introduction to Hospitality and Food Management
FScN 3102	Technology of Food Processing
FScN 5135	Food Process Engineering
FScN 5412	Physicochemistry of Foods II
FScN 5662	Clinical Nutrition
Hort 1010	Home Landscape Gardening and Design
Hort 1011	Horticultural Crop Evaluation
Hort 1021	Plant Materials I
Hort 3077	Floral Design
LA 1024	Theory of Landscape Design
Mus 1430	St. Paul Campus Chorus
PIPa 5702	Prevention and Control of Plant Disease
Soil 5114	Special Problems: Basic Social Science

Fall Semester

ArtS 0001C	Color Photography I
Dsgn 1420	Use of Color
Dsgn 1455	Interior Design I
Dsgn 1456	Interior Design II
Dsgn 1533	Jewelry Design I
Dsgn 3451	Interior Design Rendering
Dsgn 3459	Interior Design Business

Winter Quarter

EdAd 8201	Organization in Education
FScN 3622	Food and Nutrition in the Life Cycle
FScN 3740	Design and Layout of Food Services
FScN 5135	Food Processing Engineering
FScN 5413	Physicochemistry of Foods II
FScN 5522	Technology of Fluid and Concentrated Milk Products
FScN 8311	Flavor Chemistry
Hort 1036	Plant Propagation
Hort 3026	Residential Landscape Design
Hort 3031	Fruit Science
Hort 3076	Arboriculture
Mus 1430	St. Paul Campus Chorus
Soil 0100C	Garden Soil Management

Spring Semester

ArtS 0001C	Color Photography I
ArtS 0002C	Color Photography II
Dsgn 1420	Use of Color
Dsgn 1456	Interior Design II
Dsgn 1531	Textile Design I
Dsgn 3451	Interior Design Rendering

Special Term

ForP 5405	Paper in Today's World
	Sec. 1—Feb. 27 to Apr. 5, 1976
	Sec. 2—Mar. 12 to Apr. 19, 1976

Symbols, abbreviations, off-campus class locations begin on page 389.

neighborhood centers

Spring Quarter

Biol 1103	General Botany
Dsgn 3415	20th Century Interiors and Furnishings
Dsgn 5561	Housing Management
EBB 3101	Ecology for Engineering and Physical Scientists
EdAd 8202	Politics of Education
EdAd 8215	The Elementary School Principalship
FScN 3403	Experimental Foods
FScN 3750	Management of Food Service and Hospitality Business Systems
FScN 5350	Food Formulation Product Development
FScN 5523	Technology of Fermented Dairy Products
FScN 5530	Industrial Processing of Fruits and Vegetables
FScN 5622	Human Nutrition
Hort 1001	Fundamentals of Horticulture
Hort 1022	Plant Materials II
Hort 3032	Vegetable Science
Hort 5020	Horticultural Techniques for Education Majors
Mus 1430	St. Paul Campus Chorus
PIPa 1001	Introductory Plant Pathology
PIPa 5002	Introductory Plant Pathology for Advanced Students
TexC 5622	Issues, Trends in Textile Consumer Problems
TexC 5641	Topics in Merchandising: Textile and Clothing Production

Symbols, abbreviations, off-campus class locations begin on page 389.

course offerings continued from page 160

Dsgn 3415 20TH-CENTURY INTERIORS AND FURNISHINGS. 3 degree credits, \$43.50.

new

In-depth study of 20th century design for interiors and furnishings from Victorian to the present time. (No prereq)

Spring Qtr Sec 1 **M**—6:20-8:50, McNH 212, StP Campus, Nagle

***Dsgn 3450 PERSPECTIVE AND PRESENTATION SKETCHES** [replaces ARTS 1121]. 4 degree credits, \$58.

Instruction in the various methods of perspective. Free-hand sketches of details. Finished renderings in perspective for final presentation as related to interior design. (No prereq. Limited to 30 students)

Fall Sem Sec 1 **W**—6:20-8:50, Arch 40, A Dekker

Spring Sem Sec 2 **M**—6:20-8:50, Arch 40, H Dekker

Sec 3 **T**—6:20-8:50, Arch 40, A Dekker

***Dsgn 3451 INTERIOR DESIGN RENDERING.** 3 degree credits, \$43.50.

new

Course includes both lecture and lab work to learn the entire approach to visual presentation; floor plans, elevations and perspective rendering. The use of values and colors as applied to rendering will also be covered and an introduction to different mediums and techniques in developing a personal style of presentation. (No prereq. Limited to 25 students)

Fall Sem Sec 1 **W**—6:20-8:00, McNH 102N, StP Campus, Birkeland

Spring Sem Sec 2 **Th**—6:20-8:00, McNH 102N, StP Campus, Birkeland

***Dsgn 3455 SEMINAR IN INTERIOR DESIGN.** (replaces 3555). 4 degree credits, \$58 plus \$5 special fee. Total \$63.

Advanced study of the elements and principles of design and their direct functional and aesthetic relationships to color, lighting, fabric coordination, and kitchen planning. Class content will include lectures, discussion, visual aids, and field trips. (Prereq old 1556. Limited to 25 students. No auditors)

Fall Sem Sec 1 **T**—6:20-8:00, Arch 40, A Dekker

***Dsgn 3456 SEMINAR IN INTERIOR DESIGN.** (replaces 3556). 4 degree credits, \$58 plus \$5 special fee. Total \$63.

An intensive application, for advanced Interior Design projects, of the information and skills acquired in Dsgn 1555, 1556, and 3555. Class time will be used to study architectural symbols and their usage in Interior Design construction; professional project presentation; discussion in class with professional Interior Designers of experience; field trips to studios. The student will also have the opportunity to participate in an out-of-town trip to the Merchandise Mart in Chicago (not a course requirement). (Prereq 3455 or old 3555. Limited to 25 students. No auditors)

Spring Sem Sec 1 **M**—6:20-8:00, Arch 45, A Dekker

***Dsgn 3459 INTERIOR DESIGN BUSINESS.** 3 degree credits, \$43.50.

new

Includes business formations of a design studio, client-designer relationship, methods of determining fees, and relationships with trade sources. (No prereq. Limited to 50 students)

Fall Sem Sec 1 **Th**—6:20-8:00, McNH 102N, StP Campus, Miller

Dsgn 3460-3461 INTERIOR DESIGN CLINIC (replaces 3560-3561). 4, 5 or 6 degree credits each semester. \$58, \$72.50 or \$87 each semester.

Individual and collaborative effort involving the advanced interior design students directly with the community and with other disciplines related to all areas of residential and contract design through University sponsored seminar /clinic projects. Special emphasis on the designer's responsibility to this environment and ability to communicate within this framework. Experimental internship program on an individual basis with design studios; or individual problems related to individual student's needs in design. (Prereq \$ for 3460; 3460 or \$ for 3461)

Fall Sem 3460 Sec 1 **Time arr.** First class mtg, Mon. Sept. 22, 8:15, WuH 240, Hopkins

Spring Sem 3461 Sec 2 **Time arr.** First class mtg. Mon. Feb. 9, 8:15, WuH 240, Hopkins

Symbols, abbreviations, off-campus class locations begin on page 389.

Dsgn 3463 INTERIOR DESIGN: HOUSING AND THE URBAN ENVIRONMENT [replaces ArtS 3136]. 4 degree credits. \$58.

Housing and its relationship to human interaction, both individual and group, will be studied. Topics in perception of the environment, interior and exterior planning and design, socio-economic patterns (income, poverty, racial distribution, etc.) community organization and community values and how all this relates to housing will be studied. (No prereq)

Spring Sem Sec 1 **M**—6:20-8:00, Arch 35, Hozza

Dsgn 3467 INTERIOR DESIGN: HOUSING, DYNAMICS AND POLICY [replaces ArtS 3135]. 4 degree credits. \$58.

Introduction to the supply and demand characteristics of the housing market, both rented and owned. Elements comprising the market will be studied as well as the interaction among the elements and the effect of various public and private policies and programs. Current issues and emerging strategies of housing will be examined in the context of local, metropolitan, state and national settings. (No prereq)

Fall Sem Sec 1 **M**—6:20-8:00, Arch 35, Hozza

***Dsgn 3477-3478 CONTRACT DESIGN SEMINAR** (replaces 3577-3578). 4 degree credits each semester, \$58 each semester.

Problems in designing of contract and institutional interiors, planning the arrangements, materials, furniture, and colors. The study of planning requirements and an analysis of approach to this type of design. (Prereq 1456 and 1428 or old 1556 and old 1528 or # for 3477; 3477 for 3478. Limited to 25 students)

Fall Sem 3477 Sec 1 **M**—6:15-8:00, WuH 240, Hopkins

Spring Sem 3478 Sec 2 **M**—8:15-9:55, WuH 240, Hopkins

***Dsgn 5561 HOUSING MANAGEMENT.** 5 degree credits, \$77.50.

new

Focus on new career demands for professionalism in housing management. Emphasis on increasing interpersonal skills. Includes historical perspectives, current status of housing, management approaches, psychosocial impact of housing and community design, specific residential populations. (Prereq #. Limited to 24 students. A joint Day/Extension course. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:20-8:50, McNH 212, StP Campus, Franklin

***Dsgn 5567 HOUSING ALTERNATIVES FOR THE FAMILY.** 4 degree credits, \$62.

new

Study of alternative housing choices for the family in today's market with emphasis on design for special needs of the elderly, the handicapped and differing lifestyles. (Prereq 1551 or 1552, 3563 or #. A joint Day/Extension course. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, McNH 212, StP Campus, Nagle

distributive education

(See Vocational Education)

drug abuse

(See Public Health)

Symbols, abbreviations, off-campus class locations begin on page 389.



east asian languages

(See also Art History; History; and Pol 5454, Chinese Government and Politics)

Edward M. Copeland, Professor of East Asian Languages

Kaye Matsumoto, Lecturer in East Asian Languages

Un Chol Shin, Instructor in East Asian Languages

Michael Welch, Instructor in East Asian Languages

Cassette tapes are available to extension classes students on a take home basis. Students can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

chinese (Chn)

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68); Arth 5766; Hist 1461, 1462, 3461, 3472, 3463, 3468, 5468; Eas 1002, 1032; RelS 1032.

Chn 1005-1006 BEGINNING SPOKEN MANDARIN. 3 degree credits each semester, \$43.50 plus \$3 course fee. Total \$46.50 each semester.

An introduction to modern spoken Mandarin Chinese intended to provide the basic sentence patterns and vocabulary in Romanization necessary for development of conversational ability. (No prereq for 1005; 1005 or # for 1006)

Fall Sem 1005 Sec 1 **W**—6:20-8:00, FolH 201, Welch

Spring Sem 1006 Sec 2 **W**—6:20-8:00, FolH 201, Welch

japanese (Jpn)

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68); Arth 5767; Hist 1462, 3462, 3463, 3472, 5472; Eas 1002, 1032; RelS 1032.

Jpn 1005-1006 BEGINNING SPOKEN JAPANESE. 3 degree credits each semester, \$43.50 plus \$3 course fee. Total \$46.50 each semester.

An introduction to modern spoken Japanese intended to provide the basic sentence patterns and vocabulary in Romanization necessary for development of conversational ability. (No prereq for 1005; 1005 or # for 1006)

Fall Sem 1005 Sec 1 **M**—6:20-8:00, FolH 304, Copeland

Spring Sem 1006 Sec 2 **M**—6:20-8:00, FolH 304, Copeland

east asian studies (EAS)

Symbols, abbreviations, off-campus class locations begin on page 389.

EAS 1002 THE EAST ASIAN HERITAGE: MODERN PERIOD. 4 degree credits, \$58. (♦\$29)

A general introduction to the cultures of the East Asian area through the study of representative works of national expression. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Chinese or Japanese [see page 68])

Fall Qtr Sec 1 T—6:20-8:50, FolH 110, Matsumoto

EAS 1032 RELIGIONS OF EAST ASIA. 4 degree credits, \$ReIS 1032. \$58. (♦\$29)

Major religious traditions of China and Japan—Confucianism, Taoism, Buddhism, Shintoism, and the post-war religions—as phenomena of the contemporary world, with some historical background as an aid to understanding the modern developments. (No prereq. Meets concurrently with ReIS 1032. May be applied toward the CLA foreign language requirement, Route II, for Chinese or Japanese [see page 68])

Winter Qtr Sec 1 T—6:20-8:50, FolH 202, Shin

(See related courses, page 179)

ecology and behavioral biology (EBB)

(See other environmental concerns courses, page 170)

Kendall W. Corbin, Associate Professor of Ecology and Behavioral Biology
George Jacobson, Instructor in Ecology and Behavioral Biology

EBB 3001 INTRODUCTION TO ECOLOGY. 4 degree credits, \$1003, 1004, 3004, Biol 1104, 3041. \$58.

A survey of the basic concepts in ecology dealing with the organization, development, and functioning of ecosystems; population growth and regulation. Man's impact on such systems will be considered throughout. (No prereq)

Winter Qtr Sec 1 M—6:20-9:50, Arch 50, Corbin

EBB 3004 FUNDAMENTALS OF ECOLOGY. 4 degree credits, \$Biol 1104, 3041, EBB 3001. \$58 plus \$2 course fee. Total \$60. (♦\$29 plus \$2 course fee. Total \$31)

Relationships between organisms and their environment; ecosystem structure and function emphasizing energy flow, biogeochemical cycling and succession; population dynamics; introduction to regional biotic communities. (Prereq introductory biology, college algebra or *)

Fall Qtr Sec 1 Th—6:20-8:50, BioSci 6, StP Campus, Jacobson

EBB 3101 ECOLOGY FOR ENGINEERS AND PHYSICAL SCIENTISTS. 4 degree credits, \$Biol 1104, 3041, EBB 3001, 3004. \$58 plus \$2 course fee. Total \$60. (♦\$29 plus \$2 course fee. Total \$31)

Description and analysis of the spatial and temporal interactions between populations in ecosystems, with emphasis on the processes affecting populations and the transformations of energy and materials in the biosphere. Not open to biology majors. (Prereq Math 1231 or *)

Spring Qtr Sec 1 W—6:20-9:50, BioSci 6, StP Campus

economics (Econ)

(See also Pol 5321, American Economic Policy)

Edward Coen, Professor of Economics

John D. Helmberger, Professor of Agricultural and Applied Economics

Marcel K. Richter, Professor of Economics

Norman J. Simler, Professor of Economics

Harlan M. Smith, Professor of Economics

John G. Turnbull, Professor of Economics

Additional staff to be assigned

Symbols, abbreviations, off-campus class locations begin on page 389.

***Econ 1001, 1002 PRINCIPLES OF ECONOMICS.** 4 degree credits each semester, if no credit received for any other beginning economics course. \$58 each semester. ★

Principles underlying economic activity and the way these principles work out through our economic institutions. **1001:** Macro-economics: national income, money and banking, economic growth. **1002:** Micro-economics: demand and supply, competition and monopoly, distribution of income, international trade, and current economic problems. (No prereq. Econ 1001 and 1002 may be taken in either order, or may be taken the same evening or the same term in order for the student to progress more rapidly to other courses. **Each section limited to 35 students unless otherwise indicated**)

MINNEAPOLIS CAMPUS, WEST BANK

Fall Sem	1001	Sec 1	M—6:20-8:00, BlegH 105**	
		Sec 2	M—8:15-9:55, BlegH 105	
		Sec 3	T—6:20-8:00, BlegH 205	
		Sec 4	T—6:20-8:00, BlegH 225	
		Sec 5	T—8:15-9:55, BlegH 205	
		Sec 6	W—6:20-8:00, BlegH 225	
		Sec 7	W—6:20-8:00, BlegH 425	
		Sec 8	Th—6:20-8:00, BlegH 225	
		Sec 9	Th—6:20-8:00, BlegH 330	
		Sec 10	Th—8:15-9:55, BlegH 225	
			Sec 11	Sa—8:15 a.m.-9:55, BlegH 225**
1002	Sec 12	M—6:20-8:00, BlegH 125		
	Sec 13	T—6:20-8:00, BlegH 210		
	Sec 14	T—8:15-9:55, BlegH 125		
	Sec 15	Th—6:20-8:00, BlegH 120		
	Sec 16	Th—6:20-8:00, BlegH 125		
	Sec 17	Th—8:15-9:55, BlegH 120		
	Spring Sem	1001	Sec 18	M—6:20-8:00, BlegH 105
Sec 19			T—6:20-8:00, BlegH 105	
Sec 20			W—6:20-8:00, BlegH 105	
Sec 21			Th—6:20-8:00, BlegH 150	
1002			Sec 22	M—6:20-8:00, BlegH 125**
			Sec 23	T—6:20-8:00, BlegH 210
			Sec 24	T—8:15-9:55, BlegH 205
			Sec 25	W—6:20-8:00, BlegH 205
			Sec 26	Th—6:20-8:00, BlegH 205
			Sec 27	Th—8:15-9:55, BlegH 205
			Sec 28	Sa—8:15 a.m.-9:55, BlegH 120**

**Part of an integrated series in business and economics, and in accounting and economics. See page 166.

KELLOGG HIGH SCHOOL, LITTLE CANADA

Fall Sem	1001	Sec 29	M—6-7:40, room 235
Spring Sem	1002	Sec 30	M—6-7:40, room 235

RICHFIELD SENIOR HIGH SCHOOL

Fall Sem	1001	Sec 31	M—6:20-8:00, room 251-252
Spring Sem	1002	Sec 32	M—6:20-8:00, room 251-252

Symbols, abbreviations, off-campus class locations begin on page 389.

SANDBURG JUNIOR HIGH SCHOOL, GOLDEN VALLEY

Fall Sem 1001	Sec 33	T—6:20-8:00, room 204
1002	Sec 34	T—8:15-9:55, room 204
Spring Sem 1002	Sec 35	T—6:20-8:00, room 204
1001	Sec 36	T—8:15-9:55, room 204

ST. PAUL RAMSEY HOSPITAL

Fall Sem 1001	Sec 37	W—6:20-8:00, Education Bldg 314 (Limit 30 students*)
Spring Sem 1002	Sec 38	W—6:20-8:00, Education Bldg 314 (Limit 30 students*)

MINNETONKA HIGH SCHOOL

Fall Sem 1001	Sec 39	W—7-8:40, room 120
Spring Sem 1002	Sec 40	W—7-8:40, room 120

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. Enough of the latter will be offered to enable majors to fulfill the economics requirements for a Bachelor of Arts degree. 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 non-majors alike (only prerequisite is Principles of Economics, Econ 1001-1002):

- Econ 3021 SURVEY OF ECONOMIC IDEAS**
- Econ 5021 ECONOMICS, ETHICS AND ECONOMIC PHILOSOPHY**
- Econ 5031-5032 CURRENT ECONOMIC ISSUES**
- Econ 5611 ECONOMICS OF ENVIRONMENTAL CONTROL**
- Econ 5621 ECONOMICS OF URBAN PROBLEMS**

Courses open to

	Econ Majors (Pre-requisites usually 3101, 3102)	Non-Majors (Pre-requisites Principles of Economics 1001, 1002)
Economic Development	5331	5301
Comparative Economic Systems	5337	5307
International Economics	5431	5401
Labor Economics	3551	3501
Industrial Organization	3651	3601
Money and Banking	3751	3701-5701
Public Finance	3851	3801

general economics

Econ 3021 SURVEY OF ECONOMIC IDEAS. 3-5 degree credits. **Not offered 1975-76.**

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. (Prereq 1001 and 1002 or 1. Student may register for 3, 4 or 5 credits; assignments and examinations will vary accordingly. Term paper required only for 5 credits)

Econ 5021 ECONOMICS, ETHICS, AND ECONOMIC PHILOSOPHY. 3-5 degree credits, \$46.50-\$77.50.

Literature and issues it raises; relation of ethics to economic organization, practice, and policy. Different economic philosophies; elements involved in formula-

Symbols, abbreviations, off-campus class locations begin on page 389.

tion of economic philosophy. (Prereq 1001, 1002 or equivalent. Student may register for 3, 4 or 5 credits; assignments and examinations will vary accordingly. Term paper required only for 5 credits. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 Th—8:15-9:55, BlegH 420, Smith

Econ 5031 CURRENT ECONOMIC ISSUES. 3-5 degree credits. **Not offered 1975-76.**

Current controversies over economic policies and problems that underlie the controversies. Selected topics, with some opportunity for selection by the students of topics which especially interest them. (Prereq 3001-3002 or \$. With consent, course may be taken more than once since topics covered change each time the course is offered. Student may register for 3, 4 or 5 credits; assignments and examinations will vary accordingly. Term paper required only for 5 credits. Qualified students may register for graduate credit at the University of Minnesota)

economic theory

***Econ 3101 MICROECONOMIC THEORY.** 4 degree credits, \$3104. \$58.

Behavior of households, firms and industries under competitive and monopolistic conditions. Factors influencing production, price and advertising decisions. (Prereq 1002 or \$. Limited to 35 students)

Fall Sem Sec 1 M—6:20-8:00, BlegH 255
Sec 2 M—8:15-9:55, BlegH 255
Sec 3 T—6:20-8:00, BlegH 255, Richter
Sec 4 T—8:15-9:55, BlegH 255, Richter
Sec 5 W—6:20-8:00, BlegH 155, Simler
Spring Sem Sec 6 T—8:15-9:55, BlegH 425, Richter
Sec 7 W—8:15-9:55, BlegH 425

***Econ 3102 MACROECONOMIC THEORY.** 4 degree credits, \$3105. \$58. ★

Factors determining consumption, investment, national income, employment, and the price level. (Prereq 3101 or \$. Limited to 35 students)

Fall Sem Sec 1 W—8:15-9:55, BlegH 420, Simler
Spring Sem Sec 2 M—6:20-8:00, BlegH 420, Simler
Sec 3 M—8:15-9:55, BlegH 420, Simler

Econ 3131 WELFARE ECONOMICS. 4 degree credits, \$58.

Introduction to welfare economics. Economic efficiency and the conditions necessary to sustain it. Conflicts between the efficiency and income distribution goals. How market structure and public policies increase or decrease efficiency. (Prereq 3101 or \$)

Spring Sem Sec 1 T—6:20-8:00, BlegH 420, Richter

Econ 5141 BUSINESS CYCLES. 4 degree credits, \$62. (♦\$31)

Ups and downs of business; causes of cycles; statistical data; relationship of cycles to economic growth, to inflation, and to politics. Methods of forecasting. Proposals for economic stabilization. (Prereq 3102, 3751 or equiv)

Spring Sem Sec 1 Th—6:20-8:00, BlegH 420, Smith

development and area studies

Econ 5301 and 5331 ECONOMIC DEVELOPMENT. 4 degree credits, \$62. (♦\$31)

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 1001 and 1002 for 5301 (not open to economics majors); 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)

Fall Sem Sec 1 Th—6:20-8:00, BlegH 420, Smith

Symbols, abbreviations, off-campus class locations begin on page 389.

Econ 5307 and 5337 COMPARATIVE ECONOMIC SYSTEMS. 4 degree credits. To be offered 1976-77.

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 1001 and 1002 for 5307 [not open to economics majors]; 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 5431 INTERNATIONAL ECONOMICS. 4 degree credits. To be offered 1976-77.

Principal issues involved in international economic relations. Significance of foreign trade and investment, foreign exchange and international payments, the International Monetary Fund and Bank, the old gold standard and the new "paper gold." Arguments over foreign aid policies and tariffs. (Prereq 1001 and 1002 for 5401 [not open to economics majors]; 3102 or § for 5431. The courses meet concurrently, but only one can be taken for credit. Qualified students may register for graduate credit at the University of Minnesota)

labor economics

Econ 3501 and 3551 LABOR ECONOMICS. 4 degree credits, \$58. (♦\$29.)

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 1001 and 1002 or § for 3501 [not open to economics majors]; 3102 for 3551. The courses meet concurrently, but only one can be taken for credit)

Fall Sem Sec 1 **W**—6:20-8:00, BlegH 420, Turnbull

(See also IR 3002, Modern Labor Relations)

Econ 5534 ECONOMIC SECURITY. 4 degree credits. **Not offered 1975-76.**

Public and private approaches to problems of economic insecurity. Details of, and economic and social implications of private and public programs. Emphasis on economics of income and employment maintenance and stabilization rather than upon legal or administrative aspects of policy. (Prereq 3501 or §. Qualified students may register for graduate credit at the University of Minnesota)

Econ 5537 LABOR MARKET BEHAVIOR AND REGULATION. 4 degree credits, \$62. (♦\$31)★

Public and private policies directed at regulation of employer-employee-union relations and labor market behavior. Settlement of disputes. Control of employer and union self-help techniques. Emphasis on economic rather than upon legal or administrative aspect. (Prereq 3551 or equiv or §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **W**—6:20-8:00, BlegH 425, Turnbull

Econ 5541 CONTEMPORARY LABOR ISSUES. 4 degree credits. To be offered 1976-77.

Analysis of important labor problem areas. Current issues will be examined in light of their broader economic, legal, political and social implications. (Prereq 3501 or equiv or §. Qualified students may register for graduate credit at the University of Minnesota)

Symbols, abbreviations, off-campus class locations begin on page 389.

industrial organization

Econ 3601 and 3651 INDUSTRIAL ORGANIZATION AND ANTI-TRUST POLICY. 4 degree credits, \$58. (◆\$29)

◆ 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 1001 and 1002 or § for 3601 [not open to economics majors]; 3101 or § for 3651. The courses meet concurrently, but only one can be taken for credit)

Fall Sem Sec 1 T—6:20-8:00, BlegH 425

***Econ 5611 ECONOMICS OF ENVIRONMENTAL CONTROL.** 4 degree credits, \$62. (◆\$31)

◆ Pollution as an external diseconomy; use of taxes and subsidies to reduce pollution. Replenishable resources; maximum sustainable yield; role of the discount rate; taxation to protect yields and minimize harvesting costs. Non-replenishable resources; controlling rates of depletion. (Prereq 1001, 1002 or equiv. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 M—6:20-8:00, BlegH 425, Coen

(See other environmental concerns courses, page 170).

***Econ 5621 ECONOMICS OF URBAN PROBLEMS.** 4 degree credits, \$62. (◆\$31)

◆ Unemployment and central city decay. Minimum guaranteed income proposals. Low income housing policies. Public policies towards health care. Financing public education. Fiscal problems of cities. Mass transit issues. (Prereq 1001, 1002 or equiv. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 M—6:20-8:00, BlegH 425, Coen

money and banking

Econ 3751 MONEY AND BANKING. 4 degree credits. ★To be offered 1976-77.

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 3102 or §)

Econ 3701 and 5701 MONEY, BANKING, AND MONETARY POLICY. 4 degree credits, \$58 and \$62. (◆\$29)

◆ 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 1001, 1002. Not open to Econ majors, who should take 3751, 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)

Spring Sem Sec 1 Th—8:15-9:55, BlegH 420, Smith

public finance

Econ 3801 and 3851 ELEMENTS OF PUBLIC FINANCE. 4 degree credits, \$58. (◆\$29)

◆ Survey of taxation and government expenditures, budgeting, fiscal policy and debt, in terms of fiscal institutions, impact on business and the economy, and policy issues. (Prereq 1001 and 1002 or § for 3801 [not open to economics majors]; 3102 or § for 3851. The courses meet concurrently but only one can be taken for credit)

Spring Sem Sec 1 T—6:20-8:00, BlegH 425, Helmberger

Symbols, abbreviations, off-campus class locations begin on page 389.

education

Prospective Teachers: Persons interested in undergraduate programs preparing them to teach in elementary or secondary schools should make an appointment through the Extension Counseling Department (373-3905) with an adviser in the College of Education. 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 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. For the **Late Afternoon, Saturday Morning, and Extension Bulletin**, contact the College of Education Career Development office, 1425 University Ave. S.E., University of Minnesota, Minneapolis, Minnesota 55455 (373-2257).

Renewal of Teaching Certificates: Former teachers wishing to renew certificates should check with the State Department of Education (296-4440) concerning their individual requirements. (See also PsyF 5305 WORKSHOP IN HUMAN RELATIONS)

Please see the following departmental listings for all College of Education course offerings:

child psychology

Child Psychology, CPsy 3301
 Adolescent Psychology, CPsy 5303
 Behavior Problems, CPsy 5311
 Psychology of Atypical Children, CPsy 5313
 Introduction to Mental Retardation, CPsy 5315
 Clinical Procedures with Children, CPsy 5319
 Processes of Socialization of Children, CPsy 5331
 Cognitive Development, CPsy 5343
 Language Development, CPsy 5345
 Learning in Children, CPsy 5347

counseling and student personnel psychology

Counseling Procedures, CSPP 5110
 Introduction to Guidance, CSPP 5130
 Workshop: Counseling Psychology, CSPP 5300

curriculum and instruction

ART EDUCATION

Weaving Without a Loom, ArEd 3009
 Introduction to Weaving, ArEd 3010
 Puppetry, ArEd 3030
 Art Media Techniques, Jewelry, ArEd 5001
 Art Media Techniques, Textile Design, ArEd 5001
 Advanced Contemporary Crafts, ArEd 5020
 Intercultural Education through Art, ArEd 5316

Symbols, abbreviations, off-campus class locations begin on page 389.

ELEMENTARY EDUCATION

Workshop: Curriculum Implementation in Elementary School Social Studies, Elem 5363

MUSIC EDUCATION

Workshop: Music for Early Childhood, MuEd 5750

SECONDARY EDUCATION

Family Life Education, SeEd 5112

Workshop: Curriculum, SeEd 5371

educational administration

Formal Organizations in Education, EdAd 8201

Politics of Education, EdAd 8202

The Community School, EdAd 8203

The Elementary School Principalship, EdAd 8215

Legal Implications of Acts by School Boards, Administrators and Teachers, EdAd 8224

School Community Relations, EdAd 8230

physical education and recreation

Karate, PE 1035

Paddleball-Handball, PE 1036

Volleyball, PE 1074

Karate, PE 1135

Water Safety Instructor's Course, PE 1410

Officiating Soccer, PE 1657

Prevention and Care of Injuries, PE 3114

Organization and Management of Sport, PE 3143

Basketball Coaching, PE 3171

Dance Therapy, PE 3181

Workshop: Dynamics of Therapeutic Dance/Movement, PE 5181

Practicum: Prevention and Care of Athletic Injuries, PE 5620

Workshop: Dance in Education, Creative Dance for Children, PE 5700

Workshop: Dance in Education, Teaching Modern Dance, PE 5700

NONCREDIT ACTIVITIES COURSES

Swimming for Children, PE 0001

Springboard Diving for Boys and Girls, PE 0100

Golf for Men and Boys, PE 0150

Golf for Women, PE 0200

Scuba for Men and Women, PE 0255

psychological foundations

Introductory Statistical Methods, PsyF 5110

Educational Measurement in the Classroom, PsyF 5120

Psychology of School Learning, PsyF 5141

Psychology and Pedagogy of Reading, PsyF 5148

Personality and Social Development, PsyF 5162

Social Psychology of Education, PsyF 5170

Structuring Learning: Social-Psychological Approaches, PsyF 5172

Workshop in Human Relations, PsyF 5305

Symbols, abbreviations, off-campus class locations begin on page 389.

school health education

Driver Education I, Hlth 5100

Driver Education II, Hlth 5101

Safety Education, Hlth 5130

Family Life and Sex Education in Elementary Schools, Hlth 5350

The Driver Simulator, Hlth 5602

special education

Childhood Language Development: Classroom Implications, SpEd 5100

Education of Exceptional Children, SpEd 5101

Education of Learning-Disabled Children, SpEd 5112

Introduction to Mental Retardation, SpEd 5120

Education of Emotionally Disturbed and Socially Maladjusted Children, SpEd 5150

Education of The Disadvantaged, SpEd 5180

Workshop: Special Education, SpEd 5302

vocational and technical education

AGRICULTURE EDUCATION

BUSINESS EDUCATION

DISTRIBUTIVE EDUCATION

HOME ECONOMICS EDUCATION

INDUSTRIAL EDUCATION

VOCATIONAL EDUCATION

(See also ForP 5405, PAPER IN TODAY'S WORLD; FRD 5402, INTERPRETATION AND MANAGEMENT OF FOREST ENVIRONMENTS; FRD 5403, FUNDAMENTALS OF NATURAL RESOURCE EDUCATION; Geo 5051, PHYSICAL GEOLOGY FOR TEACHERS; Geo 5052, HISTORICAL GEOLOGY FOR TEACHERS; Hort 5020, HORTICULTURE TECHNIQUES FOR EDUCATION MAJORS; IC 0005, YOUR BRIGHT CHILD IN SCHOOL: WHERE TO START, WHAT TO DO; Math 5005-5006, TOPICS IN THE MATHEMATICS OF PRIMARY SCHOOLS; Phil 5324, ETHICS AND EDUCATION; Th 5131, CREATIVE DRAMATICS)

educational administration (EdAd)

(See also Education)

Gary F. Alkire, Associate Professor of Educational Administration

William M. Ammentorp, Professor of Educational Administration

Ralph Mawdsley, Lecturer in Educational Administration

Tim L. Mazzone, Jr., Associate Professor of Educational Administration

Samuel H. Popper, Professor of Educational Administration

Marvin Tromp, Lecturer in Educational Administration

EdAd 8201 FORMAL ORGANIZATIONS IN EDUCATION. 3 degree credits, \$49.50.

Focus on schools; organizations as social systems; individual behavior in organization roles; technical or production processes and management control systems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-8:50, ClaOff 27, StP Campus, Ammentorp

Symbols, abbreviations, off-campus class locations begin on page 389.

EdAd 8202 POLITICS OF EDUCATION. 3 degree credits, \$49.50.

new

Formal and informal institutional governance structures, processes of political influence at local, state, and national levels; social science concepts, techniques of analysis, and research findings applied to participants, processes, structures, issues and outcomes involved in governing the public schools. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:20-8:50, ClaOff 27, StP Campus, Mazzoni

EdAd 8203 THE COMMUNITY SCHOOL. 3 degree credits, \$49.50.

new

Changing structure and process in school organization; the evolving team model; the multiple-skills process in socialization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:20-8:50, ClaOff 27, StP Campus, Popper

EdAd 8215 THE ELEMENTARY SCHOOL PRINCIPALSHIP. 3 degree credits, \$49.50.

new

Problems in elementary school administration and the principal's role of leadership. (Prereq 8201 and 8202 or Φ . Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—6:20-8:50, ClaOff 27, StP Campus, Alkire

EdAd 8224 LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS. 3 degree credits, \$49.50.

new

Constitutional, statutory, and common law bases of school administration; principles growing out of fundamental legal procedures. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6:20-8:50, Bu 125, Mawdsley

EdAd 8230 SCHOOL COMMUNITY RELATIONS. 3 degree credits, \$49.50.

new

Theory and practice of educational interpretation; principles, techniques of working with groups; the teacher's contacts with the community; the role of the pupil; professional and lay organization. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—4:15-6:00, St. Paul School Center, Colborne St.; Tromp

A wide variety of workshops in educational management is available to local school districts who wish to jointly design a continuing education experience to meet unique local staff needs. Workshop components available include: staff development, personnel evaluation, fiscal budgetary planning, needs assessment, leadership skill development, program-oriented budgeting, educational law, program planning and evaluation, and other specific training areas.

For further information in regard to planning an individually designed workshop for a particular district or building staff contact: Chairman, Department of Education Administration, University of Minnesota, 225 Health Service Building, St. Paul, Minnesota 55108 or call (612) 373-5836.

electrical engineering (EE)

Your attention is called to the Professional Development Recognition Program in Engineering and Science, page 222; and Math 3061, Operational Methods for Linear Systems.

Gale R. Allen, Control Data Corp.

Paul A. Cartwright, Professor of Electrical Engineering

S.J. Lee, Control Data Corp.

Dave Lo, Staff Physicist, Univac

Robert Oswald, Principal Engineer, Univac

Dennis Prestholdt, Manager, Circuits Development, Control Data Corp.

Charles Tolman, Manager, Production Engineering, Univac

Symbols, abbreviations, off-campus class locations begin on page 389.

Through registration in Extension Classes students may earn all but approximately 20 credits towards a bachelor's degree in Electrical Engineering. The degree may then be completed after a limited amount of day school attendance or through University-Industry Television for Education (UNITE). (See chart on page 73).

Your attention is called to the Undergraduate Development Certificate in Electrical Engineering—90 credits and 135 credits, page 101.

Students registering for any EE course who have not previously taken any work in the University of Minnesota system should bring transcripts of college work taken elsewhere to the first meeting of the class. These will be filed to provide background for any future advising and counseling.

(Students interested in a degree in Electrical Engineering, see page 72)

EE 0001 REFRESHER COURSE FOR ELECTRICAL ENGINEERS. No credit, \$58.

Review of electrical engineering fundamentals and applications. (Prereq Bachelor's degree in Engineering, Physics, or Mathematics)

Winter Qtr Sec 1 **W**—6-8:50, MechE 108

EE 1510 ELEMENTS OF ELECTRICAL ENGINEERING. 5 degree credits, \$72.50.

Physical principles underlying the modeling of circuit elements. Two- and three-terminal resistive elements. Kirchhoff's laws. Simple resistive circuits. Linearity in circuits. Storage elements. First order circuits. Video tape presentation with instructor. (Prereq Phys 1291 or \mathbb{I} Phys 1291, Math 3221)

Spring Qtr Sec 1 **Lect MW**—6-7:50, MechE 221

Lab M or W—8-9:45

EE 3010 CIRCUITS, SIGNALS AND SYSTEMS I. 4 degree credits, \$58.

Modeling of lumped parameter networks. Second order circuits. Sinusoidal steady-state analysis. Two port networks. (Prereq 1510)

Fall Qtr Sec 1 **Lect T**—6-8:30, MechE 108. Rec arr.

EE 3011 CIRCUITS, SIGNALS AND SYSTEMS II. 4 degree credits, \$58.

Fourier methods of analysis. Laplace transforms and applications. Frequency and time domain responses. (Prereq 3010)

Winter Qtr Sec 1 **Lect T**—6-8:30, MechE 108. Rec arr.

EE 3012 CIRCUITS, SIGNALS AND SYSTEMS III. 4 degree credits, \$58.

Continuous, discrete-time systems. Feedback: stability, applications. (Prereq 3011)

Spring Qtr Sec 1 **Lect T**—6-8:30, MechE 108. Rec arr.

EE 3050-3051 ELECTRONICS I-II. 4 degree credits each quarter, \$58 each quarter.

3050: Diode circuits and applications. Semiconductor properties. P-N junctions. Junction diodes; JFET characteristics; MOSFET characteristics. FET amplifiers; boosing. **3051:** BJT characteristics. Biasing of BJTs. Low-frequency amplifiers; BJTs and FETs. Vacuum tubes. High-frequency amplifiers. Miller approximation; BJTs and FETs. (Prereq 3010-3011 or \mathbb{I} 3010-3011, \mathbb{I} 3400-3401 or \mathbb{I} for 3050; 3050 for 3051)

Fall Qtr **3050** Sec 1 **Lect W**—6-8:30, MechE 102. Rec arr.

Winter Qtr **3051** Sec 2 **Lect W**—6-8:30, MechE 102. Rec arr.

EE 3100-3101 ELECTROMAGNETIC FIELDS I-II. 4 degree credits each quarter, \$58 each quarter.

Electrostatic, magnetostatic, and electromagnetic field theory based on fundamental experimental laws, including properties of dielectric and magnetic materials. May be video tape presentation with instructor. (Prereq Phys 1291, Math 3231 or \mathbb{I} with \mathbb{I} for 3100; 3100 for 3101)

Fall Qtr **3100** Sec 1 **M**—Lect, Rec 6-10:00, MechE 102. Other rec arr.

Winter Qtr **3101** Sec 2 **M**—Lect, Rec 6-10:00, MechE 108. Other rec arr.

Symbols, abbreviations, off-campus class locations begin on page 389.

EE 3400-3401 JUNIOR ELECTRICAL ENGINEERING LABORATORY. 3 degree credits, \$43.50 plus \$10 special fee. Total \$53.50.

Experiments in circuits, electronics and electromagnetic fields. (Prereq 113050-3051)

Fall Qtr 3400 Sec 1 Th—6-9:45, ElectE labs

Winter Qtr 3401 Sec 2 Th—6-9:45, ElectE labs

EE 3402 JUNIOR ELECTRICAL ENGINEERING LABORATORY. 2 degree credits, \$29 plus \$10 special fee. Total \$39.

Experiments in circuits, electronics and electromagnetic fields. (Prereq 115050)

Spring Qtr Sec 1 Th—6-9:45, ElectE labs

EE 5050 NONLINEAR ELECTRONIC CIRCUITS. 4 degree credits, \$62.

Linear wave-shaping circuits. Piece-wise linear circuit analysis. Switching models of diodes and transistors. Transistor logic circuits. Bistable multivibrators. Astable multivibrators. Nearly sinusoidal oscillators. (Prereq 3051, 3012 or 113012. May not be taken for graduate credit)

Spring Qtr Sec 1 **Lect W**—6-8:30, MechE 102. Rec arr.

EE 5051 INTRODUCTION TO LOGIC DESIGN. 4 degree credits, \$62.

Integrated logic circuits. Piece-design using logic circuits, memory elements, sequential circuits. Transmission lines and digital signals. Video tape presentation with instructor. (Prereq 3041 or Φ . May not be taken for graduate credit)

Winter Qtr Sec 1 **TTh**—6-8:00, ElectE 115

EE 5052 LOGIC DESIGN LABORATORY. 1 degree credit, \$15.50.

(Prereq 115051. May not be taken for graduate credit)

Winter Qtr Sec 1 Day school laboratory—register through Extension Classes. (2 hrs a week)

EE 5053 DESIGN OF DIGITAL CIRCUITS. 4 degree credits, \$62.

Design of digital and nonlinear circuits; circuit structures, device topologies and performance criteria of IC gates. Flip-flops, counters and A/D converters and at subsystem. Theoretical analysis and use of nonlinear behavior of devices. Video tape presentation with instructor. (Prereq 5051 or Φ . May not be taken for graduate credit)

Spring Qtr Sec 1 **TTh**—6-8:30, ElectE 115

EE 5055 LINEAR ELECTRONIC CIRCUITS. 4 degree credits, \$62.

Multistage, untuned, small-signal amplifiers. Feedback amplifiers. Untuned power amplifiers. Regulated power supplies. Lectures will be presented by video tape. Classroom instructor in attendance for both lecture and recitation. (Prereq 3051, 3012 or 113012 or 5001. May not be taken for graduate credit)

Fall Qtr Sec 1 **Lect T**—6-8:00, ElectE 115

Lect, Rec Th—6-9:15, ElectE 115

EE 5100 ELECTROMAGNETIC FIELDS III. 4 degree credits, \$62.

Plane-wave propagation, transmission lines, antennas, and other topics. May be video tape presentation with instructor. (Prereq 3101. May not be taken for graduate credit)

Spring Qtr Sec 1 **Lect and Rec M**—6-10:00, MechE 108. Other rec arr.

EE 5101 ELECTROMAGNETIC FIELDS LABORATORY. 1 degree credit, \$15.50.

(Prereq 3401 or 113401, 5100 or 15100. May not be taken for graduate credit)

Spring Qtr Sec 1 **Th**—6-9:00, ElectE labs

Symbols, abbreviations, off-campus class locations begin on page 389.

elementary education

(See also Math 5005-5006, Topics in the Mathematics of Primary Schools)

Arthur K. Ellis, Associate Professor of Elementary Education

S-N registration not permitted in Elementary Education unless specifically indicated in course description.

***Elem 5363 WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL SOCIAL STUDIES.** 3 degree credits (maximum 9 cr). \$46.50.

Analysis of new instructional materials and recent curriculum developments in the field; training in innovative instructional procedures. (Prereq elementary school teaching experience and 1. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr

Sec 1 W—6:20-8:50, Pt 214, Ellis

new

A variety of courses and workshops in elementary education is 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:

Director of Continuing Professional Education, Department of Curriculum and Instruction, 150 Peik Hall, University of Minnesota, Minneapolis, Minnesota 55455, Telephone: 373-3300.

emergency services education

For information on noncredit conferences or workshops, contact Emergency Services Education, 3300 University Avenue S.E., Minneapolis, Minnesota 55414; telephone 373-4850.

energy

(See environmental concerns courses, page 170)

engineering

Your attention is called to the Undergraduate Development Certificate Series in Engineering and Science page 98.

Symbols, abbreviations, off-campus class locations begin on page 389.

NEW PROGRAM AT THE POST-BACCALAUREATE LEVEL—PROFESSIONAL DEVELOPMENT RECOGNITION PROGRAM IN ENGINEERING AND SCIENCE

This is a specialized program to meet the educational needs of the practicing engineer or scientist. The applicant identifies his professional development educational objectives for a two-year period. With a Professional Development advisor, he establishes a coherent program of study to meet his objectives. Upon completion, he is presented a citation documenting his work. Engineers and scientists may undertake several of these programs throughout their professional life times. Further details may be obtained by contacting the Director, Continuing Education in Engineering and Science, 11 Mines and Metallurgy, University of Minnesota, Minneapolis, Minnesota 55455; (612) 373-3132.

Please see the following departmental listings for course offerings:

AEROSPACE ENGINEERING AND MECHANICS

CIVIL AND MINERAL ENGINEERING

ENGINEERING ENGLISH (English)

ENGINEERING GRAPHICS

INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH

INSTITUTE OF TECHNOLOGY

MECHANICAL ENGINEERING

METALLURGICAL ENGINEERING

For information on non-credit conferences or workshops in engineering and science, please contact Morris L. Nicholson, Director, Continuing Education in Engineering and Science, 151 Chemical Engineering; telephone 373-3132.

ENGINEERING REFRESHERS

Engineering Refresher Courses to prepare individuals for the Professional Engineering Registration Examination are offered in Engineering Fundamentals, see page 289; Civil Engineering, see page 147; Electrical Engineering, see page 219; and Mechanical Engineering, see page 312.

engineering graphics (EG)

(See also Professional Development Recognition Program in Engineering and Science, above)

Paul W. Bullen, Assistant Professor of Mechanical Engineering

Lewis G. Palmer, Associate Professor of Mechanical Engineering

EG 1025 ENGINEERING GRAPHICS. 4 degree credits, \$58.

Engineering representation and analysis of systems of projection; the coordinate systems, graphical solution of space problems, intersections and developments. Precision in graphics and techniques of sketching; pictorial projection systems, size description, standard and simplified practices applied to graphic communication. (Prereq Math 1211 or 11211 or #)

Spring Sem Sec 1 **M**—6-8:30, Arch 10

Symbols, abbreviations, off-campus class locations begin on page 389.

english (Engl)

Your attention is called to the Master of Arts in English, page 77.

Chester Anderson, Professor of English
Kent Bales, Associate Professor of English
Robert Brown, Assistant Professor of English
Michael Dennis Browne, Associate Professor of English
Thomas S. Clayton, Professor of English
Phillip G. Furia, Assistant Professor of English
Edward M. Griffin, Associate Professor of English
David Haley, Associate Professor of English
Michael Hancher, Associate Professor of English
J. Dennis Hurrell, Professor of English
Onwuchekwa Jemie, Associate Professor of English
Calvin Kendall, Associate Professor of English
Archibald I. Leyasmeyer, Associate Professor of English
John W. Lippert, Lecturer in English
Andrew MacLeish, Professor of English
Raymond McClure, Assistant Professor of English
John McNally, Associate Professor of English
J. Lawrence Mitchell, Associate Professor of English
Thomas A. Nelson, Jr., Assistant Professor of English
Charles Norman, Lecturer in English
Gordon W. O'Brien, Professor of English
Justin O'Connell, Lecturer in English
Peter J. Reed, Associate Professor of English
William Rosendahl, Professor of English
Donald Ross, Jr., Assistant Professor of English
Robert Solotaroff, Associate Professor of English
Martin Steinmann, Jr., Professor of English
Ellen Stekert, Professor of English
Charles J. Sugnet, Assistant Professor of English

Did you know that a major in English can be completed in the evening?

All courses required in the major are offered yearly. Interested students should discuss plans with an Extension counselor (373-3905). (See page 77 for information on a Master's degree in English).

B.A. MAJOR SEQUENCE

Required Preparatory Course

One course selected from 1011-1030, introductory courses in British and American literature

Major Requirements

Twelve courses in English or composition, 11 of which must be at the 3xxx and 5xxx levels; either 3241 or 3242, Shakespeare (A-N only); and six other courses—one in each of the following categories:

- 1) a course in the study of a literary genre; 2) a course in the intensive study of one or two writers; 3) a course in literary criticism or a course in language; 4) a course in the literature of the Middle Ages or Renaissance; 5) a course in American or English literature of the 17th or 18th centuries; 6) a course in American or English literature since 1800.

A list of courses identifying the requirements that each fulfills may be obtained from the Director of Undergraduate Studies, 204 Lind Hall.

Symbols, abbreviations, off-campus class locations begin on page 389.

Each student electing to major in English will draw up a course of study in consultation with advisers when entering the program. Three courses within the major may be taken S-N. Students are encouraged to concentrate the remaining 5 electives within one area of study: for example, in a literature period, a genre (such as poetry, drama, novel), criticism, language, American literature, expository or creative writing. Students should confer with their advisers about what concentrations are likely to be useful preparation for their intended careers.

You need not be majoring in English to register for these classes.

composition (Comp) and communication (Comm)

Introductory Composition 1001 and Communication 1001 are being offered without prerequisite during the 1974-75 school year. Students who feel the need for a refresher course before enrolling in Composition 1001 or Communication 1001 are encouraged to take Composition 0001, Preparatory Composition, or Comp 0002C, Composition Grammar Review, if they feel their background in structure or grammar is insufficient, or American Studies 1101, 1102, 1103, American Life, if they feel their reading background has been neglected. Rhetoric 1147, Efficient Reading, and PO 1001, Personal Orientation, How to Study, will also be useful. Students with transfer credits in freshman English of less than 6 quarter or 3 semester credits (including credits from other colleges with the University of Minnesota) should contact the Continuing Education and Extension Counseling Office, 314 Nolte Center, 373-3905, for information as to their proper choice of courses.

Students with exceptionally high skills in English may earn exemption from the freshman English requirement by earning a very high score in the English placement test. Students interested in this alternative should contact the Counseling Office, 314 Nolte Center, 373-3905. A student who receives a grade of A in Comm 1001 should check with the communications department concerning possible exemption from 1002.

For other courses fulfilling freshman English requirement, see General College writing laboratory courses and Rhetoric Communication.

Comp 0001 PREPARATORY COMPOSITION. No credit, \$58.★

Intensive drill on grammatical forms, structure, and theme writing. Recommended for those whose primary need is organization and development of themes. On instructor's recommendation, students may receive 4 credits in Introductory Composition. Inquiries should be directed to Extension Counseling. (No prereq)

Fall Qtr Sec 1 **T**—6:20-9:50, LindH 325

Comp 1001-1002 INTRODUCTORY COMPOSITION. 4 degree credits each quarter, \$58 each quarter.★

A two-quarter sequence offering extensive guided practice in the structural and stylistic features of exposition and argumentation. Not an introduction to literary studies or to humanities. Satisfies the freshman English requirement for most degree programs. (No prereq for 1001; 1001 for 1002)

MINNEAPOLIS CAMPUS

Fall Qtr	1001	Sec 1	M —6:20-9:50, MechE 212
		Sec 2	T —6:20-9:50, MechE 212
		Sec 3	W —6:20-9:50, MechE 212
		Sec 4	Th —6:20-9:50, MechE 212
		Sec 5	Sa —9 a.m.-12:30, MechE 212

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	1002	Sec 6	M —6:20-9:50, MechE 221
		Sec 7	W —6:20-9:50, MechE 221
Winter Qtr	1001	Sec 8	M —6:20-9:50, MechE 221
		Sec 9	T —6:20-9:50, MechE 221
		Sec 10	W —6:20-9:50, MechE 221
		Sec 11	Th —6:20-9:50, LindH 229
		1002	Sec 12
Spring Qtr	1001	Sec 13	Th —6:20-9:50, MechE 212
		Sec 14	Sa —9 a.m.-12:30, MechE 221
		Sec 15	M —6:20-9:50, MechE 202
	1002	Sec 16	T —6:20-9:50, MechE 202
		Sec 17	W —6:20-9:50, MechE 202
		Sec 18	Th —6:20-9:50, MechE 202
		Sec 19	T —6:20-9:50, MechE 221
		Sec 20	W —6:20-9:50, MechE 212

SANDBURG JUNIOR HIGH SCHOOL, GOLDEN VALLEY

Winter Qtr	1001	Sec 21	T —6:20-9:50, room 210
Spring Qtr	1002	Sec 22	T —6:20-9:50, room 210

RICHFIELD HIGH SCHOOL

Winter Qtr	1001	Sec 23	W —6:20-9:50, room 142
Spring Qtr	1002	Sec 24	W —6:20-9:50, room 142

MINNETONKA HIGH SCHOOL

Fall Qtr	1001	Sec 25	M —6:20-9:50, room 120
Winter Qtr	1002	Sec 26	M —6:20-9:50, room 120

Comp 0002C GRAMMAR REVIEW. 3 certificate credits, \$43.50.★

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 English 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)

Fall Qtr	Sec 1	T —6:20-8:50, MechE 221, O'Connell
Winter Qtr	Sec 2	T —6:20-8:50, MechE 202, O'Connell
Spring Qtr	Sec 3	T —6:20-8:50, LindH 305, O'Connell

Comm 1001-1002-1003 COMMUNICATION. 4 degree credits each quarter, \$58 each quarter. ★1001, 1002

Emphasizes both theory and practice, intended to prepare the student to meet more effectively the various communicative demands in contemporary settings, to improve his capabilities in reading, writing, speaking and listening. **1001**: The process of communication; study of language and non-verbal means of communicating; clarity and appropriateness in expository discourse. **1002**: Deliberation, reasoning, non-logical appeals and ethical concerns in problem-solving and persuasive discourse. **1003**: Study of communicator, message, media, and social implications in mass communications. (Prereq 1001 for 1002, 1003. Comm 1001 and 1002 or 1001 and 1003 meet all requirements which are satisfied by Comp 1001-1002, Freshman Composition)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	1001	Sec 27	M —6:20-9:50, Arch 5
		Sec 28	T —6:30-10:00, Kellogg HS 168-170, Little Canada
Winter Qtr	1001	Sec 29	W —6:20-9:50, Arch 5
		1002	Sec 30
		Sec 31	Th —6:20-9:50, Arch 40
Spring Qtr	1001	Sec 32	T —6:20-9:50, Arch 5
		1002	Sec 33
		1003	Sec 34

Comp 0003C REVIEW OF BUSINESS ENGLISH. 3 certificate credits, \$43.50.

For those who have been out of school for a while or had poor preparation for business English while in school. Modern, streamlined sentence structure, paragraphing, punctuation and spelling. Brief introduction to letter form and organization. Emphasis on brevity, accuracy, meaning and vividness. (No prereq)

Fall Sem Sec 1 **T**—6:20-8:00, LindH 217, Lippert

Comp 0004C BUSINESS CORRESPONDENCE. 3 certificate credits, \$43.50.

A practical class for people recognizing the value of effective expression in business letters. The principal types of letters will be analyzed and the written assignments will emphasize the development of a letter style capable of producing economical, clear, action-getting letters. (No prereq)

Fall Sem Sec 1 **M**—6:20-8:00, LindH 215, Lippert

Spring Sem Sec 2 **T**—6:20-8:00, LindH 215, Lippert

Comp 1027, 1028 INTERMEDIATE COMPOSITION. 4 degree credits each quarter, \$58 each quarter. ★1027.

Offers training in the fundamentals of expository writing, through lectures and the criticism of manuscripts. **1027:** Expository writing—articles, essays, criticism, etc. **1028:** Expository writing using description and narration. (No prereq for 1027 and 1028)

Fall Qtr **1027** Sec 1 **T**—6:20-9:50, LindH 229

Sec 2 **W**—6:20-9:50, LindH 203

Winter Qtr **1027** Sec 3 **M**—6:20-9:50, LindH 305

Sec 4 **T**—6:30-10:00, St. Stephens Church, WStP

Sec 5 **Th**—6:20-9:50, LindH 203

Spring Qtr **1028** Sec 6 **W**—6:20-9:50, LindH 229

***Comp 1111 CREATIVE WRITING—POETRY.** 4 degree credits, \$58.

A course for those with some (not much) experience in writing poetry. Students' poems will be discussed. There will be numerous handouts and assignments, also a short reading list. (No prereq. Limited to 15 students)

Winter Qtr Sec 1 **T**—6:20-9:30, LindH 303, Dennis Browne

Spring Qtr Sec 2 **T**—6:20-9:30, LindH 303

Comp 1113, 1114, 1115 AN INTRODUCTION TO CREATIVE WRITING. 4 degree credits each quarter, \$58 each quarter. ★1113, 1114.

An approach to creative writing for students who have not done a great deal of writing. Concentration on development of techniques. Course will proceed by definite assignments. **1113, 1114:** Short Story I and II. **1115:** Prose Pieces I. (Prereq §)

Fall Qtr **1113** Sec 1 **M**—6:20-9:30, LindH 315, Norman

Sec 2 **Th**—6:20-9:30, LindH 315, Norman

Winter Qtr **1114** Sec 3 **M**—6:20-9:30, LindH 315, Norman

Sec 4 **Th**—6:20-9:30, LindH 315, Norman

Spring Qtr **1115** Sec 5 **Th**—6:20-9:30, LindH 315, Norman

Symbols, abbreviations, off-campus class locations begin on page 389.

Engl 0006C BASIC TECHNICAL WRITING I, II. 3 certificate credits each semester, \$43.50 each semester.

Review of basic English and introduction to technical writing. Designed for people in the technical industries. Includes sentence design, spelling and punctuation. Covers basic techniques of definition, description, process, procedure, and analysis writing. Organization and correlation into text of tables, diagrams, illustrations. Emphasis on accuracy, brevity, simplicity, and layout. Prepares students to write simple reports, specifications, procedures, material for manuals, supervisory materials, and basic letters of a technical nature. (No prereq. Need not be taken in sequence)

Fall Sem Sec 1 T—8:15-9:55, LindH 215, Lippert

Spring Sem Sec 2 T—8:15-9:55, LindH 215, Lippert

(See also IC 0009, Non-Fiction Writing Workshop—Or, How To Write When You Have To Or Want To But Can't Get Started, page 285)

***Comp 3030 TOPICS IN ADVANCED COMPOSITION: TECHNICAL WRITING FOR ENGINEERING.** 3 degree credits, \$43.50 (maximum 12 cr—no topic may be repeated for cr)

Technical and professional writing, including reports and manuals required of engineers, technical men, and those in the business and sales end of the technical industries. Stress is on concise, definite, connected styles; use of numbers, abbreviations and illustrations; organization of material; proper levels of writing for different levels of readers. (No prereq. Limited to 25 students)

Fall Sem Sec 1 M—8:15-9:55, LindH 215, Lippert

Spring Sem Sec 2 M—8:15-9:55, LindH 215, Lippert

Comp 3101 INTERMEDIATE FICTION WRITING. 4 degree credits, \$58.

Course for those with some experience in fiction writing. Discussion of students' works and set texts; assignments and experiments. (Prereq #)

Spring Qtr Sec 1 M—6:20-9:30, LindH 303, Furia

new

literature

(See other literature courses in Afro-American Studies, American Indian Studies, American Studies, Classics, French, General College, German, Humanities, Chicano Studies, Scandinavian Languages, Slavic Languages, South Asian Studies, Spanish, Women's Studies)

◆ **Engl 1016 INTRODUCTION TO AMERICAN LITERATURE: SOME MAJOR FIGURES AND THEMES.** 4 degree credits, \$58. (◆\$29)★

American literature; some major figures and themes. (No prereq)

Fall Qtr Sec 1 Sa—9 a.m.-12:10, LindH 305

◆ **Engl 1017 INTRODUCTION TO MODERN LITERATURE: POETRY.** 4 degree credits, \$58 (◆\$29)

Modern literature: poetry. (No prereq)

Spring Qtr Sec 1 Sa—9 a.m.-12:10, LindH 305

◆ **Engl 1018 INTRODUCTION TO MODERN LITERATURE: PROSE FICTION.** 4 degree credits, \$58. (◆\$29)★

Three novels and a collection of short stories. (No prereq)

Fall Qtr Sec 1 T—6:20-8:50, LindH 54, McNally

◆ **Engl 3111, 3112, 3113 SURVEY OF ENGLISH LITERATURE.** 4 degree credits each quarter, \$58 each quarter. (◆\$29 each quarter)

An historical survey of the major figures, movements, and trends in English literature. **3111:** From Chaucer to Milton, including such figures as Spenser, Shakespeare, and Donne. **3112:** From Dryden to Johnson, including such figures as Swift and Pope. **3113:** From Blake to Yeats, including such authors as Wordsworth, Coleridge, Keats, Tennyson, and Browning. (No prereq)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr 3111 Sec 1 T—6:20-9:30, LindH 302, Rosendahl
Winter Qtr 3112 Sec 2 T—6:20-9:30, MainE 302, Rosendahl
Spring Qtr 3113 Sec 3 T—6:20-9:30, LindH 302, Sugnet

Engl 3241, 3242 SHAKESPEARE. 4 degree credits each quarter, \$58 each quarter. (◆\$29 each quarter)★

◆ **3241:** Reading from Shakespeare's early and middle periods—**A Midsummer Night's Dream, Hamlet**, a history play, and three or four other plays. **3242:** Plays from the middle and later periods—all sections will read **King Lear, Macbeth, The Tempest**, three of four other plays. (No prereq)

Fall Qtr 3241 Sec 1 W—6:20-9:30, LindH 229, Kendall
Winter Qtr 3242 Sec 2 W—6:20-9:30, LindH 229, Clayton


Engl 3252 THE KING JAMES BIBLE AS LITERATURE. 4 degree credits each quarter, \$58 each quarter. (◆\$29 each quarter)

◆ The Book of Daniel, the Apocrypha, the New Testament as documents in the history of literature. (No prereq)

Fall Qtr Sec 1 T—1-4:10, Elim Church, Robbinsdale; O'Brien

(See related courses, page 179)

Engl 3411, 3412, 3413. AMERICAN LITERATURE. 4 degree credits each quarter, \$58 each quarter. (◆\$29)★

 Historical survey of important authors, intellectual currents, movements, conventions, genres, and themes. Lecture course with emphasis on wide reading. **3411:** Beginnings through Hawthorne. **3412:** Thoreau and Melville through James. **3413:** Crane to present. (No prereq)


Fall Qtr 3411 Sec 1 Th—6:20-9:30, LindH 54, Griffin
Winter Qtr 3412 Sec 2 Th—6:20-9:30, LindH 54, Griffin
Spring Qtr 3413 Sec 3 Th—6:20-9:30, LindH 54, Griffin

Engl 3455 AMERICAN SHORT STORY. 4 degree credits, \$58. (◆\$29)

◆ Historical examination of the American short story from the 18th century to the present. (No prereq)

Fall Qtr Sec 1 T—6:30-9:40, Nicollet JHS, Burnsville; Furia
 Sec 2 Th—6:20-9:30, LindH 215, Steinmann
Winter Qtr Sec 3 Th—6:20-9:30, LindH 215, O'Brien
Spring Qtr Sec 4 Th—6:20-9:30, LindH 215, Solotaroff

Engl 3631 SATIRE. 4 degree credits, \$58. (◆\$29)

 The satiric tradition in English and American literature; the motives for and the uses, techniques, varieties, and results of satire. The role of the satirist, the social and historical basis for satire, the importance of comedy and the psychology of satire. Classical satire, contemporary song lyrics, and nonverbal forms—films, painting, cartoons. (No prereq)

Spring Qtr Sec 1 M—6:20-9:30, LindH 54, Leyasmeyer

Engl 3851 THE ENGLISH LANGUAGE. 4 degree credits, \$58. (◆\$29)

◆ An informal, nontechnical examination of the English language in order to explore such basic questions as how you learned English, how your knowledge of it can be described, and what it has in common with other languages. (No prereq)

Fall Qtr Sec 1 M—6:20-9:30, LindH 229, Brown
Spring Qtr Sec 2 M—6:20-9:30, LindH 229, Mitchell

Engl 5151 18TH-CENTURY ENGLISH NOVEL. 4 degree credits, \$62. (◆\$31)

◆ Selected novels by such authors as Defoe, Richardson, Fielding, Smollett, Sterne, and Jane Austen. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—6:20-9:30, LindH 229, McClure

Symbols, abbreviations, off-campus class locations begin on page 389.

Engl 5152 19TH-CENTURY ENGLISH NOVEL. 4 degree credits, \$62. (♦\$31)

Selected novels from the Romantic and Victorian periods by such authors as Scott, Dickens, the Brontës, Thackeray, Eliot, and Hardy. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—6:20-9:30, LindH 54

Engl 5153 20TH-CENTURY ENGLISH NOVEL. 4 degree credits, \$62. (♦\$31)★

Selected novels by such modern authors as Conrad, Ford, Joyce, Woolf, Lawrence, Forster, Sillitoe, Murdoch, Cary, and Waugh. Course will discuss major novelists and representative novels, and trends, themes, technical innovations, social influences and traditions evident in the British novel roughly from the turn of the century to about 1960. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 M—6:20-9:30, LindH 203, Reed

Engl 5175 DRAMA SINCE ca. 1920. 4 degree credits, \$62. (♦\$31)

A survey of the chief dramatists and dramatic movements, English, American and European, since the period of realism. Dramatists studied will include O'Neill, Giraudoux, Pirandello, Sartre, Anouilh, Brecht, Williams, Miller, Beckett, Ionesco, Pinter. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6:20-9:30, LindH 54, Hurrell

Engl 5221 CHAUCER. 4 degree credits, \$62. (♦\$31)★

Readings of selections from *The Canterbury Tales*, with an introduction to the grammar and literary forms of 14th-century English. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-9:30, LindH 302, Kendall

Engl 5255 17TH-CENTURY PROSE AND POETRY TO 1660. 4 degree credits, \$62. (♦\$31)

The major nondramatic works of Jonson, Donne and their contemporaries, such as Herrick, George Herbert, Carew, Bacon, Burton, the character writers, etc. An introduction to significant social and intellectual themes of 17th century literature. Emphasis on the interpretation of shorter poems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 Th—6:20-9:30, LindH 302, Haley

Engl 5261 MILTON. 4 degree credits, \$62. (♦\$31)★

Paradise Lost, *Samson Agonistes*, minor poems, *Areopagitica*, and often, although not always, *Paradise Regained*. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-9:30, LindH 229, Haley

Engl 5363 JAMES JOYCE. 4 degree credits, \$62. (♦\$31)

Discussions of Joyce's life, times, and works including *Dubliners*, *A Portrait of the Artist as a Young Man*, *Chamber Music*, *Pomes Penyeach*, *Exiles*. Almost half the time is spent on *Ulysses*. A few quick glances at *Finnegans Wake*. Supplementary readings in Ellmann, Tindall, and others are recommended. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6:20-9:30, LindH 4, Anderson

Engl 5451, 5452 AMERICAN NOVEL. 4 degree credits each quarter, \$62 each quarter.

5451: Major 19th century novelists including works by Poe, Hawthorne, Melville, Twain. **5452:** Since Twain. Works by James, Hemingway, Fitzgerald, Faulkner. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5451 Sec 1 W—6:20-9:30, LindH 303, Ross

Spring Qtr 5452 Sec 2 W—6:20-9:30, LindH 303, Ross

Symbols, abbreviations, off-campus class locations begin on page 389.

Engl 5545 WHITMAN AND MARK TWAIN. 4 degree credits, \$62. (♦\$31)

(No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6:20-9:30, LindH 303, Bales

Engl 5593 BLACK WRITERS OF THE UNITED STATES. 4 degree credits, \$62. (♦ \$31)

Prose, poetry and drama, with emphasis on writers of the 20th-century. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-9:30, LindH 336, Jemie

Engl 5610 TWENTIETH-CENTURY WRITERS. 4 degree credits each quarter, \$62 each quarter. (♦\$31)

Graham Greene, Anthony Burgess, Doris Lessing, William Golding, John Fowles. Course will concentrate on British novel from World War II to present. Sociological and philosophical influences will be considered as they appear to affect the form and substance of the novels written in a Britain in transition. May be repeated for credit. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-9:30, LindH 4, Reed

Engl 5711 CLASSICS OF LITERARY CRITICISM. 4 degree credits, \$62. (♦ \$31)

An intensive study of selected major works in the classic critical tradition with emphasis on Aristotle and Coleridge and attention to such authors as Plato, Horace, Longinus, Sidney, Dryden, Johnson, Hume, and Eliot. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6:20-9:30, LindH 302, Hancher

Engl 5753 LITERATURE AND THE OTHER ARTS. 4 degree credits, \$62. (♦ \$31)

An informal, highly tentative exploration of possible relationships of literature to drama, music, painting and sculpture, and architecture: how they influence one another and how their aesthetic and social roles are similar and different. Readings in English and American literature and in aesthetic theory; recordings; gallery visits. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6:20-9:30, LindH 315, Steinmann

(See also GC 1311, General Arts)

Engl 5815 HISTORY OF ENGLISH LANGUAGE. 4 degree credits, \$62. (♦\$31)

The development of the English language from Old to Early Modern English: phonology, morphology, and syntax. (Prereq Engl 5851 or 5. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6:20-9:30, LindH 315, MacLeish

Engl 5851 STRUCTURE OF MODERN ENGLISH. 4 degree credits, \$62. (♦\$31)

Survey of modern English grammar dealing with English phonology, syntax, and semantics; variations and change in English. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—6:20-9:30, LindH 4, MacLeish

Engl 5910 PLAYS OF THE GUTHRIE SEASON. 4 degree credits, \$62. (♦\$31)

This course will study the plays offered by the Guthrie Theatre in the 1975-76 season in both the main and the second theaters. It will examine the plays as literature, the process of staging, and the final productions. Attending the performances is a course requirement. (No prereq)

Fall Qtr Sec 1 W—6:20-9:30, LindH 217, Leyasmeyer

Symbols, abbreviations, off-campus class locations begin on page 389.

Engl 5920 FOLKLORE. 4 degree credits, \$62. (♦ \$31)

Introduction to the different genres of folklore and the history of folklore scholarship. Students will be encouraged to observe how folk tradition affects their lives today. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-9:30, LindH 54, Stekert

Engl 5940 SHAKESPEARE: INTENSIVE STUDIES OF SELECTED PLAYS. 4 degree credits, \$62.

new

Intensive study of three or four plays. Some previous study of Shakespeare helpful but not required. Advance inquiry from prospective students is welcomed. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6:20-9:30, LindH 54, Clayton

Engl 8330 VICTORIAN SEMINAR. 4 degree credits, \$66.

new

(Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:20-9:30, LindH 303, Hancher

Engl 8530 SEMINAR: 19TH-CENTURY AMERICAN LITERATURE. 4 degree credits, \$66.

new

(Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—6:20-9:30, LindH 303, Bales

Engl 8610 STUDIES IN 20TH-CENTURY BRITISH AND AMERICAN LITERATURE. 4 degree credits, \$66.

new

(Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-9:30, LindH 303, Anderson



family planning administration (FPAd)

(See also Hist 1310, The Family in American History)

Harry Foreman, M.D., Director of Population Studies

FPAd 5243 TOPICS IN FAMILY PLANNING. 2-5 degree credits, \$31-\$77.50.

Independent study relating to various aspects of family planning programs. (Prereq §. [HS Unit A 12-176, U of M, 373-9695]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Arr.** Foreman

Winter Qtr Sec 2 **Arr.** Foreman

Spring Qtr Sec 3 **Arr.** Foreman

Symbols, abbreviations, off-campus class locations begin on page 389.

FPA 5245 HISTORY AND DEVELOPMENT OF FAMILY PLANNING PROGRAM. 3 degree credits, \$46.50.

History of the birth control movement from the time of Malthus through the free speech-human rights movement in 19th century England to the time of Margaret Sanger in America and events which led to the current situation. Includes a review of developments now in progress in family planning programs over the world, esp. in the last decade in response to the worldwide need to regulate fertility. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 TTh—6:20-8:00, HSUnit A 2-520, Foreman

family social science (FSoS)

(See also College of Home Economics, and General College home life courses)

Linda Budd, Teaching Assistant in Family Social Science
Gerald Carlson, Instructor in Family Social Science
Geraldine Gage, Professor of Family Social Science
Richard Hey, Professor of Family Social Science
Ruth Jewson, Instructor in Family Social Science
Gerhard Neubeck, Professor of Family Social Science
Anne Nevaldine, Instructor in Family Social Science
Elizabeth Peterson, Associate Professor of Family Social Science
Gail Peterson, Instructor in Family Social Science
Robert Phillips, Instructor in Family Social Science

FSoS 1001 DYNAMICS OF DATING, COURTSHIP, AND MARRIAGE. 3 degree credits, \$3001. \$43.50 plus \$1 special fee. Total \$44.50. (♦\$21.75 plus \$1 special fee. Total \$22.75)★

This course is designed to assist individuals seeking self-understanding, mutually satisfying interpersonal relations, happy marriage, and successful parenthood. These personal goals are worked toward through discussion and study about: personal growth and maturity; desirable mate qualities and selecting a marriage partner; purposes and problems of dating, courtship and engagement; family philosophy, religion, values and planning; early marriage adjustments, child training and discipline, sex education, income management, problem solving, and decision making. Integral parts of the course are: case studies, movies, and student discussion. Students are invited for discussion and personal or family counseling with the instructor. (No prereq.)

Fall Qtr Sec 1 M—6:20-8:50, Richfield HS 342, Budd

Winter Qtr Sec 2 M—6:20-8:50, BlegH 235, Phillips

Spring Qtr Sec 3 M—6-8:30, Kellogg HS 233, Little Canada, Carlson

FSoS 1002 DYNAMICS OF MARRIAGE AND PARENTHOOD. 3 degree credits, \$1001. \$43.50 plus \$1 special fee. Total \$44.50. (♦\$21.75 plus \$1 special fee. Total \$22.75)

This course is designed to help individuals and couples achieve understanding of self and others, happiness in marriage, and success as parents. It focuses upon husband-wife and parent-child relations, with individual development and family unity as specific goals. These are worked toward through discussion and study of such important and practical issues as: self-analysis, developmental tasks, team decision-making and problem solving, family philosophy, religion, values, and planning; child training and discipline, sex education, communication, income management, marriage adjustments regarding money, sex, in-laws, and children, etc., and general dynamics of family interaction. Integral parts of the course are: case studies, movies, and student discussion. Students are invited for discussion and personal or family counseling with the instructor. (Prereq engaged or married students)

Fall Qtr Sec 1 M—7-9:30, Sandburg JHS 210, Golden Valley, Carlson

Spring Qtr Sec 2 Th—6:20-8:50, BlegH 335, Phillips

Symbols, abbreviations, off-campus class locations begin on page 389.

FSoS 1025 PARENTHOOD. 3 degree credits, \$43.50. (◆\$21.75)

Examination of differing concepts of family roles—father, mother, son, daughter, brother, sister; their implications for parent-child and sibling interaction. Effects of parenthood on husband-wife relations. (No prereq)

Fall Qtr Sec 1 **M**—1-2:45, Ramsey HS 238, Roseville; G Peterson

Spring Qtr Sec 2 **M**—7:30-9:15, Nicollet JHS, Burnsville; E Peterson

***FSoS 5001 HUMAN SEXUAL BEHAVIOR.** 4 degree credits, \$62.

The nature of sexual functioning, sexual development, ethics, and attitudes, research problems. (Prereq 15 credits in psychology or sociology. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 220, Nevaldine

Spring Qtr Sec 2 **W**—6:20-8:50, BlegH 120, Nevaldine

FSoS 5200 FAMILY RELATIONSHIP. 5 degree credits, \$Soc 5501. \$77.50.

Analysis of the family as an institution and system of relationships. Survey of current developments in the study of the family. Analysis of changes in American society and their influences on family life. (Prereq Psy 1001 or equiv, Soc 1001 or equiv. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6:20-8:50, McNH 103N, StP Campus, Hey

FSoS 5240 SPECIAL TOPICS: PROBLEMS IN FAMILY FINANCIAL MANAGEMENT. 3 or 4 degree credits, \$46.50 or \$62.

The analysis of financial management processes, the modification of management behavior by application of behavioral techniques. (Prereq 3260 or 5260. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:15-6:00, NorH 317, StP Campus, Gage

See page 189 for information on

FSoS 5240 DIVORCE★

a credit television course

FINLAND: ITS CRAFTS AND FAMILY LIFE—SUMMER 1976

Finnish cultures and environment as related to aesthetics and family value systems and life styles.

Nine weeks in Finland interspersed with excursions to Lapland, Sweden and Denmark. Included will be a seven-day trip to Leningrad and Moscow. All lectures will be conducted in English at the University of Helsinki. Housing and meals will be in student owned dormitories. Registration and deposit must be received by Feb. 15, 1976. Detailed information may be obtained by writing to Dr. Richard N. Hey, 204 North Hall, University of Minnesota, St. Paul, MN 55108.

Register for 12 credits in Family Social Science:

FSoS 5230 Independent Study, 9 credits: to be planned with instructor.

FSoS 5240 The Family in Finland, 3 credits.

Instructor: Richard Hey

Finnish history, government, institutions and economy. Family studies will include sex roles, child-rearing practices and family support systems. Field trips in and near Helsinki will include centers for day care and welfare agencies.

Register for 9 credits in Design:

Dsgn 5585 Problems in Design, 9 credits.

Instructor: Joseph Ordos

The study will include Finnish arts and crafts, visits to furniture and fabric design studios, glassware, metal and ceramic workshops, museums and schools, and the new city, Tapiola.

(See other travel-study opportunities, page 177)

For information on non-credit conferences or workshops in Family Social Science, please contact the Department of Conferences and Institutes, 131 Nolte Center for Continuing Education (373-3151).

For information on off-campus credit courses in Home Economics areas, please call or write College of Home Economics, University of Minnesota, St. Paul, Minnesota 55108 (373-0935).

finance (BFin)

Your attention is called to the Credit and Financial Management Certificate program, page 92.

James Bachman, Lecturer in Finance
Mary L. Bochnak, Lecturer in Finance
James Bowditch, Lecturer in Finance
E. Norman Eck, North Central Credit & Finance Management Assoc.
Larry Gru, Lecturer in Finance
George A. Mairs, III, Vice President, Treasurer, Director, Mairs & Power, Inc.
Diane D. Paxton, Lecturer in Finance
John Schreiner, Associate Professor of Finance
Dennis L. Senneseth, Lecturer in Finance
Thomas W. von Kuster, Jr., Lecturer in Finance

BFin 0001C INTRODUCTION TO INVESTMENTS. 3 certificate credits, \$3000. \$43.50.

A fundamental course for adult investors who wish a general background of information on the investment field. Classroom instruction supplemented by special lectures by experienced people in investment banking, commercial banking, and other related fields. Course covers nature of various kinds of securities; statistical and investment analysis of securities; vocabulary and practices of the securities business; investment practices of investor groups. (No prereq)

Fall Sem Sec 1 **W**—6:20-8:00, NH 209, Mairs

BFin 0002C CREDIT AND FINANCIAL MANAGEMENT PROBLEMS. 3 certificate credits, \$43.50.

Analyzing and solving specific case problems using advanced Credit and Financial Management Techniques. Emphasis is placed on the proposal and support of realistic decisions and courses of action. (Prereq Acct 3160, Mktg 3087 or *)

Winter Qtr Sec 1 **W**—6:20-8:50, AndH 210, Eck

***BFin 3000 FINANCE FUNDAMENTALS.** 4 degree credits, \$8000. \$58.

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. (Prereq Acct 1051 or 1026. May not be taken S-N. Limited to 35 students)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 420
Sec 2 **W**—6:20-8:50, BlegH 205
Sec 3 **W**—7-9:30, Kellogg HS 111, Little Canada
Sec 4 **W**—7-9:30, Richfield HS 141 (Limit 30 students*)
Sec 5 **Th**—6:20-8:50, AndH 350
Winter Qtr Sec 6 **T**—6:20-8:50, AndH 210
Sec 7 **W**—6:20-8:50, BlegH 340
Sec 8 **Th**—6:20-8:50, BlegH 415
Spring Qtr Sec 9 **M**—6:20-8:50, BlegH 335
Sec 10 **W**—7-9:30, Sandburg JHS 204, Golden Valley
Sec 11 **Th**—6:20-8:50, BlegH 225

Symbols, abbreviations, off-campus class locations begin on page 389.

***BFin 3300 INVESTMENT MANAGEMENT.** 4 degree credits, \$0001C. \$58.

Provides students with a comprehensive introduction to investment decision-making from the viewpoints of both individual and institutional investors. Principal focus is on risk-return relationships of various marketable securities. Presents analytical techniques of security selection and portfolio management in the context of the nation's changing securities markets. (Prereq 3000. Limited to 35 students)

Fall Qtr Sec 1 **W**—5:30-8:00, AndH 250
Winter Qtr Sec 2 **T**—5:30-8:00, BlegH 340
Spring Qtr Sec 3 **Th**—5:30-8:00, BlegH 340

finland

(See summer in Finland, page 233)

food science and nutrition (FScN)

(See also Home Economics; and PubH 5223, Food Service Sanitation)

Paul B. Addis, Professor of Meat Science

William M. Breene, Associate Professor of Food Science and Technology

Margaret D. Doyle, Professor of Nutrition

Joan Gordon, Professor of Food Chemistry

P.V.J. Hegarty, Associate Professor of Nutrition

Allen Levine, Lecturer in Nutrition

Alfred T. May, Lecturer in Food Science and Technology

Howard A. Morris, Professor of Dairy and Food Technology

Laura M. Morse, Professor of Nutrition

Gary A. Reineccius, Associate Professor of Food Chemistry

Eugene H. Sander, Associate Professor of Food Process Engineering

O.P. Snyder, Associate Professor of Food Service Management

Elmer L. Thomas, Professor of Dairy and Food Technology

Joseph J. Warthesen, Assistant Professor of Food Chemistry

Edmund A. Zottola, Professor of Food Microbiology

FScN 1010 MAN'S FOOD. 4 degree credits, \$58 plus \$4 course fee. Total \$62. (♦\$29 plus \$4 course fee. Total \$33)★

Man's nutritional needs; food composition, world food supply, consumption patterns, acceptance, quality programs and regulations, food preservation, commercial processes, packaging, marketing, national and international food programs. (No prereq.)

Fall Qtr Sec 1 **W**—6:30-9:30, MSciL 125, StP Campus, Addis

FScN 1602 PRINCIPLES OF NUTRITION. 4 degree credits, \$58.

Survey of fundamental principles of nutrition, including consideration of requirements for various nutrients and results of excess or deficient intakes of these nutrients. (Prereq one course in biology and one course in chemistry or equiv in natural science sequence)

Fall Qtr Sec 1 **Th**—6:30-9:30, MSciL 125, StP Campus, Hegarty

FScN 1603 FAMILY NUTRITION. 2 degree credits, \$29. (♦\$14.50)

Basic concepts in nutrition, emphasizing interrelationships between nutrients and human requirements for specific nutrients. Discussion on current controversial nutrition topics. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:00, Elim Church, Robbinsdale; Levine

Winter Qtr Sec 2 **W**—7-8:30, Irondale HS 310, New Brighton; Levine

Spring Qtr Sec 3 **M**—6:20-8:00, St Stephens Church, WStP, Levine

Symbols, abbreviations, off-campus class locations begin on page 389.

FScN 1700 INTRODUCTION TO HOSPITALITY AND FOOD SERVICE MANAGEMENT. 2 degree credits, \$29.

Basic principles of the hospitality and food service industry, emphasizing its scope, current trends, and relationships with other areas such as dietetics, public health, recreation, food science, etc. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:10, DinC 152, StP Campus, Snyder

FScN 3102 TECHNOLOGY OF FOOD PROCESSING. 4 degree credits, \$58 plus \$4 course fee. Total \$62.

Introduction to the technology of food processing; course covers the areas of: handling and storage of fresh produce (washing, butchering, refrigeration, controlled atmosphere storage, packaging), food preservation techniques (blanching, canning, freezing, dehydration, concentration, smoking, addition of salt and sugar), cereal and oil seed technology (milling, extraction, baking, oil processing), packaging, and governmental regulations and laws. (Prereq high school chemistry and biology.)

Fall Qtr Sec 1 **T**—6-9:30, MSciL 125, StP Campus, Zottola

FScN 3403 EXPERIMENTAL FOODS. 4 degree credits, \$58 plus \$10 course fee. Total \$68.

new

Principles and modern concepts of food systems and preparation; laboratory projects to illustrate effects of different procedures and ingredients. (Prereq 3110)

Spring Qtr Sec 1 **T**—6:30-10:00, FScN 15, 10, StP Campus, Warthesen

FScN 3622 FOOD AND NUTRITION IN THE LIFE CYCLE. 4 degree credits, \$58 plus \$4 course fee. Total \$62.

Application of the principles of nutrition to meeting and special requirements of growth, development, adult maintenance and aging. The delivery of nutrients from foods as influenced by various life styles and stages. (Prereq 1602, 3472, phsl or human biol, or §)

Winter Qtr Sec 1 **W**—6:30-9:30, MSciL 125, StP Campus, Doyle

FScN 3740 DESIGN AND LAYOUT OF FOOD SERVICES. 4 degree credits, \$58.

Arrangement and layout of food production, service, and storage areas. Purchase, maintenance, construction, and operation of equipment related to quantity food service. (Prereq 3730)

Winter Qtr Sec 1 **W**—6:20-9:30, DinC 152, StP Campus, Snyder

FScN 3750 MANAGEMENT OF FOOD SERVICE AND HOSPITALITY BUSINESS SYSTEMS. 3 degree credits, \$43.50.

Application of management principles in a food service or hospitality business. Consideration is given to business procedures, personnel management, cost control, advertising, and related administrative problems. Field trips may be required. (Prereq 3730 and Mgmt 3001)

Spring Qtr Sec 1 **W**—6:20-8:50, DinC 152, StP Campus, Snyder

***FScN 5135 FOOD PROCESS ENGINEERING.** 5 degree credits. (Offered evenings only as a two-quarter sequence. See descriptions below.)

new

Discussion and demonstration of fluid flow, heat transfer, sanitation design, refrigeration, mass transfer, process control, and waste treatment as used by the food processing industry. Lecture and lab each evening.

NOTE: 5135 fall and winter qtr as above is equivalent to 5135 (5 cr) as offered during regular day classes and as required in the Food Science and Technology curricular program.

Fall Qtr 3 degree credits, \$46.50 plus \$10 course fee. Total \$56.50. Application of principles of fluid flow, heat transfer and mass transfer to specific food processing operations. (Prereq 6 cr physics and Math 1111 or 1141 or 1142. Completion of 5135 [2 cr] in winter quarter required for credit. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Sec 1 **TTh**—6:30-10:00, FScN 15, 106, 150, StP Campus, Sander.

Symbols, abbreviations, off-campus class locations begin on page 389.

Winter Qtr 2 degree credits, \$31 plus \$10 course fee. Total \$41. Food process design and economics; application of fluid flow, heat and mass transfer theory and calculations to food processing systems from ingredient to package. (Prereq 3 cr 5135 or *. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Sec 2 Th—6:30-10:00, FScN 15, 106, 150, StP Campus, Sander.

FScN 5350 FOOD FORMULATION, PRODUCT DEVELOPMENT. 4 degree credits, \$62 plus \$10 course fee. Total \$72.

Application of concepts and techniques of experimental design to the solution of food science problems. Case studies, computer programming and use emphasized. (Prereq course in statistics. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Arr. May

FScN 5412 PHYSICO-CHEMISTRY OF FOODS I. 4 degree credits, \$62 plus \$15 course fee. Total \$77.

new Food as a complex biochemical system. Functionality of various biological and chemical constituents of foodstuffs. Physical and chemical changes induced in food systems through preparation and preservation. Survey of current literature. (Prereq 3110, BioC 5002 or 1BioC 5002...one course in physical chemistry recommended. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W—6:30-9:30, MSciL 222, StP Campus, Gordon**

FScN 5413 PHYSICO-CHEMISTRY OF FOODS II. 4 degree credits, \$62 plus \$15 course fee. Total \$77.

new Continuation of FScN 5412. (Prereq 5412. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W—6:30-9:30, MSciL 222, StP Campus, Gordon**

FScN 5522 TECHNOLOGY OF FLUID AND CONCENTRATED MILK PRODUCTS. 4 degree credits, \$62 plus \$10 course fee. Total \$72.

new Application of scientific principles to problems involved in processing fluid and dehydrated milk systems and their control. Demonstration of basic processing operations, including heating, cooling, homogenization, evaporation, drying, crystallization, and freezing. (Prereq 3110, 5135, 5120 or *. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th—6:30-10:00, FScN 157, StP Campus, Thomas**

FScN 5523 TECHNOLOGY OF FERMENTED DAIRY PRODUCTS. 4 degree credits. \$62 plus \$10 course fee. Total \$72.

new An integration of chemical, microbiological, and physical principles involved in the processing of cheeses, buttermilk, yogurt, and sour cream. (Prereq 3110, 5120. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th—6:30-10:00, FScN 157, StP Campus, Morris**

FScN 5530 INDUSTRIAL PROCESSING OF FRUITS AND VEGETABLES. 4 degree credits, \$62 plus \$4 course fee. Total \$66.

new Relationship of chemical, physical, and microbiological principles to commercial processing of fruits and vegetables from procurement of raw products through preparation, preservation, packaging, storage, transportation, and merchandising. Emphasis on preservation methods involving heat, sterilization, and freezing. (Prereq 3110, 5120, and 5135 or *. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W—6:30-9:30, MSciL 125, StP Campus, Breene**

FScN 5622 HUMAN NUTRITION. 5 degree credits, \$77.50.

Physiological function and metabolic fate of nutrients and factors influencing the utilization of nutrients in the human. (Prereq 1602, BioC 5002, Phsl 3051 or *. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th—6:20-10:00, MSciL 125, StP Campus, Hegarty**

Symbols, abbreviations, off-campus class locations begin on page 389.

FScN 5862 CLINICAL NUTRITION. 5 degree credits. \$77.50.

new

Application of principles of normal nutrition to clinical problems with description of altered nutrient requirements in human disease. Diet therapy as an applied aspect of clinical nutrition considered. (Prereq 5622, BioC 5002 or Biol 3021 or \pm . Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6:20-10:00, MSciL 222, StP Campus, Morse

FScN 8311 FLAVOR CHEMISTRY. 2 degree credits. \$33 plus \$10 course fee. Total \$43.

new

Study of the formation, characterization, duplication, deterioration, preservation and potentiation of flavors in foods. (Prereq 5312 or \pm . Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:30-8:00, MSciL 222, StP Campus, Reineccius

foreign study (FS)

(See SPAN—Student Project for Amity Among Nations)

forest products (ForP)

(See also environmental concerns courses, page 170)

R. W. Erickson, Associate Professor of Forest Products

R. O. Gertjensen, Associate Professor of Forest Products

***ForP 5405 PAPER IN TODAY'S WORLD.** 3 degree credits, \$46.50 plus \$5 special fee. Total \$51.50.

new

Intended primarily for elementary and secondary school teachers although other interested students may enroll. Each teacher will be required to prepare a teaching unit on pulp and paper for subsequent use in a junior or senior high school science class; others will write a report. The course consists of lectures and laboratories on pulp and paper manufacture, properties and characteristics of paper, recycling of paper, and paper for packaging. The Kaufert Laboratory is completely equipped with pulp and paper equipment including a pilot plant paper machine. (No prereq. Limited to 24 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 **Fri., Feb. 27,** 6-9:00,

Sat., Feb. 28, 9 a.m.-4:30,

Sun., Feb. 29, 9:30 a.m.-4:00,

Mon., Apr. 5, 6-9:00.

KaufL 125, StP Campus, Gertjensen, Erickson
(register Feb 13-27)

Spec Term Sec 2 **Fri, Mar. 12,** 6-9:00,

Sat, Mar. 13, 9 a.m.-4:30,

Sun, Mar. 14, 9:30 a.m.-4:00,

Mon, Apr. 19, 6-9:00.

KaufL 125, StP Campus, Gertjensen, Erickson
(register Feb 27-Mar 12)

forest resource development (FRD)

(See also Education; and environmental concerns courses, page 170)

Roger T. Johnson, Associate Professor of Elementary Education

William R. Miles, Professor of Forest Resources

Symbols, abbreviations, off-campus class locations begin on page 389.

***FRD 5402 INTERPRETATION AND MANAGEMENT OF FOREST ENVIRONMENTS.** 3 degree credits, \$46.50.

Biological foundations, biology of forest management, wildlife, hydrology, social and economic aspects, timber management and regulation, and recreation and amenity values. Intended for secondary school teachers and other interested students. (No prereq. Limited to 50 students. Includes one Saturday field trip. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:30-9:30, Kellogg HS 111, Little Canada; Miles

***FRD 5403 FUNDAMENTALS OF NATURAL RESOURCE EDUCATION.** 3 degree credits, \$46.50 plus \$5 course fee. Total \$51.50.

Intended for elementary teachers. Study of soil, water, forest and wildlife resources of Minnesota and the biological principles and ecological implications of management. Environmental issues developed through interactions of natural resource manipulation will be discussed; outdoor teaching skills in environmental education will be experienced in a metropolitan center. (No prereq. Limited to 36 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 **Fri, Oct 10, 6-9:30**
Sat, Oct 11, 8:30 a.m.-3:30,
Sun, Oct 12, 9:30 a.m.-3:30,
Mon, Nov 17, 6-9:00

Wood Lake Nature Center, Richfield (66th and Lakeshore Drive) Johnson, Miles
 (register Sept 26-Oct 10)

Spec Term Sec 2 **Fri, Apr 9, 6-9:30,**
Sat, Apr 10, 8:30 a.m.-3:30,
Sun, Apr 11, 9:30 a.m.-3:30,
Mon, May 17, 6-9:00

Wood Lake Nature Center, Richfield (66th and Lakeshore Drive) Johnson, Miles
 (register Mar 26-Apr 9)

french (Fren)

(See also ethnic studies courses, page 168)

F.R.P. Akehurst, Associate Professor of French
George Bauer, Associate Professor of French
Tom Conley, Assistant Professor of French
Henry Kalb, Assistant Professor of French
Thomas Kavanagh, Visiting Associate Professor
Peter Lock, Professor of French
Thomas O'Donnell, Assistant Professor of French
Peter Robinson, Associate Professor of French

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. Each meeting will consist of language laboratory work as well as class recitation.

Cassette tapes are available to Extension Classes students on a take-home basis. Students can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Symbols, abbreviations, off-campus class locations begin on page 389.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68): Fren 3601, 3604, 3605; Hist 5211.

Fren 1101 BEGINNING FRENCH. 5 degree credits, \$72.50 plus \$3 course fee. Total \$75.50. ★See note above. (No prereq)

Fall Qtr Sec 1 **MTh**—6:20-8:25, FolH 110
Sec 2 **W**—6-10:05, FolH 110

Fren 1102 BEGINNING FRENCH. 5 degree credits, \$72.50 plus \$3 course fee. Total \$75.50. ★See note above. (Prereq 1101 or ‡)

Winter Qtr Sec 1 **MTh**—6:20-8:25, FolH 110
Sec 2 **W**—6-10:05, FolH 110

Fren 1103 BEGINNING FRENCH. 5 degree credits, \$72.50 plus \$3 course fee. Total \$75.50. See note above. (Prereq 1102 or ‡)

Spring Qtr Sec 1 **MTh**—6:20-8:25, FolH 110
Sec 2 **W**—6-10:05, FolH 110

Fren 1104 INTERMEDIATE FRENCH. 5 degree credits, \$72.50.

Consolidation of basic structure and development of oral fluency through readings and discussion. (Prereq 1103 or ‡)

Fall Qtr Sec 1 **TTh**—6:20-8:25, FolH 203

Fren 1105 INTERMEDIATE FRENCH. 5 degree credits, \$72.50.

Readings in contemporary culture. Development of vocabulary and improvement of ability to read, write and speak the language. (Prereq 1104 or ‡)

Winter Qtr Sec 1 **TTh**—6:20-8:25, FolH 107

Fren 3015 FRENCH CONVERSATION AND COMPOSITION. 5 degree credits. To be offered 1976-77.

Fren 3016 ADVANCED FRENCH COMPOSITION AND CONVERSATION. 5 degree credits, \$72.50.

new

Continues and develops the work of 3015: combines traditional conversational and composition courses. Orthoepic in approach, seeking command of French in pronunciation and grammar. Pastiche work, free composition, translation from and into French. (Prereq 3015 or ‡)

Fall Qtr Sec 1 **MTh**—6:20-8:25, FolH 108

Fren 3601 FRENCH LITERATURE IN ENGLISH TRANSLATION. 5 degree credits, \$72.50. (◆\$36.25)

new

Representative works, from medieval times to present, examined through movements, genres or themes. (No prereq. Knowledge of French useful but not necessary. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Spring Qtr Sec 1 **TTh**—6:20-8:50, FolH 103, Lock

Fren 3604 MODERN FRENCH CINEMA: ITS LITERARY AND CULTURAL IMPACT. 5 degree credits, \$72.50 plus \$5 course fee. Total \$77.50. (◆\$36.25 plus \$5 course fee. Total \$41.25)

French cinema as an innovative art form; its effect on French arts and modern culture; use of a different aesthetic vocabulary closely linked with French literary creation, 1920 to 1970. (Knowledge of French helpful but not necessary; taught in English; does not count towards French major). (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Winter Qtr Sec 1 **MW**—6:20-8:50, FolH 105, Kavanagh

(See other film courses, page 164)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fren 3605 EXISTENTIALISM IN LITERATURE AND THE ARTS OF 20TH CENTURY FRANCE. 5 degree credits, \$72.50. (◆\$36.25)

The central role of the art object in the imagination of the existential writer; the art object in terms of existential aesthetics as revealed in novels, plays and essays by existential writers. (No prereq. Knowledge of French helpful but not necessary. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Fall Qtr Sec 1 T—6:20-9:40, FolH 103, Bauer

reading french

Fren 0001 is specifically designed for individuals who desire only a reading knowledge of the language. The French 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.

Fren 0001 READING FRENCH. No credit, \$43.50.★

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 M—6:20-8:50, FolH 201

Winter Qtr Sec 2 M—6:20-8:50, FolH 201

Spring Qtr Sec 3 M—6:20-8:50, FolH 201

Fren 0001 is usually offered as a Summer Extension Class.

**general college (GC)**

Sarabeth Barnes, Assistant Professor

Henry Borow, Professor

Thomas Brothen, Instructor

Thomas Buckley, Assistant Professor

Alecia Buonocore, Instructor

Richard Byrne, Instructor

Jeffrey Carson, Lecturer

Douglas Dearden, Professor

Robert L. Fjerstad, Lecturer

Ronald Fletcher, Lecturer

David Foat, Instructor

Jerome Gates, Professor

David Giese, Professor

Symbols, abbreviations, off-campus class locations begin on page 389.

Paul Hagen, Associate Professor
Dennis Hammond, Assistant Professor
Evelyn Hansen, Associate Professor
Forrest Harris, Professor
William Hathaway, Associate Professor
Robert Heiberg, Lecturer
Dennis Hower, Associate Professor
Niles Jefferson, Associate Professor
Allen Johnson, Assistant Professor
Fred Johnson, Associate Professor
Peter Kahn, Lecturer
Susan Knoblauch, Instructor
Gail Koch, Instructor
Patrick Kroll, Assistant Professor
Alex Kurak, Professor
Vernelle Kurak, Instructor
Roger Larson, Professor
Sander Latts, Associate Professor
Valerie Liston, Instructor
Mark Ludlow, Instructor
Margaret MacInnes, Associate Professor
Norman Moen, Professor
Frederick Neet, Instructor
Earle Niederluecke, Lecturer
Marie Panger, Instructor
Thomas Ressler, Instructor
Douglas Robertson, Instructor
Louis Safer, Professor
Solomon Shapiro, Professor
Charles Sigmund, Assistant Professor
Fredric Steinhauer, Professor
William Stockdale, Professor
Donald Warren, Instructor
Robert Williamson, Instructor
Sherwood Ann Wilson, Instructor
Candido Zaroni, Associate Professor

As nearly as possible, General College Courses are planned to be complete in themselves. Emphasis is on relationships within and among fields of knowledge rather than intensive study of isolated segments. Most courses do not have prerequisites.

The Associate in Arts degree from the General College can be completed in extension classes (see page 62). New baccalaureate degree programs are explained in General College Baccalaureate Programs, page 63. See also General College Occupational Programs, available all or in part through Extension, which may be applied toward the General College degree program, page 64.

With the exception of certain requirements in the occupational education programs and the new baccalaureate degree program, the General College prescribes no specific course of study for its students. Any student may earn the 90 credits necessary for the Associate in Arts degree without following a set pattern of classes. Taking courses in this general education program should give a student some knowledge of a natural world; of man's behavior and social organization; of man's intellectual achievements in the arts, literature, and philosophy; of the means man has found to communicate with his fellow men; and of the ways he has attempted to synthesize and organize his knowledge and experience.

Symbols, abbreviations, off-campus class locations begin on page 389.

artistic expression

(See also Art Education; Art History; and Arts, Studio; Phil 3502, Introduction to Aesthetics)

***GC 1051 COMMERCIAL ART FOR NON-PROFESSIONALS.** 4 degree credits, \$58.

new

A course for anyone whose job or other activities requires some knowledge of and competence in the basic commercial art techniques. Course projects include design and preparation of newsletters, mailers, flyers, posters, and small ads. Techniques include layout and keylining, hand lettering, and use of cold type. Type and lettering styles, as well as printing processes, will be dealt with; also display problems, including bulletin boards, transparencies, other promotional materials. Stress will be on basic design and reproduction processes rather than on drawing skills. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **M**—6:20-8:50, NH 102, MacInnes

***GC 1311 GENERAL ARTS.** 4 degree credits, \$58.

The student is given the opportunity to evaluate his attitudes and ideas relating to the arts through an examination of the basic similarities which underlie all art forms and through an investigation of the development of these art forms in terms of human needs. The arts concentrated on are painting, sculpture, music, architecture, and literature. (No prereq. Limited to 45 students)

Winter Qtr Sec 1 **M**—6:20-8:50, NH 111, Gates

Spring Qtr Sec 2 **T**—7-9:30, Hillside JHS 102, Maplewood; Byrne

GC 1331 MUSIC: INSTRUMENTAL MUSIC AND ITS TRADITIONS. 4 degree credits, \$58. (♦\$29)

new

"Listening awareness" is developed through acquaintance with sound of orchestral instruments, traditional means of organizing music, and representative works of some major composers. (No prereq)

Winter Qtr Sec 1 **T**—1-3:30, St. Stephens Church, WStP; Byrne

Spring Qtr Sec 2 **M**—7-9:30, Irondale HS 127, New Brighton; Sigmund

GC 1357 MAN'S RELIGIOUS BELIEFS. 4 degree credits, \$58. (♦\$29)

The student investigates the religious beliefs most influential in the world today, compares selections from the writings representing different religious beliefs, and develops an understanding of world religions. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, NH 209, Zanoni

Winter Qtr Sec 2 **Th**—6:20-8:50, StP Ramsey Hosp 302, Zanoni
(Limit 25 students*)

Spring Qtr Sec 3 **T**—1-3:30, Burnsville Public Lib, 1101 W Co Rd 42; Zanoni

(See related courses, page 179)

GC 1367 LITERATURE: CONTEMPORARY BOOKS AND PERIODICALS. 4 degree credits, \$58. (♦\$29)

new

Student reads and evaluates current books, both fiction and nonfiction, and analyzes book reviews and other selections in current magazines to see how writers today interpret their world and thus influence public opinion and contemporary thought. (No prereq)

Winter Qtr Sec 1 **Th**—9:30 a.m.-12:00, StP Sunray Lib, Stockdale

Spring Qtr Sec 2 **M**—6:20-8:50, StP Ramsey Hosp, Education Bldg 314, Kurak

GC 1374 LITERATURE: THEATRE—FILM AND DRAMA. 4 degree credits, \$58 plus \$4 special fee. Total \$62. (♦\$29 plus \$4 special fee. Total \$33)★

Student studies stage plays and films, both as art forms and as media of communication; local film showings, theatre performances, television dramas; critical reports. (No prereq)

Fall Qtr Sec 1 **Th**—6:20-8:50, NH 213, Hagen

Spring Qtr Sec 2 **M**—7-9:30, Jewish Community Ctr, lower mtg room,
StLPK; Hagen

(See other film courses, page 164)

Symbols, abbreviations, off-campus class locations begin on page 389.

GC 1391 CREATIVITY AND CREATIVE PERSONALITIES. 4 degree credits, \$58. (♦\$29)



Through creative activity student becomes aware of his own creative potentials and nature of creative process. This awareness is broadened by additional study of several outstanding creative people of the 20th century. (No prereq. May not be taken A-N).

Fall Qtr Sec 1 **W**—1-3:30, Mary Mother of the Church parish center,
3333 Cliff Road, Burnsville; Safer

GC 3031 MURDER, MYSTERY, AND MAYHEM: WHODUNIT? 4 degree credits, \$58. (♦\$29)



An investigation of the themes of death by violence and of the detection and punishment of the murderer, concentrating on the origins and the development of the "murder mystery" and the detective story. Readings in Poe, Collins, Conan Doyle, Chesterton, Hammett, Chandler, Sayers, Christie, Simonon, and others. Implications of the genre; reasons for its appeal; the detective as hero; the role of violence in society; moral issues and dilemmas; changing trends and attitudes in the seventies. (No prereq)

Spring Qtr Sec 1 **T**—6:20-8:50, FolH 104, MacInnes

GC 3374 FILM AND SOCIETY. 4 degree credits, \$58 plus \$4 course fee. Total \$62 (♦\$29 plus \$4 course fee. Total \$33)



Ways in which film and society affect each other, social issues raised in film, public attitudes toward film, effect of film upon attitudes and behaviors, and film medium itself—how that medium (photography, editing, acting, composition, color, sound, etc.) provides illumination and insight into social problems it analyzes. Students view films and read about them and study specified social problems. Social issues examined vary from quarter to quarter, typically covering such areas as urban living, minority stereotyping, ethical decisions, marriage and family, politics, and sexual mores. (No prereq; 1374 recommended)

Winter Qtr Sec 1 **T**—6:20-8:50, NH 213, Warren

(See other film courses, page 164)

***GC 3616 CRAFTS FOR SPECIAL GROUPS.** 4 degree credits, \$58.



For students who will use craftwork as a therapeutic device in their professions. To acquaint students with broad families of craft materials and develop basic techniques for working them. Fosters development of creative and artistic attitudes toward materials, techniques, and products and promotes development of flexible approaches to problems of equipment, facilities, and budget. An important concern is to make students aware of themselves in the process of creating craftwork. (Prereq $\frac{1}{2}$. Limited to 30 students)

Spring Qtr Sec 1 **Th**—6:20-8:50, NH 102, Gates

(See also Art Education)

GC 3846 MINNESOTA ARTS AND LETTERS. 4 degree credits, \$58. (♦\$29)



Art, architecture, landscape design, music, literature and higher education. In each category, emphasis upon developments in state; Minnesota contributions to national trends, characteristics peculiar to this region, and manifestations of its history and traditions. Class work supplemented by off-campus study. Independent projects encouraged. (No prereq)

Winter Qtr Sec 1 **W**—9:30 a.m.-12:00, Elim Church, Robbinsdale; Moen

Spring Qtr Sec 2 **M**—6:20-8:50, FolH 104, Moen

(See other Minnesota courses, page 190)

business studies

(See also Hist 3841, American Business History; and IC 0023, Government Regulation of Business Activities)

***GC 1081-1082 PERSONNEL SELECTION TECHNIQUES.** 4 degree credits each quarter, \$58 each quarter.

Symbols, abbreviations, off-campus class locations begin on page 389.

new

Designed for the present or aspiring personnel specialist in an organization for the development of knowledge and skill in the areas of interviewing and selection techniques as it relates to current legislation (i.e., Equal Employment Opportunity, hiring, discrimination, promotion) and organizational reality. Heavy emphasis on acquiring usable skills as they relate to today's personnel requirements. (No prereq for 1081; 1081 for 1082. Limited to 35 students)

Fall Qtr 1081 Sec 1 **Th**—6:20-8:50, NH 107, Fjerstad
Winter Qtr 1082 Sec 2 **Th**—6:20-8:50, NH 107, Fjerstad

(See also Industrial Relations; Amln 5131, Industrialization, Employment, and the American Indian and Psy 5701, Personnel and Industrial Psychology)

***GC 1235 THE LAW IN SOCIETY.** 4 degree credits, \$58.

Introduction to major principles and functioning of our legal system. Students participate in organization and emphasis of the course. Guest lecturers, tours and films lend practical knowledge to theoretical problems. Topics to be selected by students include: drug problems; pollution; the draft; racism; the war; Minnesota correctional system, wills and estate administration, etc. (No prereq. Limited to 40 students. **Must be taken S-N**)

Fall Qtr Sec 1 **W**—6:20-8:50, NH 216, Kahn
 Sec 2 **T**—6:20-8:50, StP Ramsey Hosp 303, Hower
Winter Qtr Sec 3 **W**—6:20-8:50, NH 216, Hower
Spring Qtr Sec 4 **W**—6:20-8:50, NH 216, Hower

(See also Business Law; Criminal Justice Studies; and Sociology)

***GC 1502 VOCATIONAL PLANNING.** 3 degree credits, \$43.50.

new

Deals with factors in appropriate occupational choice and adjustment, relationships between educational and vocational planning, and the methods of studying occupations. Group discussion, personal counseling, outside interviews, and laboratory study. Written projects applying techniques of vocational planning. (No prereq. Limited to 30 students)

Spring Qtr Sec 1 **T**—6:20-8:50, NH 111, Gray

***GC 1511 INTRODUCTION TO MODERN BUSINESS.** 4 degree credits, \$58.★

This course provides an overview of the economic environment in which business operates. The major functions of a business organization are surveyed including production, finance, personnel and marketing. A useful introductory course for students planning to do more work in business; also is recommended for those who want to survey the field without study in detail. (No prereq. Limited to 40 students)

Winter Qtr Sec 1 **M**—6:20-8:50, FolH 406

***GC 1513 PRINCIPLES OF SMALL BUSINESS OPERATIONS.** 4 degree credits, \$58.★

Designed specifically for those who plan to own or operate some form of small business, this course deals with the following topics: environment and management of the small business; problems of initiating the business; financial and administrative control; marketing program and policies; and legal and governmental relationship. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **W**—6:20-8:50, NH 107, Hammond
Winter Qtr Sec 2 **W**—6:20-8:50, NH 107, Ludlow
Spring Qtr Sec 3 **Th**—7-9:30, Kellogg HS 233, Little Canada; Hammond

***GC 1534 PRACTICAL LAW.** 4 degree credits, \$58.

Practical topics in field of law. Formation and discharge of contracts, torts (personal injury and property damage suits), criminal law, bailments, nature and classification of real and personal property, and joint ownership and tenancy. In addition, some attention is given to legal implication of life, property, auto insurance, and an introduction to wills and estate planning. (No prereq. Limited to 40 students)

Fall Qtr Sec 1 **Th**—6-8:30, StP Sunray Lib
Winter Qtr Sec 2 **M**—6:20-8:50, NH 209
Spring Qtr Sec 3 **T**—7-9:30, Irondale HS 313, New Brighton

(See also Business Law)

***GC 1535 INTRODUCTION TO DATA PROCESSING.** 4 degree credits, \$58.★

Designed to provide an introduction to data processing for students wishing to acquaint themselves with basic aspects of this important and rapidly evolving technology. Useful as well to those considering the possibility of entering a course of training for work in the world of tabulation equipment, programming computers, and related areas. The course defines data processing and explores its history, summarizes some of its basic applications, and assesses its social and economic effects. Students study terminology; basic steps in the processing of data and kinds of machines used to accomplish these steps, such as key-punches, sorters, interpreters, reproducers, collators, accounting machines, calculators, and computers, with an elementary introduction about their operation. Career opportunities are explained and suggestions for further study are outlined. (No prereq. Limited to 35 students)

Fall Qtr Sec 1 **W**—6:20-8:50, CD 218, Ressler
Spring Qtr Sec 2 **Th**—6:20-8:50, CD 218, Ressler

***GC 1540 ACCOUNTING FUNDAMENTALS.** 4 degree credits, \$58.

new

Basic accounting cycle, including balance sheet and income statement methodology, and end-of-period adjustments. Students are taken through accounting cycle for both service and merchandising businesses. Other topics include special journals and accounting procedures for inventories, payables, and receivables. (No prereq. Limited to 40 students)

Fall Qtr Sec 1 **M**—7-9:30, Minnetonka HS 121
Sec 2 **T**—7-9:30, Bklyn Ctr HS 12 (Limit 35 students*)
Winter Qtr Sec 3 **W**—7-9:30, Nicollet JHS, Burnsville
Spring Qtr Sec 4 **Th**—6:20-8:50, NH 207

***GC 1542 ACCOUNTING FUNDAMENTALS.** 4 degree credits, \$58.

new

Continues first-year accounting sequence. Topics include handling of dividends, retained earnings and treasury stock, debt, investments, financial reporting, and sources and uses of working capital. Attention is given to examination of financial statements. Introduction to accounting for manufacturing operation and cost analysis problems. (Prereq 1540. Limited to 40 students)

Winter Qtr Sec 1 **M**—7-9:30, Minnetonka HS 121
Sec 2 **T**—7-9:30, Bklyn Ctr HS 12 (Limit 35 students*)
Spring Qtr Sec 3 **W**—7-9:30, Nicollet JHS, Burnsville; Roger Larson

***GC 3560 PERSONNEL ADMINISTRATION.** 4 degree credits, \$58.

new

An overview of the personnel related activities in business and other organizations. Using the personnel department setting, some areas of study will be recruiting, employee reward systems, employee training, and organized labor. (No prereq. Limited to 40 students)

Spring Qtr Sec 1 **Th**—6:20-8:50, NH 216, Kröll

***GC 3581 LEGAL STUDIES: BUSINESS ORGANIZATION.** 4 degree credits, \$58.

The study of the legal organization of business entities is the primary focus of this course. Emphasis is on the role of the lawyer and the legal assistant in the formation of various business organizations. This includes a survey of the fundamental principles of law applicable to each type of business organization and preparation of the related documents. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Fall Qtr Sec 1 **Th**—6:20-8:50, NH 207, Fletcher
Spring Qtr Sec 2 **T**—6:20-8:50, NH 207

***GC 3582 LEGAL STUDIES: REAL ESTATE.** 4 degree credits, \$58.

The laws relating to real property and the common types of real estate transactions and conveyances are the primary topics treated in this course. Various instruments such as deeds, contracts, leases, deeds of trust, etc., are studied with emphasis on how these instruments are drafted. Study activities include research projects relating to the subject matter and practice in retrieving and recording information. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Fall Qtr Sec 1 M—6:20-8:50, NH 209A, Heiberg
Winter Qtr Sec 2 M—6:20-8:50, NH 209A

(See also Real Estate)

***GC 3583 LEGAL STUDIES: ESTATE PLANNING AND ADMINISTRATION.** 4 degree credits, \$58.

This course introduces the student to problems associated with planning for efficient use of financial resources during working life, retirement and after the death of the principal income producer. Included are techniques for fact gathering, income and death tax principles, use of trusts, will drafting and probate procedures. Emphasis is on the standard procedures used by legal assistants to assist attorneys in these matters. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Winter Qtr Sec 1 T—6:20-8:50, NH 209A

***GC 3584 LEGAL STUDIES: LITIGATION AND TRIAL PRACTICE.** 4 degree credits, \$58.

This course of study will include an analysis and discussion of the following: common types of litigation, premises of litigation, sources of law, the court systems, attorneys, types of lawsuits, usual defenses, Minnesota civil procedures, discovery procedures, court procedures, trial, post-trial motion procedures, appeal, enforcement of judgment, various types of litigation, and good investigation of facts basic to adequate preparation for litigation. Particular attention is given to the role of the legal assistants in assisting the attorneys in these matters. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Spring Qtr Sec 1 Th—6:20-8:50, NH 209A

***GC 3585 LEGAL STUDIES: INCOME TAXATION.** 4 degree credits, \$58.

This course will provide a detailed study of the law of income taxation—state, federal and local—including preparation of income tax returns and related materials and a survey of the various administrative and judicial tribunals, and their jurisdiction, involved in the determination of income tax controversies. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Spring Qtr Sec 1 M—6:20-8:50, NH 209A

(See related courses in Accounting)

***GC 3586 LEGAL STUDIES: LEGAL RESEARCH.** 4 degree credits, \$58.

The course will examine in depth the law library, survey and various reference sources available to lawyers in determining applicable law, and study the processes of legal research and writing of memoranda presenting results of that legal research. The course will include numerous practice problems requiring legal research and memoranda writing, utilizing the statutes, case reports, encyclopedias, treatises, and other legal research sources. (Prereq 1540 or Acct 1050 or old Acct 1024; GC 1235 and 1534 or BLaw 3058-3078, 3088 or \$. Limited to 25 students)

Fall Qtr Sec 1 T—5-7:25, NH 107, Niederlueke
Winter Qtr Sec 2 W—5-7:25, NH 209A, Niederlueke

***GC 3602 APPLIED SUPERVISION.** 4 degree credits, \$58.

Practical approaches to supervision principles and problems in the small- and medium-size business. Through case problems, role playing in simulated business situations, and decision exercises, students learn to understand the rela-

new

Symbols, abbreviations, off-campus class locations begin on page 389.

tionship between authority and responsibility as well as the delegation process; to select and apply manager or group decision-making methods; to understand some techniques of the communication process between management and employees; to have some practical knowledge of the concept of job enrichment; and to identify some of the characteristics of a high productivity manager. (No prereq. Limited to 40 students)

Winter Qtr Sec 1 **M**—6:20-8:50, Jones 10, Kroll

(See also Industrial Relations)

marketing sequence

(See also Marketing; Journalism; and Salesmanship)

GC 1551, 1552, and 1553 are specifically designed for the individual interested in mid-management positions in retailing and sales. These courses are aimed at developing knowledge and skills relating to positions in retail departmental management, sales, wholesale distribution, credit management, and buying.

The content for the courses has been developed with the aid of an advisory committee of Minneapolis and St. Paul businessmen. Topics selected are: introduction to marketing, wholesaling salesmanship, credit, customer services, advertising, retail display, buying and merchandising, training and supervision of personnel, organizational management, and government relations.

These topics have been put in context as they apply to the mid-manager's job. The courses may be taken individually and need not be taken in sequence. Upon successful completion of all three courses, and 3 credits of GC 1557, a certificate in Marketing is granted the students by the General College of the University.

*GC 1551 MARKETING: RETAILING AND SALES. 4 degree credits, \$58.

This course introduces the student to mid-management marketing. After an exploration into the career opportunities in mid-management and a study of the field of distribution, wholesale and retail marketing are explored from customer related activities. Topics: salesmanship, credit, and customer services. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **W**—6:20-8:50, NH 122, Goodenough
Sec 2 **Th**—6:20-8:50, NH 122

*GC 1552 MARKETING: SALES PROMOTION. 4 degree credits, \$58.

Topics of study include: the psychology of advertising, advertising media selection, store interior layout and display, and public relations. The emphasis is on learning to develop coordinated promotional plans for marketing operations. (No prereq. Limited to 30 students)

Winter Qtr Sec 1 **T**—6:20-8:50, NH 107, Goodenough
Sec 2 **W**—6:20-8:50, NH 122

*GC 1553 MARKETING: PRINCIPLES OF MANAGEMENT. 4 degree credits, \$58.

Basic supervision from the marketing organization viewpoint. Primarily a course in supervision dealing with the following: 1. Supervisor as influencer of people—leading, communicating, motivating, establishing goals, decision-making, problem solving, and evaluating employees. 2. Supervisor as doer of key functions—planning, organizing, staffing, controlling, etc. 3. Supervisor as handler of supervisor-subordinate problems. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **M**—7-9:30, Cambridge HS library, Kroll
Spring Qtr Sec 2 **T**—6:20-8:50, PeikH 275, Goodenough
Sec 3 **T**—6:20-8:50, Pt 111

Symbols, abbreviations, off-campus class locations begin on page 389.

GC 1557 MARKETING: SUPERVISED WORK EXPERIENCE. 1-3 degree credits, \$14.50, \$29, or \$43.50.

Students will prepare reports about their work activities, duties, and responsibilities for evaluation by their job supervisor and/or the program instructor. Usual registration is for 1 credit per quarter taken concurrently with GC 1551, 1552, 1553. Other credit arrangements should be made with the instructor. (Prereq concurrent or previous registration in GC 1551, 1552, 1553)

Fall Qtr	Sec 1	M —6:20-8:50, Jones 1, Goodenough
	Sec 2	W —6:20-8:50, Jones 1
Winter Qtr	Sec 3	M —6:20-8:50, Jones 1, Goodenough
	Sec 4	T —6:20-8:50, Jones 1
Spring Qtr	Sec 5	M —6:20-8:50, Jones 1, Goodenough
	Sec 6	Th —6:20-8:50, Jones 1

communication skills

(See also English; Rhetoric; Speech; Study Skills; and other study helps, page 178)

***GC 1401 VOCABULARY BUILDING: HOW TO EXPAND YOUR WORD POWER.** 3 degree credits, \$43.50.★

Designed to extend the range and increase the quality of vocabulary. Mastery of 150 word elements which furnish a basis for the analysis and formation of thousands of English words. Dictionary study, programmed learning sequences, readings in context and tape recordings. Materials arranged to accommodate persons at any vocabulary level. Student progresses at his own rate. (No prereq. Limited to 45 students)

Fall Qtr	Sec 1	W —6:20-8:50, NH 207
	Sec 2	Th —9:30 a.m.-12:00, St. Stephens Church, WStP; Koch
Winter Qtr	Sec 3	M —6:20-8:50, NH 107
	Sec 4	Th —6-8:30, StP Sunray Lib
Spring Qtr	Sec 5	T —6:20-8:50, NH 209

SKILLS CENTER COURSES (1405, 1409, 1429)**GC 1405 FUNDAMENTALS OF USAGE AND STYLE.** 3 degree credits, \$43.50.

Students will study English grammar and determine its pertinence to their own writing on an individual study basis. They will arrange a programmed-learning sequence, write two short papers, and consult with a staff member of the Reading and Writing Skills Center, NH 109, at frequent intervals. Students enrolled in the course can come to the Center to study and consult with a staff member any day between 5:00-8:00 p.m. The Center is open Monday through Thursday. (No prereq)

Fall Qtr	Sec 1	Arr. V Kurak
Winter Qtr	Sec 2	Arr. V Kurak
Spring Qtr	Sec 3	Arr. V Kurak

GC 1409 COMMUNICATION SKILLS: INDIVIDUAL STUDY. 2 degree credits, \$29.

This independent study course is designed to assist students on an individual basis with projects or papers relating directly to work students are doing in other courses being taken concurrently. The project will be determined by the student and a staff member of the General College Reading and Writing Skills Center, 109 NH. Students may consult with a staff member any day between 5:00-8:00 p.m. The Center is open Monday through Thursday. (No prereq)

Fall Qtr	Sec 1	Arr. V Kurak
Winter Qtr	Sec 2	Arr. V Kurak
Spring Qtr	Sec 3	Arr. V Kurak

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INTEGRATED APPROACH TO COMMUNICATIONS (1413, 1414, 1415, 1416)

In the following sequence of courses (1413, 1414, 1415, 1416) the student becomes aware of communication processes and increases his understanding of relationships between writing and speech. Through interaction in small-group projects and discussion, he learns about his own communication patterns and gains insight into how and why he affects others as he does. He works at developing greater effectiveness in his writing and speaking.

*GC 1413 INTEGRATED COMMUNICATION I. 2 degree credits, \$29.

Student learns about interpersonal communication with particular emphasis on his own pattern of interaction. Meets concurrently with 1414. (Prereq ¶1414. Limited to 27 students)

Fall Qtr Sec 1 **M**—6:20-8:50, NH 122, Hansen

*GC 1414 INTEGRATED COMMUNICATION I. 2 degree credits, \$29.

See description for 1413. Meets concurrently with 1413. (Prereq ¶1413. Limited to 27 students)

Fall Qtr Sec 1 **M**—6:20-8:50, NH 122, Hansen

*GC 1415 INTEGRATED COMMUNICATION II. 2 degree credits, \$29.

Student considers how communication serves man in his development of community. Primary human groups, particularly the family, analyzing how the form and function, develop norms and standards, deal with conflict and tension, and define roles. Meets concurrently with 1416. (Prereq ¶1416. Limited to 27 students)

Winter Qtr Sec 1 **M**—6:20-8:50, NH 122, Hansen

*GC 1416 INTEGRATED COMMUNICATION II. 2 degree credits, \$29.

See description for 1415. Meets concurrently with 1415. (Prereq ¶1415. Limited to 27 students)

Winter Qtr Sec 1 **M**—6:20-8:50, NH 122, Hansen

*GC 1421 WRITING LABORATORY: PERSONAL WRITING. 4 degree credits, \$1412, 1413. \$58.

new Student reads and writes descriptive narratives, characterizations, and autobiographical sketches. In laboratory he is given personal help with his individual writing problems. Emphasis is on clear and effective written expression. Satisfies the first quarter of the freshman English requirement for some degree programs. For additional information call Extension Counseling, 373-3905. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **M**—7-9:30, Iroindale HS 312, New Brighton

Sec 2 **T**—6:20-8:50, NH 107

Winter Qtr Sec 3 **W**—6:20-8:50, StP Ramsey Hosp 401

Spring Qtr Sec 4 **T**—6:20-8:50, NH 107

*GC 1422 WRITING LABORATORY: COMMUNICATING IN SOCIETY. 4 degree credits, \$1415, 1423. \$58.

new 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. Student examines assumptions, inferences, and distortions involved in thinking; habits and processes of observations; factual and slanted reporting; persuasive devices; and cultural and cross-cultural communication. Satisfies the second quarter of the freshman English requirement for some degree programs. For additional information, call Extension Counseling, 373-3905. (Prereq 1421 or ¶. Limited to 30 students)

Spring Qtr Sec 1 **W**—6:20-8:50, StP Ramsey Hosp 401

Symbols, abbreviations, off-campus class locations begin on page 389.

GC 1429 WRITING: INDIVIDUAL STUDY. 2 degree credits, \$29.**new**

An independent study course for students wishing to undertake special writing projects. The project will be determined by the student and a staff member of the General College Reading and Writing Skills Center, 109 NH. Students may consult with a staff member any day between 5:00-8:00 p.m. The Center is open Monday through Thursday. (No prereq)

Fall Qtr Sec 1 Arr. V Kurak
Winter Qtr Sec 2 Arr. V Kurak
Spring Qtr Sec 3 Arr. V Kurak

GC 1461 ORAL COMMUNICATION: BASIC PRINCIPLES. 4 degree credits, \$58.**new**

In conversations, discussions and prepared speeches, student shares his ideas, attitudes, and experiences with others. He examines pervasiveness and function of communication in modern life, and he inquires into how language functions as means of communication. He identifies various uses to which people put speech and basic biological, psychological, and social needs these uses are intended to satisfy. Given this framework, he listens and responds to communication of others and comments on what he sees, hears, and feels. (No prereq)

Spring Qtr Sec 1 Sa—8:15 a.m.-10:45, FolH 105

***GC 1471 CREATIVITY: CREATIVE PROBLEM SOLVING.** 4 degree credits, \$58.

To develop his own creative potential, student explores creative processes and tries to solve his individual problems—personal, academic, or vocational—in imaginative ways. As he works with others in an atmosphere of trust, involvement, and understanding, he becomes aware that individuals approach problems differently, even uniquely; and by shedding his rigidity, he begins to solve his problems more flexibly and productively. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 T—6:20-8:50, NH 122, Panger
Winter Qtr Sec 2 Th—6:30-9:00, Elim Church, Robbinsdale; Panger
 Sec 3 W—7-9:30, Hillside JHS 102, Maplewood; Benson
Spring Qtr Sec 4 W—6:30-9:00, NH 122, Panger

***GC 3464 COMMUNICATION IN ORGANIZATIONS.** 4 degree credits, \$58.**new**

For managers, supervisors, and others who directly control quality of life of persons in organizations; course is focused upon processes and problems involved in working and communicating with people in organizational settings and upon knowledge, attitudes, and skills which underlie effective behavior in organizational relationships. (No prereq. Limited to 35 students)

Spring Qtr Sec 1 Th—6:20-8:50, NH 122

***GC 3531 WRITING FOR BUSINESS AND THE PROFESSIONS.** 4 degree credits, \$1531. \$58.**new**

Students write letters, informal and formal reports, recommendations, proposals, summaries, memos—in short, the forms of writing used in business; in health, education, and welfare; and in legal professions. Effort is made each quarter to adapt content to vocational needs of students enrolled. Form, clarity, economy of expression, and suitable tone are stressed. Typed final drafts are required. (Prereq 1421 or 8. Limited to 30 students)

Winter Qtr Sec 1 Th—6:20-8:50, NH 209A

(See also technical writing courses in English and Informal Courses)

***GC 3605 INTERVIEWING.** 4 degree credits, \$58.**new**

Students planning to enter occupations in which structured communication—particularly formal interview—is a required skill may find this course especially useful. For students who are undecided about their life's work, course provides tryout experience in developing skill related to a wide spectrum of occupations. Objectives include recognition of interactive process of interview and roles of participants in dyad, exploration of a variety of communication patterns in interview context, and understanding how interviewer affects others (and others

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affect him) in goal-directed dyadic interaction. Students develop skills in general interviewing principles through actual and simulated situations. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 T—6:20-8:50, NH 209A, Shapiro

mathematics

***GC 1431 FUNDAMENTAL COLLEGE MATHEMATICS PROGRAM.** 5 degree credits, \$72.50.

Audio-tutorial program of study of basic mathematics skills in arithmetic, algebra, geometry, and applications of mathematics. Opportunities for self-pacing, test-out, and flexibility in amount of credit earned. Each student will have a mathematics adviser with whom he will work to select and master materials he needs to build up proficiency and background necessary to his educational and vocational goals. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 TTh—6:30-8:35, FoIH 109, Knoblauch

Winter Qtr Sec 2 TTh—6:30-8:35, FoIH 109, Knoblauch

Spring Qtr Sec 3 TTh—6:30-8:35, FoIH 109, Knoblauch

***GC 1445 MATHEMATICS: INTERMEDIATE ALGEBRA.** 5 degree credits, \$72.50.★

Concepts and manipulative skills of algebra necessary for students to compete in a college algebra course. Topics include discussion of real number system, special products and factoring, exponents and radicals, linear equations in one and two variables, quadratic equations in one variable, progressions, inequalities, variation, and logarithms. Prospective student may have to give evidence of adequate preparation. (Prereq 1 yr high school algebra. Limited to 40 students)

Fall Qtr Sec 1 MW—6:30-8:35, FoIH 107, Robertson

Winter Qtr Sec 2 MW—6:30-8:35, FoIH 107

Spring Qtr Sec 3 MW—6:30-8:35, FoIH 107, Barnes

GC 1442 APPLIED MATHEMATICS. 4 degree credits, \$58. (◆ \$29)

new

Designed to develop skills of solving problems against background of practical uses of measurements. Algebra is used, trigonometry is studied, and graphical techniques are applied. Emphasis on types of problems encountered in science, technology, and measurement fields. Should be of special value to students with interest in science or to students who have technical hobbies. (Prereq high school algebra or geometry or 1431 or §)

Fall Qtr Sec 1 T—7-9:30, Irodale HS 313, New Brighton; Giese

***GC 1454 STATISTICS.** 4 degree credits, \$58.

new

Introduction to modern statistics, emphasizing problem solving through statistical decision making. Topics include organization and presentation of data, summary statistics, sampling, probability, distributions, simple estimation, and tests of hypotheses. Data presented acquaint students with wide applicability of statistics. Attention is drawn to limitations of methods of presentation. Requires only a working knowledge of arithmetical skills. (No prereq. Limited to 40 students)

Winter Qtr Sec 1 Sa—9 a.m.-11:30, FoIH 107, Giese

natural science

(See other environmental concerns courses, page 170)

GC 1111 SCIENCE IN CONTEXT: WEATHER AND CLIMATE. 4 degree credits, \$58. (◆ \$29)

new

Day-to-day and long-range weather patterns in terms of interactions among atmosphere, oceans, land surfaces, and motions of the earth. Fair weather, storms, seasonal changes, air pollution, and water resource problems. Basic principles of science are applied to problems of analyzing and forecasting day-to-day weather, interpreting climates and climatic change, and realizing the great extent to which man is changing his atmospheric environment. (No prereq)

Fall Qtr Sec 1 Th—6:20-8:50, StP Ramsey Hosp 314, A Johnson

(See also Geog 1425, Introduction to Meteorology)

Symbols, abbreviations, off-campus class locations begin on page 389.

GC 1112 SCIENCE IN CONTEXT: MAN AND HIS ENVIRONMENT. 4 degree credits, \$58. (♦ \$29)

Biological principles and interrelationships between man and his environment; study of ecology as applied to aspects of man's past, present, and future existence, principles of ecology as seen in structure and function of the ecosystem; pollution of soil, air, and water; population explosion; biosocial demands of environmental planning and maintenance; and relationship of people, nutrition, and disease to survival. Examination of certain aspects of radiation sources and environment, marine ecology, and man's future ecological needs. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, SciCB 125, Jefferson

Winter Qtr Sec 2 **T**—7-9:30, Irondale HS 313, New Brighton; Liston

GC 1113 SCIENCE IN CONTEXT: CONSERVATION AND UTILIZATION OF NATURAL RESOURCES. 4 degree credits, \$58. (♦ \$29)

Nature of natural resources (minerals, fuels, soil, land, air, water, plants, and animals), their distribution, and energy required to transform them into useful products are studied with respect to contemporary problems of supply and environmental damage. (No prereq)

Fall Qtr Sec 1 **M**—7-9:30, Hillside JHS 106, Maplewood; Steinhauser

Spring Qtr Sec 2 **T**—6:20-8:50, SciCB 175, Jefferson

***GC 1131 BIOLOGICAL SCIENCE: PRINCIPLES.** 5 degree credits, \$72.50.

The variety and relationships of living organisms illustrating general principles of biology as they apply to man, animals, and plants. These principles are drawn from fields such as study of cells, relationships of organisms in nature, heredity, chemical and physical properties of living organisms in nature, evolution, and reproduction. Student spends about 2 hours a week in multimedia laboratory working on biological information and biological problems through the aid of tapes, pictures, graphs, movies, and experiments. (No prereq. Lectures meet concurrently. Limited to 20 students)

Fall Qtr Sec 1 **Lect Sa**—8:30 a.m.-11:00, NH 209A, Buonocore, Dearden

Lab Sa—11 a.m.-1:00, NH 209A

Sec 2 **Lect Sa**—8:30 a.m.-11:00, NH 209A, Buonocore, Dearden

Lab Sa—1-3:00, NH 209A

GC 1132 BIOLOGICAL SCIENCE: THE HUMAN BODY. 4 degree credits, \$58. (♦ \$29)

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 **T**—6:20-8:50, SmithH 315, Dearden

Spring Qtr Sec 2 **Sa**—11 a.m.-1:30, SmithH 315

(See also Anatomy; and Biology)

GC 3114 PERSONAL ENVIRONMENTAL HEALTH. 4 degree credits, \$58. (♦ \$29)

Health as a product of harmony between man and environment: biological, physical, social, and ideological. Content selected from following topics: personal health—interaction of mind and body, progress in medicine; environmental health—impact of new pollutants, environment and personality, occupational health and industrial medicine, community health organizations and consumer costs, health in college community. (No prereq)

Winter Qtr Sec 1 **Th**—6:20-8:50, NH 207, Dearden

GC 3115 EVOLUTION AND MODERN MAN. 4 degree credits, \$58. (♦ \$29)

Descriptive course concerning principles and topics of evolution, as well as practical application of scientific information to specific problems of adaptation

Symbols, abbreviations, off-campus class locations begin on page 389.



to environmental change. Evolution of modern man described, from emergence of primate forms to appearance of ancestral forms from which man as we know him may have evolved in response to certain environmental stimuli and conditions. (Prereq 1131)

Spring Qtr Sec 1 **W**—6:20-8:50, NH 209, Liston

GC 3841 MINNESOTA RESOURCES. 4 degree credits, \$58. (♦ \$29)

Quality of life in contemporary Minnesota—future possibilities as well as present problems—analyzed in relation to major elements of current scene: resources, and use, and population trends. Discusses basic situation in such industries as transportation, mining, forestry, flour milling, and agriculture. Topics include urban development and environmental controversies involving pollution controls, new sources of energy, conservation, and utilization of undeveloped regions. Classes supplemented by field trips; independent investigations encouraged. (No prereq)

Winter Qtr Sec 1 **W**—6:20-8:50, NH 207, Steinhauser

(See other Minnesota courses, page 190)

social and behavioral sciences

GC 1211 MAN IN SOCIETY: AN INTRODUCTION TO SOCIAL SCIENCE. 4 degree credits, \$58. (♦ \$29)

An interdisciplinary framework is employed to study society—its major components, origin, development and present structure, and the impact of these on population groups and individuals. Some emphasis on scientific method and theories of social stratification and urbanization. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, NH 207, Neet

GC 1212 MAN IN SOCIETY: URBAN PROBLEMS. 4 degree credits, \$58. (♦ \$29)

A problem-solving interdisciplinary approach to examine some major urban problems such as social class and poverty, social change, crime, and education. Emphasis on field-work and/or community activities. (No prereq)

Winter Qtr Sec 1 **Th**—6:20-8:50, PillsH 110, F Johnson

Spring Qtr Sec 2 **T**—6:20-8:50, StP Ramsey Hosp, Harris

GC 1221 MINNESOTA HISTORY. 4 degree credits, \$58. (♦ \$29)★

The land, people and institutions of Minnesota and the Upper Midwest are studied in the light of a history extending from the primitive and colorful life led by Indians, voyageurs and explorers to the complexities and opportunities of today. The double purpose of the course is to see how Minnesota came to be what it is, and to trace the growth of governmental functions and the course of political struggles from pioneer times to the present. (No prereq)

Fall Qtr Sec 1 **W**—7-9:30, Irondale HS 311, New Brighton; Moen

Sec 2 **T**—7-9:30, Minnetonka HS 120-121, Moen

(See other Minnesota courses, page 190)

GC 1241 HISTORICAL BIOGRAPHY: LINCOLN AND THE CIVIL WAR. 4 degree credits, \$58. (♦ \$29)



Centering on Lincoln, course examines origins, conduct, and implications of Civil War. Among other personalities examined are Davis, Douglas, Grant, Lee, McClellan, Seward, Stanton, and Booth. (No prereq)

Fall Qtr Sec 1 **Th**—7-9:30, St. Stephens Church, WStP; Buckley

(See related courses, page 172)

GC 1282 FIELDS OF APPLIED PSYCHOLOGY. 4 degree credits, \$58. (♦ \$29)



Survey of use of psychological principles in study of human affairs. Examines contributions of psychological research as made in fields such as teaching and learning; mental retardation; personnel selection and training in industry;

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measurement and improvement of worker efficiency and morale; law, crime, and aggression; consumer research and advertising; and attitude and opinion formation and measurement. (No prereq)

Winter Qtr Sec 1 T—6:20-8:50, StP Ramsey Hosp 401, Brothen

GC 1295 SOCIAL SCIENCE: ECONOMIC PERSPECTIVES—GENERAL VIEW. 4 degree credits, \$58. (♦\$29)

new

Introduction to basic elements of economics and application of economic analysis to contemporary economic issues. Topics include scarcity and resource allocation, economic reasoning, economic structure, forms of economic organization, macroeconomic system, consumption, government spending and tax policy, unemployment, inflation, fiscal and monetary policy, international trade problems and policy, economic growth, environmental externalities, and economic problems and planning for future. Topics are approached in historical, comparative, and analytical dimensions. Special emphasis given to major economic issues of current interest. (No prereq)

Fall Qtr Sec 1 M—7-9:30, Nicollet JHS, Burnsville; Williamson

GC 1721 HOME LIFE: MARRIAGE AND FAMILY LIVING. 4 degree credits, \$58. (♦\$29)

new

To emphasize particular values of family life for individual and for society, course considers biological, psychological, and sociological foundations of the family. Some time devoted to study of adjustment and human relationships in student's present and future home life. Preparation for marriage, factors associated with success or failure in marriage, and problems of parenthood are considered. Specific topics include socialization, sexuality, mate selection, marriage, marital adjustment, contraception, reproduction, and parenthood. (No prereq)

Spring Qtr Sec 1 W—7-9:30, Irondale HS 310, New Brighton; Latts

GC 1722 HOME LIFE: PARENT-CHILD RELATIONSHIPS. 4 degree credits, \$58. (♦\$29) ★

new

Interdisciplinary course aimed at helping students to develop their own philosophy of childrearing—attitudes, principles, and perspectives that will guide them in their relations to their children and in performance of their parental responsibilities. Focus on helpful information related to crises of parenthood. Relevant research is used to emphasize principles of parent-child relations and to prepare students for tasks of parenthood. (No prereq)

Fall Qtr Sec 1 M—9:30 a.m.-12:00, Jewish Community Ctr, StLPK; Latts

(See also Family Social Science)

GC 3612 MENTAL HEALTH: PRINCIPLES AND PRACTICES. 4 degree credits, \$58. (♦\$29)

new

Mental health as a social problem; changing needs and concepts of mental health; classification of mental and emotional disorders of constructs of psychodynamics; childrearing climates related to mental health and onset of personality problems; research finding on relative effectiveness of punitive and positive reinforcement techniques in inducing behavior change; rationales and principles of treatment practices in somatotherapy, sociotherapy, and psychotherapy; and emerging paraprofessional practices in handling problem clients. (No prereq)

Spring Qtr Sec 1 T—6:20-8:50, MIRDH 213, Borow

(See also Adult Psychiatry)

GC 3615 THE REHABILITATION PROCESS. 4 degree credits, \$58.

new

For students interested in working in helping professions, particularly with handicapped people. General problems of the disabled and resources available to help those with special problems; mental health principles and their application in working with the disabled; mental, physical, and emotional factors which create barriers to individual's potential to become productive in social, educational, or work experience. Special emphasis on exploring mental retardation as problem for worker in helping professions and on progress made in educating and training the retarded. Aged and physically and emotionally handicapped persons also considered in terms of defining disabilities, potential for rehabilitation, and current methods and approaches used to help these individuals. To

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help student understand his own perceptions and attitudes relative to disability and rehabilitation, and to work toward better ways of using himself in rehabilitation processes. (No prereq)

Winter Qtr Sec 1 **M**—6:20-8:50, MlrH 213

GC 3621 COUNSELING AND WORK REGARDING COMMUNITY RESOURCES. 4 degree credits, \$58.

Intended primarily for persons interested or involved in human services work. Designed to develop student's skill in counseling clients regarding community resources: help develop understanding of human services available in Twin City area, and how services may interrelate; help in gaining insight of Human Services Generalist concept. Activities include small group interaction, video tape practice, interviewing, and assembly of agency resource book. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, Aero 21, Foat

GC 3622 HUMAN SERVICES SEMINAR: INDIVIDUAL HELPING SKILLS. 3 degree credits, \$43.50.

The goal of this course is to improve the skills of the student in the one-to-one situation. Some of the skills which are stressed are: 1) information-gathering techniques; 2) receptiveness to non-verbal cues from client; 3) awareness and use of own non-verbal behavior; and 4) influencing behavior. Because this is a skills based course, most of the class time is devoted to *practice* of these skills. (Prereq 3621)

Winter Qtr Sec 1 **M**—6:20-8:50, NH 207, Wilson

GC 3623 HUMAN SERVICES SEMINAR: SMALL GROUP FACILITATION. 3 degree credits, \$43.50.

The objectives of this course are: 1) to familiarize the student with significant elements of small-group development and function, and 2) to improve students skills in small-group situations. (Prereq 3622)

Spring Qtr Sec 1 **M**—6:20-8:50, NH 207, Wilson

(See also IC 0022, Integrating Human Service Programs, page 287)

GC 3844 MINNESOTA PARTIES AND POLITICS. 4 degree credits, \$58. (◆\$29)



Third-party movements and occasional radicalism appearing against background of strong liberal Republicanism are major aspects of politics in state noted for honest and enlightened government at home as well as for quality of leaders representing it in national councils. Topics include post-Civil War Republican dominance, farm protest, Minnesota Progressivism, Farmer-Labor party in office, Republicanism reborn, advent of DFL, and contemporary seesaw. (No prereq)

Fall Qtr Sec 1 **Th**—6:20-8:50, NH 216, Hathaway

(See other Minnesota courses, page 190)

GC 3845 MINNESOTA BIOGRAPHY. 4 degree credits, \$58. (◆\$29)



Deeds of the famous are rehearsed, and accomplishments of the worthy but obscure are rescued from oblivion in this study of various aspects of Minnesota life by means of biographies of well-known or typical Minnesotans. Thematic approach means that course changes. Concentration may be on such political figures as John A. Johnson, Floyd B. Olson, Hubert H. Humphrey; or artists and intellectuals such as F. Melius Christiansen, Thorstein Veblen, Wanda Gag, or Ole Rolvaag. (No prereq)

Winter Qtr Sec 1 **T**—7-9:30, Nicollet JHS, Burnsville; Buckley

genetics and cell biology (GCB)

(See related courses, page 165)

GCB 3002 HUMAN GENETICS, SOCIAL AFFAIRS. 3 degree credits, \$3622, Biol 1101, 3032. \$43.50.

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new

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)

Fall Qtr Sec 1 W—6:20-8:50, HSUnitA 2-580

geography (Geog)

(See also General College natural science courses; and environmental concerns courses, page 170)

Russell B. Adams, Associate Professor of Geography

Michael D. Albert, Instructor in Geography

Thomas J. Baerwald, Instructor in Geography

John Fraser Hart, Professor of Geography

Timothy Kelly, Lecturer in Geography

Fred E. Lukermann, Professor of Geography

Philip W. Porter, Professor of Geography

John G. Rice, Associate Professor of Geography

Geog 1302 HUMAN GEOGRAPHY. 4 degree credits, \$58. (♦\$29)

◆ Geography of population and principal ways of life; capacity of the earth for future population.

Fall Qtr Sec 1 W—6:20-8:50, BlegH 440

Spring Qtr Sec 2 Th—6-8:50, BlegH 435, Albert

Geog 1401 PHYSICAL GEOGRAPHY. 5 degree credits, \$72.50. (♦\$36.25)

◆ Major features of distribution patterns of climate, relief, vegetation and soils; regional differences in problems of physical development. (No prereq)

Fall Qtr Sec 1 W—6-9:20, BlegH 415, Kelly

Geog 1425 INTRODUCTION TO METEOROLOGY. 4 degree credits, \$Soil 1262. \$58. (♦\$21 lecture only)

◆ Nature of the atmosphere and its behavior. Atmospheric composition, structure, stability and motion; precipitation processes, air masses, fronts, cyclones and anticyclones; general weather patterns; meteorological instruments and observation; plotting and analysis of maps; forecasting. (No prereq)

Winter Qtr Sec 1 Lect T—6:30-9:00, BlegH 440, Kelly

Lab Th—6:30-8:10, BlegH 435, Kelly

(See also GC 1111, Weather and Climate)

Geog 3101 GEOGRAPHY OF THE UNITED STATES AND CANADA. 4 degree credits, \$58. (♦\$29)★

◆ The manner in which the aspirations and abilities of different groups of people have interacted with the complexities of the natural environment in producing the regional differentiation of the United States and Canada. (No prereq)

Winter Qtr Sec 1 M—6-8:50, BlegH 435, Hart

Geog 3141 AFRICA. 4 degree credits, \$58. (♦\$29)

◆ Regional differentiation of human groups and environments; culture contact and problems of underdeveloped countries south of the Sahara. (No prereq. A joint Day/Extension course. May be applied toward the CLA foreign language requirement, Route II, for Swahili [see page 68])

Spring Qtr Sec 1 T—6-8:50, BlegH 435, Porter

Symbols, abbreviations, off-campus class locations begin on page 389.

Geog 3181 EUROPE. 4 degree credits, \$58. (♦\$29)

◆ Identification and analysis of broad cultural-economic realms in Europe (excluding U.S.S.R.) with brief survey of areal organization of each realm. (No prereq)

Spring Qtr Sec 1 **M**—6-8:50, BlegH 435, Rice

Geog 3181 SOVIET UNION. 4 degree credits, \$58. (♦\$29)★

◆ Systematic appraisal by regions of physical resources, population, and economic geography; problems and planning in the U.S.S.R. compared with the United States. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Winter Qtr Sec 1 **W**—6-8:50, BlegH 415, Adams, Rice

Geog 3331 ECONOMIC GEOGRAPHY I: INTRODUCTORY. 5 degree credits, \$72.50. (♦\$36.25)

◆ Analysis of world patterns of economic activity; appraisal of resources, production, circulation, and consumption; principles and potential of economic development. (No prereq)

Fall Qtr Sec 1 **M**—6-8:50, BlegH 435, Adams

Geog 3345 ENERGY AND MINERALS. 4 degree credits, \$58. (♦\$29)

◆ Sources, production, circulation and consumption of power, metals, and non-metallic minerals. Problems of exhaustion, substitution, pollution, costs, trade and policy with national and local case studies. (No prereq)

Spring Qtr Sec 1 **W**—6-8:50, BlegH 435, Adams

Geog 3801 DEVELOPMENT OF GEOGRAPHIC THOUGHT. 4 degree credits, \$5801. \$58. (♦\$29)

◆ Concepts and methods of geography; differing schools of thought as expressed in contemporary geographic literature. (No prereq. A joint Day/Extension course)

Fall Qtr Sec 1 **T**—6-8:50, BlegH 435, Lukermann

geology and geophysics (Geo)

Clement G. Chase, Assistant Professor of Geology and Geophysics

George R. Rapp, Jr., Associate Professor of Geology and Geophysics

Robert E. Sloan, Professor of Geology and Geophysics

James Stout, Assistant Professor of Geology and Geophysics

Paul W. Weiblen, Associate Professor of Geology and Geophysics

IC 0006 RECENT SHIFTS IN PREHISTORIC SUBJECTS: AN OVERVIEW OF MODERN GEOLOGY. No credit. Chase, Sloan, Stout

See Informal Courses, page 284.

Geo 1001 PHYSICAL GEOLOGY. 4 degree credits, \$58 plus \$3 course fee. Total \$61.★

A first course in geology for science majors and an introduction to scientific methods and the nature of the earth for others. Survey of the main features of the physical world and of the processes that have evoked them. (No prereq. Fall Semester meets concurrently with 5051)

Fall Sem Sec 1 **Lect T**—6:20-8:00, PillsH 110, Rapp

Lab T—8:10-9:30, ForH 180

Spring Sem Sec 2 **Lect M**—6:20-8:00, PillsH 110, Weiblen

Lab M—8:10-9:30, ForH 180

Geo 1002 HISTORICAL GEOLOGY. 4 degree credits, \$58 plus \$3 course fee. Total \$61.

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. (Prereq 1001. Meets concurrently with 5052)

Spring Sem Sec 1 **Lect T**—6:20-8:00, PillsH 110, Sloan

Lab T—8:10-9:30, ForH 85

Symbols, abbreviations, off-campus class locations begin on page 389.

Geo 1008 GEOLOGY AND MAN. 4 degree credits, \$1001, \$58.

An introductory course concerned with man in his physical environment; geological hazards (e.g. earthquakes); the nature and use of natural resources; geological aspects of pollution, recreation and land uses; the effect of the composition of rocks and soils on nutrition and disease. An introduction to the broad nature of earth science. Lectures, labs, and field trips. (No prereq)

Fall Sem Sec 1 **Lect M**—6:20-8:00, PillsH 110, Sloan
Lab M—8:10-9:30, ForH 180

(See other environmental concerns courses, page 170)

Geo 3401 INTRODUCTORY MINERALOGY. 5 degree credits, \$72.50. (♦\$36.25)

Introduction to crystallography, crystal chemistry, and crystal physics. Physical and chemical properties, crystal structures, and chemical equilibria of the major mineral groups. Laboratory includes crystallographic polarizing microscope, X-ray powder diffraction exercises, and hand specimen mineral identification. (Prereq 1001 or 1111 or \mathbb{R} , 1 term college chemistry, Math 1221)

Winter Qtr Sec 1 **Lect TTh**—6:20-8:00, PillsH 100, Stout
Lab TTh—8:15-9:30, PillsH 100

Geo 5051 PHYSICAL GEOLOGY FOR TEACHERS. 4 degree credits, \$1001, 1003, 1111, \$62 plus \$3 course fee. Total \$65.

An introduction to the scientific methods and the nature of the earth. Survey of the main features of the physical world and of the processes that have evoked them. (Prereq 1 term college chemistry or physics; only for students holding degrees in education. Meets concurrently with 1001 fall semester course. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 **Lect T**—6:20-8:00, PillsH 110, Rapp
Lab T—8:10-9:30, ForH 180

(See also Education)

Geo 5052 HISTORICAL GEOLOGY FOR TEACHERS. 4 degree credits, \$1002, 1004, 1112. \$62 plus \$3 course fee. Total \$65.

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 \mathbb{R} ; only for students holding degrees in education. Meets concurrently with 1002. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **Lect T**—6:20-8:00, PillsH 110, Sloan
Lab T—8:10-9:30, ForH 85

german (Ger)

(See also Phil 5740, Shopenhauer; and Ethnic Studies courses, page 168)

Gary Alley, Assistant Professor of German
Gerhard Clausing, Assistant Professor of German
Leonard L. Duroche, Associate Professor of German
Frank D. Hirschbach, Professor of German
Mark Lowry, Assistant Professor of German
Edwin F. Menze, Professor of German
Thomas Plummer, Assistant Professor of German
Wolfgang Taraba, Professor of German
Ray Wakefield, Assistant Professor of German
Gerhard H. Weiss, Professor of German

Cassette tapes are available to Extension Classes students on a take-home basis. Students can pick up tapes at the Learning Resources Center on the sec-

Symbols, abbreviations, off-campus class locations begin on page 389.

ond floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68); Ger 3531, 3541, 3604, 3610.

BEGINNING GERMAN. 1101-1102-1103

5 degree credits per course. Provides basic experience in speaking, reading, and understanding the German language and its structure through the acquisition of basic patterns of speech and later through the reading and analysis of texts. The course will be reinforced with programmed materials which will be available to students in the language laboratory. The continuation course is Ger 1301, which is a prerequisite for 3xxx-level German courses.

Ger 1101-1102-1103 BEGINNING GERMAN. 5 degree credits each semester, \$1001-1002-1003 or \$1110. \$72.50 plus \$3 course fee. Total \$75.50 each semester. (♦ \$36.25 plus \$3 course fee. Total \$39.25)★

Structure, pronunciation, reading, and oral comprehension by learning the patterns of basic German (see note above). (No prereq for 1101; 1101 or 1 year high school German or 5 cr 1110 for 1102; 1102 or 2 years high school German or 10 cr 1110 for 1103)

Fall Sem	1101	Sec 1	M —6:20-9:20, FolH 205, Weiss
		Sec 2	Th —6:20-9:20, FolH 205, Hirschbach
	1103	Sec 3	M —6:20-9:20, FolH 207, Taraba
Spring Sem	1102	Sec 4	M —6:20-9:20, FolH 205, Weiss
		Sec 5	Th —6:20-9:20, FolH 205, Hirschbach

***Ger 1110 INDIVIDUALIZED BASIC GERMAN.** 3-15 degree credits, \$14.50 per credit plus \$3 course fee per quarter.

Individualized instruction covering material of Ger 1001-1002-1003 or 1101-1102-1103. Students work at own speed with instructor guidance completing one unit at a time. Testing for all units is available at any time. Credits are awarded at the end of the quarter upon completion of appropriate number of units. (Prereq \$\$. Limited to 25 students)

Fall Qtr	Sec 1	W —6:20-8:50, WaLib LRC, Clausing
	Sec 2	W —6:20-8:50, WaLib LRC, Wakefield
Winter Qtr	Sec 3	W —6:20-8:50, WaLib LRC, Clausing
	Sec 4	W —6:20-8:50, WaLib LRC, Wakefield
Spring Qtr	Sec 5	W —6:20-8:50, WaLib LRC, Clausing
	Sec 6	W —6:20-8:50, WaLib TRC, Wakefield

Ger 1301 INTERMEDIATE GERMAN. 5 degree credits, \$72.50. (♦\$36.25)★

Selected reading from literature, elementary composition. (Prereq 1003, 1103 or 15 cr 1110 or 3 yrs high school German)

Spring Sem Sec 1 **M**—6:20-9:20, FolH, Taraba

Ger 3011 COMPOSITION AND CONVERSATION. 4 degree credits, \$58.★

German grammar; colloquial usage and original compositions. Systematic development of everyday vocabulary. (Prereq 1301 or 4 yrs high school German)

Fall Qtr Sec 1 **T**—6:20-9:00, FolH 302, Taraba

Ger 3541 INTRODUCTION TO GERMAN FOLKLORE. 4 degree credits, \$58. (♦\$29)

A survey and assessment of folklore phenomena, including German fairy tales, legends, and myths; proverbs, sayings, nursery rhymes, riddles, jokes, and

Symbols, abbreviations, off-campus class locations begin on page 389.

anecdotes; popular music and folk songs; superstitions and customs. The development of these phenomena will be studied, along with analysis of content and message of various examples of these genres, with some attention to their utilization and importance in the cultures of the German-speaking areas. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. No knowledge of German required)

Spring Qtr Sec 1 **Th**—6:20-9:00, FolH 308, Clausing

Ger 3602 GERMAN LITERATURE IN TRANSLATION: CLASSICAL PERIOD. 4 degree credits, \$58. (◆\$29)



Representative works from the classical period, related to other literatures. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68].)

Spring Qtr Sec 1 **T**—6:20-9:00, FolH 209, Lowry

Ger 3604 GERMAN LITERATURE IN TRANSLATION AND THE FILM. 4 degree credits, \$58. (◆\$29)

Examination of literary works and films as separate but related art forms. The course will include films ranging from accounts of the first Dracula to the talkies of Peter Lorre and Marlene Dietrich; from Nazi documentaries to recent avant-garde cinema. It will consider the writing of such authors as Thomas Mann, Franz Kafka, Günter Grass, and Peter Weiss. The premise that a history of a people is reflected in its art underlies the broad aims of the course; the analysis of the irrational in modern German culture, attitudes toward authority and violence, expressions of guilt, and the plight of the artist. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. No knowledge of German required)

Fall Qtr Sec 1 **M**—6:20-9:40, HSUnitA 2-530, Plummer

(See other film courses page 164)

Ger 3610 MODERN GERMAN AUTHORS IN TRANSLATION: THOMAS MANN. 4 degree credits, \$58. (◆\$29)



A study in depth of selected works of Thomas Mann, including *Buddenbrooks*, *Death in Venice*, *The Magic Mountain*, and *Doctor Faustus*. Mann's works viewed both as aesthetic documents and as reflections of the German and European ethos of the twentieth century. Not open for credit toward a German major. Requires no knowledge of German. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68].)

Winter Qtr Sec 1 **W**—6:20-9:00, FolH 209, Alley

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 also be satisfied by a program of study based on Ger 0221 and 0222. Ger 0221 or equivalent (two quarters of beginning German or two years of high school German) is a prerequisite for Ger 0222. Students may take a final examination at the conclusion of Ger 0222. If the student achieves a grade of "B" or better in this examination, the German Department will certify to the Graduate School a reading knowledge of German. Graduate students should check with their advisers for specific language requirements in their field of study.

Ger 0221 READING GERMAN. No credit, \$43.50.★

This course is designed to help students acquire a reading knowledge of basic German as rapidly as possible. (The course itself is not intended to prepare a student for the Graduate German Reading Examination; it is merely the first step toward that objective.) 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. (No prereq.)

Fall Sem Sec 1 **M**—6:20-8:00, FolH 303, Menze

Symbols, abbreviations, off-campus class locations begin on page 389.

Ger 0222 READING GERMAN. No credit, \$58.★

This course is designed to give students experience in intensive reading of German literary texts. This experience should enable graduate students to satisfy departmental requirements for an advanced degree. The German Department will certify to the Graduate School a reading knowledge of German of those taking the final examination and achieving a grade of "B" or better. (Prereq 0221 or 2 quarters of beginning German or 2 years of high school German)

Spring Sem Sec 1 **M**—6:20-8:35, FolH 209, Plummer

German 0221 and 0222 are also offered as Summer, Extension Classes.

greek

The following non-language Extension classes may be applied toward the CLA foreign language requirement, Route II (see page 68): Clas 1007, 1015, 1019, 1043, 1045, 1122, 3081, 5004, 5007, 5081, 5103, 5145; Hist 1052, 3052; Hum 1011; Phil 3001, 3002.



health

(See School Health Education; Public Health; and related courses, page 165)

health, environmental

(See Public Health)

hebrew

(See Near and Middle Eastern Studies)

history (Hist)

(See also General College social and behavioral science courses; and non-credit Informal Courses, page 282)

Bernard S. Bachrach, Associate Professor of History

Paul W. Bamford, Professor of History

Winifred D. Bolin, Instructor in History

Anne M. Boylan, Assistant Professor of History

Kinley J. Brauer, Professor of History

Edward L. Farmer, Assistant Professor of History

George Green, Associate Professor of History

John R. Howe, Professor of History

Symbols, abbreviations, off-campus class locations begin on page 389.

Allen F. Isaacman, Associate Professor of History
Tom B. Jones, Regents' Professor of History
David Kopf, Professor of History
Stanford E. Lehmborg, Professor of History
Byron K. Marshall, Associate Professor of History
Judith A. Martin, Instructor in History
Peyton McCrary, Assistant Professor of History
David W. Noble, Professor of History
Jonathan Paradise, Assistant Professor of Hebrew
Daniel D. Reisman, Assistant Professor of Near and Middle Eastern Studies
Richard Rudolph, Associate Professor of History
Stuart B. Schwartz, Professor of History
Theofanis G. Stavrou, Professor of History
Romeyn Taylor, Professor of History
John A. Thayer, Professor of History
Thomas Todd, Instructor in History
William E. Wright, Professor of History

Did you know that 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 Extension counselor (373-3905).

B.A. MAJOR SEQUENCE.

Required Preparatory Courses

Four introductory (1xxx-level) history courses (completed in first 2 years when possible). Juniors and seniors may substitute 3xxx-5xxx-level equivalent courses.

Language Requirement (for students admitted to majors after winter 1973) Route I; or Route II plus a year of a second foreign language (or validation at that level); or Route II plus three courses from Soc 3801, 3802, 3803, PsyF 5120, 5122, 5510, all statistics courses, all mathematics courses above 1141, all CICS courses above 3101.

Major Requirements

Minimum of seven 3xxx-5xxx-level history courses (four of them in area of concentration).
3961 (major paper)

Distribution of the 12 Required Courses

Two or more from "modern" and "premodern" categories; at least one from each of three geographical areas.

Prospective history majors should obtain from the department office, the Description of the Undergraduate History Major, which lists "modern" and "premodern" courses and suggests areas of concentration. It also gives information about alternatives to some of the requirements.

Students who plan advanced work should acquire a reading knowledge of French, German, or other appropriate language in early undergraduate years.

You need not be majoring in History to register for these classes.

Hist 1001, 1002, 1003 INTRODUCTION TO MODERN EUROPEAN HISTORY. 4 degree credits each quarter, \$3001, 3002, 3003. \$58 each quarter. (♦\$29 each quarter)★

◆ **1001:** Development of western European civilization, rise of national states, to 1715. **1002:** Revolution, liberalism, and nationalism, to 1870. **1003:** 1870 to recent times. (No prereq. Meet concurrently with 3001, 3002, 3003)

Fall Qtr 1001 Sec 1 **W**—6:20-8:50, AndH 210, Wright
Winter Qtr 1002 Sec 2 **W**—6:20-8:50, BlegH 245, Rudolph
Spring Qtr 1003 Sec 3 **W**—6:20-8:50, BlegH 240, Rudolph

Symbols, abbreviations, off-campus class locations begin on page 389.

Hist 1051, 1052, 1053 ANCIENT CIVILIZATION. 3 degree credits each quarter, \$3051, 3052, 3053. \$43.50 each quarter. (♦\$21.75)★

1051: A survey of the rise of civilization in the Ancient Near East from the earliest times to 500 B.C. Emphasis is placed upon the origin of culture and its development in complexity from the primitive to the civilized stage. Special attention is given to the civilizations of Babylonia, Egypt, Indus Valley, Syria, Palestine, and Crete. **1052:** The history of the rise and flowering of the Greek Civilization from the earliest times to the death of Alexander the Great in 323 B.C. Special emphasis is placed on Greek civilization in the literary, artistic, and philosophic achievement of that period. **Note**—1052 may be applied toward the CLA foreign language requirement, Route II for Greek (see page 68). **1053:** The climax of ancient civilization during the Hellenistic Age 323-133 B.C. and the Roman Imperial Period followed by the decline of Rome and of ancient civilization (to about A.D. 300). The three main topics to be considered are: (a) the civilization of the ancient world at its peak, (b) the rise and flowering of Roman culture, and (c) the reasons for the decline of ancient civilization. Special attention will be paid to political institutions, art, literature, economics and society, philosophy, and ancient science. **Note**—1053 may be applied toward the CLA foreign language requirement, Route II for Latin (see page 68). (No prereq, but recommended that 1053 be preceded by 1052 and 1052 by 1051 in order that the student may acquire a background for following course. Meet concurrently with 3051, 3052, 3053)

Fall Qtr 1051 Sec 1 Th—6:20-8:50, BlegH 130, Jones
Winter Qtr 1052 Sec 2 Th—6:20-8:50, BlegH 130, Jones
Spring Qtr 1053 Sec 3 Th—6:20-8:50, BlegH 130, Jones

(See also Classics; Near and Middle Eastern Studies)

Hist 1101, 1102, 1103 MEDIEVAL AND RENAISSANCE HISTORY. 4 degree credits each quarter, \$3101, 3102, 3103. \$58 each quarter. (♦\$29)★1101, 1102

1101: The early Middle Ages, decline of Rome, the barbarian kingdoms, Carolingian empire. **1102:** The high Middle Ages, feudal Europe, medieval culture. **1103:** The later Middle Ages and early Renaissance, rise of national monarchies, art, learning and literature. (No prereq. Meets concurrently with 3101, 3102, 3103)

Fall Qtr 1101 Sec 1 W—6:20-8:50, BlegH 210, Bachrach
Winter Qtr 1102 Sec 2 W—6:20-8:50, BlegH 260, Bachrach
Spring Qtr 1103 Sec 3 W—6:20-8:50, BlegH 340, Bachrach

Hist 1301, 1302 AMERICAN HISTORY. 4 degree credits each quarter. \$58 each quarter. (♦\$29)★

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 through the sectional crises. **1302:** Modern America. (No prereq)

Fall Qtr 1301 Sec 1 Th—6:20-8:50, Sandburg JHS 211, Golden Valley; McCrary (Limit 35 students)
1302 Sec 2 Th—6:20-8:50, BlegH 240
Winter Qtr 1301 Sec 3 Th—6:20-8:50, BlegH 215, McCrary
1302 Sec 4 Th—6:20-8:50, Sandburg JHS 211, Golden Valley
Spring Qtr 1302 Sec 5 Th—6:20-8:50, BlegH 135

***Hist 1310 TOPICS IN AMERICAN HISTORY.** 4 degree credits, \$58.

Part of an integrated series "Values in Transition: an Examination of Forces Acting on the Individual in Modern America." See page 166. The historical development of some social, economic and political forces of our own times: large-scale organization, ethnic and religious factors, changing patterns of social and occupational mobility, urbanization, industrialization. Some related themes of social and political thought and ideology in modern America: the quest for community, individualism, social planning and management, urbanism. (Prereq concurrent registration in *AmSt 1920 or 3920 sec 1. Limited to 50 students)

Fall Sem Sec 1 W—6:20-8:50, BlegH 110, Todd

Symbols, abbreviations, off-campus class locations begin on page 389.

Hist 1310 TOPICS: THE FAMILY IN AMERICAN HISTORY. 4 degree credits, \$58. (♦\$29)

This course will consider family life and structure within the context of American history. Special attention will be given to racial and ethnic diversity and the adaptation of differing family values to the American environment. (No prereq)

Fall Qtr Sec 2 **W**—6:20-8:50, BlegH 120, Bolin
Winter Qtr Sec 3 **Th**—7-9:30, Cambridge HS library, Bolin

(See also Family Social Science; and ethnic studies courses, page 168)

Hist 1401, 1402 SURVEY OF LATIN AMERICAN HISTORY. 5 degree credits each quarter, \$3401, 3402. \$72.50 each quarter. (♦\$36.25)

1401: The colonial period through independence. **1402:** The national period. (No prereq. Meets concurrently with 3401, 3402. May be applied toward the CLA foreign language requirement, Route II for Portuguese or Spanish [see page 68])

Winter Qtr 1401 Sec 1 **T**—6:20-8:50, BlegH 245, Schwartz
Spring Qtr 1402 Sec 2 **T**—6:20-8:50, BlegH 115, Schwartz

Hist 1431, 1432, 1433 HISTORY OF AFRICA. 4 degree credits each quarter, \$3431, 3432, 3433. \$58 each quarter. (♦\$29)

1431: African history to 1500. Examines the internal dynamics and genius of early African society. **1432:** African history 1500-1880. Focuses on the impact of the Europeans, the slave trade, African resistance and the process of underdevelopment. **1433:** African history 1880 to present. Examines the abuses of colonialism, the nature of African opposition and the Liberation struggles. (No prereq. Meets concurrently with 3431, 3432, 3433. May be applied toward the CLA foreign language requirement, Route II for Swahili [see page 68])

Fall Qtr 1431 Sec 1 **T**—6:20-8:50, BlegH 235, Isaacman
Winter Qtr 1432 Sec 2 **T**—6:20-8:50, BlegH 404, Isaacman
Spring Qtr 1433 Sec 3 **T**—6:20-8:50, BlegH 235, Isaacman

(See also Afro-American History)

Hist 1461 EAST ASIA: CLASSICAL FOUNDATIONS IN CHINA. 4 degree credits, \$3461, \$58. (♦\$29)

Origins of civilization in Eastern Asia: archaeology, first cities, monarchies, first Chinese empire (Han), interactions with Vietnamese, Korean, and inner Asian societies, literature and major schools of thought. (No prereq. Meets concurrently with 3461. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Fall Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

Hist 1462 EAST ASIA: CULTURES OF CHINA AND JAPAN. 4 degree credits, \$3462, \$58. (♦\$29)

Breakup of Han Empire, spread of Buddhism, distinctive and unified societies in China, Japan, Vietnam and Korea, Mongol conquests, the empires and kingdoms of East Asia on the eve of confrontation with Europe. (No prereq. Meets concurrently with 3462. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

(See also East Asian Languages and Studies, and Art History)

Hist 1463 EAST ASIA: CHINA AND JAPAN IN MODERN TIMES. 4 degree credits, \$3463. \$58. (♦\$29)

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 3463. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

Symbols, abbreviations, off-campus class locations begin on page 389.

Hist 3001, 3002, 3003 INTRODUCTION TO MODERN EUROPEAN HISTORY. 4 degree credits each quarter, \$1001, 1002, 1003. \$58 each quarter.

See course description for Hist 1001, 1002, 1003. (No prereq. Meet concurrently with 1001, 1002, 1003)

Fall Qtr 3001 Sec 1 W—6:20-8:50, AndH 210, Wright
Winter Qtr 3002 Sec 2 W—6:20-8:50, BlegH 245, Rudolph
Spring Qtr 3003 Sec 3 W—6:20-8:50, BlegH 240, Rudolph

Hist 3051, 3052, 3053 ANCIENT CIVILIZATION. 3 degree credits each quarter, \$1051, 1052, 1053. \$43.50 each quarter.

See course description for Hist 1051, 1052, 1053. **NOTE**—3052 and 3053 may be applied toward CLA foreign language requirement, Route II for Greek and Latin (see page 68). (No prereq. Meets concurrently with 1051, 1052, 1053)

Fall Qtr 3051 Sec 1 Th—6:20-8:50, BlegH 130, Jones
Winter Qtr 3052 Sec 2 Th—6:20-8:50, BlegH 130, Jones
Spring Qtr 3053 Sec 3 Th—6:20-8:50, BlegH 130, Jones

Hist 3101, 3102, 3103 MEDIEVAL AND RENAISSANCE HISTORY. 4 degree credits each quarter, \$1101, 1102, 1103. \$58 each quarter. *3101, 3102.

See course description for Hist 1101, 1102, 1103. (No prereq. Meet concurrently with 1101, 1102, 1103)

Fall Qtr 3101 Sec 1 W—6:20-8:50, BlegH 210, Bachrach
Winter Qtr 3102 Sec 2 W—6:20-8:50, BlegH 260, Bachrach
Spring Qtr 3103 Sec 3 W—6:20-8:50, BlegH 340, Bachrach

Hist 3224, 3225, 3226 WORLD WAR II. 4 degree credits each quarter, \$5224, 5225, 5226. \$58 each quarter. (♦\$29)

3224: Origins and backgrounds; the principal powers and their relationships; the rise of totalitarian ideologies and systems; international relations of the 1930's, how the war came; the period of Axis preponderance. The campaign in Poland: the "phony war"; German-Soviet agreements. **3225:** The winter war; the German invasion of Scandinavia; the war in the West; Hitler's "New Order"; breakdown of German-Soviet relations and the campaign of 1941 in the East; Hitler's occupation policies in Russia; the war in Africa; the United States and the war to Pearl Harbor. **3226:** Period of 1942-1945. (No prereq)

Fall Qtr 3224 Sec 1 T—6:20-8:50, AndH 230
Winter Qtr 3225 Sec 2 T—6:20-8:50, AndH 230
Spring Qtr 3226 Sec 3 T—6:20-8:50, AndH 230

Hist 3347, 3348 WOMEN IN AMERICAN HISTORY. 4 degree credits. \$58. (♦\$29)

The economic, social and political position of women over the course of American history. (No prereq)

Winter Qtr 3347 Sec 1 W—6:20-8:50, BlegH 240, Boylan
Spring Qtr 3348 Sec 2 W—6:20-8:50, BlegH 225, Boylan

(See also Women's Studies)

Hist 3401, 3402 SURVEY OF LATIN AMERICAN HISTORY. 5 degree credits each quarter, \$1401, 1402. \$72.50 each quarter.

See course description for Hist 1401, 1402. (No prereq. Meets concurrently with 1401, 1402. May be applied toward the CLA foreign language requirement, Route II for Portuguese or Spanish [see page 68])

Winter Qtr 3401 Sec 1 T—6:20-8:50, BlegH 245, Schwartz
Spring Qtr 3402 Sec 2 T—6:20-8:50, BlegH 115, Schwartz

Hist 3431, 3432, 3433. HISTORY OF AFRICA. 4 degree credits each quarter, \$1431, 1432, 1433. \$58 each quarter.

See descriptions for 1431, 1432, 1433. (No prereq. Meets concurrently with 1431, 1432, 1433. May be applied toward the CLA foreign language requirement, Route II for Swahili [see page 68])

Fall Qtr 3431 Sec 1 T—6:20-8:50, BlegH 235, Isaacman
Winter Qtr 3432 Sec 2 T—6:20-8:50, BlegH 404, Isaacman
Spring Qtr 3433 Sec 3 T—6:20-8:50, BlegH 235, Isaacman

Symbols, abbreviations, off-campus class locations begin on page 389.

Hist 3461 EAST ASIA: CLASSICAL FOUNDATIONS IN CHINA. 4 degree credits, \$1461. \$58.

new

See course description for Hist 1461. (No prereq. Meets concurrently with 1461. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Fall Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

Hist 3462 EAST ASIA: CULTURES OF CHINA AND JAPAN. 4 degree credits, \$1462. \$58.

new

See course description for Hist 1462. (No prereq. Meets concurrently with 1462. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Winter Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

(See also East Asian Languages and Studies; Art History; and Pol 5454, Chinese Government and Politics)

Hist 3463 EAST ASIA: CHINA AND JAPAN IN MODERN TIMES. 4 degree credits, \$1463. \$58.

new

See course description for Hist 1463. (No prereq. Meets concurrently with 1463. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 404, Marshall, Taylor

Hist 3468 20TH-CENTURY CHINA. 4 degree credits, \$58. (♦\$29)

new

Introduction of Marxism to China, rise of Community party; restructuring Chinese society. (No prereq. Meets concurrently with 5468. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Fall Qtr Sec 1 **Th**—6:20-8:50, AndH 230, Farmer

Hist 3472 EARLY MODERN JAPAN. 4 degree credits, \$5472. \$58. (♦\$29)

Tradition and change in Tokugawa society. (No prereq. Meets concurrently with 5472. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Winter Qtr Sec 1 **Th**—6:20-8:50, BlegH 250, Marshall

Hist 3501, 3502 ANCIENT ISRAEL. 3 degree credits each quarter, \$MidE 1501, 1502, 3501, 3502. \$43.50 each quarter (♦\$21.75)

History of Israel and development of its religion as seen against background of ancient Near East. Special attention given to bearing of civilization of ancient Mesopotamia and Egypt on cultural and social aspects of the Bible. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. No knowledge of Hebrew required. Meets concurrently with MidE 1501, 1502, 3501, 3502)

Winter Qtr 3501 Sec 1 **M**—6:20-8:50, NH 213, Paradise

Spring Qtr 3502 Sec 2 **M**—6:20-8:50, NH 213, Reisman

Hist 3802 COLONIAL PERIOD OF AMERICAN HISTORY. 4 degree credits. \$58. (♦\$29)

new

Provincial America, 1689-1765. (No prereq)

Winter Qtr Sec 1 **M**—6:20-8:50, AndH 230

(See related bicentennial courses, page 172)

Hist 3804 ERA OF THE AMERICAN REVOLUTION. 4 degree credits. \$58. (♦\$29)

new

Causes and consequences of the Revolution. (No prereq)

Spring Qtr Sec 1 **M**—6:20-8:50, BlegH 130, Howe

Hist 3821, 3822, 3823 THE UNITED STATES IN THE TWENTIETH CENTURY. 4 degree credits each quarter, \$58 each quarter. (♦\$29)

Symbols, abbreviations, off-campus class locations begin on page 389.

◆ Political, economic, diplomatic, and social history of United States from Spanish American War to present. **3821**: From 1808 to 1914. **3822**: From 1914 to 1932. **3823**: From 1932 to present. (No prereq)

Fall Qtr **3821** Sec 1 Th—6:20-8:50, BlegH 135, Noble

Winter Qtr **3822** Sec 2 Th—6:20-8:50, BlegH 135, Noble

Spring Qtr **3823** Sec 3 Th—6:20-8:50, BlegH 120, Noble

Hist 3841 AMERICAN BUSINESS HISTORY. 5 degree credits, \$72.50. (◆\$36.50)

◆ A study of the creative role of business leaders and of the development of business institutions in American history. The course will examine such themes as the interaction of business with economic development, social values, and government economic policies. (No prereq)

Fall Sem Sec 1 Th—6:20-8:50, BlegH 105, Green

(See also General College business studies; Mgmt 3005, Government and Business; and IC 0023, Governmental Regulation of Business Activities)

Hist 3901, 3902 AMERICAN URBAN HISTORY. 4 degree credits each quarter, \$58. (◆\$29)

3901: Pre-Industrial America. **3902**: Industrial America. (No prereq)

new

Fall Qtr **3901** Sec 1 T—6:20-8:50, BlegH 330, Martin

Winter Qtr **3902** Sec 2 T—6:20-8:50, BlegH 330, Martin

(See also Urban Studies; Pol 1027, Urban Politics and IC 0021, Urban Growth Control Systems)

Hist 3961 MAJOR PAPER. 5 degree credits, \$72.50.

new

Research paper in the area of concentration. Required of all history majors. Some seminars. Some individual work. Attend first meeting or contact Office of Undergraduate Studies in History, 668 SocSci (373-5844).

Spring Qtr Sec 1 T—6:20-8:50, BlegH 350

Hist 5151, 5152, 5153 MODERN ENGLAND: TUDOR AND STUART PERIODS. 4 degree credits each quarter. \$62 each quarter. (◆\$31)

◆ **5151**: 1485 to 1558. **5152**: 1558 to 1625. **5153**: 1625 to 1689. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr **5151** Sec 1 M—6:20-8:50, BlegH 240, Lehmborg

Winter Qtr **5152** Sec 2 M—6:20-8:50, BlegH 240, Lehmborg

Spring Qtr **5153** Sec 3 M—6:20-8:50, BlegH 240, Lehmborg

Hist 5211 FRANCE IN THE OLD REGIME. 4 degree credits. \$62. (◆\$31)

◆ Background and emergence of the revolution. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6:20-8:50, BlegH 404, Bamford

Hist 5221, 5222 20TH CENTURY EUROPE. 4 degree credits each quarter. To be offered 1976-77.

Hist 5264, 5265, 5266 MODERN RUSSIA. 4 degree credits each quarter, \$62 each quarter (◆\$31) ★5266.

◆ **5264**: The 18th-century background. **5265**: The 19th-century. **5266**: The fall of the Russian monarchy; the revolutions and the Soviet Regime. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr **5264** Sec 1 W—6:20-8:50, BlegH 430, Stavrou

Winter Qtr **5265** Sec 2 W—6:20-8:50, BlegH 430, Stavrou

Spring Qtr **5266** Sec 3 W—6:20-8:50, BlegH 430, Stavrou

Symbols, abbreviations, off-campus class locations begin on page 389.

Hist 5282, 5283 INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE. 4 degree credits each quarter. \$62 each quarter. (♦\$31)

5282: Early 19th century. **5283:** Late 19th and 20th centuries. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5282 Sec 1 T—6:20-8:50, BlegH 260, Thayer

Winter Qtr 5283 Sec 2 T—6:20-8:50, BlegH 260, Thayer

Hist 5341, 5342 AMERICAN ECONOMIC HISTORY. 4 degree credits each quarter. \$62 each quarter. (♦\$31)

5341: Colonial period to 1865. **5342:** 1865 to present. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr 5341 Sec 1 M—6:20-8:50, BlegH 440, Green

Spring Qtr 5342 Sec 2 M—6:20-8:50, BlegH 440, Green

Hist 5389 SOVIET RUSSIAN-AMERICAN RELATIONS: 1917-PRESENT. 4 degree credits, \$62. (♦\$31)

Russian-American relations since the Russian Revolution; political, diplomatic, economic, and military problems, and American foreign policy. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-8:50, BlegH 440, Brauer

(See also Russian)

Hist 5468 PEOPLE'S REPUBLIC OF CHINA: THE COMMUNIST REVOLUTION, 1900 TO PRESENT. 4 degree credits, \$3468. \$62.

Introduction of Marxism to China; rise of Communist party; restructuring Chinese society. (No prereq. Meets concurrently with 3468. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 Th—6:20-8:50, AndH 230, Farmer

Hist 5472 EARLY MODERN JAPAN. 5 degree credits, \$3472. \$77.50.

See course description for 3472. (No prereq. Meets concurrently with 3472. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, BlegH 250, Marshall

history of medicine (HMed)

(See related courses, page 165)

John Eyler, Assistant Professor of History of Medicine

HMed 5026 MEDICINE SINCE 1800: EMPHASIS ON AMERICA. 4 degree credits, \$62. (♦\$31)

Development of the basic medical sciences (experimental physiology and psychology, pathology, and bacteriology); medical theory and European positivism; colonial background of American medicine; European medicine and American medical education; medical sects and professional life in the 19th century; medical care of women; A.M.A. and health policy; reform of medical education and the growth of medical specialties; biomedical knowledge and population policy (eugenics, social and mental hygiene), establishment of socialized medicine in Europe, health insurance in America. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-8:50, DiehIH 555, Eyler

(See also Family Planning Administration)

Symbols, abbreviations, off-campus class locations begin on page 389.

college of home economics

See the following alphabetical departmental listings for course offerings in:

design

Home Design and Planning, Dsgn 1400C
Use of Color, Dsgn 1420
Layout for Interior Design, Dsgn 1428
Drafting: Basic Drafting Techniques, Dsgn 1450
Interior Design I, Dsgn 1455
Interior Design II, Dsgn 1456
Two-Dimensional Design I, Dsgn 1525
Fiber-Fabric Design I, Dsgn 1531
Jewelry Design I, Dsgn 1533
History of Traditional Furniture, Dsgn 3412
20th-Century Interiors and Furnishings, Dsgn 3415
Perspective and Presentation Sketches, Dsgn 3450
Interior Design Rendering, Dsgn 3451
Seminar in Interior Design, Dsgn 3455
Seminar in Interior Design, Dsgn 3456
Interior Design Business, Dsgn 3459
Interior Design Clinic, Dsgn 3460-3461
Interior Design: Housing and the Urban Environment, Dsgn 3463
Interior Design: Housing, Dynamics and Policy, Dsgn 3467
Contract Design Seminar, Dsgn 3477
Contract Design Seminar, Dsgn 3478
Housing Management, Dsgn 5561
Housing Alternatives for the Family, Dsgn 5567

family social science

Dynamics of Dating, Courtship and Marriage, FSoS 1001
Dynamics of Marriage and Parenthood, FSoS 1002
Parenthood, FSoS 1025
Human Sexual Behavior, FSoS 5001
Family Relationship, FSoS 5200
Problems in Family Financial Management, FSoS 5240

food science and nutrition

Man's Food, FScN 1010
Principles of Nutrition, FScN 1602
Family Nutrition, FScN 1603
Introduction to Hospitality and Food Service Management, FScN 1700
Technology of Food Processing, FScN 3102
Experimental Foods, FScN 3403
Food and Nutrition in the Life Cycle, FScN 3622
Design and Layout of Food Services, FScN 3740
Management of Food Service and Hospitality Business Systems, FScN 3750
Food Processing Engineering, FScN 5135
Food Formulation, Product Development, FScN 5350
Physicochemistry of Foods I, FScN 5412
Physicochemistry of Foods II, FScN 5413
Technology of Fluid and Concentrated Milk Products, FScN 5522
Technology of Fermented Dairy Products, FScN 5523

Symbols, abbreviations, off-campus class locations begin on page 389.

Industrial Processing of Fruits and Vegetables, FScN 5530
 Human Nutrition, FScN 5622
 Clinical Nutrition, FScN 5662
 Flavor Chemistry, FScN 8311

textiles and clothing

Issues, Trends in Textile Consumer Problems, TexC 5622
 Topics in Merchandising, TexC 5641

For information about credit courses given in suburban or out-state locations please write or call College of Home Economics, University of Minnesota, St. Paul, Minnesota 55108, telephone 373-0935.

horticultural science (Hort)

(See also Landscape Architecture and Botany)

D.W. Davis, Professor of Horticultural Science
Mervin Eisel, Instructor in Horticultural Science
C.G. Hard, Professor of Horticultural Science
Leonard Hertz, Associate Professor of Horticultural Science
Robert Mullin, Associate Professor of Horticultural Science
P.E. Read, Associate Professor of Horticultural Science
Kenneth E. Simons, Instructor in Horticultural Science
Leon Snyder, Professor of Horticultural Science
Cecil Stushnoff, Associate Professor of Horticultural Science
O.C. Turnquist, Professor of Horticultural Science
Harold F. Wilkins, Associate Professor of Horticultural Science

Hort 1001 FUNDAMENTALS OF HORTICULTURE. 4 degree credits, \$58 plus \$2 course fee. Total \$60.

Fruit, vegetable, and ornamental plants, including factors which influence their culture, value, and importance. Useful to both the home gardener and to the person considering a career in horticulture. (No prereq)

Fall Qtr Sec 1 **T**—7-9:30, Research and Education Bldg, Minnesota Landscape Arboretum (west of Rt 41 on Hwy 5) Chaska; Snyder (♦\$28 plus \$2 course fee. Total \$30. Books available at Arboretum Gift Shop)

Spring Qtr Sec 2 **M**—6-9:20, AlderH 415, StP Campus, Turnquist (Limit 60 students*)

Hort 1010 HOME LANDSCAPE GARDENING AND DESIGN. 3 degree credits, \$43.50 plus \$2 course fee. Total \$45.50.★

Designed for the student who does not plan to major in landscape horticulture. Gives working knowledge of propagation and culture of common house plants and landscape materials: turf, flowers, trees, and shrubs. Principles of home landscape design are applied to a home property of the student's own choosing. Lectures, lab. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, HrG 172, StP Campus

Sec 2 **Th**—6:20-8:50, HrG 172, StP Campus

Winter Qtr Sec 3 **T**—7-9:30, Research and Education Bldg, Minnesota Landscape Arboretum (west of Rt 41 on Hwy 5) Chaska; Eisel (♦\$21 plus \$2 course fee. Total \$23). Books available at Arboretum Gift Shop.

Symbols, abbreviations, off-campus class locations begin on page 389.

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 1011 HORTICULTURAL CROP EVALUATION.** 4 degree credits, \$58 plus \$2 course fee. Total \$60.

Evaluation and grading of fruit, vegetables and flowers. Emphasis placed on market standards and conformation of horticultural produce in commercial channels and horticultural exhibits. Organization and staging of commercial and non-commercial exhibits. Lectures, laboratory, and reference reading. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 **M**—6-9:20, HrG 172, StP Campus, Turnquist

***Hort 1021 PLANT MATERIALS I.** 4 degree credits, \$58.

Taxonomy, ecology, and landscape uses of trees, vines, evergreens and native deciduous shrubs. Lectures and laboratories. (No prereq. Limited to 50 students)

Fall Qtr Sec 1 **Th**—6-9:20, AlderH 415, StP Campus, Mullin

Spring Qtr Sec 2 **Sa**—9:30 a.m.-1:00, Research and Education Bldg, Minnesota Landscape Arboretum (west of Rt 41 on Hwy 5) Chaska; Snyder (♦\$28) Books available at Arboretum Gift Shop.

***Hort 1022 PLANT MATERIALS II.** 4 degree credits, \$58.

Taxonomy, ecology, and landscape uses of perennial and annual flowers, tender and hardy bulbs, ground covers, and selected deciduous shrubs. Lectures, laboratory. (No prereq. Limited to 50 students)

Spring Qtr Sec 1 **Th**—6-9:20, AlderH 415, StP Campus

Hort 1022 is also offered as a summer Extension class.

***Hort 1036 PLANT PROPAGATION.** 4 degree credits, \$58 plus \$2 course fee. Total \$60.

new

Principles and techniques of propagating plants by seeds, cuttings, grafts, buds, layers, and division. Lectures deal with principles while laboratories give student opportunity to practice various propagating techniques. Field trips. (No prereq. Limited to 50 students)

Winter Qtr Sec 1 **Th**—6-9:20, HrG 172, StP Campus, Read

***Hort 3026 RESIDENTIAL LANDSCAPE DESIGN.** 4 degree credits, \$58 plus \$2 course fee. Total \$60.★

Principles of landscape design with special reference to their practical application in planning of residential landscapes. Relationships of landscape design, architectural design, and interior design. Landscape plans, landscape drafting techniques and methods of presentation. Lectures, drawings, and practical problems. (Prereq 1021, LA 1024 or 1025, or professional design experience. Limited to 25 students)

Winter Qtr Sec 1 **W**—6-9:20, AlderH 415, StP Campus, Hard

Hort 3031 FRUIT SCIENCE. 3 degree credits, \$43.50. (♦\$21.75)

Principles of fruit production. Fruits of the world with emphasis on temperate climate crops. Topics include site selection, cultural and management practices, physiological and environmental control of plant development, dwarfing, growth regulating compounds, insecticides, herbicides and wine making. Lectures and reference readings. (Prereq Hort 1001 or 1010)

Winter Qtr Sec 1 **M**—6:20-8:50, AlderH 415, StP Campus, Stushnoff, Hertz

Hort 3032 VEGETABLE SCIENCE. 3 degree credits, \$43.50 plus \$2 course fee. Total \$45.50. (♦\$21.75 plus \$2 course fee. Total \$23.75)

Principles of vegetable agriculture, including reference to world food problems; geography of production; scope of the industry; physiological adaptation of species as food for man; and such principles of production practice as propagation, irrigation, nutrition, seed production, and postharvest handling. (Prereq 1001 or 1010)

Spring Qtr Sec 1 **W**—6:20-8:50, AlderH 172, StP Campus, Davis

Symbols, abbreviations, off-campus class locations begin on page 389.

- *Hort 3076 ARBORICULTURE.** 3 degree credits, \$43.50 plus \$2 course fee. Total \$45.50.
Survey of environmental and design functions of shade trees. Application of specific cultural principles and techniques pertaining to the installation, maintenance, and preservation of shade and ornamental trees. Equipment selection and adaptability. Fundamental concepts used in the organization and administration of community shade tree programs. Lectures, demonstrations, and field trips. (Prereq 1021, 3074, or For 1100 or §. Limited to 30 students)
Winter Qtr Sec 1 TTh—3:30-5:00, HrG 172, StP Campus, Simons
- *Hort 3077 FLORAL DESIGN.** 3 degree credits, \$43.50 plus \$20 course fee. Total \$63.50.
Fundamental principles in floral arrangement. Analysis of basic principles used in floral design. The decorative use of flowers, foliage and accessories. (No prereq. Limited to 25 students)
Fall Qtr Sec 1 T—6-9:00, AlderH 423, StP Campus, Wilkins
- *Hort 5020 HORTICULTURAL TECHNIQUES FOR EDUCATION MAJORS.** 3 degree credits, \$46.50 plus \$2 course fee. Total \$48.50.
Study of Horticultural and Botanical concepts and their impact on the use of horticultural plants in the classroom. Development of specific single concept classroom demonstration and pupil-oriented activities relating to horticultural plants. (Prereq teachers, education major or §. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)
Spring Qtr Sec 1 Th—8:20-8:50, HrG 172, StP Campus, Read

hospital administration

For information on non-credit conferences or workshops in hospital administration, please contact Vernon Weckwerth, 1260 Mayo; telephone 373-8052, or Victoria Wahlberg, 373-9661.

humanities (Hum)

(See also General College and American Studies)

Robert Ames, Professor of History
George Bauer, Associate Professor of French and Humanities
Robert Brown, Assistant Professor of English
David Haley, Associate Professor of English
Jackson Hershbell, Associate Professor of Classics
Richard Leppert, Assistant Professor of Humanities
Mark Lowry, Assistant Professor of German
Gordon O'Brien, Professor of English
James Reubel Assistant Professor of Classics
Mordecai Roshwald, Professor of Humanities
Robert B. Tapp, Professor of Humanities

Did you know that a major in Humanities can be completed in the evening?

Those courses required in the major are offered every two years. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Major Requirements

25 humanities cr, at least 5 in European Heritage courses and 15 in European Heritage or Modern World (no more than 10 at the 1xxx level), and 5 in any 3xxx- or 5xxx-level humanities course except the proseminars. 9 cr in humanities proseminars.

Symbols, abbreviations, off-campus class locations begin on page 389.

45 3xxx-5xxx-level cr, distributed thus: 18 to 21 cr from anthropology, geography, history, linguistics, philosophy, political science, psychology, sociology; 24 to 27 cr in literature (any language, ancient or modern), history of art, history of music, history of theatre, studio arts, studio music, theatre or oral interpretation.

You need not be majoring in Humanities to register for these classes.

Hum 1001 HUMANITIES IN THE MODERN WORLD I. 5 degree credits, \$3001, Rhet 1301. \$72.50. (◆\$36.25)★

◆ An introduction to the study of the humanities in the modern world, including the old regime, the revolution, neoclassicism and romanticism, from about 1740 to 1820. Materials used are history, prose, criticism, poetry, and art. Authors: Pope, Voltaire, Rousseau, Burke, Goethe, Tolstoy. (No prereq)

Fall Qtr Sec 1 T—6:20-9:40, Kellogg HS 237, Little Canada; Leppert

Hum 1002 HUMANITIES IN THE MODERN WORLD II. 5 degree credits, \$3002, Rhet 1302. \$72.50. (◆\$36.25)★

◆ The Industrial Revolution, liberalism, socialism, the psychology of individualism. Period covered is from 1776 to 1890. Authors: Carlyle, Mill, Marx, Smith, Malthus, Ibsen, Dostoevski. (No prereq)

Winter Qtr Sec 1 T—6:20-9:40, Kellogg HS 237, Little Canada; Tapp

Hum 1003 HUMANITIES IN THE MODERN WORLD III. 5 degree credits, \$3003, Rhet 1303. \$72.50. (◆\$36.25)★

◆ The impact of science and evolution; religion and morals in a changing world, from about 1840 to 1914. Authors: the evolutionists, Kierkegaard, Nietzsche, Chekhov, Thomas Mann. (No prereq)

Spring Qtr Sec 1 T—6:20-9:40, Kellogg HS 237, Little Canada; Haley

Hum 1004 HUMANITIES IN THE MODERN WORLD IV. 5 degree credits, \$3004, Rhet 3381. \$72.50. (◆\$36.25)★

◆ Civilization between two wars: the impact of psychoanalysis, communism, 20th-century liberalism, new problems of human value and authority. Authors: Freud, Lenin, T.S. Eliot, Kafka, and others. (No prereq)

Winter Qtr Sec 1 W—6:20-9:40, ForH 130, Bauer

Spring Qtr Sec 2 T—6:20-9:40, Bklyn Ctr HS 35, Bauer (Limit 30 students*)

Hum 1011, 1012, 1013 EUROPEAN HERITAGE. 5 degree credits each quarter, \$3011, 3012, 3013, Rhet 3321, 3322, 3323. \$72.50 each quarter. (◆\$36.25)

◆ Masterpieces of European civilization from Homer to Cervantes. Literature, philosophy, theology, arts of Greece, Rome, Middle Ages, and Renaissance. Ideals and forces of continuing importance to modern world. **1011:** Greek heritage. 1011 may be applied toward the CLA foreign language requirement Route II for Greek [see page 68]. **1012:** Roman and medieval heritage. 1012 may be applied toward the CLA foreign language requirement, Route II for Latin [see page 68]. **1013:** Renaissance and Reformation. (No prereq)

Fall Qtr 1011 Sec 1 W—6:20-9:40, ForH 130, Hershbell

Winter Qtr 1011 Sec 2 M—6:20-9:40, Richfield HS, Reubel

1012 Sec 3 W—6:20-9:40, ForH 150, Leppert

Spring Qtr 1013 Sec 4 W—6:20-9:40, ForH 115, Ames

Hum 1101 THE LIFE OF THE MIND. 5 degree credits, \$72.50. (◆\$36.25)

◆ Exploration of some of the available ways of "reading" poetry, sculpture, history, philosophy, painting, rhetoric, music and film by studying works by a variety of creative persons such as Stevens, Einstein, Henry Moore, Bach, Lincoln, Plato, Genet, Euclid and Fellini. (No prereq)

Fall Sem Sec 1 Th—1-3:45, StP Sunray Lib, Brown

Spring Qtr Sec 2 Th—6:20-9:40, St Stephens Church, WStP; Leppert

Hum 3001, 3002, 3003 HUMANITIES IN THE MODERN WORLD. 5 degree credits each quarter, \$1001, 1002, 1003, Rhet 1301, 1302, 1303. \$72.50 each quarter. (◆\$36.25)

See course descriptions for 1001, 1002, 1003. More reading, papers. (No prereq)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr 3001 Sec 1 T—6:20-9:40, ForH 170, Lowry
 Winter Qtr 3002 Sec 2 T—6:20-9:40, ForH 170, O'Brien
 3003 Sec 3 T—6:20-9:40, ForH 170, Tapp

Hum 3006 THE CREATIVE IMAGINATION IN THE 20TH CENTURY. 5 degree credits. To be offered 1976-77.

Hum 3009 MAN BEFORE HISTORY. 5 degree credits, \$72.50. (♦\$36.25)



Search for meaning in the myth of a lost terrestrial paradise: the abundant plain of Eden or worldwide technological mastery? Scientific evidence of the cultural advances of prehistoric man. Correlations with literature, folklore, and certain anomalies of archaeology, geography, and psychology. Readings in Campbell, Fairservis, Gordon, Milton, de Santillana. (No prereq)

Fall Qtr Sec 1 Th—6:20-9:40, ForH 170, Ames

Hum 3101, 3102 THE MEANING OF HUMANITY: SOCIETY AND TECHNOLOGY. 4 degree credits each quarter, \$58 each quarter. (♦\$29)

◆ **3101:** The essence of man and the factors determining his course, explored through theories such as those of Marx, Freud, Plato. **3102:** Impact of technology on human conditions; the attitude of man toward technology, examined philosophically and sociologically. (No prereq)

Fall Qtr 3102 Sec 1 W—6:20-8:50, ForH 170, Roshwald

Spring Qtr 3101 Sec 2 Th—7-9:30, Jewish Community Ctr, StLPk; Tapp

Hum 3301 A TIME TO LAUGH. 5 degree credits. To be offered 1976-77.

Hum 5030 HUMANITIES PROSEMINAR. 3 degree credits each quarter. \$46.50 each quarter.

Integrated review of humanities materials: arts, sciences and civilization. May be repeated for credit. (Prereq sr. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:30-8:10, ForH 175, Hershbell

Spring Qtr Sec 2 Th—6:30-8:10, ForH 175, Bauer

human relations

(See PsyF 5305)



indic

(See South Asian Studies)

industrial education

(See Vocational Education)

Symbols, abbreviations, off-campus class locations begin on page 389.

industrial engineering/operations research (IEOR)

Your attention is called to the Undergraduate Development Certificate in Industrial Engineering 90 credits, page 99; Professional Development Recognition Program in Engineering and Science, page 222; and I of T 0001, Refresher Course in Engineering Fundamentals, page 289.

Sant R. Arora, Associate Professor of Mechanical Engineering
James L. Reynolds, Instructor in Mechanical Engineering
John S. White, Professor of Mechanical Engineering

IEOR 0100C INDUSTRIAL ENGINEERING AND MANAGEMENT. 5 certificate credits, \$72.50.

A study of the problems and techniques of developing a highly efficient management team for a modern manufacturing concern. Includes discussions on business organization and financing, research and product development, standardization, plant layout and materials handling, production and inventory control, quality control, cost control, labor relations. (No prereq)

Fall Sem Sec 1 **M**—6-9:00, MechE 302, Arora

IEOR 0210C MOTION AND TIME STUDY. 5 certificate credits, \$72.50 plus \$1 special fee. **Total \$73.50. ★**

Principles and techniques for effective work methods and analysis. Process charts, flow diagrams, paper work systems, work distribution tables, micromotion study. The role of the worker in the work environment. Fundamentals of work measurement; time study, work sampling, predetermined time systems, and standard data. Discussion of performance rating, number of cycles to study, allowances, and other factors necessary to develop an effective standard. (No prereq)

Spring Sem Sec 1 **M**—6-9:00, MechE 302

IEOR 0330C MANUFACTURING COST ANALYSIS. 3 certificate credits, \$43.50.

A study of sources and uses of cost data to make industrial engineering decisions and to reduce manufacturing costs. Covers basic accounting principles and procedures, accumulation and allocation of costs, and budgeting. (Prereq Math 0009 or §)

Fall Sem Sec 1 **Th**—6:20-8:00, MechE 221

IEOR 0408C CORPORATE STANDARD DATA (C.S.D.) I. 5 certificate credits, \$72.50.

Corporate Standard Data is a procedure for analyzing manual work in terms of elemental motions for which standard times have been established. C.S.D. is a valuable tool for simplifying work methods and for setting accurate and consistent time standards for incentive, planning, estimating, and cost control. Lectures, discussions and demonstrations will be integrated with practice in the application of C.S.D. to factory and office operations. (No prereq)

Fall Sem Sec 1 **T**—6:20-9:20, MechE 180

IEOR 0409C CORPORATE STANDARD DATA (C.S.D.) II. 5 certificate credits, \$72.50.

An entirely new and original approach in the field of standard data and work measurement. Reduce engineering analysis time 50 to 75 percent—enable economic setting of standards on hard-to-measure direct work, indirect work, long cycle work, single item production, short runs of great variety, estimating, methods work, etc. Reduce labor costs systematically on an integrated corporate-wide or small company basis in manufacturing, offices, maintenance, tool making, warehousing, handling, etc. Discussions as to how this technique may be computerized. (Prereq IEOR 0408C or §)

Spring Sem Sec 1 **T**—6:20-9:20, MechE 180

Symbols, abbreviations, off-campus class locations begin on page 389.

***IEOR 0610C STATISTICS AND PROCESS IMPROVEMENT.** 5 certificate credits, \$72.50.

Basic probability and statistics, test of significance for determining difference in process average and variability, linear correlation, non-parametric and shortcut statistics, and fundamentals of analysis of variance and designed experiments. For individuals involved in quality control, process and production engineering and related fields. (Prereq college algebra or $\$$. Limited to 25 students)

Fall Sem Sec 1 M—6-9:00, MechE 202

IEOR 5000 INTRODUCTION TO INDUSTRIAL ENGINEERING ANALYSIS. 4 degree credits, \$62.

Scientific management, mathematical models, methods engineering, work measurement, worker satisfaction and participation, wage payment plans, breakeven 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. (Prereq Math 1231, ME 3900 or equiv. or $\$$. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 W—6-8:15, MechE 302

industrial relations (IR)

Your attention is called to the Industrial Relations Certificate program, page 93; and to GC 3602, Applied Supervision.

Ross E. Azevedo, Assistant Professor of Industrial Relations
George R. Bloom, Consultant, George R. Bloom & Associates
Mario F. Bognanno, Professor of Industrial Relations
Charles D. Cambridge, Teaching Associate in Industrial Relations
James B. Dworkin, Teaching Associate in Industrial Relations
David L. Estensen, Teaching Associate in Industrial Relations
Robert L. Fjerstad, Director, Employee Relations, Northern States Power Co.
John J. Flagler, Professor of Industrial Relations
Luis R. Gomez, Teaching Associate in Industrial Relations
Itzhak Harpaz, Teaching Associate in Industrial Relations
Herbert G. Heneman, Jr., Professor of Industrial Relations
Frank J. Krzystofiak, Teaching Associate in Industrial Relations
George O'Connell, Teaching Associate in Industrial Relations
Joseph S. Pettit, Teaching Associate in Industrial Relations
David A. Pierson, Teaching Associate in Industrial Relations
Patrick R. Pinto, Associate Professor of Industrial Relations
Clyde J. Scott, Teaching Associate in Industrial Relations
George Seltzer, Professor of Industrial Relations
Cyrus F. Smythe, Associate Professor of Industrial Relations
Nanette J. Weiner, Teaching Associate in Industrial Relations
James T. Wrich, Accreditation and Survey Specialist, Hazelden Foundation

IR 0001C SUPERVISION I: ELEMENTS OF SUPERVISION. 3 certificate credits, \$43.50 plus \$2 special fee. Total \$45.50. ★

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)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	T—6:30-9:00, Kellogg HS 237, Little Canada; Pettit (Limit 35 students*)
	Sec 2	W—7-9:30, Nicollet JHS, Burnsville; Weiner
Fall Sem	Sec 3	M—6:20-8:00, BlegH 205, Cambridge
Winter Qtr	Sec 4	T—7-9:30, Sandburg JHS 209, Golden Valley; Harpaz (Limit 35 students*)
Spring Sem	Sec 5	T—6:20-8:00, BlegH 205, Pettit
Spring Qtr	Sec 6	T—7-9:30, Minnetonka HS 120-121, (Limit 30 students*)
	Sec 7	Th—6:20-8:50, BlegH 210

IR 0002C SUPERVISION II: ADVANCED TECHNIQUES OF SUPERVISION. 3 certificate credits, \$43.50 plus \$2 course fee. Total \$45.50.

Emphasizes specialized supervisory techniques based upon principles outlined in Supervision I. Includes discussion of research in supervisory methods and practices and their relative success in application in the office and plant. Methods of supervisory training, morale measurement, job analysis and job evaluation, safety programs, wage and salary administration, principles of organization and communications are among the topics discussed. Extensive use is made of discussion method and case studies. (Prereq 0001C or §)

Fall Sem	Sec 1	T—6:20-8:00, BlegH 130, Gomez
Spring Qtr	Sec 2	Th—6:20-8:50, BlegH 115, Fjerstad

***IR 0004C MOTIVATION, LEADERSHIP AND EVALUATION OF THE WORK TEAM.** 4 certificate credits, \$58.

Review of current theories and topics in work motivation, job satisfaction and leadership styles. Examination of the dynamics of the work group and the process of change in work organizations. Performance evaluation systems, especially techniques for conducting reviews of individual and group performance. (No prereq. Limited to 35 students)

Fall Qtr	Sec 1	M—7-9:30, BlegH 115, Pinto
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IR 0007C THE MINNESOTA OCCUPATIONAL SAFETY AND HEALTH ACT. 3 certificate credits, \$43.50.

This course is designed to increase understanding of an important employee relations law: The Minnesota Occupational Safety and Health Act of 1973 (MOSHA). For representatives of management, unions, professional associations and government agencies who have interest or responsibility in this area. Topics include the content of the Act and recent legislative developments; identification of the most common safety hazards; detection of hidden health hazards; the development of an Occupational Safety and Health program; joint labor-management safety committees; job dissatisfaction and mental health; chemical dependency as a safety and health hazard; complaints and enforcement; administration and record keeping; and educating and motivating others in the area of occupational safety and health. (No prereq)

Fall Qtr	Sec 1	M—6:20-8:50, BlegH 130, O'Connell
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***IR 3000 GOVERNMENTAL MANPOWER POLICIES AND PROGRAMS.** 4 degree credits, \$58.

The Comprehensive Employment and Training Act (1974) provides the frame of reference. Attention will be given to planning mechanisms, service delivery systems, and program evaluation. Also, consideration will be directed to relationships of federal, state, and local governments and roles of public and private sector organizations. (No prereq. Meets concurrently with 8000 sec 1. Limited to 30 students)

Fall Qtr	Sec 1	W—7-9:30, BlegH 245, Seltzer
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***IR 3000 INDUSTRIAL CONTROL SYSTEMS FOR CHEMICALLY DEPENDENT EMPLOYEES.** 4 degree credits, \$58.

Designed to provide information and data on the impact of chemically dependent employees and other troubled employees and to develop skills necessary to design, implement and maintain systems to control human and productivity loss. Available to representatives of management, labor and graduate students in industrial relations. (No prereq. Meets concurrently with 8000 sec 2, 3. Limited to 36 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr Sec 2 **M**—6:20-8:50, BlegH 260, Wrich
Spring Qtr Sec 3 **M**—6:20-8:50, BlegH 260, Wrich

(See also Public Health)

***IR 3000 LABOR ARBITRATION.** 4 degree credits, \$58.

Presents a comprehensive view of arbitration as a dispute settlement technique as used in the field of labor-management relations. Following a general introduction into background of arbitration, laws governing this field for inter and intra state commerce industries, and for the mushrooming public sector, will be studied. Special emphasis will be given to techniques used in analyzing grievances processed through the grievance procedure. The course continues to the preparation of material used in the hearing and to the hearing itself. (No prereq. Meets concurrently with 8000 sec 4. Limited to 40 students)

Fall Qtr Sec 4 **M**—6:20-8:50, BlegH 145, Bloom

***IR 3000 POLICY AND PRACTICE IN LABOR LAW.** 4 degree credits, \$58.

This course of study will include an analysis and discussion of employees' rights to organize and restraints on certain union activity. It will deal in depth with the responsibility and role of the National Labor Relations Board; its organization, how representation (union elections) matters are processed, discussion of unfair labor practice charges and injunctions. It will also examine the role of state labor relations agencies and their function in protecting employee rights. The course will also examine the arbitrator's role in these matters and will review the government agencies role in collective bargaining; i.e., FMCS, BMS, WERC. (No prereq. Meets concurrently with 8000 sec 5. Limited to 35 students)

Winter Qtr Sec 5 **M**—6:20-8:50, BlegH 330, Bloom

***IR 3000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR.** 4 degree credits, \$58.

Examines the development and diffusion of collective bargaining regarding governmental employment. The primary focus is on state/local units. Items to be considered include, for example: patterns of employer/union relationships, key issue in negotiations and public policy, the impact of governmental operations (e.g., civil service systems/fiscal aspects/etc.). (No prereq. Meets concurrently with 8000 sec 6. Limited to 30 students.)

Winter Qtr Sec 6 **W**—7-9:30, BlegH 230, Seltzer

IR 3000 ORGANIZED LABOR AND THE POLITICAL PROCESS: 1976. 4 degree credits, \$58.

Within an Industrial Relations system framework, this course explores organized labor's involvement in the political process. Political process refers both to internal union politics and to external politics: national, state and local. Topics include an IR system model; the environment, structure and functions of the AFL-CIO; union democracy and oligarchy; conditions favoring union involvement in external politics; the incentives, finances, techniques and results of union political action; labor-party alliances and their historic roots; labor's legislative lobby; and labor's involvement in the 1976 campaign. (No prereq)

Spring Qtr Sec 7 **T**—7-9:30, BlegH 110, O'Connell

(See also Political Science)

IR 3002 INDUSTRIAL RELATIONS SYSTEMS: LABOR MARKETS AND THE MANAGEMENT OF HUMAN RESOURCES. 4 degree credits, \$8002. \$58. ★

The study of labor markets, manpower management, Federal-State employment policy, and the resolution of industrial conflict. Process followed in valuing, employing, developing, motivating, and maintaining human resources in an industrial society. (Prereq Econ 1001, Econ 1002, Psy 1001)

Fall Qtr Sec 1 **T**—7-9:30, Richfield HS 342, Dworkin (Limit 30 students*)

Sec 2 **W**—6:20-8:50, BlegH 220

Winter Qtr Sec 3 **M**—7-9:30, Minnetonka HS 120-121; Estenson
(Limit 30 students*)

Sec 4 **T**—7-9:30, BlegH 220, Krzystofiak

Spring Sem Sec 5 **W**—6:20-8:00, BlegH 335

Spring Qtr Sec 6 **M**—7-9:30, Kellogg HS 237, Little Canada
(Limit 35 students*)

Symbols, abbreviations, off-campus class locations begin on page 389.

IR 3007 COLLECTIVE BARGAINING NEGOTIATIONS AND MODERN LABOR RELATIONS. 4 degree credits, \$58.

Analysis of collective bargaining negotiations between employers and/or employer associations and unions. Relevant policies of employers, unions, and the public; background of the labor movement; current practices in labor relations; and significant trends. (No prereq)

Fall Qtr	Sec 1	T—6-8:30, Sandburg JHS 209, Golden Valley; Scott (Limit 30 students*)
Fall Sem	Sec 2	W—6:20-8:00, BlegH 215, Azevedo
Winter Qtr	Sec 3	M—6-8:30, Richfield HS 342, Bognanno (Limit 30 students*)
Spring Sem	Sec 4	W—6:20-8:00, BlegH 215
Spring Qtr	Sec 5	T—6:30-9:00, BlegH 330, Smythe

IR 3010 HUMAN RELATIONS AND APPLIED ORGANIZATION THEORY. 4 degree credits, \$58.

The problems of human relations arising in modern organizations and approaches to their solution. Philosophies and theories of human relations and their translation into policy. Discussions, cases, role-playing, and skill building sessions. **Note:** Not intended for use in meeting State Department of Education Human Relations Certification requirement. See PsyF 5305, page 340. (No prereq)

Fall Qtr	Sec 1	M—5-7:30, WCCO Radio Bldg 512, Mpls; Fjerstad (Limit 45 students*)
	Sec 2	T—6:20-8:50, BlegH 335, Pierson
	Sec 3	Th—7-9:30, Minntonka HS 120-121, Estenson (Limit 30 students*)
Winter Qtr	Sec 4	Th—6-8:30, BlegH 340
Spring Qtr	Sec 5	M—6:30-9:00, BlegH 340, Pinto (Limit 30 students*)
	Sec 6	W—6-8:30, Sandburg JHS 210, Golden Valley; Fjerstad (Limit 35 students*)

***IR 8000 GOVERNMENTAL MANPOWER POLICIES AND PROGRAMS.** 4 degree credits, \$66.

See description for 3000. (No prereq. Meets concurrently with 3000 sec 1. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 1	W—7-9:30, BlegH 245, Seltzer
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***IR 8000 INDUSTRIAL CONTROL SYSTEMS FOR CHEMICALLY DEPENDENT EMPLOYEES.** 4 degree credits, \$66.

See description for 3000. (No prereq. Meets concurrently with 3000 sec 2, 3. Limited to 36 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 2	M—6:20-8:50, BlegH 260, Wrich
Spring Qtr	Sec 3	M—6:20-8:50, BlegH 260, Wrich

***IR 8000 LABOR ARBITRATION.** 4 degree credits, \$66.

See description for 3000. (No prereq. Meets concurrently with 3000 sec 4. Limited to 40 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 4	M—6:20-8:50, BlegH 145, Bloom
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***IR 8000 GRADUATE TOPICS—POLICY AND PRACTICE IN LABOR LAW.** 4 degree credits, \$66.

See description for 3000. (No prereq. Meets concurrently with 3000 sec 5. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr	Sec 5	M—6:20-8:50, BlegH 330, Bloom
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Symbols, abbreviations, off-campus class locations begin on page 389.

***IR 8000 COLLECTIVE BARGAINING: THE PUBLIC SECTOR.** 4 degree credits, \$66.

See description for 3000. (No prereq. Meets concurrently with 3000 sec 6. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 6 W—7-9:30, BlegH 230, Seltzer

IR 8002 INDUSTRIAL RELATIONS SYSTEMS: LABOR MARKETS AND THE MANAGEMENT OF HUMAN RESOURCES. 5 degree credits, \$3002. \$82.50.

See course description for IR 3002. (Prereq Econ 1001, Econ 1002, Psy 1001. Semester courses. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 W—6:20-8:00, BlegH 360, Heneman

Spring Sem Sec 2 W—6:20-8:00, BlegH 360, Bognanno

IR 8017 UNION GOVERNMENT AND POLICIES. 4 degree credits, \$66.

Internal administration and government of unions; collective bargaining policies of unions with regard to wages, hours, and other conditions of employment; the policies of the American labor movement in the economic, political and social life of the nation. (Prereq 8002 or *. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, BlegH 440, Flagler

***IR 8033 MANAGEMENT DEVELOPMENT.** 4 degree credits, \$66.

new Today's management development movement including management development programs within industry and in universities. Basic policy, current problems, and research findings concerning selection of management trainees, management appraisal and inventory, management motivation and compensation. Methods and techniques of management motivation and compensation. Methods and techniques of management development. (Prereq 8002 or *. A joint Day/Extension course limited to 8 Extension students plus day school registrants. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 MW—3:15-5:00, BlegH 340, Pinto

informal courses

informal courses (IC)

introduction

Informal Courses are an exciting way to learn.

They are personal. Students and instructor share experiences and learn from one another in a relaxed atmosphere. Dig into new topics or learn to approach old topics from a new angle, unencumbered by curriculum requirements.

They are noncompetitive. There are no examinations, no transcripts, no grades and no credits. You will get as much out of a class as you are willing to put into it. Learn for your personal satisfaction.

They are flexible. You take them to stretch your mind, gain some skills, or to have some fun. There are no previous educational requirements. A high school diploma isn't a necessity, but one or two college degrees won't hold you back. A willingness to participate and an eagerness to learn are the only requirements.

tuition

See the course descriptions below for tuition charges for each course.

A ♦ in the margin next to a course description in Informal Courses indicates that a course may be taken for \$3 (not refundable) by the following groups of people:

- ♦ Those individuals 60 years or older.
- ♦ Those youth age 12 to 16 when accompanied by an adult registered in the same class. The adult must present a current registration receipt at the time the youth registers, and must assume the responsibility for judging the appropriateness of the class sessions for his or her young guest. Only unusually mature and genuinely interested young persons who can benefit from college-level lectures and discussions designed for adults should be invited to attend.

registration

Registration must be made in advance.

Registration procedures, dates and locations are the same as for quarter class registrations. Registration can be made in person or by mail. See the "How and When to Register" section beginning on page 11 for details.

Refunds are made according to the schedule in the "Rules, Regulations and Policies" section, page 51.

Late registrations must be accompanied by a late fee of \$5. No registrations will be accepted after the end of the second week of classes. See page 25.

Symbols, abbreviations, off-campus class locations begin on page 389.

books

In some cases, the purchase of one or more moderately-priced books is strongly recommended. When possible, these recommendations are listed with the course descriptions. Books are available at Nicholson Bookstore on the East Bank campus of the University.

other options

If you don't see here exactly what you want, be sure to browse through the rest of this Bulletin to find hundreds of courses of interest which you may audit for no credit and have recorded on a University transcript. Courses preceded by a ♦ in the margin may be taken for no credit, no record at one-half tuition, or for the \$3 options described above. See page 44 for information on reduced-tuition plans.

Sampler Lectures will be scheduled throughout the academic year. These special lectures give you a taste of Extension classes for only \$1 each. University faculty present these self-contained lectures as part of their regular evening classes. No prior academic preparation is needed. Topics are chosen from many departments and have included such subjects as these:

Continental Drift: Shaper and
Mover of the Earth
Can It! Home Preservation of Foods
The Composer's Process

Intellectual Unrest in the USSR
Understanding the Weather Map
Madness Across Cultures

Registration for Sampler Lectures must be made in advance. Telephone 373-3039 for a current list of Sampler offerings and to register. Or write University Sampler, University of Minnesota, 201 Westbrook Hall, Minneapolis 55455. Registration forms will be mailed to you.

IC 0001 INDIVIDUAL AND FAMILY BUDGET PLANNING. \$16 (second member of household \$8; ♦\$3)

Learn to develop and manage your personal or family budget. You will acquire the specific skills and abilities to use credit wisely, discriminate between your needs and wants in spending, set financial goals, develop contingency savings funds and generally move toward greater economic stability. The budgeting experiences in which you participate in and out of the classroom will immediately become part of your lifestyle. *Confidentiality will be maintained throughout the course.* Materials will be provided at the first class meeting; no other textbook purchase is necessary. Class sessions will vary in length from 1 to 2½ hours. The first session will be 1 hour in length.

Spec Term Fall Sec 1 **W**—6:30-9:00, Oct. 1, 8, 15, 22; Dec. 3;
FolH 105, Olson

Sec 2 **Th**—7-9:30, Oct. 2, 9, 16, 23; Dec. 4;
Iroindale HS 310, New Brighton, Malmberg

Spec Term Winter Sec 3 **Sa**—9:30 a.m.-12, Jan. 10, 17, 24, 31; Mar. 6;
FolH 105, Malmberg

Spec Term Spring Sec 4 **T**—7-9:30, Apr. 6, 13, 20, 27; June 1;
Richfield HS 145, Olson


Symbols, abbreviations, off-campus class locations begin on page 389.

informal courses

(John Malmberg is the associate director of the Department of Extension Classes, Continuing Education and Extension. Carol Olson is the director of the Department of Community Programs, Continuing Education and Extension.)


The following three courses are intended to provide a reasoned examination of various aspects and issues of parapsychology. There are no prerequisites; if you are interested, register for any one or for all three. (Instructors Dr. Jose Feola and Eleanor McGill have taught *Psychical Phenomena* courses in the University School of Cross-Disciplinary Studies and are actively engaged in psychical research. Both are past presidents of the Minnesota Society for Parapsychological Research.)

IC 0002 PSYCHIC MYSTERIES. \$20 (♦\$3)

 Come to better understand psychic experiences, test your ESP and learn how latent extra-sensory powers might be developed. This introduction to parapsychology will examine in a disciplined manner alleged apparitions, hauntings, poltergeists, and occurrences at seances. Professor of Political Science Mulford Q. Sibley will deliver a guest lecture on the question of human personality and its survival of bodily death. Techniques to enhance psychic powers will also be considered.


Spec Term Fall Sec 1 W—7-9:00, Oct. 1-Nov. 5 (6 meetings), MurH 308

IC 0003 PROPHETS AND HEALERS. \$13 (♦\$3)

 Modern-day seers and spiritual healers—how much faith, if any, can we put in their predictions and methods? Four lectures will examine some 20th Century prophets and healers, including Edgar Cayce and Katherine Kuhlman. Discussion will center on the how's, why's and physical effects of healing and prophecy.


Spec Term Winter Sec 1 Th—7-9:00, Jan. 8-Feb. 12 (4 meetings), MurH 308

IC 0004 ALTERED STATES OF CONSCIOUSNESS. \$20 (♦\$3)

 Consider the expanded states of being of which many believe human consciousness is capable. Class members will look at theories of Transcendental Meditation, yoga, biofeedback, and the astraltravel of Eckankar, a non-denominational group that believes the soul itself can learn to travel. Representatives of at least one of these approaches will visit the class to share knowledge and experiences and answer questions.

Spec Term Spring Sec 1 M—7-9:00, Mar. 29—May 3 (6 meetings), MurH 308

IC 0005 YOUR BRIGHT CHILD IN SCHOOL: WHERE TO START, WHAT TO DO. \$20 (♦\$3)

 Gifted children are frequently "lost" in the day-to-day processes of schools. The purpose of this course is to acquaint teachers, counselors and the parents of very bright children or adolescents with some theories and methods of facilitating education for the gifted. Introductory sessions will examine definitions of giftedness, what happens to very bright children in school, and the meanings and uses of test score information. Later sessions will be devoted to ways to enhance the education of the gifted, at elementary, high school and higher levels, with a focus on specific cases and examples.

Spec Term Fall Sec 1 Th—7-9:00, Oct. 2-Nov. 6 (6 meetings), Bu 120, Keating

(Daniel Keating, Assistant Professor of Child Psychology in the University's Institute of Child Development, is the editor of *Intellectual Talent: Research and Development*, The Johns Hopkins University Press, 1975.)

IC 0006 RECENT SHIFTS IN PREHISTORIC SUBJECTS: AN OVERVIEW OF MODERN GEOLOGY. \$16 (♦\$3)

Five special lectures will explain traditional and recent geological theories in such subjects as the origin of life, the extinction of dinosaurs, continental drift

Symbols, abbreviations, off-campus class locations begin on page 389.

informal courses

new and plate tectonics, oceanography and the building of mountains. An *optional* all-day Saturday field trip to explore Minnesota's prehistory will be arranged at additional cost; further details will be available in class.

Spec Term Fall Sec 1 **W**—7-9:00, Oct. 1-29 (5 meetings), PillsH 110, Chase, Sloan, Stout

(Professors Clement G. Chase, Robert E. Sloan and James H. Stout are faculty members in the Department of Geology.)

IC 0007 ROMAN SATIRE. \$20 (♦\$3)

new "What shall I do in Rome? I don't know how to lie . . ." Take a satirist's tour of the city that stirred Juvenal to such sarcasm, yet won his love. You will gather a vivid, if one-sided picture of the city—her cosmopolitan population, emperors, diversions, and vices—by reading three of her major satirists: Horace, Juvenal, and Petronius. Discussion will center on the targets of their attacks, the tone of their humor, and the goals of their criticism. Who knows—their humor may address our own unpredictable times as well. How accurate was Horace when he said, "Change the name, and the story is about you"? Recommended reading: *The Satires of Horace, Juvenal, The Sixteen Satires, and Petronius, The Satyricon.*

Spec Term Fall Sec 1 **T**—7-9:00, Sept. 30-Nov. 4 (6 meetings), Arch 15, Rochefort

(George Rochefort is an Assistant Professor of Classics.)

IC 0008 WOMAN'S ROLE, WOMEN'S LIVES. \$20 (♦\$3)

new How important are models and heroes to a woman in forming her personal identity? What is the relationship of an individual's background, responsibilities, values and world view to her professional achievement? These are some of the questions to be discussed as class members read the autobiographies of women who have achieved in a variety of areas and styles, including anthropologist Margaret Mead, social reformer Jane Addams, anarchist Emma Goldman, and the poet Anne Morrow Lindbergh. Emphasis will be placed on the multiple roles these women played and how they faced the conflicting needs and expectations arising from their roles. If possible, a special viewing of "Antonia: Portrait of the Woman," a moving documentary film about history's first woman symphonic conductor, Antonia Brico, will be arranged.

Spec Term Fall Sec 1 **M**—7-9:00, Sept. 29-Nov. 3 (6 meetings), Arch 10, Hinding

(Andrea Hinding, whose academic field is history, has served as chairman of the Women's Studies Committee of the College of Liberal Arts and is the curator of the University Social Welfare History Archives.)

***IC 0009 NON-FICTION WRITING WORKSHOP—OR, HOW TO WRITE WHEN YOU HAVE TO OR WANT TO BUT CAN'T GET STARTED. \$26**

new This is a tuneup course for people who are not professional writers but whose work requires them to compose papers, articles, detailed letters or essays of other kinds. Students will receive individual help in getting started; organizing and developing ideas; writing clearly and concisely to a specific audience; and revising and preparing manuscripts for publication. Course content will depend upon the particular needs and skills of the students. Bring a copy of your current writing project, or an example of the type of writing that is expected of you, to the first class. (Limited to 16 students)

Spec Term Fall Sec 1 **T**—7-9:00, Sept. 30-Nov. 4 (6 meetings), LindH 315, Thomas

Spec Term Spring Sec 2 **W**—7-9:00, Mar. 31-May 5 (6 meetings), LindH 320, Thomas

(Jane Resh Thomas has taught composition courses in Extension Classes and the General College and has published articles and book reviews.)

Symbols, abbreviations, off-campus class locations begin on page 389.

informal courses

IC 0010 THE ROYAL GAME: A NONTECHNICAL LOOK AT CHESS AND ITS PLAYERS. \$20 (♦\$3)



Chess, the oldest game in the western world, has fascinated kings and commoners, artists and scientists, soldiers and pacifists alike. This historical and anecdotal survey will expand your knowledge of the game beyond the chess board. This is not a course in how to play chess. Come, instead, to discuss its origin, history and significance (social, intellectual, moral and artistic). The personalities and styles of play of famous players will be examined; particular attention will be given to three American champions: Paul Murphy, Harry Nelson Pillsbury and Bobby Fischer. Further discussion will center on mental and physical preparation for match and tournament play and on opportunities offered by local chess organizations. (Prereq at least a novice familiarity with the game)

Spec Term Fall Sec 1 **M**—7-9:00, Sept. 29-Nov. 3 (6 meetings), NH 209,
Kirchner

(Paul Kirchner, who has played chess in Europe and the United States and knows several chess masters, has also taught English and Classics courses at the University.)

IC 0013 WOMEN AND LANGUAGE WORKSHOP \$20 (♦\$3)



Mistress and master, to mother and to father, a free woman and a free man—why have very different meanings evolved for seemingly parallel terms? This course will examine some of the many ways in which our language both reflects and shapes the roles, the status and the power of women and men. Class members will look at "masculine" and "feminine" speech patterns, value-laden connotations of gender terms, insightful word derivations and changes occurring in current usage. Format will be a combination of lecture, discussion, observation and practice in the use of assertive speech patterns.

Spec Term Winter Sec 1 **W**—7-9:00, Jan. 7-Feb. 11 (6 meetings), FolH 202,
George-Geisser

(Mary Lee George-Geisser, whose academic field is linguistics, is active in Twin Cities women's social change organizations and has published articles on language and on other aspects of feminism.)

School of Public Affairs Informal Courses are for the interested citizen as well as the public employee. We hope they will provide a forum for an exchange of ideas which will lead to a better understanding of public issues.

*IC 0020 THE DILEMMA OF NUCLEAR POWER \$16 (♦\$3)



The current controversy over accepting nuclear fission as a major energy source: Does the increased use of nuclear energy promise a solution to our energy needs, or are the institutional stresses in more widespread use of nuclear power too serious to be overcome? The course will describe the current public policy debate with commentary on the issues involved. (Limited to 40 students)

Spec Term Fall Sec 1 **T**—4:30-6:00, Sept. 30-Nov. 4 (6 meetings), BlegH
110, Geesaman

(Donald P. Geesaman is Associate Professor in the School of Public Affairs.)

IC 0021 URBAN GROWTH CONTROL SYSTEMS \$20 (♦\$3)



A description of the various urban growth control systems existing in the U.S. and the administrative procedures involved in instituting and operating them. Discussion will focus in particular on local implications.

Spec Term Fall Sec 1 **T**—7-9:30, Sept. 30-Oct. 28 (5 meetings), BlegH 360,
Gleeson

(Michael Gleeson is Assistant Professor in the School of Public Affairs.)

Symbols, abbreviations, off-campus class locations begin on page 389.

informal courses

IC 0022 INTEGRATING HUMAN SERVICE PROGRAMS \$24 (♦\$3)

The course introduces various mechanisms for combining HEW or other federal grants in order to reduce barriers to the integrated provision of human services. A prime mechanism is the Integrated Grants Administration procedure.

Spec Term Winter Sec 1 **M**—7-9:30, Jan. 5-Feb. 9 (6 meetings), MurH 308, Eustis

(Warren P. Eustis is Adjunct Professor of Law.)

IC 0023 GOVERNMENT REGULATION OF BUSINESS ACTIVITIES \$28 (♦\$3)

The course will examine the various means that Federal and State governments have used to control and shape business activity. Economic results of regulation will be explored primarily. Discussion will also focus on the political atmosphere surrounding regulation, legal questions involved, and administrative procedures employed.

Spec Term Spring Sec 1 **Th**—6:30-9:00, Apr. 1-May 20 (8 meetings), BlegH 440, Kudrle

(Robert T. Kudrle is acting director of the Quigley Center of International Studies and Assistant Professor in the School of Public Affairs.)

IC 0024 COMMUNITY-BASED SERVICE SYSTEMS \$20 (♦\$3)

The course will examine institutional and professional services as they are now organized and operated, criticisms of them, and the various attempts to change them—especially by becoming more "community-based."

Spec Term Spring Sec 1 **T**—7-9:30, Mar. 30-Apr. 27 (5 meetings), BlegH 335, Dewar

(Thomas R. Dewar is Assistant Professor in the School of Public Affairs.)

IC 0030 MINNESOTA HISTORY: POLITICS AND PERSONALITIES FROM THE DEPRESSION TO THE TROUBLED SIXTIES. \$20 (♦\$3)

Where were you ten years ago? or forty? Do you remember Gov. Floyd B. Olson ("Call me a radical") and the Great Truck Driver's Strike of 1934? Harold Stassen, "the Boy Wonder"? Luther Youngdahl and "the role of the practicing Christian in politics"? Hubert H. Humphrey and the founding of the DFL? The Minnesota Miracle and the Stassen-Eisenhower rivalry? The attempt of the DFL to dump a sitting governor? Through a lecture and discussion format you'll have plenty of opportunity to refresh your memory and share your experiences. If you were there, relive it and pass it on; if you weren't, come join it. (Recommended reading: *The Twenty-first Ballot*, David Lebedoff)

Spec Term Winter Sec 1 **M**—7-9:00, Jan. 5-Feb. 9 (6 meetings), WuH 230, Moen

Spec Term Spring Sec 2 **Th**—7-9:00, Apr. 1-May 6 (6 meetings), Richfield HS 145, Moen (books may be purchased at B. Dalton, Southdale. See page 31.)

(Professor Norman W. Moen of the General College has recently developed a sequence of courses in Minnesota Studies, including Minnesota Arts and Letters, Indians, Biography, Resources and History.)

IC 0031 ART AND ARCHITECTURE OF THE JEWISH PEOPLE. \$20 (♦\$3)

This course will illustrate important artistic and architectural monuments left by Jews throughout their known history. It will also explore the historical and cultural context within which Jewish artistic monuments were created, the lively artistic exchanges between Gentile and Jewish cultures, and Jewish attitudes toward art in different historical periods. Jewish art, architecture, manuscripts and artists will be discussed, within a history extending from the times of Saul

Symbols, abbreviations, off-campus class locations begin on page 389.

informal courses

and the Temple of Solomon, through the periods of residence in Babylonia and, after the Diaspora, throughout the Mediterranean world, to the age of emancipation in Europe and the modern state of Israel.

Spec Term Winter Sec 1 M—7-9:00, Jan. 5-Feb. 9 (6 meetings), StP Talmud Torah, Chiat

(Marilyn Chiat, instructor in the Art History Department, is completing a doctoral dissertation in the early art and architecture of the Jewish people.)

IC 0032 THE AMERICAN WORK ETHIC. \$20 (◆\$3)



Mainly through class discussion, this course will explore the value we Americans place on work in our lives. Among the issues to be discussed are personal attitudes toward work, the economic and psychic importance of work, relationships between "private" and working life, and employees' role in governing their work situations. Recommended reading may include the following: *Working*, a series of interviews with people about their jobs; *Work in America*, a comprehensive study, *Something Happened*, a new novel by Joseph Heller, the author of *Catch 22*; and *Job Power*, a book about "industrial democracy."

Spec Term Winter Sec 1 T—7-9:00, Jan. 6-Feb. 10 (6 meetings), MurH 308, Kell

(William Kell, whose academic field is American Studies, currently serves as assistant director of the honors program in the College of Liberal Arts.)

*IC 0033 GAMES PEOPLE (SHOULD) PLAY. \$30 (◆\$3)



Games and simulations are used more and more to help people understand and deal with complex social, urban and business problems. In this introduction to simulation games and gaming, class members will play a number of short (1-3 hr) games and explore some potential uses in problem-solving, the teaching of social, historical and value issues, environmental planning, and others. They will acquire an understanding of the value and the process of game playing, "de-briefing" and integrating games into other kinds of learning. Small work teams will each practice running a game for a "guinea pig" audience. Take a walk in another person's shoes, in a world of power politics ("Starpower"), ecological crises ("Dirty Water"), or social welfare ("The Helping Hand Strikes Again")—and you decide whose world it is. The only prerequisite is interest in and/or curiosity about games. (Limited to 35 students)

Spec Term Spring Sec 1 W—6:30-9:30, March 31-May 5 (6 meetings), MurH 308, Samuels, Weeks

*IC 0034 FAMILY COMMUNICATIONS: WHAT ARE YOUR RULES? \$20 (◆\$3)



Are you—or another member of your family—a people pleaser? blamer? avoider? How has the way your parents treated you influenced your self-image, expectations, and the type of parent you are now or might become? A family is a rule-governed system whose impact on its members is felt all their lives. This course will describe how family systems function: the rules that are followed, how families raise or lower self-esteem, communication styles, and roles that family members play. The course will provide a better intellectual understanding of family systems; it is not a therapy group. (Limited to 35 students)

Spec Term Spring Sec 1 T—7-9:00, Mar. 30-May 4 (6 meetings), Arch 15, Hansen, Willmore

(Professor Evelyn U. Hansen teaches interpersonal and family communication courses in the General College. Doloris Willmore is a counselor in the General College, with an interest in family systems.)

Symbols, abbreviations, off-campus class locations begin on page 389.

institute of technology (IoT)

Your attention is called to the Professional Development Recognition Program in Engineering and Science, page 222.

Morris E. Nicholson, Professor of Materials Science, and Director of Continuing Education in Engineering and Science

Wayne Schmaedeke, Director of Operations Planning at Minneapolis Gas Company

IoT 0001 REFRESHER COURSE IN ENGINEERING FUNDAMENTALS. No credit, \$58.

Review of the fundamentals which undergird all major fields of engineering. Mathematics, physics, chemistry and materials science, mechanics thermodynamics, electric circuits, fluid mechanics, engineering economics and legal and professional aspects. Designed particularly for individuals who plan to take part I of the Registration Examinations. (Prereq Bachelor's degree in Engineering, Physics, or Mathematics)

Winter Qtr Sec 1 **W**—6-8:30, MechE 108

(See also refresher courses in civil engineering, page 147; electrical engineering, page 219; mechanical engineering, page 312.)

IoT 5011, 5012, 5013 MATHEMATICS FOR TECHNICAL MANAGEMENT. 3 credits each quarter, \$46.50 each quarter.

This course provides technical managers with deterministic and probabilistic mathematical techniques for quantitative decision-making. **5011:** Review of calculus; matrices algebra of sets, calculus of finite differences, optimization, simulation, mathematical programming, and regression analysis. **5012:** Basic probabilities, statistical populations, principles of sampling, statistical estimation, statistical decision theory. **5013:** Probabilistic models; stochastic processes, The Markov Process, Monte Carlo method, queuing theory, and decision models. (Desired background: calculus, differential equations. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr **5011** Sec 1 **T**—6-8:30, MechE 114, Schmaedeke

5013 Sec 2 **M**—3:15-5:45, MechE 102, Schmaedeke

Winter Qtr **5012** Sec 3 **T**—6-8:30, MechE 114, Schmaedeke

Spring Qtr **5013** Sec 4 **T**—6-8:30, MechE 114, Schmaedeke

new

islamic

(See Near and Middle Eastern Studies, page 315)

insurance (Ins)

James Baratte, Regional Group Manager, Prudential Insurance Co.

David N. Barker, Director of Planning & Analysis, Prudential Insurance Co.

William Crolley, Registered Representative, Craig-Hallum, Inc.

Michael Flannigan, Legal Counsel, The Ministers Life & Casualty

Alfred R. W. Larkin, Executive Assistant-Control, North American Life & Casualty

Larry A. Fischer, Coordinator, CLU courses

Duane J. Rivard, Lecturer in Insurance

Orem O. Robbins, President, Security Life

Garry Rollins, Lecturer in Insurance

Dwain Sell, Associate Counsel, North American Life & Casualty

Andrew F. Whitman, Professor of Insurance

C. Arthur Williams, Professor and Dean of Business Administration

Symbols, abbreviations, off-campus class locations begin on page 389.

Ins 3100 RISK MANAGEMENT AND INSURANCE. 4 degree credits, \$58. ★

Recognition, measurement, and evaluation of insurable property, liability, and personnel risks of firms and families. Tools of risk management; retention, loss prevention, transfer, and others with emphasis on insurance. Design and implementation of the optimum risk management program. Selection of insurers, insurance pricing methods, and preparation for loss adjustments. Public policy and risk management, particularly government regulation of insurance, social insurance, and automobile insurance problems. (No prereq. May not be taken S-N)

Fall Sem Sec 1 **M**—8:15-9:55, AndH 210, Whitman
Winter Qtr Sec 2 **T**—7-9:30, Sandburg JHS 214, Golden Valley; Rivard
(Limit 35 students*)
Sec 3 **W**—6:20-8:50, AndH 230, Williams
Spring Qtr Sec 4 **W**—6:20-8:50, Kellogg HS 111, Little Canada; Williams

Ins 3200 LIFE AND HEALTH INSURANCE. 4 degree credits, \$8200. \$58.

Types of individual life and health insurance contracts, their uses, and their major provisions. Insurance and pension components of employee benefit plans—their characteristics and regulation. Programming and estate planning. Business uses of individual life and health insurance. Selection of a life and health insurer. (Prereq 3100 or equivalent)

Spring Qtr Sec 1 **T**—6:20-8:50, RarigC 616, Rollins

Ins 3220 PROPERTY AND LIABILITY INSURANCE. 4 degree credits, \$8220. \$58. ★

Types of property losses and their measurement. Legal doctrines and statutes creating liability risks for business firms, families, and other units. Analysis of major property and liability insurance contracts. How property and liability insurance is priced and marketed. Selection of an insurer. Social issues such as availability of insurance and no-fault automobile insurance. (Prereq 3100 or equiv.)

Winter Qtr Sec 1 **M**—7-9:30, RarigC 616, Whitman

new

Property and Casualty Insurance Curriculum

The University of Minnesota cooperates with the Insurance Institute of America and the American Institute for Property and Liability Insurance Underwriters Inc., by offering an educational program that provides the basic courses needed by those who wish to take the examinations of either or both of the institutes. The Insurance Institute of America Ins 0021C, 0022C, 0023C courses are considered excellent preparation for the more difficult American Institute courses which lead to the Chartered Property and Casualty Underwriters (CPCU) designation. The Insurance Institute of America Adjustment courses are part of a professional education program for claims adjusters. The three Insurance Institute of America Risk Management courses are designed to develop professional competence in risk management. The management courses deal with general management concepts. Complete details of the program of training under both institutes are printed in the Institute's Annual announcements, copies of which may be obtained from Continuing Education and Extension. Direct all inquiries to Wallace Russell 929-5551.

IIA Ins 0021C, 0022C, 0023C. 3 certificate credits each term, \$43.50 each term.

Based on the IIA-Ins 21, 22, and 23, Topical Outlines of the Insurance Institute of America. Provides a background in property and liability insurance and serves as a preparatory course for the CPCU program. **Ins 0021C:** Economic and social influences of insurance; types of risk and kinds of insurance to meet them; legal principles important to property and liability insurance; historical development of insurance; rate making; types of insurers and their organization; underwriting and re-insurance; analysis of insurance contracts; regulation. **0022C:** An intensive study of fire and marine insurance contracts. **0023C:** An intensive study of casualty insurance contracts. (No prereq)

Fall Qtr **0021C** Sec 1 **M**—5:30-8:00, BlegH 330, Whitman
0022C Sec 2 **T**—6:20-8:50, BlegH 350, Rivard
Spec Term 0023C Sec 3 **Jan. 12-Apr. 26** **M**—5:10-6:50, BlegH 430, Whitman
(register Dec. 22-Jan. 12)

Symbols, abbreviations, off-campus class locations begin on page 389.

clu college of life underwriters

Registration for all Minneapolis CLU classes must be completed with the Minneapolis CLU Chapter. No registrations will be taken by the University of Minnesota offices. Application blanks for enrollment may be obtained by calling 831-3730 or writing to State Office of Life Underwriters, Suite 161, 4620 West 77th Street, Edina, Minnesota 55435, or from the chairman: (listed below).

Larry A. Fischer, American General Life, 7851 Metro Parkway, Minneapolis, Minnesota 55420, 854-0820.

Enrollment must be completed in the Fall for two courses covering both Fall and Spring semester.

Registration is made for consecutive courses (0001C and 0002C, 0003C and 0004C, 0005C and 0006C, 0007C and 0008C, 0009C and 0010C). The American College will not allow a candidate to sit for the examination for course 0010C unless he has completed all 10 courses.

Many of the regularly listed courses elsewhere in this bulletin may be of assistance to those who are preparing for examination on other parts of the curriculum. Full information on the American College of Life Underwriters study program may be obtained from the annual announcement of CLU which is available at Extension offices or through the Minneapolis or St. Paul chapters of the Chartered Life Underwriters.

CLU 0001C INDIVIDUAL LIFE AND HEALTH INSURANCE. 3 certificate credits, \$43.50.

This course is designed as preparation for the January CLU examination in course 0001C. The subject matter will cover such topics as needs and uses; types of contracts; introduction to health insurance; contract provisions; fundamentals of programming and settlement options. (No prereq)

Fall Sem Sec 1 **M**—4:40-6:40, 1750 Henn Ave So, Larkin

CLU 0002C LIFE INSURANCE LAW AND COMPANY OPERATIONS. 3 certificate credits, \$43.50.

This course is designed for preparation for the June CLU examination in course 0002C. The subject matter will cover such topics as the arithmetics of premiums and reserves; structures of the life insurance business; life insurance law and company operations. (No prereq)

Spring Sem Sec 1 **M**—4:40-6:40, 1750 Henn Ave So., Larkin

CLU 0003C SOCIAL INSURANCE AND GROUP INSURANCE. 3 certificate credits, \$43.50.

This course is designed for preparation for the January CLU examination in course 0003C. The subject matter will cover group life insurance; group health insurance; problems of old age and other social insurance needs. (No prereq)

Fall Sem Sec 1 **T**—4:30-6:30, 3701 Wayzata Blvd, Baratte

CLU 0004C PENSION PLANNING. 3 certificate credits, \$43.50.

This course is designed for preparation for the June CLU examination in course 0004C. The subject matter will cover the fundamentals of pension plans. (No prereq)

Spring Sem Sec 1 **T**—4:30-6:30, 1750 Henn Ave So, Sell

CLU 0005C INCOME TAXATION. 3 certificate credits, \$43.50.

This course is designed for preparation for the January CLU examination in course 0005C. The subject matter will cover income taxation and its relationship to life insurance and estate planning. (No prereq)

Fall Sem Sec 1 **W**—4:30-6:30, 3701 Wayzata Blvd, Flannigan

Symbols, abbreviations, off-campus class locations begin on page 389.

CLU 0006C INVESTMENTS AND FAMILY FINANCIAL MANAGEMENT. 3 certificate credits, \$43.50.

This course is designed for preparation for the June CLU examination in course 0006C. The subject matter will cover the fundamentals of investments and family financial management. (No prereq)

Spring Sem Sec 1 **W**—4:30-6:30, 3701 Wayzata Blvd, Crolley

CLU 0007C ACCOUNTING AND FINANCE. 3 certificate credits, \$43.50.

This course is designed for preparation for the January CLU examination in course 0007C. The subject matter will cover family and business finances and accounting. (No prereq)

Fall Sem Sec 1 **M**—4:30-6:30, 3701 Wayzata Blvd, Barker

CLU 0008C ECONOMICS. 3 certificate credits, \$43.50.

This course is designed for preparation for the June CLU examination in course 0008C. The subject matter will be devoted to the basic principles of economics. (Prereq 0007C)

Spring Sem Sec 1 **M**—4:30-6:30, 3701 Wayzata Blvd, Barker

CLU 0009C BUSINESS INSURANCE. 3 certificate credits, \$43.50.

This course is designed for preparation for the January CLU examination in course 0009C. The subject matter will cover settlement options and programming and life insurance for business purposes. (No prereq)

Fall Sem Sec 1 **M**—4-6:00, 1200 So 2 Ave, Robbins

CLU 0010C ESTATE PLANNING AND TAXATION. 3 certificate credits, \$43.50.

This course is designed for preparation for the June CLU examination in course 0010C. The subject matter will deal with estate planning. (Prereq 0009C)

Spring Sem Sec 1 **M**—4-6:00, 1200 So 2 Ave, Robbins

italian (Ital)

Josephine Mangano, Lecturer in French and Italian
Arshi Pipa, Professor of French and Italian

Cassette tapes are available to Extension Classes students on a take-home basis. Students can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

Ital 1101-1102-1103 BEGINNING ITALIAN. 5 degree credits each quarter, \$72.50 each quarter plus \$3 course fee. Total \$75.50.

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 audio-visual aids. (No prereq for 1101; 1101 for 1102; 1102 for 1103)

NEW

Fall Qtr 1101 Sec 1 **MTh**—6:20-8:25, FoIH 204

Winter Qtr 1102 Sec 2 **MTh**—6:20-8:25, FoIH 204

Spring Qtr 1103 Sec 3 **MTh**—6:20-8:25, FoIH 204

Symbols, abbreviations, off-campus class locations begin on page 389.

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, \$43.50.

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. (No prereq. Must be taken S-N)

Spring Qtr Sec 1 T—6:20-8:50, FolH 307

japanese

(See East Asian Languages)

jewish studies

(See Near and Middle Eastern Studies, page 315)

journalism and mass communication (Jour)

(See also Communications; Marketing; and Salesmanship)

Walter H. Brovald, Associate Professor of Journalism

Roy E. Carter, Professor of Journalism

Everette Dennis, Assistant Professor of Journalism

Irving Fang, Professor of Journalism

Virginia Harris, Associate Professor of Journalism

Gove P. Laybourn, Jr., Lecturer in Psychology

Lester L. Metz, Lecturer in Journalism

Kent R. Middleton, Lecturer in Journalism

R. Smith Schuneman, Professor of Journalism

John C. Sim, Professor of Journalism

Willard L. Thompson, Professor of Journalism

Craig Trygstad, Lecturer in Journalism

Harold W. Wilson, Professor of Journalism

Symbols, abbreviations, off-campus class locations begin on page 389.

Did you know that a major in Journalism (Advertising) can be completed in the evening?

Those courses required in the major are offered every 3 years. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE—ADVERTISING

All courses for the major except those marked below with a double asterisk (**) must be taken A-N. No. B.A. program may include more than 48 journalism credits.

Required Preparatory Courses

1001, 1005, Econ 1001-1002** or 1014-1015** or 3001-3002.**

Pol 1001,** Hist 1301-1302** or 3822-3823.**

Advertising Sequence—1201, Comp 1027,** Psy 1001.**

Major Requirements

Advertising Sequence—3231, 3241, 5251, 5501, 5261, 5274; Mktg 3000; advertising management emphasis: 5263 and 4 additional 3xxx- or 5xxx-level cr; creative emphasis: 5272 and 4 additional 3xxx- or 5xxx-level cr (5221, 5233, 5252 recommended).

You need not be majoring in Journalism to register for these classes.

Jour 1001 INTRODUCTION TO MASS COMMUNICATIONS. 2 degree credits, \$29. (◆\$14.50)★

The nature, functions, and responsibilities of newspapers, magazines, radio and television, examined from the point of view of the professional journalist. News, opinion, entertainment, and persuasion functions; specialized communications, aspects of advertising. (Prereq completion of freshman English)

Fall Qtr Sec 1 **M**—6:20-8:00, MurH 311, Brovald

Spring Qtr Sec 2 **M**—6:20-8:00, MurH 311, Brovald

Jour 1005 VISUAL COMMUNICATION. 3 degree credits, \$43.50. (◆\$21.75)

Introduction to functions of visual communication in news and advertising in print and electronic media. Evaluation and criticism of visuals in such areas as creative typography, photography. (No prereq)

Winter Qtr Sec 1 **W**—6:20-9:00, ForH 115, Schuneman

***Jour 1011 JOURNALISTIC TECHNIQUES FOR NONMAJORS.** 5 degree credits, \$72.50.

General view of the printed mass media. Forms of news and feature stories; basics of mass communications law. Basics of editing, headlines, makeup for business publications. Lectures and laboratory. (Prereq English composition or equiv, C average. Limited to 24 students)

Winter Qtr Sec 1 **TTh**—6:20-8:30, MurH 207, Sim, Trygstad

***Jour 1101 REPORTING.** 5 degree credits, \$72.50.★

Study and practice in fact-gathering and journalistic writing. Problems in news judgment and handling of news and news features. (Prereq C or better in 1001 and 1005 or grad status or §; type approx. 25 wpm and passing score in Minnesota English Test. Limited to 24 students)

Fall Qtr Sec 1 **MTh**—6:20-8:30, MurH 212, Fang

Winter Qtr Sec 2 **MTh**—6:20-8:30, MurH 212, Dennis

(If students have not taken the MET, it can be taken at the Student Counseling Bureau, 301 Eddy Hall, 373-3818).

Jour 1201 PRINCIPLES OF ADVERTISING. 4 degree credits, \$58. (◆\$29)

Theory, principles and functions of advertising, its role in social, economic and marketing structure. Newspapers, magazines, radio, and television as advertising media. (Prereq 1001 or §)

Spring Qtr Sec 1 **T**—5:30-8:00, MurH 311, Thompson

Symbols, abbreviations, off-campus class locations begin on page 389.

Jour 1701 MASS COMMUNICATIONS LAW. 2 degree credits, \$29. (◆\$14.50)

Origins and background of principles of press law. Libel and its defenses, penalties. Right of privacy, problems of fair trial. Law and self-regulation in advertising, in broadcast media. Copyright, obscenity statutes. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:00, MurH 311, Middleton

Jour 3021 MASS COMMUNICATION AND THE NEWS. 4 degree credits, \$58. (◆\$29)

The mass media in contemporary society; structure, organization, professional norms, and audience compositions. Press and broadcasting; role of media in news dissemination. (No prereq)

Fall Qtr Sec 1 **W**—6:20-9:00, MurH 311, Schuneman

Jour 3173 MAGAZINE WRITING AND EDITING. 4 degree credits, \$58.

new Writing feature articles for general, class, and trade publications, marketing articles; problems of magazine editing, layout, design, makeup. (Prereq 3121 or 1101 or §)

Fall Qtr Sec 1 **T**—6:20-9:00, MurH 311

***Jour 3231 ADVERTISING GRAPHICS.** 4 degree credits, \$58 plus \$5 course fee. Total \$63.

Principles of design and layout. Use of photography, cold-type pasteup techniques. Appropriate use of typefaces. Color in layout and makeup. Hand composition. Individual projects. (Prereq 1201 or §. Limited to 20 students)

Fall Qtr Sec 1 **M**—6:20-8:50, MurH 315, Wilson

Jour 3241 ADVERTISING COPYWRITING. 4 degree credits, \$58.

new Advertising appeals and strategy; development and presentation of advertising for print and broadcast. Individual and group projects. Will not be offered 1976-77. (Prereq 1201, 3231 or §)

Fall Qtr Sec 1 **T**—6:20-9:00, MurH 212, Harris

***Jour 5221 GRAPHIC ARTS: PROCESSES** (replaces 3221). 4 degree credits, \$62 plus \$5 course fee. Total \$67.

Evaluation of processes in graphic communication. Technique and production of illustration. Significant graphic arts development. Survey of printing processes and methods by lecture, field trip and film. Students are introduced to economic organization and technology changes in fields of printing and publishing. (No prereq. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:20-8:50, MurH 311, Metz

***Jour 5233 GRAPHIC DESIGN ANALYSIS.** 4 degree credits, \$62.

Technological development in graphics and its effect on format and efficiency; historical and current trends; field studies, creative problems. Will not be offered 1976-77. (Prereq 3231, 3221 or §. Limited to 24 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6:20-8:50, MurH 315, Wilson

Jour 5251 PSYCHOLOGY OF ADVERTISING. 4 degree credits, \$Psy 5751. \$62. (◆\$31)

Psychological analysis of the basic principles underlying advertising and selling. Consumer research is stressed. Research techniques for investigating advertising problems and the analysis of consumer wants are considered in detail. (Prereq Psy 1001. Meets concurrently with Psy 5751. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:20-8:50, Jones 4, Laybourne

Jour 5261 ADVERTISING: MEDIA ANALYSIS. 4 degree credits, \$62.

new Characteristics of 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. Will not be offered 1976-77. (Prereq 1201, Mktg 3000 or §. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **T**—6:20-9:00, MurH 311

Symbols, abbreviations, off-campus class locations begin on page 389.

Jour 5263 ADVERTISING CAMPAIGN AND MEDIA STRATEGY. 4 degree credits. To be offered 1977-78.

Jour 5271 ADVERTISING COPY-GRAPHICS. 4 degree credits. To be offered 1976-77.

Jour 5274 CURRENT ADVERTISING DEVELOPMENTS AND PROBLEMS. 4 degree credits. To be offered 1976-77.

Jour 5353 PHOTOGRAPHIC COMMUNICATION. 4 degree credits, \$62.

Principles of photographic communication in the mass media. Multichannel communication theories: communicative overtones. Visual sources, layout, objectivity in editing. Experimental creative projects. (Prereq 1005 and course in or experience in journalistic or advertising writing. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:20-9:00, MurH 207, Schuneman

(See also photography courses in Arts, Studio; and Physics)

Jour 5501 COMMUNICATION AND PUBLIC OPINION. 4 degree credits, \$62.

Theories of communication processes and of persuasion and attitude change. Functions of interpersonal and mediated communication in diffusion of information and in opinion formation. (Prereq 15 credits in social sciences. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-8:50, MurH 308, Carter

Jour 5601 HISTORY OF JOURNALISM. 4 degree credits. ★To be offered 1976-77.

Jour 5611 DEVELOPMENT OF AMERICAN BROADCASTING. 4 degree credits. \$62. (♦\$31)

Historical and economic development of radio and television in the United States; government regulation, industry self-regulation, forms of social control; issues in contemporary broadcasting. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:20-8:50, MurH 311, Fang

laboratory medicine (LMed)

(See also Public Health, and other related courses, page 165)

Seymour Handler, Assistant Professor of Laboratory Medicine and Pathology

***LMed 5110 HOSPITAL INFECTIONS CONTROL.** 2 degree credits, \$31.

Nosocomial infections, transmission of hospital infections, surveillance and general methods of infection control. Course is aimed at all levels of personnel on the Hospital Infections Control Committees (HICC)—pathologist, clinician, microbiologist, nurse-epidemiologist, etc. (Prereq \$ or current employment in the hospital environment. A joint Day/Extension class limited to 20 Extension students plus day school registrants. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:15-5:00, HSUnitA 2-620, Handler

Symbols, abbreviations, off-campus class locations begin on page 389.

labor education

For information on non-credit conferences or workshops in labor education, please contact Martin Duffy, Labor Education Service, 451 Business Administration; telephone 373-4110. Or inquiries may be addressed to the above address at the University of Minnesota, Minneapolis, Minnesota 55455.

landscape architecture (LA)

(See also Agriculture, Architecture and Horticultural Science)

C. Gustaf Hard, Professor of Horticultural Science

LA 1024 THEORY OF LANDSCAPE DESIGN. 4 degree credits, \$58. (◆\$29)

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—6:20-8:50, AlderH 415, StP Campus, Hard

latin (Lat)

Robert P. Sonkowsky, Professor in Classics
Rosanne Gulino, Teaching Associate in Classics

NOTE—Lat 1101-1102-1103 require no previous knowledge of Latin. The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68): Clas 1012, 1015, 1019, 1043, 1045, 3073, 3081, 5004, 5073, 5081, 5145; Hist 1053, 3053; Phil 3001, 3002.

Lat 1101-1102-1103 LATIN. 5 degree credits each quarter, \$72.50 plus \$3 course fee. Total \$75.50 each quarter.★

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 one-hour discussions motivate learning, provide community, and explore humanistic educational dimensions of Classical Latin traditions. Courses meet concurrently each term. (No prereq for 1101; 1101 or 8 for 1102; 1102 or 8 for 1103)

Fall Qtr	1101	Sec 1	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1102	Sec 2	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1103	Sec 3	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
Winter Qtr	1101	Sec 4	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1102	Sec 5	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1103	Sec 6	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
Spring Qtr	1101	Sec 7	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1102	Sec 8	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino
	1103	Sec 9	W—6:30-7:30, FolH 304, 305, Sonkowsky, Gulino

Symbols, abbreviations, off-campus class locations begin on page 389.

law

For information on non-credit conferences or workshops in law, please contact John Wirt, Continuing Legal Education, 338 Nolte Center; telephone 373-5386.

(See also Business Law; Criminal Justice Studies; General College legal studies; and Sociology)

library science (Lib)

Harris McClaskey, Associate Professor of Library Science

Joan Leigh, Assistant Professor of Library Science

Lowell Olson, Associate Professor of Library Science

Wesley Simonton, Professor of Library Science

Students who are interested in programs offered by the Library School should obtain information on admission and application procedures from the Library School, 419 Walter Library, Minneapolis Campus; telephone 373-3100.

***Lib 5101 INTRODUCTION TO LIBRARIES AND LIBRARIANSHIP.** 5 degree credits, \$77.50.

Librarianship as a profession; development of libraries as social agencies; principles of library administration and management. Required of students admitted to the graduate program. (No prereq. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:30-6:30, Ph 145, McClaskey

Lib 5102 MEDIA CENTER ADMINISTRATION. 3 degree credits, \$46.50.

Organization and administration at the school building level of the library as the single agency that encompasses all forms of instructional materials; philosophy and objectives of service; administration and organization plans, procedures, and relationships. (Prereq 5101, 5221, 5401. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **T**—6:30-9:00, WaLib 339, Olson

***Lib 5221 RECORDS OF KNOWLEDGE.** 4 degree credits, \$62.

History and development of the records of knowledge in relation to the communication needs of society; principles of selection and collection building for libraries; services to meet clientele information needs. Required of students admitted to the graduate program. (No prereq. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **MW**—4:30-6:30, Ph 145, Leigh

***Lib 5401 ORGANIZATION OF INFORMATION I.** 4 degree credits, \$62.

Introduction to methods and problems involved in the description, subject organization, and retrieval of records of knowledge and information in bibliographies, library catalogs, and machine-based systems. Required of students admitted to the graduate program. (No prereq. Limited to 10 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **MW**—4:30-6:00, Ph 145, Simonton

linguistics (Ling)

(For non-credit courses in this and other areas, see Informal Courses, page 282)

Larry G. Hutchinson, Associate Professor of Linguistics

Michael B. Kac, Assistant Professor of Linguistics

Symbols, abbreviations, off-campus class locations begin on page 389.

Ling 3001 INTRODUCTION TO LINGUISTICS. 4 degree credits, \$5001. \$58. (♦ \$29)

A systematic survey of the field of linguistics; syntax, semantics, phonology; language learning and psychology of language; universals of language; language in society; language change; educational applications; history of linguistics. (No prereq. Meets concurrently with 5001)

Winter Qtr Sec 1 T—6:20-8:50, FolH 406, Hutchinson

Ling 5001 INTRODUCTION TO LINGUISTICS. 4 degree credits, \$3001. \$62.

See course description for 3001. (No prereq. Meets concurrently with 3001. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-8:50, FolH 406, Hutchinson

Ling 5721 LINGUISTICS AND ENGLISH AS A SECOND LANGUAGE. 3 degree credits \$SeEd 5396. Tentatively scheduled for 1976-77.**Ling 5821 SOCIOLINGUISTICS.** 4 degree credits, \$62. (♦ \$31)

Social determinants of linguistic diversity, variability, and change; multilingualism; problems of linguistic minorities; language behavior and social control. (Prereq 3001 or 5001 or \$. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—6:20-8:50, FolH 406, Kac

new

**management (Mgmt)**

T. Keith Coleman, Instructor in Management

W. Bruce Erickson, Associate Professor of Management

Paul V. Grambsch, Professor of Management

Karen Hawley, Instructor in Management

J. Stephen Heinen, Assistant Professor of Management

Andrew Hoh, Instructor in Management

Gary Lorenz, Instructor in Management

John J. Mauriel, Associate Professor of Management

Frederick Miner, Instructor in Management

Precha Thavikulwat, Instructor in Management

Albert K. Wickesberg, Professor of Management

Raymond E. Willis, Associate Professor of Management Science

***Mgmt 3001 FUNDAMENTALS OF MANAGEMENT.** 4 degree credits, \$58.

An evolving study of concepts, theory, research, and operational problems. Includes the principal functional areas of management. Examines provisions of necessary factors and relationships to achieve organizational objectives: establishment of goals, policies, procedures; the planning process; control systems; organizational structure and behavior; leadership. (No prereq. Credits may be applied toward the Information Systems Analysis and Design certificate [see page 94]. **May not be taken S-N.** Limited to 40 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	M —5:30-8:00, BlegH 135, Coleman
	Sec 2	M —5:30-8:00, BlegH 155, Grambsch
	Sec 3	T —7-9:30, Sandburg JHS 213, Golden Valley; Wickesberg
	Sec 4	W —5:30-8:00, BlegH 145, Hawley
Fall Sem	Sec 5	T —6:20-8:00, BlegH 110, Hoh
	Sec 6	T —8:15-9:55, BlegH 110, Hoh
	Sec 7	Th —6:20-8:00, BlegH 150, Lorenz
	Sec 8	Th —8:15-9:55, BlegH 150, Lorenz
Winter Qtr	Sec 9	M —5:30-8:00, BlegH 155, Coleman
	Sec 10	T —5:30-8:00, BlegH 215, Mauriel
	Sec 11	W —6-8:30, Richfield HS 249-250, Miner
	Sec 12	W —5:30-8:00, BlegH 130, Hawley
	Sec 13	Th —6:20-8:50, STP Ramsey Hosp, Education Bldg 314 (Limit 30 students*)
Spring Sem	Sec 14	W —6:20-8:00, BlegH 155, Hoh
	Sec 15	W —8:15-9:55, BlegH 155, Hoh
Spring Qtr	Sec 16	M —5:30-8:00, BlegH 155, Coleman
	Sec 17	T —5:30-8:00, BlegH 155
	Sec 18	W —5:30-8:00, BlegH 130, Lorenz
	Sec 19	Th —5:30-8:00, BlegH 230, Thavikulwat

***Mgmt 3002 PSYCHOLOGY IN MANAGEMENT.** 4 degree credits, \$58.

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. (No prereq. **May not be taken S-N.** Limited to 36 students)

Fall Sem	Sec 1	W —6:20-8:00, BlegH 115, Thavikulwat
	Sec 2	W —8:15-9:55, BlegH 115, Thavikulwat
Spring Sem	Sec 3	W —6:20-8:00, BlegH 105, Heinen
	Sec 4	W —8:15-9:55, BlegH 105, Heinen
Spring Qtr	Sec 5	W —6-8:30, Richfield HS 341, Miner

***Mgmt 3004 BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION.**
5 degree credits, \$72.50.

Undergraduate level integrating course designed to develop skill in the management functions of identifying and analyzing problems, establishing corporate or divisional goals; and designing realistic programs of action. Class time is devoted to case analysis and discussion. Students meet in small groups at other times to prepare cases and occasionally presentations to be made to the entire class. Students utilize data supplied in the case as well as concepts, tools, and theories (previously presented in other courses) as they bear on the solution of 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 students)

Fall Sem	Sec 1	T —6:20-8:00, BlegH 135, Willis
Spring Sem	Sec 2	M —6:20-8:00, BlegH 135, Hoh

***Mgmt 3005 GOVERNMENT AND BUSINESS.** 4 degree credits, \$58.

The role of the free enterprise system; the structure of American industry; the economic and social consequences of big business; public policies toward private enterprise; public regulation, public ownership; the anti-trust laws and their applications. (Prereq Econ 1001 and 1002 or equiv. **May not be taken S-N.** Limited to 45 students)

Winter Qtr	Sec 1	T —5:30-8:00, BlegH 145, Erickson
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Symbols, abbreviations, off-campus class locations begin on page 389.

***Mgmt 5175 BUSINESS FORECASTING.** 4 degree credits, \$62.

Methods of economic, social, and technological forecasting and applications to problems of managerial decision making and planning. (Prereq QA 1050 or 8191, Mgmt 3001 or 8001, or 1. Limited to 40 students. **May not be taken S-N.** Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—5:30-8:00, BlegH 145, Willis

management information systems (MIS)

(See also Computer, Information, and Control Sciences)

Carl R. Adams, Associate Professor of Management Information Systems
Robert J. Ahlstrom, Manager, Data Processing, Red Owl, Inc.
John Anderson, Assistant Professor of Management Information Systems
John Braasch, Assistant to Chairman, Donaldson Co., Inc.
John Carlis, Instructor in Management Information Systems
John C. Cosgrove, Programmer, University Computer Center
Gary W. Dickson, Professor of Management Information Systems
Gordon C. Everest, Assistant Professor of Management Information Systems
Thomas R. Hoffmann, Professor of Management Information Systems
David L. Holland, Planning Analyst, First Computer Corp.
A. Milton Jenkins, Instructor in Management Information Systems
J. David Naumann, Assistant Professor of Management Information Systems
Ronald R. Reich, Manager of Configuration Management, Control Data Corp.
Roger Schroeder, Associate Professor of Management Information Systems
Frank G. Seidel, Instructor in Management Systems
Dennis G. Severance, Associate Professor of Management Information Systems
Michael Timmons, Jr., Product Support Manager, Control Data Corp.
Ronald D. Visness, Lecturer in Management Information Systems

COMPUTER PROGRAMMING COURSES

Students in the MIS programming modules learn to program by writing programs. No lectures are presented; the appropriate text, plus course materials which are handed out at the first class meeting, provide the student complete course material. Students should, therefore, attend the first class meeting to obtain procedural instructions, due dates, and course assignments. After that, the student needs to attend only 1I to take a quiz, or 2I for assistance with a programming problem. After the first class meeting students may come to the programming laboratory at any time under the following schedule: Fall, Winter, and Spring, M, T, W, or Th, 6:00-10:00 p.m. in BlegH 5.

MIS 3098 ELEMENTARY COBOL. 1 degree credit plus 1 certificate credit, \$29 plus \$10 special fee. Total \$39.

An introduction to programming in the COBOL language. COBOL is the most widely used business data processing language. In the self-paced structure, the student will complete a structured set of COBOL programs and several short quizzes on or before scheduled dates. A programming laboratory is provided. (No prereq)

Fall Qtr Sec 1 **Time Arr** (See sectioning statement above)
Winter Qtr Sec 2 **Time arr** (See sectioning statement above)
Spring Qtr Sec 3 **Time arr** (See sectioning statement above)

MIS 3099 ELEMENTARY FORTRAN. 1 degree credit plus 1 certificate credit, \$29 plus \$10 special fee. Total \$39.

An introduction to programming in the FORTRAN language. FORTRAN is used primarily for programming analytical problems. In the business environment it is used where much computation is required; for example, forecasting, optimization, and statistical analyses. In the self-paced structure, the student will complete a structured set of FORTRAN programs and several short quizzes on or before scheduled due dates. A programming laboratory is provided. (No prereq)

Fall Qtr Sec 1 **Time arr** (See sectioning statement above)
Winter Qtr Sec 2 **Time arr** (See sectioning statement above)
Spring Qtr Sec 3 **Time arr** (See sectioning statement above)

Symbols, abbreviations, off-campus class locations begin on page 389.

MIS 5098 INTERMEDIATE COBOL. 1 degree credit plus 1 certificate credit, \$31 plus \$10 special fee. Total \$41.

Intermediate features of the COBOL programming language. In the self-paced structure, the student will complete a structured set of COBOL programs and several short quizzes on or before scheduled dates. A programming laboratory is provided. (Prereq MIS 3098. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr	Sec 1	Time arr (See sectioning statement above)
Winter Qtr	Sec 2	Time arr (See sectioning statement above)
Spring Qtr	Sec 3	Time arr (See sectioning statement above)

***MIS 5100 COMPUTERS AND SYSTEMS DESIGN.** 4 degree credits, \$62.

Basic elements of computer hardware, software, and systems. Focus on the computer as a tool: hardware components and their function, operating systems, how a computer works, instructing a computer, the role and nature of programming languages, acquiring computer services, new developments in computer systems, selected uses of the computer, the many facets of the computer industry, standards, systems analysis and documentation, data communications. (Prereq MIS 3098 or 3099 or MIS 3098 or 3099 or \$. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 1	M —6-9:20, BlegH 440, Hoffmann
	Sec 2	T —6-9:20, BlegH 440, Seidel
	Sec 3	W —5-8:20, NSP Co, 414 Nicollet Mall, Lower Level Bay 3, Mpls; Ahlstrom
	Sec 4	Th —5-8:20, Burlington Northern, Inc. Auditorium, 176 E 5 St, St. Paul, Reich
Winter Qtr	Sec 5	M —6-9:20, RarigC 610, Visness
	Sec 6	W —6-9:20, BlegH 250, Ahlstrom
Spring Qtr	Sec 7	M —6-9:20, BlegH 415, Visness
	Sec 8	W —6-9:20, BlegH 415, Seidel

***MIS 5101 INTRODUCTION TO MANAGEMENT INFORMATION SYSTEMS.** 4 degree credits, \$62.

An overview of the field of management information systems. Topics include: the relationship of information, management and systems; what the manager should know about the computer; information systems for operational, tactical, and strategic decision making; administration and control of MIS development; and behavioral aspects of information systems. Recommended prior course in MIS or equiv. (Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 1	T —6-9:20, BlegH 220, Anderson
	Sec 2	W —6-9:20, BlegH 130, Schroeder
	Sec 3	Th —6-9:20, BlegH 145, Holland
Winter Qtr	Sec 4	T —6-9:20, BlegH 415, Dickson
	Sec 5	Th —5-8:20, NSP Co, 414 Nicollet Mall, Lower Level Bay 3, Mpls, Adams
Spring Qtr	Sec 6	T —6-9:20, BlegH 440, Carlis
	Sec 7	Th —5-8:20, Burlington Northern, Inc. Auditorium, 176 E 5 St, St. Paul, Holland

***MIS 5102 INTRODUCTION TO SYSTEMS ANALYSIS.** 4 degree credits, \$62.

Information requirements analysis, design constraints, functional analysis, systems prototypes, design justification. Management systems concepts for integrating a computer system into the organization. Development of standards for systems work, and project planning and control. (Prereq MIS 5100 and MIS 5101 or \$. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr	Sec 1	T —6-9:20, BlegH 145, Jenkins
Winter Qtr	Sec 2	T —6-9:20, AndH 310, Schroeder
Spring Qtr	Sec 3	T —6-9:20, BlegH 130, Adams

Symbols, abbreviations, off-campus class locations begin on page 389.

***MIS 5103 DATA STRUCTURES AND FILE PROCESSING.** 4 degree credits, \$62 plus \$4 special fee. Total \$66.

Sequential file processing, sorting techniques, direct access techniques such as indexed sequential and random. File systems and file support systems. Introduction to the concepts of data management storage structures: lists, multilists, trees, rings, inverted files. (Prereq MIS 5100 and MIS 5098, or MIS 5100 and MIS 5098. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 Th—6-9:20, BlegH 215, Everest

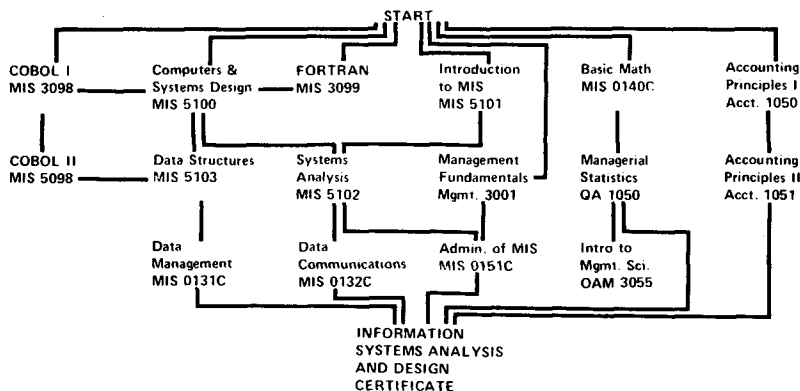
Winter Qtr Sec 2 Th—6-9:20, BlegH 145, Severance

Spring Qtr Sec 3 Th—6-9:20, BlegH 240, Severance

Students with programming experience or other data processing experience may complete an Equivalency Examination for MIS 3098, 3099, or 5100. Students who believe they are qualified should contact Extension Counseling (373-3905).

Special Program of Continuing Education in Management Information Systems

The following courses are taught in a special program of continuing education in Management Information Systems (MIS). This sequence of courses is offered only through Continuing Education and Extension. These courses apply toward the requirements for the Certificate in Information Systems Analysis and Design (see page 94). This program was established by the University of Minnesota in cooperation with the Minnesota business community to fill a recognized need for continuing education in computer data processing and MIS. The goal of this sequence is to provide the student with the skills necessary to analyze, design, implement, and control computer-based management information systems.



MIS 0131C DATABASE MANAGEMENT SYSTEMS. 4 certificate credits, \$58 plus \$10 special fee. Total \$68.

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 MIS 5103)

Winter Qtr Sec 1 W—6-9:20, BlegH, Cosgrove

MIS 0132C DATA COMMUNICATIONS SYSTEMS. 4 certificate credits, \$58.

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 MIS 5102 or equivalent)

Fall Qtr Sec 1 Th—6-9:20, BlegH 235, Timmons

Spring Qtr Sec 2 Th—6-9:20, BlegH 235, Timmons

MIS 0140C MATHEMATICAL FOUNDATIONS OF SYSTEMS ANALYSIS I. 3 certificate credits, \$43.50.

The basic mathematical tools necessary for the development of quantitative skills. Boolean algebra, set theory, logic, sequences and series, iteration, linear

Symbols, abbreviations, off-campus class locations begin on page 389.

algebra, and matrix manipulation. For those students with weak mathematical backgrounds or those who must refresh their skills. For those in the certificate program, MIS 0140C provides prerequisite skills for QA 1050, Elementary Managerial Statistics. (No prereq)

Fall Qtr Sec 1 M—6-8:30, BlegH 210, Naumann
Winter Qtr Sec 2 M—6-8:30, BlegH 245, Naumann
Spring Qtr Sec 3 M—6-8:30, BlegH 245, Naumann

MIS 0151C ADMINISTRATION AND CONTROL OF MANAGEMENT INFORMATION SYSTEMS. 4 certificate credits, \$58.

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 MIS 5102 and Mgmt 3001)

Fall Qtr Sec 1 Th—6-9:20, BlegH 245, Braasch
Winter Qtr Sec 2 Th—6-9:20, BlegH 245, Braasch

marketing (Mktg)

Your attention is called to the Credit and Financial Management Certificate program, page 92; Journalism; General College marketing sequence; and Salesmanship.

David G. Bassitt, Market Intelligence Specialist, Butler Manufacturing Co.

Stanley R. Cowle, Administrator, Hennepin County

Michael Dwyer, Marketing Research Director, Sperry Division, General Mills, Inc.

Samuel D. Druy, Vice President and General Merchandise Manager, Daytons (retired)

Robert M. Ferris, Marketing Research Analyst, First Computer Corp.

Robert J. Holloway, Professor of Marketing

John R. Peters, International Trade Specialist, U.S. Dept. of Commerce

Richard L. Peterson, Management Consultant, Cooperative Management Resources

Dennis Rosen, Instructor in Marketing

William Rudelius, Professor of Marketing

Bertram W. Russick, President, Mid-Continent Surveys, Inc.

Richard Sauter, Marketing Research and Planning, Medtronic, Inc.

Orville Walker, Associate Professor of Marketing

Thomas Walker, Credit Counselor, Farm-Oyl Co.

John R. Walton, Assistant Professor of Marketing

Douglas V. Wheeler, Assistant Product Manager, General Mills, Inc.

Mktg 0087C CREDITS AND COLLECTIONS. 3 certificate credits, \$43.50.

Nature and types of credit instruments and agencies; qualifications and work of credit manager; valuation and use of financial statements and credit reports; collection methods and correspondence; bankruptcy and adjustments; credit limit and control. (Prereq 3000)

Fall Qtr Sec 1 Th—6:20-8:50, BlegH 115, T Walker

***Mktg 3000 PRINCIPLES OF MARKETING.** 4 degree credits, \$58.

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 1001 and 1002 or \mathcal{E} . May not be taken S-N. Limited to 50 students.)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	M —7-9:30, Kellogg HS 168-170, Little Canada; Rosen (Limit 35 students*)
	Sec 2	T —6-8:30, BlegH 215, Rudelius
	Sec 3	Th —6-8:30, BlegH 220, Sauter
Fall Sem	Sec 4	M —6:20-8:00, BlegH 220, Holloway
	Sec 5	T —6:20-8:00, BlegH 150, Wheeler
Winter Qtr	Sec 6	M —6-8:30, AndH 330, Dwyer
	Sec 7	Sa —9 a.m.-11:00, BlegH 425, Bassitt
	Sec 8	Th —7-9:30, Sandburg JHS 213, Golden Valley, Sauter (Limit 45 students*)
Spring Sem	Sec 9	M —6:20-8:00, BlegH 150, Holloway
Spring Qtr	Sec 10	M —5:30-8:00, WCCO Radio Bldg 512, Mpls, Walton (Limit 45 students*)
	Sec 11	T —6-8:30, BlegH 135, Rudelius
	Sec 12	W —6:20-8:50, STP Ramsey Hosp, Education Bldg 401, Ferris

***Mktg 3040 INTERNATIONAL MARKETING.** 4 degree credits, \$8040. \$58.

new Environmental factors impinging on international trade, such as culture and business customs, political factors and constraints, economic development, and multinational market groups; the management of international trade, including market potentials, marketing research, international organizations, channels of distribution, sales promotion, pricing, credit, and financing. Case materials used extensively. (Prereq 3000. Limited to 50 students)

Winter Qtr Sec 1 **T**—6-8:30, AndH 330, Peters

***Mktg 3060 MARKETING SYSTEMS.** 4 degree credits, \$58.

The systems approach to marketing institutions and their interrelationships. Institutional, functional, and social aspects of distribution channels are examined. Particular emphasis is given to problems of channel selection and management, such as conflict, power, and control. Social issues and deviant systems are also examined. (Prereq Mktg 3000 or 3. Limited to 50 students)

Fall Qtr Sec 1 **Th**—5:30-8:00, BlegH 415, O Walker

***Mktg 3065 RETAIL MANAGEMENT.** 4 degree credits, \$58.

new Study of 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 3000. Limited to 50 students)

Fall Qtr Sec 1 **T**—6-8:30, AndH 250, Druy

Mktg 3075 SALES MANAGEMENT. 4 degree credits, \$58.

Management of the personal selling function including sales organization; selection, training, compensation, motivation, supervision, and control of the field sales force; sales forecasting; sales budgets; sales and cost analysis. Case materials used extensively. (Prereq 3000)

Spring Sem Sec 1 **M**—6:20-8:00, BlegH 115, Peterson

***Mktg 3077 ADVERTISING AND SALES PROMOTION.** 4 degree credits, \$58.

The promotion function in marketing: Media, audience, message. Establishing objectives for advertising and sales promotion, budget and media allocation decisions, sales promotion, mix components, advertiser—agency structure and relationships, measuring advertising and sales promotion effectiveness, and socio-economic considerations. (Prereq 3000. Limited to 45 students)

Spring Qtr Sec 1 **W**—6-8:30, BlegH 135

Mktg 3080 INDUSTRIAL AND GOVERNMENTAL PROCUREMENT. 4 degree credits, \$58.

Procurement of supplies, equipment and complete systems of industrial firms and governmental agencies. Study of quantity and quality decisions, forward buying, pricing decisions, and vendor selection decisions common to both in-

Symbols, abbreviations, off-campus class locations begin on page 389.

dustrial and governmental purchases. Study of the unique problems of acquisition of technological systems by government agencies; national and regional impact of these procurements. (Prereq 3000)

Spring Sem Sec 1 **M**—6:20-8:00, BlegH 10, Cowle

Mktg 3095 MARKETING RESEARCH. 4 degree credits, \$58.

Survey, observational, and experimental techniques used in marketing research. Application of these techniques to selected marketing problems. Class project involves utilizing one or more of these techniques to study an actual marketing problem. (Prereq 3000, OAM 3055 or $\$$. May not be taken S-N)

Fall Qtr Sec 1 **M**—6-8:30, BlegH 335, Russick

Mktg 3098 INTRODUCTION TO CONSUMER BEHAVIOR. 4 degree credits, \$58.★

Applications of the behavioral sciences to understanding human behavior in the marketplace. Topics include perception, learning, attitude theory and measurement, persuasion, motivation, personality, social and cultural influences, family decision-making, the social influence process, consumer decision-making strategies, managerial implications of consumer research and "consumerism." (Prereq 3000)

Spring Qtr Sec 1 **T**—6-8:30, BlegH 250, O Walker

mathematics (Math)

Your attention is called to the Mathematics and Science Certificate Program, page 87, and the Undergraduate Development Certificates in Engineering and Sciences, page 98; and mathematics courses in General College.

Lawrence R. Harper, Assistant Professor of Mathematics

Walter James, Information Systems Manager, State of Minnesota

Howard Jenkins, Associate Professor of Mathematics

Harvey B. Keynes, Associate Professor of Mathematics

Chester L. Miracle, Associate Professor of Mathematics

Wayne W. Schmaedeke, Director of Operations Planning, Minnesota Gas Co.

Gaylord P. Schwartz, Assistant Professor of Mathematics, St. Thomas College

George Sell, Professor of Mathematics

William Serbyn, Instructor in Mathematics

James G. Swenson, Instructor, Anoka Senior High

James E. Thompson, Associate Professor of Mathematics

V. Varadachari, Assistant Professor of Mathematics, Lakewood Community College

John L. Vitelli, Manager, Field Operating Systems, Commercial Division, Honeywell

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, if it has been more than two years since he completed his last mathematics course in high school, the student should register in Math 1201, or possibly Math 0009 (intermediate algebra). The following rule usually applies: A student who has been out of high school five years or more, or did not have higher algebra in high school should register in Math 0009. A student who knows very little algebra should register for Math 0006 (introductory algebra).

The entrance requirement for the Institute of Technology is four years of high school mathematics, including solid geometry and trigonometry or Math 1201.

Symbols, abbreviations, off-campus class locations begin on page 389.

major in mathematics

Every effort is being made to offer a variety of upper division courses in mathematics in Extension Classes. Courses on the 5000 level are offered every second or third year. A limited number of courses at the 5xxx-level each year pending sufficient enrollment in each course.

It is possible over a period of years to get a mathematics major by taking courses offered only in Extension Classes. A student who wishes to graduate with a major in mathematics should take Math 5601-2 and 5242-3. He should consult an advisor to determine which other courses to take.

mathematics for nonmajors and prebusiness students

Math 1111, 1131, and Math 1142 are offered for the benefit of prebusiness students and are designed in cooperation with the College of Business Administration. The first course for business and accounting students is usually either 1111 or 1131. This is followed by Math 1142. These courses are also taken by non-mathematics majors who do not need a full four-quarter calculus course. Instead of starting with Math 1111 or 1131 some students should start with Math 0009. If it has been more than three years since a student completed his last mathematics course, then he should register for Math 0009.

calculus refresher course

Math 5090 provides students who have been out of school for several years with the necessary background to enter more advanced courses on an equal footing with students who have just finished calculus.

Math 0005 ARITHMETIC FOR ADULTS. No credit, \$43.50.

A practical course for anyone needing an elementary background in Mathematics. It includes a study of the arithmetic of whole numbers, fractions, and decimal fractions with aids to quick and easy computation. It also includes an introduction to elementary algebra, linear equations and some other topics. It includes the measurement of length, area, and volume. This course is a good refresher for those who have forgotten some things such as the arithmetic of fractions or long division. It is a good course for shop men in industry who need to be able to work with fractions and measurement. It is a good course for those who have a poor background in arithmetic and algebra or those who dropped out of high school and now need to know arithmetic. Some exercises will be done in class. Students who do not wish to take any tests or earn a grade should audit the course. Students may register S-N or A-N. (No prereq)

Fall Sem Sec 1 Th—6-8:30, Arch 5

Spring Sem Sec 2 M—6-8:30, Arch 5

Math 0006 ELEMENTARY ALGEBRA. Entrance Credit, \$87.

This course begins at the very beginning of algebra and includes all the elements of algebra to quadratic equations. It is equivalent to one year of ninth grade algebra with plenty of time given to each idea. (Prereq arithmetic. Entrance requirement for most colleges including the College of Liberal Arts and the Institute of Technology).

Fall Sem Sec 1 MW—6:20-8:00, VH 203

Sec 2 TTh—6-7:40, VH 211

Spring Sem Sec 3 MW—6:20-8:00, VH 1

Math 0007 PLANE GEOMETRY. Entrance credit, \$87.

Elements of plane geometry, equivalent to 1 year of high school plane geometry with adequate time given to each idea. (Prereq arithmetic. Entrance requirement for College of Liberal Arts and Institute of Technology).

Fall Sem Sec 1 MW—6-7:40, Aero 215

Symbols, abbreviations, off-campus class locations begin on page 389.

Math 0008 SOLID GEOMETRY. Entrance credit, \$43.50.

Lines, planes, dihedral and polyhedral angles, polyhedrons, surfaces, prisms, cylinders, cones, prisms, and spheres. Three-dimensional visualization and sketching. Numerical exercises in areas, volumes, weights. (Prereq plane geometry. Entrance requirement for Institute of Technology and College of Education. All calculus courses require solid geometry.)

Spring Sem Sec 1 **W**—6-7:40, Aero 215

Math 0009 INTERMEDIATE ALGEBRA. Entrance credit, \$72.50.

Fundamental operations, factoring, fractions, functions and graphs, linear equations, exponents and radicals, quadratic equations, ratio and variation, progressions, binomial theorem, logarithms. This course covers most of the material of high school elementary and higher algebra, with emphasis on the latter. (Prereq 0006 or equivalent. Entrance requirement for Institute of Technology and is a prereq to all IT and Arts College Mathematics courses.)

Fall Qtr Sec 1 **MW**—5:15-7:20, Arch 50
Sec 2 **MW**—6:30-8:35, Kellogg HS 229, Little Canada (Limit 30 students*)
Sec 3 **TTh**—6:30-8:35, Sandburg JHS 210, Golden Valley (Limit 35 students*)
Fall Sem Sec 4 **MW**—6:20-7:45, VH 311
Sec 5 **TTh**—6-7:25, VH 311
Winter Qtr Sec 6 **MW**—6-8:05, Ph 131
Sec 7 **TTh**—6-8:05, Arch 10
Spring Sem Sec 8 **MW**—6-7:25, VH 311
Sec 9 **TTh**—6:20-7:45, VH 1
Spring Qtr Sec 10 **MW**—6:30-8:35, Richfield HS 241 (Limit 30 students*)

Math 1005 FOUNDATIONS OF ARITHMETIC. 3 degree credits, \$43.50.

Includes logical and axiomatic basis of rules for arithmetical operations with integers, rational numbers, and real irrational numbers; real number line and inequalities as necessary background for teaching arithmetic in elementary school, topics from geometry and congruences; with some attention to history of subject and its role in our culture and civilization. (Prereq 1 year elementary algebra and 1 year high school geometry or \pm .)

Winter Qtr Sec 1 **W**—6:30-9:00, Arch 35

Math 1006 FOUNDATIONS OF ARITHMETIC. 3 degree credits, \$43.50.

Includes topics from the following: definitions of rational and irrational numbers, definitions of addition, subtraction, multiplication and division of fractions; methods of operations on rational and real numbers; the real number line and inequalities, topics from geometry and congruences. (Prereq 1005)

Spring Qtr Sec 1 **W**—6:30-9:00, Arch 35

Math 1008 TRIGONOMETRY. 3 degree credits, \$1201. \$43.50.

Analytic trigonometry emphasizing identities, equations, and properties of the functions; right and oblique triangles without logarithmic computation. (Prereq plane geometry; Math 0009 or high school higher algebra or \pm .)

Fall Sem Sec 1 **M**—5:20-7:00, Kolth S133
Sec 2 **T**—8:15-9:55, Kolth S133
Sec 3 **W**—6:20-8:00, Kolth S133
Spring Sem Sec 4 **T**—6:20-8:00, Kolth S133

Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY. 5 degree credits, \$1141, 1411, 1441, 1201. \$72.50.

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. (For students requiring only some analytic geometry and college algebra without trigonometry, or whose background

does not include logarithms. Students who plan to take several quarters of mathematics should not take this course. Prereq high school higher algebra or 0009).

Fall Sem	Sec 1	MW —5:45-7:10, KoltH S134
	Sec 2	MW —6:30-7:55, Sandburg JHS 205, Golden Valley
	Sec 3	TTh —6:20-7:45, VH 209
	Sec 4	Sa —9 a.m.-11:50, VH 16
Spring Sem	Sec 5	MW —6:20-7:45, VH 209
	Sec 6	TTh —6-7:25, VH 209

Math 1131 FINITE MATHEMATICS. 5 degree credits, §1111, 1141, 1201, 1411. \$72.50.

(For students in the social sciences, behavioral sciences, and prebusiness administration) Elementary computer programming, logical analysis, probability and stochastic models, Markov chains, linear systems and programming, matrix operations and applications. (Prereq high school higher algebra or Math 0009)

Fall Sem	Sec 1	TTh —6-7:25, VH 16
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Math 1142 INTRODUCTION TO CALCULUS OF ONE AND SEVERAL VARIABLES. 5 degree credits, §1211, 1220, 1442. \$72.50.

(A second course of a 2 semester sequence for students in prebusiness administration curriculum and for other students requiring college algebra and a minimal amount of calculus. Students who plan to take several quarters of calculus should not register for this course.) Limits, derivatives, and integrals, some calculus of several variables and differential equations, rates of change, maxima and minima, several applications to a variety of disciplines. (Prereq 1111 or 1131 or 1141).

Fall Sem	Sec 1	MW —6:20-7:45, VH 16
Spring Sem	Sec 2	MW —5:45-7:10, KoltH S134
	Sec 3	MW —6:30-7:55, Sandburg JHS 205, Golden Valley
	Sec 4	TTh —6:20-7:45, VH 16
	Sec 5	Sa —9 a.m.-11:50 a.m., VH 16 (Limit 35 students*)

Math 1201 PRE-CALCULUS. 5 degree credits, §1141, 1411, 1441. \$72.50. ★

Inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, and trigonometric, exponential and logarithmic functions. (Prereq 0009 or high school higher algebra, 1008 or high school trigonometry. For students in both IT and CLA who intend to take a calculus sequence.)

Fall Qtr	Sec 1	MW —6-8:05, Aero 209
	Sec 2	TTh —6:30-8:35, Kellogg HS 229, Little Canada (Limit 30 students*)
	Sec 3	TTh —6:30-8:35, Richfield HS 241
Fall Sem	Sec 4	TTh —5:30-6:55, KoltH S136
Winter Qtr	Sec 5	TTh —7-9:05, Sandburg JHS 212, Golden Valley (Limit 35 students*)
Spring Sem	Sec 6	MW —6:20-7:45, VH 20
Spring Qtr	Sec 7	MW —6-8:05, Arch 55
	Sec 8	TTh —6-8:05, Arch 10

Math 1211 ANALYSIS I. 5 degree credits, §1142, 1210, 1421, 1311. \$72.50. ★

Analytical geometry and calculus of functions of one variable, applications. (Prereq 1201, or 0009 and 1008, or 4 years of high school mathematics including trigonometry within the last two years. See note page 306)

Fall Qtr	Sec 1	TTh —6:30-8:35, Richfield HS 142 (Limit 30 students*)
Fall Sem	Sec 2	MW —6:20-7:45, VH 1
	Sec 3	TTh —5:45-7:10, VH 1
Winter Qtr	Sec 4	MW —6-8:05, Aero 209
	Sec 5	TTh —6:30-8:35, Kellogg HS 168-169, Little Canada
	Sec 6	TTh —6:30-8:35, Richfield HS 142
Spring Sem	Sec 7	TTh —5:30-6:55, KoltH S135
Spring Qtr	Sec 8	TTh —7-9:05, Sandburg JHS 212, Golden Valley

Symbols, abbreviations, off-campus class locations begin on page 389.

Math 1221 ANALYSIS II. 5 degree credits, \$1220, 1321, 1431. \$72.50.★

A continuation of the course described under 1211. (Prereq grade of C or better in 1211 or equiv)

Fall Qtr	Sec 1	MW —6:30-8:35, Sandburg JHS 212, Golden Valley
	Sec 2	TTh —6-8:05, Arch 10
Fall Sem	Sec 3	MW —5:45-7:10, KoltH S136
Winter Qtr	Sec 4	TTh —6:30-8:35, Richfield HS 143
Spring Sem	Sec 5	MW —6:20-7:45, VH 16
Spring Qtr	Sec 6	MW —6-8:05, Ph 131
	Sec 7	TTh —6:30-8:35, Kellogg HS 235, Little Canada
	Sec 8	TTh —6:30-8:35, Richfield HS 143

Math 1231 ANALYSIS III. 5 degree credits, \$1230, 1331. \$72.50.★

A continuation of the course described under 1211. (Prereq grade of C or better in 1221 or equiv)

Fall Qtr	Sec 1	MW —6-8:05, VH 211
	Sec 2	TTh —6:30-8:35, Richfield HS 143
Winter Qtr	Sec 3	TTh —6-8:05, VH 113
Spring Qtr	Sec 4	TTh —6:30-8:35, Richfield HS 142

Math 1311-1321 COMPUTER CALCULUS. 5 degree credits each semester, \$1211, 1142, 1221. \$72.50 each semester.

Content and description is essentially the same as 1211-1221-1231 and 1611-1621 plus topics in elementary computer programming. Most of the material is presented from a computing point of view. (Prereq grade of C or better in 1201 or high school higher algebra, trigonometry, geometry for 1311; 1311 for 1321)

Fall Sem	1311	Sec 1	TTh —6:20-7:45, VH 6
Spring Sem	1321	Sec 2	TTh —6:20-7:45, VH 6

Math 3091 ELEMENTARY PROBABILITY AND STATISTICS WITH APPLICATIONS. 4 degree credits, \$58.

Elementary probability and probability distributions, sampling and elements of statistical inference. More mathematical treatment than 1051. (Prereq differential and integral calculus).

Fall Sem	Sec 1	Th —6-8:15, VH 207
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Math 3211 ANALYSIS IV. 5 degree credits, \$1240, 1444, 3411, 3521, 3611. \$72.50.★

Partial differentiation, chain rule, implicit functions, applications. Multiple integrals in two and three dimensions. (Prereq grade of C or better in 1231 or equiv)

Fall Qtr	Sec 1	TTh —6-8:05, VH 364
Winter Qtr	Sec 2	MW —6-8:05, VH 314
Spring Qtr	Sec 3	MW —6-8:05, VH 364

Math 3221 INTRODUCTION TO LINEAR ALGEBRA AND LINEAR DIFFERENTIAL EQUATIONS. 5 degree credits, \$1250, 3142, 3511. \$72.50.★

Vectors, systems of linear equations, matrices, determinants, bases, eigenvalues. Linear differential equations and systems with constant coefficients, initial value problem and general solution, variation of parameters for inhomogeneous equations. (Prereq grade of C or better in 1231 or equiv)

Fall Qtr	Sec 1	TTh —6-8:05, VH 113
Winter Qtr	Sec 2	MW —6-8:05, VH 364
Spring Qtr	Sec 3	MW —6-8:05, VH 211

Math 3231 VECTOR ANALYSIS. 4 degree credits, \$1260, 5601-5602. \$58.

Scalar and vector products, derivatives, geometry of space curves, del operator, line and surface integrals, divergence and Stokes' theorem, transformation of coordinates, dyadics, applications: mostly a technique course, intended mainly

Symbols, abbreviations, off-campus class locations begin on page 389.

for students whose interests are not theoretical, but who wish to learn the relevant mathematical facts and methods. (Prereq grade of C or better in 3211 or equivalent).

Fall Sem Sec 1 M—6-8:15, VH 301
Spring Qtr Sec 2 TTh—6-7:40, VH 211

Math 5005-5006 TOPICS IN THE MATHEMATICS OF PRIMARY SCHOOLS. 4 degree credits each quarter, \$62 each quarter.

Provides a broad survey of mathematical topics for primary teachers who are interested in mathematics. The equivalent of one hour of class per week will be made up by extra homework and problem sessions. Available for credit only for students in elementary education program. (Prereq 1005 or 1006 with grades of B or better, or § for 5005; 5005 for 5006. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5005 Sec 1 Th—4:30-7:00, Kolth S133
Winter Qtr 5006 Sec 2 Th—4:30-7:00, Kolth S133

(See also Education)

Math 5090 CALCULUS REFRESHER. 5 degree credits, \$77.50.

A one semester course designed for students who have already had calculus, but who have been away from it for a while and need a review; especially for engineers wishing to take engineering refresher courses or the engineering exams, for high school mathematics teachers, and anyone who wishes to take some advanced math courses. This course will cover the topics of a standard calculus course; differentiation of elementary functions, differentials, the definite integral, analytic geometry, logarithmic and exponential functions, hyperbolic functions, techniques of integration, applications of integration, polar coordinates, infinite series, approximation, partial differentiation, and multiple integrals. (Prereq 1 year calculus. May be taken S-N. Qualified students may register for graduate credit at the University of Minnesota, except in the major field)

Fall Sem Sec 1 MW—6:20-7:45, Ph 170
Spring Sem Sec 2 TTh—6-7:25, Arch 35

Math 5458 METHODS OF APPLIED MATHEMATICS. 4 degree credits. \$62

Integrated study of analytic tools used in applications of mathematics; emphasis on technique. Real and complex variables, matrices, ordinary and partial differential equations, calculus of variations, asymptotic expansions, etc. The equivalent of one hour of class per week will be made up by extra homework and problem sessions. (Prereq 5457. Qualified students interested in graduate credit should inquire at the time of registration.)

Fall Qtr Sec 1 Th—6-8:30, VH 206

Math 5567 FOURIER SERIES AND BOUNDARY VALUE PROBLEMS. 4 degree credits. \$62.

Partial differential equations of theoretical physics. Fourier series, proof of convergence, orthogonal systems. Sturm-Liouville systems, solutions of boundary value problems by separation of variables, application. (Prereq 3211 and 3221 or equiv. Qualified students interested in graduate credit should inquire at the time of registration.)

Spring Qtr Sec 1 W—6-8:30, VH 207

Math 5601 ADVANCED CALCULUS. 4 degree credits. \$62.

Differentiation of functions of several variables; vector algebra; curves in three dimensions; directional derivative and gradient; inverse transformation and implicit function theorems; change of variables in multiple integrals. The equivalent of one hour of class per week will be made up by extra homework and problem sessions. (Prereq 3211 or 3411 or equivalent. Qualified students interested in graduate credit should inquire at the time of registration.)

Fall Qtr Sec 1 W—6-8:30, VH 207

Math 5602 ADVANCED CALCULUS. 4 degree credits. \$62.

Line and surface integrals; Stokes' theorem; convergence of infinite series; orthogonal functions; uniform convergence; integration and differentiation of series.

Symbols, abbreviations, off-campus class locations begin on page 389.

The equivalent of one hour of class per week will be made up by extra homework and problem sessions. (Prereq 5601. Qualified students interested in graduate credit should inquire at the time of registration.)

Winter Qtr Sec 1 W—6-8:30, VH 207

mechanical engineering (ME)

Your attention is called to the Undergraduate Development Certificate in Mechanical Engineering—90 credits, see page 103 and Professional Development Recognition Program in Engineering and Science, page 222.

Students interested in a degree in Mechanical Engineering, see page 75.

Darrell A. Frohrib, Professor of Mechanical Engineering
Fulton Holtby, Associate Professor of Mechanical Engineering
William A. Kleinhenz, Associate Professor of Mechanical Engineering
Thomas E. Murphy, Professor of Mechanical Engineering
Katsuhiko Ogata, Professor of Mechanical Engineering
Ephraim M. Sparrow, Professor of Mechanical Engineering

Through registration in Extension Classes, students may earn all but approximately 20 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).

ME 0001 REFRESHER COURSE FOR MECHANICAL ENGINEERS. No credit, \$58.

This course is designed for practicing engineers, and will consist of lectures and problem sessions. (Prereq BME or equivalent degree or completion of Parts I and II of State Board Examination. **Must be taken S-N only**)

Winter Qtr Sec 1 W—6-9:20, MechE 321

(See also refresher courses in engineering fundamentals, page 289; civil engineering, page 147; electrical engineering, page 219).

ME 0024C-0025C MACHINE DESIGN I-II. 5 certificate credits each semester, \$72.50 each semester.

Fundamental principles of design of machine elements: lubrication, theory, and application; friction drivers, screws, gears, belts, connectors, flywheels, machine frames, shrink fits, stress concentration, vibration analysis, and application of velocity and acceleration analysis to machine design problems. The course will consist of a series of lectures and problems to be solved in class. Laboratory experiments will be used whenever possible. Special movies will be used. (Prereq Math 0009 or § for 0024C; 0024C for 0025C)

Fall Sem 0024C Sec 1 Th—6-9:00, MechE 302

Spring Sem 0025C Sec 2 Th—6-9:00, MechE 302

ME 0030C SYSTEM INSTRUMENTATION AND CONTROL. 5 certificate credits, \$72.50.

Basic theory and operation of automatic controls including industrial instrumentation. Linear feedback control systems including mathematical representation and analysis. On-Off, proportional, floating and rate response in control systems. Fluidic principles and fluidic logic applied to system control. Course includes lecture and laboratory. (Prereq Math 0009 or §)

Spring Sem Sec 1 T—6-9:00, MechE 302

ME 3201 MECHANICAL ENGINEERING SYSTEMS ANALYSIS. 4 degree credits, \$58.

Modeling and analytic description of mechanical systems. Properties of linear models with emphasis on automatic computation solution. Necessary background includes differential equations. (Prereq Math 3221 or §)

Fall Qtr Sec 1 Th—6-9:20, MechE 108

Symbols, abbreviations, off-campus class locations begin on page 389.

ME 3203 ANALYSIS OF MECHANISM SYSTEMS. 4 degree credits, \$58.

Diagnostics of the performance of mechanism systems involving linkage, hydraulic, pneumatic, and electro-mechanical components. Energy balance techniques used to describe energy flow through machine systems. Preparation should include basic dynamics. (Prereq AEM 3036 or §)

Winter Qtr Sec 1 Th—6-9:20, MechE 108

ME 3205 ENGINEERING SYSTEMS DESIGN. 4 degree credits, \$58.

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 3201, 3203 and AEM 3016)

Spring Qtr Sec 1 Th—6-9:20, MechE 321

ME 3301 THERMODYNAMICS. 4 degree credits, \$58.

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 Phys 1281 and Math 3221 or §)

Fall Sem Sec 1 T—6-8:30, MechE 102 (2 additional sessions arr.)

ME 3303 APPLIED THERMODYNAMICS. 4 degree credits, \$58.

Application of laws of thermodynamics to chemically reacting systems and engineering systems. Analysis of vapor cycles, gas engine cycles, propulsion systems, refrigeration and air-water vapor mixtures. Basic thermodynamics background necessary. (Prereq 3301 or §)

Spring Sem Sec 1 T—6-8:30, MechE 102 (2 additional sessions arr.)

ME 3701-3702 BASIC MEASUREMENTS LABORATORY I AND II. 2 degree credits each quarter, \$29 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, or §3301 for 3701; 3701 for 3702. 1 lect and 3 lab hrs per wk)

Fall Qtr 3701 Sec 1 W—6-9:00, MechE 370

3702 Sec 2 W—6-9:00, MechE 370

Spring Qtr 3701 Sec 3 W—6-9:00, MechE 370

3702 Sec 4 W—6-9:00, MechE 370

ME 3900 INTRODUCTION TO ENGINEERING STATISTICS. 4 degree credits, \$58.

Elements of probability, descriptive statistics, binomial and Poisson distributions; normal distribution, estimation, hypothesis testing, regression analysis and analysis of variance. (Prereq Math 1231 or equiv)

Fall Sem Sec 1 T—6-8:30, MechE 302

ME 5342 HEAT TRANSFER. 4 degree credits, \$62.

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 Math 3221, ME 3301 or §. Qualified students interested in graduate credit should inquire at time of registration)

Winter Qtr Sec 1 M—6-9:20, MechE 321

ME 5344 THERMODYNAMICS OF FLUID FLOW. 4 degree credits, \$62.

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 CE 3400, ME 3301 or equiv. Qualified students interested in graduate credit should inquire at time of registration)

Spring Qtr Sec 1 M—6-9:20, MechE 321

Symbols, abbreviations, off-campus class locations begin on page 389.

ME 5443 TURBOMACHINERY. 3-5 degree credits, \$46.50, \$62, or \$77.50.

One-two credit term paper option. Theoretical analysis of energy transfer between fluid and rotor, principles of axial, mixed, and radial flow compressors and turbines. Applications to power plants, fluid transmissions, and propulsion systems. (Prereq 3301 or equiv. Qualified students interested in graduate credit should inquire at time of registration)

Fall Qtr Sec 1 T—6-8:30, MechE 321

medicine

For information on non-credit conferences or workshops in medicine, please contact Office of Continuing Medical Education, 1350 Mayo Memorial Hospital; telephone 373-8012.

(See also courses related to health professions, page 165)

metallurgical engineering (MetE)

Your attention is called to the Professional Development Recognition Program in Engineering and Science, page 222; Refresher Course in Engineering Fundamentals, I of T 0001, page 289.

Louis E. Toth, Professor of Materials Science and Chemical Engineering

MetE 0001C PHYSICAL METALLURGY. 3 certificate credits, \$43.50.

The structure and properties of metals and alloys. Heat treatment of steels. Important non-ferrous alloys. Corrosion resistance; failures at low temperatures and under repeated stresses. (No prereq but high school chemistry and high school physics are strongly desirable)

Fall Qtr Sec 1 M—6:20-8:50, MinMet 116, Toth

MetE 0002C PHYSICAL METALLURGY. 3 certificate credits, \$43.50.

Alloy steels, hardenability and weldability, alloys for high temperatures, theory of hardening processes, non-ferrous alloys, plastics, ceramics. (Prereq 0001C or §. May be offered alternate years)

Winter Qtr Sec 1 M—6:20-8:50, MinMet 116, Toth

microbiology (MicB)

James T. Prince, Associate Professor of Microbiology

Edwin L. Schmidt, Professor of Microbiology

***MicB 3103 GENERAL MICROBIOLOGY.** 5 degree credits, \$72.50 plus \$10 course fee. Total \$82.50.

Morphology, physiology, taxonomy, and ecology of bacteria and other microorganisms. General biology of microorganisms and 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]. Limited to 35 students)

Winter Qtr Sec 1 Lect MW—6:15-7:45, HSUnitA 2-580

Lab MW—7:45-10:00, HSUnitA 2-522, Schmidt, Prince

Symbols, abbreviations, off-campus class locations begin on page 389.

near and middle eastern studies (MidE)

(See also History; and ethnic studies courses, page 168)

Cassette tapes are available to extension classes students on a take-home basis. Student can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

middle eastern and islamic studies

Iraj Bashiri, Assistant Professor of Iranian Studies

Caesar Farah, Professor of Arabic Studies

George Koury, Assistant Professor of Arabic

arabic (Arab)

Arab 1101-1102 BEGINNING ARABIC. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester.

Vocabulary, forms and syntax; intensive graded reading and speaking facility. (No prereq for 1101; 1101 or II for 1102)

Fall Sem 1101 Sec 1 **M**—6:20-9:05, FolH 203, Koury

Spring Sem 1102 Sec 2 **M**—6:20-9:05, FolH 203, Koury

MidE 3525 THE MODERN ARAB WORLD: 1915 TO PRESENT. 4 degree credits. \$58.

Struggle for independence; rise of independent Arab states in the Near East and North Africa; problems of social, cultural, economic, and literary developments; modernizing trends. (No prereq. Meets concurrently with 5525. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Spring Qtr Sec 1 **W**—7-9:30, Minnetonka HS 120-121, Farah

MidE 3531 INTRODUCTION TO ISLAMIC CULTURE. 4 degree credits, \$58. (♦\$29)

Civilization of the Islamic peoples in medieval and modern times. The religion of Islam, its rise and expansion, Islamic institutions, social, cultural, literary and artistic manifestations. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Arabic [see page 68])

Fall Qtr Sec 1 **T**—6:20-8:50, FolH 204, Bashiri

MidE 5525 THE MODERN ARAB WORLD: 1915 TO PRESENT. 4 degree credits, \$62.

See description for 3525. (No prereq. Meets concurrently with 3525. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—7-9:30, Minnetonka HS 120-121, Farah

persian (Per)

Per 1101-1102 BEGINNING MODERN PERSIAN. 5 degree credits each semester. Tentatively scheduled for 1976-77.

ancient near eastern and jewish studies

See also IC 0031, Art and Architecture of the Jewish People, page 287.

Raphael Jospe, Instructor in Jewish Studies

Jonathan Paradise, Assistant Professor of Hebrew

Daniel Reisman, Assistant Professor of Hebrew

Symbols, abbreviations, off-campus class locations begin on page 389.

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68): Hist 1051, 3051; MidE 1501, 1502, 3501, 3502.

MidE 1501, 1502 THE BACKGROUND OF THE BIBLE. (replaces Heb 1501, 1502) 4 degree credits each quarter, \$3501, 3502, Hist 3501, 3502. \$58 each quarter.

The study of Biblical literature places it in the cultural, historical, and religious milieu of its origin. The impact of the civilization of Egypt, Canaan, and Mesopotamia on the Ancient Hebrews, as well as the unique aspects of Israelite civilization will be traced through lecture and classroom discussion. Colored slides will be used to help illustrate the contribution of archaeology to Biblical studies. **1501:** The Near East before Biblical times. The Bible's indebtedness to pagan literature, religion, and law. The formation of the Hebrew people. **1502:** Conquest and settlement. Political, economic, and religious development. The structure of the Biblical narrative. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68] for Hebrew. Meets concurrently with MidE 3501, 3502, and Hist 3501, 3502)

Winter Qtr 1501 Sec 1 **M**—6:20-8:50, NH 213, Paradise

Spring Qtr 1502 Sec 2 **M**—6:20-8:50, NH 213, Reisman

hebrew (Hebr)

Hebr 1504 PAGAN MYTHS AND THE BIBLE. 4 degree credits, \$58. (♦\$29)

Examines the Bible in its Ancient Near Eastern historical context. Through lectures and discussions, attention will be focused on the early chapters of Genesis dealing with pre-Israelite history, and on Mesopotamian mythologies offering parallels. Among the subjects are: the Creation, the Garden of Eden, Cain and Abel, the Flood and the Tower of Babel. Readings will consist primarily of relevant portions of Genesis in translation, and parallel pagan myths. Meets concurrently with 3504. (No prereq. May be applied toward the CLA foreign language requirement, Route II, for Hebrew [see page 68])

Fall Qtr Sec 1 **M**—7-9:30, StP Talmud Torah library, Reisman

jewish studies (JwSt)

JwSt 3126 THEMES IN MODERN JEWISH THOUGHT. 4 degree credits, \$58. (♦\$29)

Through lectures, discussion and readings the course explores the underpinnings of current theological and philosophical issues. Topics include Jewish Identity since political emancipations, political and Spiritual Zionism, Hasidism, Reform, Conservatism, Neo-orthodoxy, Reconstructionism and others. (No prereq. May be applied toward the CLA foreign language requirement, Route II, for Hebrew [see page 68])

Fall Qtr Sec 1 **T**—7-9:30, Jewish Community Ctr, lower mtg room, StLPk, Jospe

MidE 3315 CONTEMPORARY ISRAELI LITERATURE IN TRANSLATION. 4 degree credits, \$58. (♦\$29)

Modern short stories and poetry. Works of Agnon, Yizhar, Hazaz, Yechoshua, Greenberg, Amihai, Pagis, and others. Alienation, crisis of faith, war, genocide, and freedom. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Spring Qtr Sec 1 **W**—6:20-8:50, FoIH 104, Paradise

MidE 3501, 3502 THE BACKGROUND OF THE BIBLE. (replaces Heb 3501, 3502) 4 degree credits each quarter, \$1501, 1502, Hist 3501, 3502, \$58 each quarter.

See course description for MidE 1501, 1502. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Meets concurrently with MidE 1501, 1502 and Hist 3501, 3502. Arrangements for Upper Division credit should be made with instructor)

Winter Qtr 3501 Sec 1 **M**—6:20-8:50, NH 213, Paradise

Spring Qtr 3502 Sec 2 **M**—6:20-8:50, NH 213, Reisman

(See related courses, page 179)

Symbols, abbreviations, off-campus class locations begin on page 389.

Hebr 3504 PAGAN MYTHS AND THE BIBLE. 4 degree credits, \$58.

See description for 1504. Meets concurrently with 1504. (No prereq. May be applied toward the CLA foreign language requirement, Route II, for Hebrew [see page 68])

Fall Qtr Sec 1 **M**—7-9:30, StP Talmud Torah library, Reisman

minnesota

(See courses on page 190)

music (Mus)

(See also music courses in General College; Afro-American Studies; and Physics)

Frank P. A. Benciscutto, Professor of Music

Maury Bernstein, Lecturer in Music

Lee Humphries, Instructor in Music

Dwayne Jorgenson, Instructor in Music

Thomas Lancaster, Assistant Professor of Music

Adrian Lauritzen, Associate Professor of Music

Richard Massmann, Associate Professor of Music

Gwen Perun, Assistant Professor of Music

Johannes Riedel, Professor of Music

Roy A. Schuessler, Professor of Music

Arlin Snesrud, Instructor in Music

Everett Sutton, Assistant Professor of Music

Edgar Turrentine, Professor of Music and Music Education

Non-credit Courses

Applicants who wish to enroll for non-credit instruction in applied music should contact Ms. Jacobson at the MacPhail Center—telephone 373-1925—for information about availability of instruction, and tuition and fee costs.

***Mus 0051C-0052C PIANO PLAYING FOR PLEASURE.** 2 certificate credits each semester, \$29 each semester.

Designed primarily for the person with no piano background. Keyboard fundamentals such as sight-reading, transposition, harmonization, improvisation, repertory building. Individual practice outside the class period necessary for successful completion of the course. (No prereq for 0051C; 0051C or § for 0052C. Each section limited to 12 students)

Fall Sem	0051C	Sec 1	T —6:30-7:45, MusEd 103, Lauritzen
	0052C	Sec 2	Th —6:30-7:45, MusEd 103, Lauritzen
Spring Sem	0051C	Sec 3	Th —6:30-7:45, MusEd 103, Lauritzen
	0052C	Sec 4	T —6:30-7:45, MusEd 103, Lauritzen

***Mus 1171-1172-1173 GUITAR: CLASS LESSONS.** 2 degree credits each quarter, \$29 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; **1173**: melodic techniques, advanced harmonizations. (Student must furnish own guitar.) (No prereq for 1171; 1171 for 1172; 1172 for 1173. Limited to 20 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	1171	Sec 1	M—6:20-8:20, ScH 3
		Sec 2	T—6:20-8:20, ScH 3
		Sec 3	Th—6:20-8:20, ScH 3
	1172	Sec 4	W—6:20-8:20, ScH 3
Winter Qtr	1171	Sec 5	W—6:20-8:20, ScH 3
		Sec 6	T—6:20-8:20, ScH 3
		1172 Sec 7	M—6:20-8:20, ScH 3
		Sec 8	Th—6:20-8:20, ScH 3
Spring Qtr	1172	Sec 9	W—6:20-8:20, ScH 3
		Sec 10	T—6:20-8:20, ScH 3
	1173	Sec 11	M—6:20-8:20, ScH 3
		Sec 12	Th—6:20-8:20, ScH 3

group performance

Students must audition for all of the group performance music classes. Auditioning should be arranged with the instructor in advance of the class opening.

Mus 1410 BAND. 1 degree credit, \$14.50.

Rehearsals and appearances cover standard band literature; several appearances each quarter. (Prereq §. Class meets 2, 3 or 4 days a week by arrangement. Students are advised to arrange auditions and class meeting days with Professor Bencriscutto, telephone 373-3431, prior to registration)

Fall Qtr	Sec 1	Days arr. 3:15-5:05, NMA 4, Bencriscutto
Winter Qtr	Sec 2	Days arr. 3:15-5:05, NMA 4, Bencriscutto
Spring Qtr	Sec 3	Days arr. 3:15-5:05, NMA 4, Bencriscutto

Mus 1420 ORCHESTRA. 1 degree credit, \$14.50.

Standard orchestral literature performed. Open to players of orchestral instruments from Twin Cities. Those enrolled with consent of chairman of Music Department are given the opportunity of rehearsing with the University Symphony and participating in a concert given in Northrop Auditorium. (Prereq §)

Fall Qtr	Sec 1	MTTh—3:15-5:00, WuH 320, Massmann
Winter Qtr	Sec 2	MTTh—3:15-5:00, WuH 320, Massmann
Spring Qtr	Sec 3	MTTh—3:15-5:00, WuH 320, Massmann

Mus 1430 UNIVERSITY CHORUS. 1 degree credit, \$14.50.

Performances of major symphonic-choral works with the Minnesota Orchestra, University Symphony Orchestra, and University Concert Band. (Prereq §. Extension students may choose whether or not to attend one of the MWF daytime sections, but must attend the evening section)

Fall Qtr	Sec 1	MWF—11:15-12:05, NMA 4, Jorgenson
	Sec 2	MWF—1:15-2:05, NMA 4, Jorgenson
	Sec 3	T—7-9:30, SciCB 325, Jorgenson
Winter Qtr	Sec 4	MWF—11:15-12:05, NMA 4, Jorgenson
	Sec 5	MWF—1:15-2:05, NMA 4, Jorgenson
	Sec 6	T—7-9:30, SciCB 325, Jorgenson
Spring Qtr	Sec 7	MWF—11:15-12:05, NMA 4, Jorgenson
	Sec 8	MWF—1:15-2:05, NMA 4, Jorgenson
	Sec 9	T—7-9:30, SciCB 325, Jorgenson

Mus 1430 MEN'S CHORUS. 1 degree credit, \$14.50.

Rehearsals and performances cover standard men's glee club material as well as special arrangements. Group appears for on- and off-campus functions. (Prereq §)

Fall Qtr	Sec 10	MWF—12:15-1:05, NMA 4, Jorgenson
Winter Qtr	Sec 11	MWF—12:15-1:05, NMA 4, Jorgenson
Spring Qtr	Sec 12	MWF—12:15-1:05, NMA 4, Jorgenson

Symbols, abbreviations, off-campus class locations begin on page 389.

Mus 1430 ST. PAUL CAMPUS CHORUS. 1 degree credit, \$14.50.

Prepares for at least one public appearance each quarter as well as for special events connected with the St. Paul Campus. (Prereq ♯)

Fall Qtr	Sec 13	TTh —4:30-6:00, AlderH 310
Winter Qtr	Sec 14	TTh —4:30-6:00, AlderH 310
Spring Qtr	Sec 15	TTh —4:30-6:00, AlderH 310

Mus 5490 CHAMBER SINGERS. 2 degree credits, \$31.

A small mixed vocal ensemble of select voices. Sacred and secular music from 16th century to contemporary composers prepared for concert presentation. (Prereq ♯. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr	Sec 1	MWF —4:15-5:30, WuH 7A, Lancaster
Winter Qtr	Sec 2	MWF —4:15-5:30, WuH 7A, Lancaster
Spring Qtr	Sec 3	MWF —4:15-5:30, WuH 7A, Lancaster

music theory, history, literature, pedagogy

Mus 1001 FUNDAMENTALS OF MUSIC. 4 degree credits, \$58.

Study of basic musical symbols, vocabulary, rhythm, design, scale structures, intervals, chords. The development of basic piano skills; the playing of simple accompaniments. Required of students in elementary, primary, kindergarten, and nursery school education; also recommended for the layman interested in a basic introduction to music; not for music majors. (No prereq)

Fall Qtr	Sec 1	M —6-9:20, MusEd 103, Lauritzen
Winter Qtr	Sec 2	M —6-9:20, MusEd 103, Lauritzen
Spring Qtr	Sec 3	M —6-9:20, MusEd 103, Lauritzen

Mus 1014 INTRODUCTION TO MUSIC. 4 degree credits, \$58. (◆\$29)

Basic elements of music, such as notation and characteristics of musical tone, fundamental musical concepts of rhythm, melody, harmony, polyphony, form; demonstrated by recordings and performance of music of all types in Western civilization. Outside music listening required. (No prereq)

Winter Qtr	Sec 1	M —6:10-9:30, ScH 2, Turrentine
Spring Qtr	Sec 2	M —6:10-9:30, ScH 2, Turrentine

Mus 1501-1502-1503 MATERIALS AND STRUCTURE OF MUSIC I. 4 degree credits each quarter, \$58 each quarter. (◆\$29) ★1501

Materials and structure of music; melody; tonality; rudiments of counterpoint; texture and form; harmony; sight-singing and ear training. (No prereq for 1501; 1501 for 1502; 1502 for 1503. Students with very limited musical experience may be interested in Mus 1001, a more elementary course in music)

Fall Qtr	1501	Sec 1	TTh —6:20-8:30, ScH 4, Humphries
Winter Qtr	1502	Sec 2	TTh —6:20-8:30, ScH 4, Humphries
Spring Qtr	1503	Sec 3	TTh —6:20-8:30, ScH 4, Humphries

Mus 3021 INTRODUCTION TO MUSIC. 5 degree credits, \$72.50. (◆\$36.25)

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 —6:10-9:30, ScH 19, Sutton
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Mus 3571 MUSIC CALLIGRAPHY. 2 degree credits, \$29. (◆\$14.50)

Techniques and forms of notation; manuscript preparation and layout; duplication methods; and general copyright procedures. (Prereq music or music education major)

Fall Qtr	Sec 1	WF —10:15 a.m.-11:00, WuH 7A
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Symbols, abbreviations, off-campus class locations begin on page 389.

Mus 3801, 3802 FOLK MUSIC OF ENGLAND, IRELAND, AND SCOTLAND. 3 degree credits each quarter, \$43.50 each quarter. (♦\$21.75)

◆ Folk music traditions of the British Isles; influence on American folk music; vocal and instrumental traditions, including balladry, lyric songs, dance tunes, rebel songs, British gypsy music. (No prereq. Need not be taken in sequence)

Fall Qtr 3801 Sec 1 **W**—6:20-8:50, WuH 7A, Bernstein

Winter Qtr 3802 Sec 2 **W**—6:20-8:50, WuH 7, Bernstein

Mus 3803 THE CHILD BALLADS AND THE FOLK BALLAD TRADITION. 3 degree credits, \$43.50. (♦\$21.75)

◆ Survey of the narrative song tradition in folk music, with special attention to Professor Child's ballad collection, Broad-sides and native American ballads. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, WuH 7, Bernstein

***Mus 5051-5052-5053 GROUP PIANO PEDAGOGY.** 3 degree credits each quarter, \$46.50 each quarter.

Observation, discussion, research and supervised teaching in group piano. Emphasis on conceptual learning through discovery. Focus on early and intermediate levels of instruction. (Prereq 12 credits in applied piano or equiv for £J51; 5051 for 5052; 5052 for 5053. Limited to 20 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5051 Sec 1 **T**—10 a.m.-12:00, MacP 221, Perun

Winter Qtr 5052 Sec 2 **T**—10 a.m.-12:00, MacP 221, Perun

Spring Qtr 5053 Sec 3 **T**—10 a.m.-12:00, MacP 221, Perun

***Mus 5377 THE ADOLESCENT SINGING VOICE.** 3 degree credits. \$46.50.

new

Principles of voice in teaching adolescent singers. Directed teaching, required readings, and study of relevant repertoire. (Prereq one year of voice or equiv or £. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, Sch 103, Schuessler

Mus 5711, 5712 AMERICAN POPULAR MUSIC. 4 degree credits each quarter. \$62 each quarter. (♦\$31)

◆ History of popular music in the U.S. from the first half of the 19th century through 1970—the lyrics and music, composers, performers, bands. Its various types and forms. The contribution of black music to popular music in cakewalk, protest music, ragtime, jazz and rock. The impact of American popular music on popular music of the world. The impact of popular music on church music throughout the ages. Two additional credits available for American Popular Music Laboratory for \$30 tuition. Only students registered for credit may take the laboratory for credit. (See "X" registration, page 42). Students registered on any of the no-credit reduced tuition plans (see page 44) may also register for the laboratory but only on a no-credit basis for \$30. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5711 Sec 1 **T**—6:20-9:30, WuH 320, Riedel

Winter Qtr 5712 Sec 2 **T**—6:20-9:30, WuH 320, Riedel

See page 189 for information on

Mus 5711 AMERICAN POPULAR MUSIC★

a credit television course.

Mus 5950 TOPICS IN MUSIC: MUSIC IN MINNESOTA I. 4 degree credits, \$62. (♦\$31)

new

History of early music in Minnesota. Music of the Black, Chicano and Native Americans in the Twin Cities area and in the state, through folk, popular and classical music. Scandinavian music and music of other ethnic groups. Music in small town communities. Old time music. Music of various church denominations. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:20-8:50, WuH 320, Riedel

(See other Minnesota courses, page 190)

Symbols, abbreviations, off-campus class locations begin on page 389.

Mus 5950 TOPICS IN MUSIC: MUSIC IN MINNESOTA II. 4 degree credits, \$62. (◆\$31)

Vocal music. Music at educational institutions in Minnesota. Famous Minnesotans in music. Instrumental organizations. Musical organizations. Organs, Organists, and organ music. Travelling groups. Classical music of significant composers in Minnesota. Classical music of significant composers at the University of Minnesota and other institutions. Classical music of the young generations in Minnesota. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 2 **Th**—6:20-8:50, WuH 320, Riedel

Piano Technician

A special course in piano tuning and repairing will be offered at MacPhail Center, the Fall Session beginning in September, the Winter Session beginning in January and the Spring Session beginning in May. (Call MacPhail Center for exact starting dates.) No credit will be given for the course. The fee of \$300.00 for each 12-week session includes professional equipment and text. Prerequisites for the course are a secure musical background, although piano playing itself is not necessary. A minimum of 6 hours tuning practice outside the class is required each week, with pianos available at MacPhail Center for these purposes. A certificate is awarded after the completion of the course and one season of experience. The student is required to tune a piano for testing by panel of judges before the certificate is awarded. All inquiries regarding this course should be directed to the MacPhail Center, telephone 373-1925.

music education (MuEd)

(See also Education)

Joanna Cortright, Instructor in Music Education

Peter G. Roll, Associate Professor of Physics

S-N registration not permitted in Music Education unless specifically designated in course description.

***MuEd 5750 WORKSHOP: MUSIC EDUCATION.** 2 degree credits (maximum 12 cr) \$31.

Selected topics in music education. **Emphasis this offering: Music for early childhood.** Designed to meet the needs of nursery school teachers and others working in the area of early childhood education. It is an active participation class with participants experiencing the activities and using the techniques of music learning that they can take back to their classrooms. The course will be concerned with how to help children develop lasting musical concepts, methods and materials to use in the pre-school music lesson, and how other arts relate to music in a pre-school music lesson. (No prereq. Spring quarter is repetition of fall quarter offering. Qualified students may register for graduate credit at the University of Minnesota) Limited to 25 students.

Fall Qtr Sec 1 **T**—7-9:00, MacP, Cortright

Spring Qtr Sec 2 **T**—7-9:00, MacP, Cortright

MuEd 5750 WORKSHOP: MUSIC EDUCATION. 3 degree credits (maximum 12 cr), \$Phys 5090. \$46.50.

Selected topics in music education. **Emphasis this offering: Physics of Musical Instruments.** Seminar on the physical characteristics and processes involved in playing musical instruments. Emphasis on non-mathematical understanding to

Symbols, abbreviations, off-campus class locations begin on page 389.

improve performance and teaching skills. Electronic methods to sense and display cues to assist performance and teaching. (No prereq. Meets concurrently with Phys 5090. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 3 **W**—6:20-9:30, Ph 133, Roll

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.

For further information in regard to planning an individually designed workshop for a particular district or building staff contact: Chairman, Department of Music Education, 104 Scott Hall, University of Minnesota, Minneapolis, Minnesota 55455; or telephone 373-3452.



natural science and technology (NSci)

(See also General College natural science courses; and other environmental concerns courses, page 170)

William Franta, Assistant Professor of Computer, Information, and Control Sciences

Richard J. Goldstein, Professor of Mechanical Engineering

Robert F. Lambert, Professor of Electrical Engineering

Gary M. Schneider, Assistant Professor of Computer, Information, and Control Sciences

Kenneth T. Whitby, Professor of Mechanical Engineering

NSci 3101 INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY. 4 degree credits, \$58. (♦\$29)

Technological aspects of protecting man and the environment from man's activities. Sources and magnitude of pollution problems in air, water, noise, solid waste. Environmental quality standards, pollution abatement options and technological limitations. (Prereq high school physics or chemistry)

Winter Qtr Sec 1 **W**—6:20-8:50, LindH 203, Lambert, Whitby

NSci 3201 PERSPECTIVES ON COMPUTERS AND SOCIETY. 4 degree credits, \$58 plus \$4 special fee. Total \$62. (♦\$29 plus \$4 special fee. Total \$33)

The impact of computers on society. Partnership or confrontation. History of development. Potential for use. Computer utility. Privacy in a computer society. The future of computers. The ultimate machine. Computers in business, industry, art, music, the home. Meets concurrently with CICS 3001. (Prereq sophomore or 3)

Spring Qtr Sec 1 **W**—6-8:30, LindH 203, Schneider

NSci 3301 ENERGY, POWER AND SOCIETY. 4 degree credits, \$58. (♦\$29)

The need for energy and its use in society. Concepts of energy and power; problems of pollution and waste disposal. (Prereq high school physics or chemistry)

Fall Qtr Sec 1 **M**—6:20-8:50, Arch 55, Goldstein

near and middle eastern studies

(see page 315)

Symbols, abbreviations, off-campus class locations begin on page 389.

norwegian

(See Scandinavian Languages)

nursing (Nurs)

(See related courses, page 165)

Kenneth Burns, Instructor in Nursing

Mary Jackel, Director, Critical Care Education Project

Ida Marie Martinson, Assistant Professor of Nursing

Evening courses offered by the School of Nursing provide opportunities for registered nurses who are interested in continuing their education. The course numbers ending in "C" indicate certificate credit and are job related courses. They help the nurse to maintain a high level of nursing competence and, where necessary, provide evidence of continuing education for license renewal and/or promotion opportunities.

The course numbers prefaced by a "3" or "5" indicate credits which may be applied toward the requirements of a bachelor of science in nursing. These credits are applicable toward the nursing degree only if the student enrolls in the School of Nursing within 3 years of the date of course completion.

Course numbers prefaced by an "8" indicate graduate credit and may be applied toward a master's degree in nursing.

There are also many general education courses offered in extension classes which may be taken for degree credit. Final decision as to the applicability of these credits toward a degree offered by the School of Nursing is the responsibility of the School's Admission Committee.

Registered nurses who wish to continue their studies toward a degree program in nursing are urged to contact the School of Nursing, 3313 Powell Hall (telephone 373-3462) and ask for an appointment.

Nurs 0312C EMERGENCY CARE. 15 certificate credits, \$100.

This course is designed to increase the knowledge and clinical competence of registered nurses who are currently working in rural and urban emergency-care settings. The emphasis will be directed toward providing clinical experience in metropolitan emergency-care and selected acute-care settings with classroom instruction by individuals with expertise in emergency care. Nurses in the program will also have an opportunity to identify specific learning needs and will be given assistance in meeting those needs on an individual basis. (Prereq RN)

Requests for registration information should be sent to Emergency Care Course, Extension Classes, 180 Westbrook Hall, University of Minnesota, Minneapolis, MN. 55455.

Fall Qtr Sec 1 **Time arr.** (providing sufficient enrollments)

***Nurs 0362C INTRODUCTION TO HEALTH.** 3 certificate credits, \$43.50.

This is a first of a two-quarter sequence and is designed to build upon the nurses foundation of knowledge and beliefs about nursing and its clinical practice. It will be conducted on a seminar basis and the following concepts will be explored: Definitions of Nursing, The Process of Nursing, Defining Goals of Health Care Delivery, Roles in Nursing, Future Directions of Nursing, Definition of Primary Care and Perception. (Prereq Registered Nurse. **Must be taken S-N.** Limited to 14 students)

Winter Qtr Sec 1 **Th—6:20-8:50,** PoH 2309, Burns

Symbols, abbreviations, off-campus class locations begin on page 389.

***Nurs 0363C HEALTH ASSESSMENT OF INDIVIDUALS.** 3 certificate credits, \$43.50.

Designed to assist nurses in improving their nursing assessment skills. Includes detailed orientation in obtaining a valid patient history and doing a physical examination. Students will have some opportunity to practice on each other as class time permits. Will not include supervised clinical practice but each student will be expected to obtain practice in their work setting. **STUDENTS MUST PROVIDE OWN EQUIPMENT**—otoscope, ophthalmoscope, pen light, stethoscope, percussion hammer. Students must arrange with a professional, either physician or nurse with previous experience in health assessment, to assist them in the application of knowledge and skills gained and to validate their assessments in the work setting. (Prereq 0362C or **§**. **Must be taken S-N.** Limited to 14 students)

Spring Qtr Sec 1 **Th**—6:20-8:50, PoH 2309, Burns

Nurs 5201 ROLE OF NURSING WITHIN HEALTH CARE. 2 degree credits, \$31.

Introduction to nursing within content of health and health care delivery systems. Exploration of philosophies of nursing with implications for nursing practice and nursing education. (No prereq. May not be taken for graduate credit)

Fall Qtr Sec 1 **M**—6-8:30, PoH 2309

Nurs 5202 SYSTEMATIC PROCESS I. 2 degree credits, \$31.

Rationale for systematic approach to goal achievement. Development of steps to systematic achievement of identified goals. (Prereq Nurs 5201, Psy 1001, Ψ Psy 1001, or **§**. May not be taken for graduate credit)

Spec Term Sec 1 **M**—Jan. 5-Feb. 9, 6-9:00, PoH 1326
(register Dec. 22-Jan. 5)

Nurs 5203 ADAPTATION I. 2 degree credits, \$31.

Adaptation as a fundamental context of health. Examination of: factors influencing adaptation, adaptive responses, levels of adaptation, components of adaptation and their relationship to concepts of holism and health. (Prereq Nurs 5201, Psy 1001, Ψ Psy 1001, Phys 3051 or Ψ Phys 3051 or equiv experience. May not be taken for graduate credit)

Spec Term Sec 1 **W**—Feb. 11-Mar. 10, 6-9:00, PoH 1326
(register Jan. 28-Feb. 11)

***Nurs 5204 HELPING RELATIONSHIPS I.** 2 degree credits, \$31.

Helping relationships as a fundamental context of nursing. Basic concepts, related to establishing goal-directed contractual relationships. Designed to increase competence in utilizing interpersonal skills in helping individuals. (Prereq Nurs 5201, Psy 1001 or Ψ Psy 1001. Limited to 14 students. May not be taken for graduate credit)

Spring Qtr Sec 1 **M**—6-8:30, PoH 2309

***Nurs 5700 CRITICAL CARE NURSING.** 5 degree credits, see registration and tuition information below.

A Metropolitan Medical Center course offered through Extension Classes. Intended for the registered nurse, this course covers biophysical and psychological crises. Topics include circulation, respiration, metabolism, integration and control, stress, and threat appraisal. Methods of instruction will include group meetings, supervised clinical experiences, and individualized instruction. (Prereq RN and employment in hospital for past 6 months. Each section limited to 20 students. May not be taken for graduate credit.)

Spec Term Sec 1 **Sept. 8-Oct. 10** **MTh**—8:30 a.m.-2:30 group meetings;
TWF—open schedule to accommodate clinical experience, individualized instruction, work and family obligations
(register Aug. 11-22)

Sec 2 **Nov. 3-Dec. 9** same time schedule as above
(register Oct. 6-17)

Sec 3 **Jan. 5-Feb. 6** same time schedule as above
(register Dec. 15-19)

Sec 4 **Mar. 1-Apr. 2** same time schedule as above
(register Feb. 2-13)

All sections held at Metropolitan Medical Center, Minneapolis.

Symbols, abbreviations, off-campus class locations begin on page 389.

Tuition:

\$77.50 plus \$187.50 special fee. Tuition may be reduced if an application for support is approved. Information regarding arrangements for payment of tuition will be sent with registration materials.

Registration:

By mail, write to CRITICAL CARE, EXTENSION CLASSES, 180 WESBROOK HALL, U OF M, MPLS., MN 55455.

In person at the above address.

Late registrations received later than two weeks prior to the first day of the class will be charged \$10 late fee.

***Nurs 8021 RESEARCH IN NURSING.** 3 degree credits, \$49.50.

This course is designed to develop understanding of the research process, status of nursing research, and potential areas for research in nursing; and to increase skill in the critical assessment of research and design of a research study. (Prereq any graduate level statistics course. Limited to 15 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—4-7:00, PoH 4312, Martinson



obstetrics

(See Family Planning Administration)

ojibwe and dakota

(See American Indian Studies)

operations analysis and management (OAM)

Paul Alper, Associate Professor of Operations Analysis and Management
John C. Anderson, Assistant Professor of Operations Analysis and Management
Gary W. Dickson, Professor of Operations Analysis and Management
Kenneth Kendall, Assistant Professor of Operations Analysis and Management

***OAM 3055 INTRODUCTION TO MANAGEMENT SCIENCES.** 4 degree credits, \$58 plus \$4 course fee. Total \$62.

First course in the use of analytical approaches and techniques within business contexts. Emphasis on the role of mathematical models, statistical techniques related to data acquisition, and the use of computers and computer techniques in solving organizational problems. Examples will illustrate the use of both deterministic and stochastic models. Laboratory session will include problem solving and case analysis. (Prereq QA 1050, Math 1142 or equiv. Limited to 50 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	M —5:30-8:50, AndH 230, Kendall
	Sec 2	T —5:30-8:50, AndH 310, Anderson
	Sec 3	W —5:30-8:50, AndH 230, Alper
Winter Qtr	Sec 4	M —5:30-8:50, AndH 250, Kendall
	Sec 5	W —5:30-8:50, AndH 250, Alper
Spring Qtr	Sec 6	M —5:30-8:50, AndH 330, Alper
	Sec 7	W —5:30-8:50, AndH 330, Dickson

***OAM 5056 APPLICATIONS OF ANALYTICAL METHODS AND COMPUTERS IN OPERATIONS MANAGEMENT AND ANALYSIS.** 5 degree credits, \$77.50 plus \$4 course fee. Total \$81.50.

The application of forecasting methods, optimization techniques; simulation, product and project management methods; inventory models, quality control techniques and computer technology problems encountered in organizational management. Specific laboratory sessions will include problem solving and case analysis. (Prereq OAM 3055 or ϵ . Limited to 40 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—5:30-9:30, AndH 350, Anderson

ophthalmology

(See page 88)



pharmacognosy (phcg)

(See related courses, page 165)

John Staba, Professor of Pharmacognosy

***Phcg 1800 NATURE'S REMEDIES.** 3 degree credits, \$43.50.

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. (No prereq. Limited to 50 students)

Spring Qtr Sec 1 **T**—6:20-8:50, AH 150, Staba

pharmacy

For information on non-credit conferences or workshops in pharmacy, please contact Thomas M. McKennell, Continuing Education in Pharmacy, 318 Harvard St. S.E., Minneapolis, Minnesota 55455 (376-5313).

Symbols, abbreviations, off-campus class locations begin on page 389.

philosophy (Phil)

(See also Afro 3081-3082, Black Philosophy; Econ 5021, Economics, Ethics, and Economic Philosophy; and other related courses, page 179)

Martin Bunzl, Instructor in Philosophy
Norman O. Dahl, Associate Professor of Philosophy
John Dolan, Associate Professor of Philosophy
Keith Gunderson, Professor of Philosophy
William H. Hanson, Associate Professor of Philosophy
Herbert Hochberg, Professor of Philosophy
Jasper Hopkins, Professor of Philosophy
Douglas Lewis, Associate Professor of Philosophy
H.E. Mason, Professor of Philosophy
Grover Maxwell, Professor of Philosophy
Rolf Sartorius, Professor of Philosophy

Did you know that 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 Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses
 1001 or 3201; 1002

Major Requirements

Minimum of 35 3xxx-5xxx-level cr, including: 3003 or 3003H and at least 5 additional cr in history of philosophy.
 At least 15 cr at the 5xxx level

You need not be majoring in Philosophy to register for these classes.

Phil 1001 LOGIC. 5 degree credits, \$72.50. (◆\$36.25)★

Special emphasis upon the application of formal techniques for evaluating arguments. (No prereq)

Fall Qtr Sec 1 T—6:20-8:50, ForH 115
Winter Qtr Sec 2 Sa—9:30 a.m.-12:00, ForH 115
Spring Qtr Sec 3 W—6:20-8:50, ForH 120

Phil 1002 INTRODUCTION TO PHILOSOPHY. 5 degree credits, \$72.50. (◆\$36.50)★

Introduction to permanent problems; principal methods and schools of philosophy; historical and contemporary views. (No prereq)

Fall Qtr Sec 1 W—6:20-8:50, ForH 349
Winter Qtr Sec 2 T—6:20-8:50, ForH 349
Spring Qtr Sec 3 M—6:20-8:50, ForH 349

Phil 1003 ETHICS. 5 degree credits, \$72.50. (◆\$36.25)★

Examination of problems that arise when human beings attempt to think systematically about conduct and values. (No prereq)

Fall Qtr Sec 1 Th—8:20-8:50, ForH 349
Winter Qtr Sec 2 M—6:20-8:50, ForH 349

Phil 1004 POLITICAL PHILOSOPHY. 5 degree credits, \$72.50. (◆\$36.25)

An introduction to some of the central concepts and principal theories of political philosophy. (No prereq)

Spring Qtr Sec 1 Th—6:20-8:50, ForH 170, Penn

Phil 1011 SCIENCE AND RELIGION. 5 degree credits, \$72.50. (◆\$36.25)★

Inquiry into nature of science and religion as currently interpreted; attempt to find grounds of conflict and/or reconciliation. (No prereq)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr Sec 1 **M**—6:20-8:50, ForH 175
Spring Qtr Sec 2 **Sa**—9:30 a.m.-12:00, ForH 175

Phil 1410 SELECTED TOPICS IN MORAL AND POLITICAL PHILOSOPHY: THE LOGIC AND ETHICS OF SOCIAL COOPERATION. 5 degree credits, \$72.50. (◆\$36.25)

◆ What do clean air and water, patterns of residential housing and commercial development, open spaces, transportation, efficient provision of public utilities, schools, have to do with philosophy? The primary focus of the course will be upon the rationality and morality of the individual's voluntary cooperation toward the production of so-called "public goods." Discussion of general theory will be accompanied by application to specific problems including population growth, over-consumption of limited resources, regional planning, arms control, economic stabilization. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, ForH 285, Sartorius

Phil 1410 SELECTED TOPICS ON MORAL AND POLITICAL PHILOSOPHY: ETHICS, SCIENCE AND TECHNOLOGY. 5 degree credits, \$72.50. (◆\$36.25)

◆ What are the moral responsibilities of the scientist? Are scientists responsible for the uses to which their discoveries are put? If not, should they engage in scientific research? Is it justifiable to engage in research and development of technology for the benefit of society if a few members of society will suffer from the resulting technology? These are examples of some of the most agonizing kinds of moral problems that present themselves in the area of science and technology. In this course an attempt will be made to marshal our best ethical theories in an attempt to clarify our moral intuitions about these kinds of questions. (No prereq)

Winter Qtr Sec 2 **W**—6:20-8:50, ForH 175, Maxwell

Phil 3001 GENERAL HISTORY OF WESTERN PHILOSOPHY. 5 degree credits, \$72.50 (◆\$36.25)★

◆ Survey of major developments in Western philosophic thought: Greek philosophy, pre-Socrates, Socrates, Plato, Aristotle. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68])

Fall Qtr Sec 1 **M**—6:20-8:50, ForH 359, Dahl

Phil 3002 GENERAL HISTORY OF WESTERN PHILOSOPHY. 5 degree credits, \$72.50. (◆\$36.25)

◆ Survey of major developments in Western philosophic thought: Stoicism, Epicureanism, and medieval Christian synthesis. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek and Latin [see page 68])

Winter Qtr Sec 1 **Th**—6:20-8:50, ForH 359

Phil 3003 GENERAL HISTORY OF WESTERN PHILOSOPHY. 5 degree credits, \$72.50. (◆\$36.25)★

◆ Survey of major developments in Western philosophic thought: early modern philosophy from Descartes through Hume; impact of science; backgrounds of contemporary philosophical problems. (No prereq)

Spring Qtr Sec 1 **M**—6:20-8:50, ForH 175, Lewis

Phil 3004 GENERAL HISTORY OF WESTERN PHILOSOPHY. 5 degree credits, \$72.50. (◆\$36.25)★

◆ Survey of major developments of Western philosophic thought: later modern philosophy from Kant through 19th century. (No prereq)

Winter Qtr Sec 1 **M**—6:20-8:50, ForH 285

Phil 3302 MORAL PROBLEMS OF CONTEMPORARY SOCIETY. 5 degree credits, \$72.50. (◆\$36.25)

◆ A consideration of some of the fundamental moral dilemmas confronting people in the present time. (No prereq)

Fall Qtr Sec 1 **T**—6:20-8:50, ForH 120, Hanson

Spring Qtr Sec 2 **W**—6:20-8:50, ForH 349

Symbols, abbreviations, off-campus class locations begin on page 389.

Phil 3502 INTRODUCTION TO AESTHETICS. 5 degree credits, \$72.50. (◆\$36.25)

◆ An examination of different views as to the nature and function of art and the role of representation, expression, and aesthetic experience. (No prereq)

Fall Qtr Sec 1 **W**—6:20-8:50, ForH 285, Hochberg

Phil 3521 PHILOSOPHY OF RELIGION. 5 degree credits, \$5521, \$72.50. (◆\$36.25)

◆ Discussion of grounds and sanctions of religion, according to various philosophies. (No prereq. Meets concurrently with 5521)

Winter Qtr Sec 1 **T**—7-9:30, Jewish Community Ctr, StLPk; Hopkins

Spring Qtr Sec 2 **T**—6:20-8:50, ForH 130, Hopkins

Phil 5004 SOCRATIC DIALOGUES. 5 degree credits, \$77.50. (◆\$38.75)

◆ **new** Early Socratic dialogues of Plato; Socratic method and paradoxes. This course discusses in detail some of the dialogues of Plato written prior to the *Republic* where Socrates' ethical concerns predominate. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, ForH 30

Phil 5012 PLATO AND ARISTOTLE. 5 degree credits, \$77.50. (◆\$38.75)

◆ **new** Comparative presentation of their metaphysical and epistemological views; problems of universals. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Greek [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6:20-8:50, ForH 175

Phil 5521 PHILOSOPHY OF RELIGION. 5 degree credits, \$3521, \$77.50.

◆ **new** Discussion of grounds and sanctions of religion, according to various philosophies. (No prereq. Meets concurrently with 3521. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **T**—7-9:30, Jewish Community Ctr, StLPk; Hopkins

Spring Qtr Sec 2 **T**—6:20-8:50, ForH 130, Hopkins

Phil 5740 STUDIES IN CONTEMPORARY PHILOSOPHERS: SCHOPENHAUER. 5 degree credits, \$77.50. (◆\$38.75)

◆ The course will deal with Schopenhauer's major philosophical work, *The World as Will and Representation*. (No prereq. May be applied toward the CLA foreign language requirement Route II for German [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—6:20-8:50, ForH 285, Gunderson

Phil 5760 SELECTED TOPICS IN PHILOSOPHY: THOREAU. 5 degree credits, \$77.50. (◆\$38.75)

◆ An introduction to the writings and thought of Thoreau with special attention to his distinctive contributions to three topics: the value of wilderness, political obligation and the meaning of life. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-8:50, ForH 285, Dolan

(See also English literature)

Phil 5760 SELECTED TOPICS IN PHILOSOPHY: PHILOSOPHY AND POETRY. 5 degree credits, \$77.50. (◆\$38.75)

◆ A comparison of the value of style and substance in philosophy and poetry; examination of some of the overlapping and contrasting interests philosophers and poets take in metaphor, imagery, and analogy; truth, consistency, and coherency. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 2 **Th**—6:20-8:50, ForH 285, Gunderson

Symbols, abbreviations, off-campus class locations begin on page 389.

Phil 5770 SELECTED TOPICS IN PHILOSOPHY: MEDICAL ETHICS. 5 degree credits,
\$77.50 (♦\$38.75)

An exploration of some of the moral problems confronting physicians, patients and others concerned with medical treatment and public health policy. Among the topics and questions that will be discussed are the following: The Management of Death (When should a physician stop or omit treatment? Are "mercy killings" ever justified?). The Supply of Blood (Should the blood needed in modern medicine be bought or received as a gift or exacted as a tax or what?). Confinement and Mental Illness (Is the notion of "mental illness" one that can be clarified and defended in an objective and scientific manner? Is it ever right to incarcerate someone who has not been convicted of a crime but who has been judged mentally ill?). This course is intended to serve medical and nursing students, philosophy majors, pre-med students and others interested in medical ethics. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:20-8:50, ForH 130, Bunzl
Spring Qtr Sec 2 **M**—6:20-8:50, ForH 130, Dolan

(See related courses, page 165)

photography

(See Arts, Studio; Journalism; and Physics)

physical education and recreation (PE)

(See also Education)

Bruce Anderson, Associate Professor of Physical Education

Richard Hunt, Instructor in Physical Education

Richard Jacobson, Instructor in Physical Education

Nadine Jette, Assistant Professor of Physical Education

Virginia Johnson, Instructor in Physical Education

John Kundla, Associate Professor of Physical Education

Mary B. Lampe, Associate Professor of Physical Education

James LaPoint, Assistant Professor of Physical Education

James Marshall, Assistant Professor of Physical Education

G. Robert Mowerson, Associate Professor of Physical Education

Fred L. Neff, Instructor in Physical Education

Robert Rice, Instructor in Physical Education

Luly Santangelo, Lecturer in Physical Education

Lela June Stoner, Assistant Professor of Physical Education

Barbara Tennesen, Instructor in Physical Education

School of Physical Education, Recreation, and School Health Education CONTINUING EDUCATION

A wide variety of programs in school health education, 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 Physical Education and Recreation, Norris Hall, University of Minnesota, Minneapolis, Minnesota 55455; or call (612) 373-3206.

Symbols, abbreviations, off-campus class locations begin on page 389.

S-N registration not permitted in Physical Education unless specifically designated in course description.

Some physical education classes carry no credit and, except for scuba, require no prerequisite. A health examination is required for admission to all children's physical education classes. It is assumed that the health of adults registering for recreation classes will be equal to the demands of the activities in which they are to participate.

Registration for physical education classes may be made by mail or in person. If you register by mail please read carefully the information on Limited Class Registration (page 23).

Limited class card requests for fall classes should be received during the dates specified for Fall Quarter and Fall Semester. Requests for winter classes should be received during the dates specified for Winter Quarter. Requests for spring classes should be received during the dates specified for Spring Quarter.

***PE 1035 KARATE.** 1 degree credit, \$14.50 plus \$3 course fee. Total \$17.50.

Emphasis on learning basic stances, blocks, and attacks in addition to hand and foot techniques and practice in first form. (No prereq. Limited to 25 students)

Fall Qtr Sec 1 T—7-9:00, StadS 264, Neff

Winter Qtr Sec 2 T—7-9:00, StadS 264, Neff

***PE 1036 PADDLEBALL-HANDBALL.** 1 degree credit, \$14.50.

Basic fundamentals of skills and shots; rules and game strategy are stressed. (No prereq. Limited to 22 students)

Winter Qtr Sec 1 Sa—8 a.m.-10:00, StadN 208

***PE 1074 VOLLEYBALL.** 1 degree credit, \$14.50.

Fundamental skills and rules of volleyball as well as basic team play and strategy. (No prereq. Limited to 26 students)

Winter Qtr Sec 1 M—6-7:00, NorrisH 151

***PE 1135 KARATE.** 1 degree credit, \$14.50 plus \$3 course fee. Total \$17.50.

Individual and group instruction according to belt rating. White Belt holders will receive instruction that includes the Second Form of one-step fighting, free-fighting techniques and escapes. Green, Brown, and Black Belt instruction covers the higher forms, advanced one-step, foot and side-step techniques and meditation. (No prereq. Limited to 25 students)

Spring Qtr Sec 1 T—7-9:00, StadS 264, Neff

***PE 1410 WATER SAFETY INSTRUCTOR.** 2 degree credits, \$58 plus 3 course fee. Total \$61.

Methods and procedures related to organization, content, and teaching of swimming and life saving; opportunity to qualify for the American Red Cross Water Safety Instructor's Certificate. (Prereq minimum age 17 and current American Red Cross Senior Life Saving Certificate. Limited to 28 students)

Spring Qtr Sec 1 T—6-9:00, NorrisH 58, Stoner

***PE 1657 OFFICIATING SOCCER.** 1 degree credit, \$14.50.

Rules of the game, techniques of officiating; opportunity to qualify as soccer official through the Minnesota Soccer Referee's Association. (Prereq 1072 or 8. Limited to 30 students)

Spring Qtr Sec 1 M—6:30-8:30, CH 215, Hunt

***PE 3114 PREVENTION AND CARE OF INJURIES.** 3 degree credits, \$43.50.

Policies for conditioning athletes in interscholastic and intercollegiate sports; safety controls. (Prereq 3110 or Anat 1027. Limited to 30 students)

Fall Qtr Sec 1 T—7:30-9:30 (one additional hour arr.), BFAB 125, Marshall

Symbols, abbreviations, off-campus class locations begin on page 389.

***PE 3143 ORGANIZATION AND MANAGEMENT OF SPORT.** 3 degree credits. \$43.50.

Principles, policies and procedures involved in the coaching of interscholastic sports. (Prereq 2 credit coaching course. Limited to 30 students)

Winter Qtr Sec 1 M—6-8:00, NorrisH 201.

new

See page 189 for information on

**Rec 3800 SPECIAL TOPICS, IN
RECREATIONAL PROGRAMMING★**

a television credit course

***PE 3171 BASKETBALL COACHING.** 2 degree credits, \$29.

Techniques, styles of offense and defense, conditioning and handling of players. (Prereq 1652 or \$. Limited to 25 students)

Fall Qtr Sec 1 M—7-9:00, NorrisH 153, Kundla, Johnson

***PE 3181 DANCE THERAPY.** 2 degree credits, \$29.

For students and teachers interested in dance therapy as a means of communication and interaction for the emotionally disturbed and/or handicapped person. (No prereq. Limited to 20 students)

Spring Qtr Sec 1 W—6-8:00, NorrisH 68, Jette

***PE 5181 WORKSHOP: DYNAMICS OF THERAPEUTIC DANCE/MOVEMENT.** 1 degree credit (maximum 9 cr) \$15.50.

Movement laboratory integrating theory and experience in therapeutic dance; individual movement behavior and its relationship to verbal communication and the on-going process; includes field work observation. (Prereq 3181 or \$. Limited to 12 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Feb. 12, 13, 14 Sec 1 ThFSa—1-4:00, NorrisH 68, Santangelo

Sec 2 ThFSa—6-9:00, NorrisH 68, Santangelo
(register Jan. 29-Feb. 12)

Spec Term Apr. 29, 30, May 1 Sec 3 ThFSa—1-4:00, NorrisH 68, Santangelo

Sec 4 ThFSa—6-9:00, NorrisH 68, Santangelo
(register Apr. 16-30)

new

***PE 5620 PRACTICUM: PREVENTION AND CARE OF ATHLETIC INJURIES.** 3 degree credits, \$46.50 plus \$5 course fee. Total \$51.50

An overview of problems (recognition, principles, responsibilities) related to athletic injuries in secondary and college programs; demonstration and practice in training techniques and familiarity with use of instruments for athletic rehabilitation. (The course is open to men and women teachers who wish to qualify for the Minnesota Public Secondary Athletic Coaching Certification.) (Prereq Anat 1027 or equiv. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—7-9:30, BFAB 125, Marshall

PE 5700 WORKSHOP: DANCE IN EDUCATION. This offering for 3 degree credits (maximum 12 cr) \$46.50.

History, principles, instructional techniques and materials for teaching dance in schools and recreational agencies. (Focus this offering: **Creative dance for children at the elementary level**) (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6-9:00, NorrisH Dance Studio, Jette

PE 5700 WORKSHOP: DANCE IN EDUCATION. This offering for 3 degree credits (maximum 12 cr) \$46.50.

Symbols, abbreviations, off-campus class locations begin on page 389.

History, principles, instructional techniques and materials for teaching dance in schools and recreational agencies. (**Focus this offering: Teaching of Modern Dance**) (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 2 M—6-9:00, NorrisH 68, Rice

Noncredit Activities Open to Men and Women

For information on non-credit conferences and workshops in physical education, please contact the Department of Conferences and Institutes, 131 Nolte Center for Continuing Education; telephone 373-3151.

***PE 0255 SCUBA FOR MEN AND WOMEN.** No credit, \$43.50 plus \$3 course fee. Total \$46.50.

The course covers all of the techniques and safety features of scuba. Upon satisfactory completion of this course, the student will be certified by the National Association of Underwater Instructors and will receive a wallet card so stating. (Prereq ability to swim 440 yards free style, float as motionless as possible for 10 minutes, tread water without hands for 3 minutes, swim 75 feet under water, recover 10-pound object in 10 feet of water from surface dive, tow a quiescent victim 50 yards, and be at least 15 years of age. Limited to 18 students)

Spec Class March 31-June 9

Sec 1 W—7:30-9:30, CH 15, Mowerson
(register Mar. 17-31)

Noncredit Activities Open to Women

***PE 0200 GOLF FOR WOMEN.** No credit, \$29 plus \$3 course fee. Total \$32.

The fundamentals of golf. Development of a swing pattern and putting stroke. All sessions will be held in Norris Hall. (No prereq. Limited to 20 students)

Spec Class April 1-June 10

Sec 1 Th—6-7:00, NorrisH 60, Tennesen
(register Mar. 18-Apr. 1)

Noncredit Activities Open to Men and Boys

***PE 0150 GOLF FOR MEN AND BOYS.** No credit, \$29 plus \$3 course fee. Total \$32.

The fundamentals of golf. Open to adult men and all junior and senior high school boys regardless of experience. Development of a swing pattern and putting stroke. All sessions will be held in the golf gymnasium. Students furnish their own clubs; bring only a 5 iron to the first meeting. (No prereq. Limited to 20 students)

Spec Class March 29-June 7

Sec 1 M—6-7:00, StadS 267, LaPoint

Sec 2 M—7-8:00, StadS 267, LaPoint

Spec Class March 31-June 9

Sec 3 W—6-7:00, StadS 267, Anderson

Sec 4 W—7-8:00, StadS 267, Anderson
(register Mar. 15-29)

Noncredit Activities Open to Boys and Girls

A health examination is required of all boys and girls taking swimming classes. Each child must bring a letter from his (her) physician to the first class meeting stating approval of the activity in which he (she) is registered.

***PE 0001 SWIMMING FOR CHILDREN.** No credit, \$22 plus \$3 course fee. Total \$25.

A course in swimming for children between the ages of 6 and 14 years. Each child must furnish his (her) own towel and swimming suit; (also a cap). Sections are classified as follows: **Beginners**—non-swimmers; **Intermediates**—those who can swim 25 yards of two or more strokes; **Competitive Techniques**—same as Advanced Intermediates plus preparation for competitive swimming. (The first meeting will be used for the purpose of reclassifying swimmers where necessary. Each section limited to 20 students)

Spec Class April 3-June 12

(register Mar. 19-Apr. 2)

BEGINNERS

Sec 1 **Sa**—8:45 a.m.-9:30, NorrisH 51, Lampe

INTERMEDIATES

Sec 2 **Sa**—9:30 a.m.-10:15, CH 15, Mowerson

COMPETITIVE TECHNIQUES

Sec 3 **Sa**—10:15 a.m.-11:00, CH 15, Mowerson

***PE 0100 SPRINGBOARD DIVING FOR BOYS AND GIRLS.** No credit, \$22 plus \$3 course fee. Total \$25.

A course in beginning diving for boys and girls between the ages of 10 and 16 years. (Prereq ability to perform a running front dive from the one meter (low) board. Instruction will be limited primarily to the low diving board. Each child must furnish own suit and towel. Limited to 12 students)

Spec Class April 3-June 12

Sec 1 **Sa**—11 a.m.-11:45, CH 15, Lincoln

physical medicine and rehabilitation (PMed)

(See also Anatomy)

A. Joy Huss, Assistant Professor of Physical Medicine and Rehabilitation

***PMed 5182 FUNCTIONAL NEUROANATOMY AND NEUROPHYSIOLOGY.** 3 degree credits. \$46.50 plus \$4 course fee. Total \$50.50.

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 or \bar{x} . Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—6:20-8:50, ChRC 208, Huss

physics (Phys)

Hans Courant, Professor of Physics

Carl H. Poppe, Associate Professor of Physics

Peter Roll, Associate Professor of Physics

Phys 1031-1032 INTRODUCTORY PHYSICS: MEASUREMENT AND APPLICATIONS. 5 degree credits each semester, \$72.50 plus \$10 special fee. Total \$82.50 each semester. (♦\$36.25 plus \$10 special fee. Total \$46.25)★

◆ Demonstration lectures, problem sessions and laboratory exercises on topics in physics. Application of physics will be emphasized. Topics include mechanics, random processes, gases and fluids, electric circuits, feedback and control, waves, light, optical instruments, atoms and spectra, nuclei, and radioactivity. Primarily for students interested in those topics useful in various technical areas, but also for CLA distribution requirements. Laboratory sections will meet for 2 hours on Saturday morning or Thursday evening. Sections will be assigned at the first class period and will meet eight times during the semester. (Prereq HS algebra and plane geometry for 1031; 1031 for 1032)

Fall Sem 1031 Sec 1 **T**—6-8:30, Ph 133 (lab hours arr.), Poppe

Spring Sem 1032 Sec 2 **T**—6-8:30, Ph 133 (lab hours arr.), Poppe

Symbols, abbreviations, off-campus class locations begin on page 389.

Phys 1271 GENERAL PHYSICS. 4 degree credits, \$58. (♦\$29)

◆ Calculus-level general physics course. Mechanics. (Prereq Math 1221 or ¶1221 or Math 1321 or ¶Math 1321 or equiv; may be taken with or without Phys 1275 lab)

Fall Sem Sec 1 T—6-9:00, Ph 170

Phys 1275 GENERAL PHYSICS LABORATORY. 1 degree credit, \$14.50 plus \$10 course fee. Total \$24.50.

Laboratory exercises in mechanics. **This course offered S-N only.** (Prereq 1271 or ¶1271)

Fall Sem Sec 1 Lab meets for 2 hours Th evening or Sat morning for total of 8 mtgs. Sections will be assigned at the first class meeting of 1271.

Phys 1281 GENERAL PHYSICS. 4 degree credits, \$58. (♦\$29)

◆ Calculus level general physics course. Heat, electricity. (Prereq 1271 and Math 1231 or ¶1231 or equiv)

Spring Sem Sec 1 T—6-9:00, Ph 170

Phys 1285 GENERAL PHYSICS LABORATORY. 1 degree credit, \$14.50 plus \$10 course fee. Total \$24.50.

Laboratory exercises in electricity. (Prereq 1281 or ¶1281)

Spring Sem Sec 1 Lab meets for 2 hours Th evening or Sat morning for total of 8 mtgs. Sections will be assigned at the first class meeting of 1281.

Phys 1291 GENERAL PHYSICS. 4 degree credits, \$58.

Magnetism, optics. (Prereq 1281; may be taken with or without Phys 1295 lab)

Fall Sem Sec 1 T—6-9:00, Ph 166

Phys 1295 GENERAL PHYSICS LABORATORY. 1 degree credit, \$14.50 plus \$10 course fee. Total \$24.50.

Laboratory exercises in magnetism and optics. (Prereq 1291 or ¶1291)

Fall Sem Sec 1 Lab meets for 2 hours on Th evening or Sat morning for total of 8 mtgs. Sections will be assigned at the first class meeting of 1291.

Phys 3501 MODERN PHYSICS. 4 degree credits, \$3511-3512-3513. \$58.

Descriptive course in modern physics; quantum mechanics, hydrogen atom, multielectron atoms, molecular structure, quantum statistics, thermal radiation, solid state physics, nuclear physics. (Prereq 1291 or 1106)

Spring Sem Sec 1 T—6-8:30, Ph 166

Phys 3505 MODERN PHYSICS LABORATORY. 1 degree credit, \$14.50.

Laboratory experiments in modern physics. (Prereq 3501 or ¶3501)

Spring Sem Sec 1 Th—6-9:00, Ph 226

Phys 3801 INTRODUCTION TO THE PHYSICS OF PHOTOGRAPHY. 5 degree credits, \$72.50 plus \$10 course fee. Total \$82.50. (♦\$36.25 plus \$10 course fee. Total \$46.25)

◆ Principles of optics and electricity applied to the photographic processes. Image formation; intensity and color of illumination; exposure of photographic materials. Emphasis on understanding technical literature as applied to pictorial photography (or tone reproduction) though with some discussion of line reproduction. (Prereq HS algebra, some photographic experience)

Fall Sem Sec 1 W—6-8:30, Ph 166, Courant (2 additional hrs per wk arr.)

(See also photography courses in Arts, Studio; and Journalism)

Symbols, abbreviations, off-campus class locations begin on page 389.

Phys 5090 PHYSICS OF MUSICAL INSTRUMENTS. 3 degree credits, \$MuEd 5750.
\$46.50.

Seminar on physical characteristics and processes involved in playing musical instruments. Emphasis on non-mathematical understanding, to improve performance and teaching skills. Electronic methods to sense and display cues to assist performance and teaching. (Prereq \$. Meets concurrently with MuEd 5750, sec 3. Qualified students may register for graduate credit except in the major field)

Spring Qtr Sec 1 **W**—6:20-9:30, Ph 133, Roll

physiology (phsl)

(See related courses, page 165)

Gordon Kepner, Assistant Professor of Physiology

***Phal 1001** Sec 1 **HUMAN PHYSIOLOGY.** 4 degree credits. \$58 plus \$10 course fee. Total \$68.

new

Human organ systems, normal and pathological functions, feedback regulation and control. Everyday aspects of body function and health. (Prereq high school biology, high school chemistry or \$. Limited to 40 students)

Fall Qtr Sec 1 **Lect M**—6-7:45, HSUnitA 3-110, Kepner
Dis W—6-8:00, HSUnitA 3-110

plant pathology (PIPa)

(See also Agriculture and Horticulture)

William W. Kennedy, Professor of Plant Pathology

David H. MacDonald, Associate Professor of Plant Pathology

Elmer Schmidt, Research Assistant in Plant Pathology

Elwin Stewart, Assistant Professor of Plant Pathology

***PIPa 1001 INTRODUCTORY PLANT PATHOLOGY.** 5 degree credits, \$5002, 5050.
\$72.50.

An introduction to the characteristics of and the effects produced by the most important biotic and abiotic causes of plant diseases as well as a study of representative diseases that are of significance in Minnesota. (Prereq 9 cr plant science. Meets concurrently with 5002. Limited to 15 students)

Spring Qtr Sec 1 **MW**—6:30-9:30, StakH 103, 105, StP Campus, MacDonald

PIPa 3104 FUNDAMENTALS OF MUSHROOM IDENTIFICATION. 3 degree credits, \$43.50.
(♦\$21.75)

new

Designed for the student seeking a popular treatment of fleshy fungi, especially edible and poisonous mushrooms. Emphasis will be on identification, structure, ecology, and techniques of preservation. Instruction will include laboratory studies and field trips. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, StakH 103, StP Campus, Stewart, Schmidt

***PIPa 5002 INTRODUCTORY PLANT PATHOLOGY FOR ADVANCED STUDENTS.** 3 degree credits, \$1001, 5050. \$46.50.

See course description for 1001. (Prereq 9 cr plant science. Meets concurrently with 1001. Qualified students may register for graduate credit at the University of Minnesota. Limited to 10 students)

Spring Qtr Sec 1 **MW**—6:30-9:30, StakH 103, 105, StP Campus, MacDonald

Symbols, abbreviations, off-campus class locations begin on page 389.

PIPa 5702 PREVENTION AND CONTROL OF PLANT DISEASE. 3 degree credits, \$46.50.
(♦\$23.25)

Emphasis will be placed on three areas: 1) survey and evaluation of control methods (biological, chemical, regulatory—including changes imposed by the times); 2) consideration of new ideas that have suspected potential and/or predictive value; 3) observation and discussion related to selected greenhouse, laboratory, and field experiments which demonstrate principles of prevention or control of specific plant diseases. (Prereq fundamental course in plant pathology recommended; or course in bacteriology, mycology or basic botany and ♪. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—6:20-8:50, StakH 103, StP Campus, Kennedy

political science (Pol)

(See also GC 3844, Minnesota Parties and Politics; IR 3000, 8000, Organized Labor and the Political Process; Phil 1004, Political Philosophy; and non-credit Informal Courses, page 282)

Charles Backstrom, Professor of Political Science
Terence W. Ball, Assistant Professor of Political Science
Roger W. Benjamin, Associate Professor of Political Science
Robert E. Eyestone, Associate Professor of Political Science
Brian Job, Assistant Professor of Political Science
Samuel H. Kernell, Instructor in Political Science
Robert B. Kvavik, Assistant Professor of Political Science
William D. Morris, Assistant Professor of Political Science
August H. Nimitz, Jr., Assistant Professor of Political Science
L. Earl Shaw, Assistant Professor of Political Science
Gary Wynia, Associate Professor of Political Science

Did you know that 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 Extension counselor (373-3905).

BA MAJOR SEQUENCE

Required Preparatory Courses

1001, 1051

Major Requirements

At least 36 cr in 3xxx- or 5xxx-level political science courses (not more than 16 cr in any one field nor more than 28 cr in any two fields). The recognized fields are shown by subheads among the course descriptions.

You need not be majoring in Political Science to register for these classes.

general education

Pol 1001 AMERICAN GOVERNMENT AND POLITICS. 5 degree credits, \$72.50.
(♦\$36.25)★

◆ Analysis of principles, organization, processes, functions of government and the interplay of political forces in United States—national, state and local. Attention given throughout to current issues. (No prereq)

Fall Sem Sec 1 M—7-9:15, BlegH 215, Backstrom

Winter Qtr Sec 2 M—7-9:15, Kellogg HS 233, Little Canada, Kernell

Spring Sem Sec 3 T—6:30-8:45, BlegH 225, Kvavik

Symbols, abbreviations, off-campus class locations begin on page 389.

Poi 1025 WORLD POLITICS. 4 degree credits, \$58. (♦\$29)★

Introduction to contemporary international relations, forms of state interaction; problems of conflict and cooperation. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 245, Job

Spring Qtr Sec 2 **M**—6:20-8:50, BlegH 215

Poi 1026 AMERICAN FOREIGN POLICY. 4 degree credits, \$58. (♦\$29)★

Introduction to institutions and processes which determine American foreign policy. (No prereq)

Fall Qtr Sec 1 **Th**—6:20-8:50, BlegH 210

Poi 1027 URBAN POLITICS. 4 degree credits, \$58. (♦\$29)

Urban politics and issues facing American cities. Emphasis on political conflicts over economic and social problems. (No prereq)

Winter Qtr Sec 1 **M**—6:20-8:50, BlegH 260, NimtZ

(See also Urban Studies; GC 1212, Urban Problems; Soc 5601, Urban Sociology; and Hist 3901, 3902, American Urban History)

Poi 1031 AMERICAN PUBLIC POLICY. 4 degree credits, \$58. (♦\$29)★

Analysis of several major public policy issues such as: social welfare policy, education policy, economic policy, national security policy. Emphasis upon forces molding and impact of public choices. (No prereq)

Fall Qtr Sec 1 **M**—7-9:30, Jewish Community Ctr, StLPk

Winter Qtr Sec 2 **Th**—6:20-8:50, BlegH 240

(See also Public Affairs)

Poi 1041 CONTEMPORARY POLITICAL IDEOLOGIES. 4 degree credits. To be offered 1976-77.

Poi 1051 INTRODUCTION TO POLITICAL ANALYSIS. 5 degree credits, \$72.50. (♦\$36.25)

Topics such as formation of political communities, political participation, policy making, compliance, legitimacy, political development, types of political systems. Emphasis on empirical and normative problems. Applications to major contemporary systems. (No prereq)

Fall Sem Sec 1 **T**—6:20-8:50, BlegH 115, Wynia

american governmental systems and processes

Poi 5303 AMERICAN DEMOCRACY. 4 degree credits. To be offered 1976-77.

Poi 5309 JUDICIAL PROCESS. 4 degree credits, \$62. (♦\$31)

Structure of American judiciary; selection of judges; process of litigation; influences on judicial decisions; impact of and compliance with decisions; role of Supreme Court in American political system. (No prereq. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Winter Qtr Sec 1 **T**—6:20-8:50, BlegH 155

Poi 5321 AMERICAN ECONOMIC POLICY. 4 degree credits, \$62. (♦\$31)

Economic policy-making processes; major policy issues such as fiscal and monetary policy, subsidies, economic regulation, and direct controls; assessment of governmental impact on the private economic sector. (No prereq. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Fall Qtr Sec 1 **T**—6:20-8:50, BlegH 245, Eyestone

(See also Economics)

Poi 5328 METROPOLITAN GOVERNMENT. 4 degree credits. To be offered 1976-77.

comparative government and politics

Poi 5454 CHINESE GOVERNMENT AND POLITICS. 4 degree credits, \$62. (◆\$32)★

◆ Traditional Chinese society; the fragmentation of China and the rise of the Communist power; sources and nature of Communist Chinese ideology; institutional character of the Communist party system; sources of power; role of the party and functional groups; patterns of change. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Spring Qtr Sec 1 M—6:20-8:50, BlegH 404, Benjamin

political theory

Poi 5661 PROBLEMS OF DEMOCRACY. 4 degree credits, \$62. (◆\$31)

◆ Postulates and implications; moral foundations; democratic theory and the economic order; liberty and authority; equality; representation; spiritual order; critics of democracy. (No prereq. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Fall Qtr Sec 1 W—6:20-8:50, BlegH 230, Shaw

Poi 5662 RECENT POLITICAL THOUGHT. 4 degree credits, \$62. (◆\$31)

◆ Main currents from Marx to present, including socialist, anarchist, liberal, and conservative thought; problems such as alienation and political obligation. (No prereq. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Spring Qtr Sec 1 W—6:20-8:50, BlegH 230, Ball

new

politics and behavior

Poi 5737 POLITICAL PARTIES. 4 degree credits, \$62. (◆\$31)★

◆ Role and functions of the party in American government; party composition and organization; process of nomination and policy formulation; regulation of party organization and activities. (No prereq. Qualified students may register for graduate credit at the University of Minnesota, except in the major field.)

Winter Qtr Sec 1 Th—6:20-8:50, BlegH 115, Morris

international relations

Poi 5884 INTERNATIONAL POLITICS. 4 degree credits. To be offered 1976-77.

portuguese

(See Spanish and Portuguese)

psychological foundations (PsyF)

(See also Education)

William M. Bart, Associate Professor of Educational Psychology

David W. Johnson, Professor of Educational Psychology

James R. Rest, Associate Professor of Educational Psychology

S. Jay Samuels, Professor of Educational Psychology

John Stecklein, Professor of Educational Psychology

James S. Terwilliger, Professor of Educational Psychology

S-N registration not permitted in Psychological Foundations unless specifically indicated in course description.

Symbols, abbreviations, off-campus class locations begin on page 389.

PsyF 5110 INTRODUCTORY STATISTICAL METHODS. 3 degree credits, \$46.50.

Basic statistical techniques; comprehension of literature using elementary concepts and methods. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, Bu 120, Stecklein

Spring Qtr Sec 2 **Th**—6:20-8:50, Arch 40, Terwilliger

PsyF 5120 EDUCATIONAL MEASUREMENT IN THE CLASSROOM. 3 degree credits, \$46.50.

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. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Th**—6:20-8:50, Bu 120, Terwilliger

***PsyF 5141 PSYCHOLOGY OF SCHOOL LEARNING.** 3 degree credits, \$46.50.

Survey of psychological conceptions of the learner, the schooling process, and the implications of these conceptions for education. (No prereq. Limited to 20 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—4:15-6:00, Bu 125, Bart

***PsyF 5148 PSYCHOLOGY AND PEDAGOGY OF READING.** 3 degree credits, \$46.50.

Physiological, psychological, and linguistic factors influencing beginning and fluent reading and their implications for instruction. (No prereq. Limited to 15 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—4:30-6:30, Pt 215, Samuels

PsyF 5162 PERSONALITY AND SOCIAL DEVELOPMENT. 3 degree credits, \$46.50.

Major concepts and research findings in adjustment and development with special emphasis on educational implications. (Prereq 5 cr in introductory psychology. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—6:20-8:50, Bu 120, Rest

PsyF 5170 SOCIAL PSYCHOLOGY OF EDUCATION. 4 degree credits, \$62.

Concepts and theories in the field applied to educational problems and settings. Laboratory sessions to make applications and develop skills in group behavior. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:30-6:30, Jones 11, Johnson

PsyF 5172 STRUCTURING LEARNING: SOCIAL PSYCHOLOGICAL APPROACHES. 3 degree credits, \$46.50.

new

How to use cooperation, competition, and individualization to affect learning climate and cognitive and affective outcomes of instruction. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 **Jan. 17, 24, 31 W**—8 a.m.-6 p.m., Bu 125, Johnson

(register Jan. 2-16)

PsyF 5305 WORKSHOP IN HUMAN RELATIONS. 6 degree credits, \$CSPP 5305, Educ 5305. \$93 plus \$15 special fee. Total \$108.

new

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. (Prereq teaching certificate. **Must be taken S-N.** Limited to 30 students. Approved to meet State Department of Education Edu 521 requirement for re-certification. Qualified students may register for graduate credit at the University of Minnesota)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	Sec 1	M —4:30-9:30, Aero 313
	Sec 2	M —4:30-9:30, Aero 317
	Sec 3	T —4:30-9:30, Aero 313
	Sec 4	T —4:30-9:30, Aero 317
Winter Qtr	Sec 5	M —4:30-9:30, Aero 313
	Sec 6	M —4:30-9:30, Aero 317
	Sec 7	T —4:30-9:30, Aero 313
	Sec 8	T —4:30-9:30, Aero 317
Spring Qtr	Sec 9	M —4:30-9:30, Aero 313
	Sec 10	M —4:30-9:30, Aero 317
	Sec 11	T —4:30-9:30, Aero 313
	Sec 12	T —4:30-9:30, Aero 317

psychology (Psy)

(See also Adult Psychiatry, Child Psychology, Counseling and Student Personnel Psychology; General College; and Psychological Foundations)

Mary J. Bradshaw, Instructor in Psychology

Barbara Dorset, Instructor in Psychology

Paul W. Fox, Professor of Psychology

Mary Ann Graff, Instructor in Psychology

Bonnie Gray, Instructor in Psychology

James C. Kincannon, Lecturer in Psychology

Leslie A. King, Professor of Psychological Studies

Grove P. Laybourn, Jr., Lecturer in Psychology

Mary Ann Mattoon, Lecturer in Psychology

Frankie Mae Paulson, Instructor in Psychology

Roy W. Pickens, Professor of Psychology

Jane Rozsnafszky, Instructor in Psychology

Vera M. Schletzer, Professor of Psychology

Orville L. Weiszhaar, Instructor in Psychology

Did you know that a major in Psychology can be completed in the evening? Those courses required in the major are offered yearly. If you decide to major, it is important to discuss your plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Required Preparatory Courses

1001, 1004-1005+**

**Should be taken as soon as possible after completion of 1001.

Major Requirements:

2 courses chosen from 3011, 3031, 3051, 3061, 5011, 5012-5013, 5014, 5015, 5017, 5018, 5019, 5031, 5054, 5061, 5062, 5071

2 courses chosen from 3101, 3124, 3201, 3604, 5141, 5501, 5701, 5702, 5703, CPsy 3301, 5303

3601**

**Should be taken as soon as possible after completion of 1001.

4 elective 3xxx-5xxx-level psychology. 1 to 4 optional elective 3xxx-5xxx-level psychology or child psychology courses or psychological foundations or counseling and student personnel psychology courses. For approved list call Extension Counseling.

Psychology courses at the 3xxx-5xxx-level must total at least nine, with a minimum total of 32 credits (CPsy 3301 and 5303 may be included), but all 3xxx-5xxx-level courses chosen for the major must not exceed 52 credits.

Psychology majors, especially those considering graduate work, are urged to elect courses in mathematics and in the natural, social, and physical sciences. Prospective graduate students should take further work in statistics and computer programming. Students not planning graduate work in psychology may, with adviser assistance, design programs that prepare for such paraprofessional services as interviewing, personnel work, mental health work, counseling, and research technician work.

Those interested in child psychology are encouraged to elect courses offered through the Institute of Child Development. They may consider majors in that area—double majors in psychology and child psychology are not permissible. Psychology majors are restricted in the number of child psychology courses acceptable for the major.

You need not be majoring in Psychology to register for these classes.

Psy 1001 GENERAL PSYCHOLOGY. 5 degree credits, \$72.50. (◆\$36.25)★

This course is designed to orient the student to the whole field of psychology. Its emphasis is upon methods of investigating human behavior. Required for most other courses in psychology. (No prereq)

Fall Sem	Sec 1	M —7-9:30, Bu 120
	Sec 2	T —7-9:30, Kellogg HS 111, Little Canada (Limit 60 students*)
	Sec 3	W —6:20-8:55, NH 211
	Sec 4	W —7-9:30, StP Ramsey Hosp Education Bldg 303 (Limit 50 students*)
	Sec 5	Th —7-9:30, Richfield HS 341 (Limit 60 students*)
	Sec 6	Sa —9 a.m.-11:30, Elth N119
Spring Sem	Sec 7	T —6:20-8:55, NH 211
	Sec 8	Th —7-9:35, NH 211

Psy 1003 APPLICATION OF PSYCHOLOGY TO LIVING. 4 degree credits, \$58. (◆\$29)

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, NH 211
	Sec 2	T —6:30-9:00, St Stephens Church, WStP; King
	Sec 3	Th —7-9:30, Kellogg HS 233, Little Canada; Gray (Limit 35 students*)
Winter Qtr	Sec 4	M —7-9:30, Irondale HS 312, New Brighton; King
	Sec 5	T —6:20-8:50, Elth N119, Dorset
	Sec 6	W —7-9:30, NH 213, Hendel
	Sec 7	Th —7-9:30, Nicollet JHS, Burnsville; Moen
Spring Sem	Sec 8	M —6:20-8:00, NH 211, Rosznafszky
Spring Qtr	Sec 9	T —7-9:30, Sandburg JHS 209, Golden Valley; Townsend (Limit 35 students)
	Sec 10	W —6:20-8:50, NH 211, Paulson
	Sec 11	Th —6-8:30, StP Sunray Lib, Weiszhaar

(See also GC 1282, Applied Psychology)

***Psy 1004-1005† INTRODUCTORY LABORATORY PSYCHOLOGY.** 4 degree credits each quarter, \$58 plus \$14 special fee plus \$1.50 course fee. Total \$73.50 each quarter.

Experiments illustrating 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 11001 for 1004; 1004 for 1005. Limited to 24 students)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr 1004 Sec 1 T—6:20-8:50, EltH 50-60
 Sec 2 W—6:40-9:10, EltH 50-60
Winter Qtr 1005 Sec 3 T—6:20-8:50, EltH 50-60
 Sec 4 W—6:40-9:10, EltH 50-60

Psy 1911 PSYCHOLOGY AND RELIGION. 4 degree credits, \$58. (♦\$29)★

Major theoretical statements on religion. Development of the religious sentiment. Religious experience. Pathological and self-actualizing religion, according to major theoretical positions. Assessment of religious behavior and religiousness. (No prereq)

Winter Qtr Sec 1 M—6:20-8:50, FolH 104

(See related courses, page 179)

See page 189 for information on
Psy 1911 PSYCHOLOGY AND RELIGION★
 A credit television course.

Psy 3011 INTRODUCTION TO THE PSYCHOLOGY OF LEARNING. 4 degree credits, \$58. (♦\$29)

Survey of the basic methods in the study of learning. Development of fundamental concepts and principles governing the learning process. (Prereq 1001)

Fall Qtr Sec 1 T—6:20-8:50, EltH N119
Spring Qtr Sec 2 T—6:20-8:50, EltH N119

***Psy 3031 SENSATION AND PERCEPTION.** 4 degree credits, \$58.

Roles of stimulus, receptor organ and brain, and of learning and motivation, in man's perception of his world. Lectures and demonstrations. (Prereq 1001, 1004 or 1. Limited to 40 students)

Spring Qtr Sec 1 M—6:20-8:50, Bu 125

Psy 3061 INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY. 4 degree credits, \$58. (♦\$29)

Survey of neural mechanisms of motivation, emotion, sleep-wakefulness cycle, learning, and communication in animals and humans. (Prereq 1001, 1005 or Biol 1011 or 1)

Fall Qtr Sec 1 Th—6:20-8:50, EltH N119

Psy 3101 INTRODUCTION TO PERSONALITY. 4 degree credits, \$58. (♦\$29)★

An overview of the field of personality, with discussions of personality theory, (e.g. the theories of Freud, Jung and Adler), of selected topics of empirical research in the field of personality, and of personality assessment. (Prereq 1001)

Fall Sem Sec 1 W—6:20-8:00, EltH N119
Spring Sem Sec 2 M—6:20-8:00, EltH N119

Psy 3201 INTRODUCTION TO SOCIAL PSYCHOLOGY. 4 degree credits, \$58. (♦\$29)

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 Sem Sec 1 M—8:15-9:55, EltH N119
Spring Sem Sec 2 M—8:15-9:55, EltH N119

Psy 3804 INTRODUCTION TO ABNORMAL PSYCHOLOGY. 4 degree credits, \$58. (♦\$29)★

The field of abnormal psychology. Etiologies of behavior disorders; discussion of available treatments. (Prereq 1001)

Fall Sem Sec 1 M—6:20-8:00, Ph 133
Spring Sem Sec 2 M—6:20-8:00, Ph 133



Psy 3801 INTRODUCTION TO STATISTICAL METHODS. 4 degree credits, \$Soc 3801. \$58.

The data of psychology and their statistical analysis. Univariate and bivariate descriptive statistics, principles of estimation and hypothesis testing. Examples from differential and experimental psychological research. (Prereq 1001 or equiv)

Fall Sem Sec 1 **W**—8:15-9:55, BlegH 155
Spring Sem Sec 2 **Th**—8:15-9:55, BlegH 155

Psy 3911 PERSONALITY AND RELIGION. 4 degree credits, \$58. (◆\$29)★

◆ 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 1911 or §)

Spring Qtr Sec 1 **W**—6:20-8:50, FoIH 308

(See related courses, page 179)

Psy 3960 TOPICS IN PSYCHOLOGY: INTRODUCTION TO BEHAVIOR ANALYSIS. 4 degree credits, \$58.

new

An introduction to principles of behavior analysis and therapy. Surveys of behavioral approaches to assessment and intensively discusses behavioral intervention principles and techniques. The last half of the course will deal with applications of behavior modification and applications of therapeutic methods for an array of client populations, including adult mental health, emotionally disturbed children, developmental disability, chemical dependency and study skills. (Prereq 1001 or §)

Fall Qtr Sec 1 **W**—3:30-6:00, MRRC 211
Winter Qtr Sec 2 **W**—3:30-6:00, MRRC 211
Spring Qtr Sec 3 **W**—3:30-6:00, MRRC 211

Psy 3970 DIRECTED STUDIES: PRACTICUM. 4 degree credits, \$58.

new

Practical experience applying behavioral intervention techniques and principles in at least three applied settings. Practicum experiences must be arranged with participating faculty members, and typically will involve a minimum of eight hours of practicum work, plus one to two hours of supervisory contact with an instructor. Practicum experience is available in adult mental health, emotionally disturbed children, developmental disability, chemical dependency and study skills. For assignment to a faculty member, contact Prof. Travis Thompson, coordinator of the Behavior Analyst Certificate Program, 628 Diehl Hall, 373-5033. (Prereq 3960 or 13960)

Fall Qtr Sec 1 **Arr.**
Winter Qtr Sec 2 **Arr.**
Spring Qtr Sec 3 **Arr.**

Psy 5011 THEORIES OF LEARNING AND COGNITION. 4 degree credits, \$62.

new

Major theories of learning and contemporary theories of information processing and cognition. (Prereq 3011 except for students in Honors sequence and grads. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:20-8:50, FoIH 102

Psy 5044 PSYCHOLOGY OF MOTIVATION AND CONFLICT. 4 degree credits, \$62. (◆\$31)

◆

The drives and motives which underlie normal behavior and the forms of adjustment which arise when motives conflict or encounter external frustration. Parallel observations in the field of animal behavior will be considered. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 **Th**—8:15-9:55, Bu 123

Symbols, abbreviations, off-campus class locations begin on page 389.

Psy 5105 THE ANALYTICAL PSYCHOLOGY OF C.G. JUNG. 4 degree credits, \$62. (♦\$31)

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 of †. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-8:50, WuH 230

Psy 5106 SEMINAR: ADVANCED ANALYTICAL PSYCHOLOGY. 4 degree credits. To be offered 1976-77.

***Psy 5141 PSYCHOLOGY OF WOMEN.** 4 degree credits, \$62. (♦\$31)

Psychological and physical sex differences, stressing developmental and environmental influences on dependency, aggression, achievement motivation, and achievement. Sex roles and sexuality during various life phases. (Prereq 1001. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—5-7:30, WCCO Radio Bldg 512, Mpls

Spring Qtr Sec 2 T—6:20-8:50, WuH 230

(See also Women's Studies)

Psy 5201 SOCIAL PSYCHOLOGY. 4 degree credits, \$3201. \$62. (♦\$31)

Classical and contemporary theories and research in social psychology. (Prereq 1001, 1005, and 8 credits in social science, psychology honors majors or grad. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—6:20-8:50, WuH 130

Psy 5604-5605† ABNORMAL PSYCHOLOGY. 4 degree credits, \$3604. \$62. (♦\$31)

Comprehensive review of behavioral disorders. Etiology and treatment considerations are emphasized. (Prereq honors majors or grad, or † for 5604; 5604 or † for 5605. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5604 Sec 1 W—6:20-8:50, WuH 130

Winter Qtr 5605 Sec 2 W—6:20-8:50, WuH 130

Psy 5701 PERSONNEL AND INDUSTRIAL PSYCHOLOGY. 4 degree credits, \$62. (♦\$31)

Application of principles of individual differences and psychological measurement to problems of recruiting, selecting, evaluating, and training members of ongoing organizations. Job behavior description, performance measurement, selection and placement strategies, minority group employment, measurement of job satisfaction, strategies for training and development. (Prereq 1001, one course in statistics or †. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6:20-8:50, WuH 130

***Psy 5705 ENGINEERING PSYCHOLOGY.** 4 degree credits, \$62.

(Prereq 1004-1005, 3801; open to Psychology majors and grad students with †. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 M—4-6:30, E1H 225, Darley

Psy 5751 PSYCHOLOGY OF ADVERTISING. 4 degree credits, \$Jour 5251, \$62.

Psychological analysis of the basic principles underlying advertising and selling. Consumer research is stressed. Research techniques for investigating advertising problems and the analysis of consumer wants are considered in detail. Meets concurrently with Jour 5251. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-8:50, Jones 4, Laybourne

For information on non-credit workshops or conferences in psychology, please contact the Department of Conferences, Registrar, Nolte Center for Continuing Education; telephone 373-3151.

public affairs (PA)

(See also Public Policy; and Urban Studies)

Dean E. Abrahamson, Professor of Public Affairs
Nancy N. Anderson, Associate Professor of Public Affairs
John E. Brandl, Director, School of Public Affairs
Willard W. Cochrane, Professor of Agricultural Economics
Harold W. Chase, Professor of Political Science
Thomas Dewar, Assistant Professor of Public Affairs
Robert C. Einsweiler, Lecturer in Public Affairs
Donald Geesaman, Associate Professor of Public Affairs
Michael E. Gleeson, Assistant Professor of Public Affairs
Walter W. Heller, Regents Professor of Economics
James L. Hetland, Professor of Public Affairs and Law
Stephen Hoenack, Associate Professor of Public Affairs
Martin H. Krieger, Assistant Professor of Public Affairs
Robert T. Kudrle, Assistant Professor of Public Affairs
Arthur Naftalin, Professor of Public Affairs
John E. Seley, Assistant Professor of Public Affairs
George Warp, Professor of Public Affairs

See these informal, noncredit courses in public affairs on page 286:

THE DILEMMA OF NUCLEAR POWER
URBAN GROWTH CONTROL SYSTEMS
INTEGRATING HUMAN SERVICE PROGRAMS
GOVERNMENT REGULATION OF BUSINESS ACTIVITIES
COMMUNITY-BASED SERVICE SYSTEMS

(See CLA Bulletin for some course descriptions)

PA 3121 INTRODUCTION TO PUBLIC INTEREST RESEARCH. 4 degree credits, \$58 plus \$5 special fee. Total \$63. (♦\$29 plus \$5 special fee. Total \$34)



Introductory survey of public interest activities, particularly as they relate to environmental, consumer and public health issues. Brief description of public interest law and case studies of major local and national public issues. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, BlegH 235, Abrahamson

PA 3151 INTRODUCTION TO ENERGY POLICY. 4 degree credits, \$5151. \$58 plus \$5 special fee. Total \$63. (♦\$29 plus \$5 special fee. Total \$34)



Analysis of what has come to be called the "energy crisis." Basic data on energy supply and demand, alternative energy sources, energy conservation possibilities, environmental and social implications of alternative policies. Particular attention given to current energy policy issues. (No prereq. Meets concurrently with 5151)

Winter Qtr Sec 1 **M**—6:20-8:50, BlegH 145, Abrahamson

(See other environmental concerns courses, page 170)

***PA 3960 SELECTED TOPICS IN PUBLIC AFFAIRS.** 4 degree credits, \$3151. \$58. (Prereq 3. A joint Day/Extension class limited to 8 Extension students [plus day school registrants])

Fall Qtr Sec 1 **MWF**—10:15 a.m.-11:00, BlegH 260, Warp

PA 5151 ENERGY AND ENERGY POLICY. 4 degree credits, \$62 plus \$5 special fee. Total \$67.

Fuel and energy supply and demand; environmental, social and economic implications of alternative energy policies; means to affect changes in use patterns;

Symbols, abbreviations, off-campus class locations begin on page 389.

political and institutional factors; relations of energy policies to economic, foreign and environmental policies. (No prereq. Meets concurrently with 3151; additional research. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 **M**—6:20-8:50, BlegH 145, Abrahamson

(See other environmental concerns courses, page 170)

PA 5152 TOPICS IN ENERGY POLICY. 4 degree credits, \$62 plus \$5 special fee. Total \$67.

A facet of energy policy considered in detail. Topic of current concern selected each year. (No prereq; additional research. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 **M**—6:20-8:50, BlegH 235, Abrahamson

PA 5161 TECHNOLOGY PLANNING. 4 degree credits, \$62 plus \$5 course fee. Total \$67.

The pervasive involvement of technology with economic and political institutions will be described. Contemporary technological controversies will be examined, along with the adequacy of existing tribunals, and the policy dilemmas posed by these technologies. Representative examples will be chosen from various technologies—medical, communication, energy, etc.—but process rather than substance will be stressed in their discussion. Readings for the course will be chosen from the writings of authors such as Boulding, Thompson, Heilbroner, Galbraith, Sax and Ellul. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 5161 Sec 1 **W**—6:20-8:50, BlegH 135, Geesaman

***PA 5401 DEVELOPMENT ADMINISTRATION.** 4 degree credits, \$62.

(No prereq. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **MWF**—10:15 a.m.-11:00, BlegH 245, Warp

***PA 5502 LOCAL ADMINISTRATION.** 4 degree credits, \$62.

(No prereq. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **TTh**—10:15 a.m.-12:00, BlegH 245, Gleeson

***PA 5503 TOPICS IN LOCAL ADMINISTRATION.** 4 degree credits, \$62.

(Prereq 5502 or †. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—10:15 a.m.-12:00, BlegH 245, Gleeson

***PA 5505 HOUSING POLICY.** 4 degree credits, \$62.

(Prereq †. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **MWF**—11:15 a.m.-12:00, BlegH 125, Gleeson

***PA 5506 TOPICS IN HOUSING POLICY.** 4 degree credits, \$62.

(Prereq 5505. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Approval pending, Gleeson

***PA 5516 SEMINAR: SOCIAL THEORY AND SOCIAL PLANNING I.** 4 degree credits, \$62.

A description and discussion of major issues in social theory; and analysis of urban planners' responses—implicit and explicit—to these issues. Includes consideration of social change, alienation and anomie, power, images of society, values and objectivity; with specific examples from urban planning. What the

planner can, cannot, has, and has not done in regard to social problems. (Prereq junior standing or §. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6:20-8:50, SocSci 860, Seley

***PA 5550 PLANNING PROSEMINAR.** 2 degree credits, \$31.

(Prereq §. A Joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—10:15 a.m.-12:00, SocSci 860, Krieger

Sec 2 T—1:15-3:00, SocSci 628, Seley

Winter Qtr Sec 3 M—8:15 a.m.-10:00, SocSci 860, Einsweiler

Spring Qtr Sec 4 M—8:15 a.m.-10:00, SocSci 860, Einsweiler

***PA 5601 PLANNING THEORY SEMINAR.** 4 degree credits, \$62.

(Prereq §. A Joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—10:15 a.m.-12:00, SocSci 860, Krieger

***PA 5602 PLANNING THEORY SEMINAR.** 4 degree credits, \$62.

(Prereq §. A Joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 M—10:15 a.m.-12:00, BlegH 360, Krieger

***PA 5691 COMPARATIVE SERVICE ORGANIZATIONS.** 3 degree credits, \$46.50.

(Prereq §. A Joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—10:15 a.m.-12:00, SocSci 860, Dewar

***PA 8121 POLICY ANALYSIS III.** 3 degree credits, \$49.50.

Will be offered pending departmental approval. (Prereq §. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 MTh—1:15-3:00, BlegH 260, Abrahamson

***PA 8201 POLICY ANALYSIS I.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension course limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 MTh—3:15-5:00, BlegH 435, Brandl

***PA 8202 POLICY ANALYSIS II.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 MTh—3:15-5:00, BlegH 260, Hoenack

***PA 8204 THE PUBLIC ECONOMY.** 3 degree credits, \$49.50.

Prereq §. A joint Day/Extension course limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—3:15-5:00, BlegH 335, Heller

***PA 8210 ADMINISTRATIVE AGENCIES IN THE POLITICAL PROCESS.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 TF—3:15-5:00, BlegH 255, Gleeson

Symbols, abbreviations, off-campus class locations begin on page 389.

***PA 8216-8217 POLICY PROCESS I, II.** 3 degree credits each quarter, \$49.50 each quarter.

(Prereq § for 8216; 8216 for 8217. A joint Day/Extension course limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 8216 Sec 1 TF—3:15-5:00, BlegH 435, Chase
 Winter Qtr 8217 Sec 2 TF—3:15-5:00, BlegH 255

PA 8311 LEGAL ENVIRONMENT OF PUBLIC ADMINISTRATION. 3 degree credits, \$49.50.

new

Survey of concepts, procedures, and other aspects of public law which are of particular concern to public administration. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—7:15-9:00, BlegH 250, Warp

PA 8315 PUBLIC MANPOWER POLICY. 3 degree credits, \$49.50.

new

Analysis of the major issues and problems of policy and management concerning the organization and operation of public manpower systems. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—7:15-9:00, BlegH 240, Warp

***PA 8330 INFORMATION AND INCENTIVES FOR IMPROVED DECISION MAKING IN BUREAUS.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension course limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—12:15-2:00, BlegH 360, Hoenack

***PA 8403 SEMINAR: COMPARATIVE PUBLIC ADMINISTRATION.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—4:15-6:00, SocSci 860, Warp

***PA 8410 AGRICULTURAL DEVELOPMENT PLANNING.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—10:15 a.m.-12:00, BlegH 350, Cochrane

***PA 8511 LAW AND URBAN AFFAIRS.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 M—4:15-6:00, BlegH 260, Hetland

***PA 8521 DEVELOPMENT MANAGEMENT SYSTEMS.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 M—8:15 a.m.-10:00, BA 632, Einsweiler

***PA 8525 SEMINAR IN URBAN PUBLIC POLICY.** 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 W—10:15 a.m.-12:00, BlegH 340, Naftalin

Spring Qtr Sec 2 W—10:15 a.m.-12:00, BlegH 340, Naftalin

PA 8531 PLANNING IN THE POST-INDUSTRIAL SOCIETY. 3 degree credits, \$49.50.

(Prereq §. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 M—1:15-3:00, SocSci 860, Krieger

Symbols, abbreviations, off-campus class locations begin on page 389.

PA 8602 ISSUES IN AGING. 3 degree credits, \$49.50.

(Prereq **1**. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **Th**—8:15 a.m.-10:00, SocSci 860

PA 8606 SEMINAR: AGING POLICY. 3 degree credits, \$49.50.

(Prereq **1**. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **F**—1:15-3:00, SocSci 860

PA 8610 SEMINAR: HEALTH CARE POLICY. 3 degree credits, \$49.50.

(Prereq **1**. A joint Day/Extension class limited to 8 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—12:15-2:00, BlegH 245, Kudrle

Spring Qtr Sec 2 **T**—10:15 a.m.-12:00, SocSci 860, Anderson

***PA 8690 HUMAN SERVICE DELIVERY SYSTEMS.** 3 degree credits, \$49.50.

(Prereq **1**. A joint Day/Extension class limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—12:15-2:00, BlegH 205, Anderson

***PA 8971, 8981, 8991 INDIVIDUAL READINGS, RESEARCH IN PUBLIC POLICY ANALYSIS, ADMINISTRATION.** Credits arranged. \$16.50 per credit each quarter.

(Prereq **1**. A joint Day/Extension course limited to 8 Extension students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr 8971 Sec 1 **Day, time arr.**

Winter Qtr 8981 Sec 2 **Day, time arr.**

Spring Qtr 8991 Sec 3 **Day, time arr.**

public health (PubH)

(See also General College natural science courses; and other related courses, page 165)

Daniel Anderson, Adjunct Assistant Professor, Chemical Dependency Counseling Program

Dennis A. Armstrong, Instructor and Director, Chemical Dependency Counseling Program

Donald Barber, Professor of Environmental Health

James Boen, Professor of Biometry and Chemical Dependency Counseling Program

Velvl W. Greene, Professor of Environmental Health

Carl B. Heggstad, Professor of Anatomy

Richard O. Heilman, Assistant Professor of Psychiatry and Public Health

Walter H. Jopke, Assistant Professor of Environmental Health and Safety

James Kincannon, Clinical Assistant Professor of Psychiatry

John R. Malban, Assistant Professor of Hospital and Health Care Administration

William A. O'Brien, Clinical Associate Professor of Medicine and Associate Professor of Public Health

Harold J. Paulus, Professor of Environmental Health

Vincent C. Pletcher, Adjunct Instructor, Chemical Dependency Counseling Program

Symbols, abbreviations, off-campus class locations begin on page 389.

James Rothenberger, Instructor, Chemical Dependency Counseling Program
Gustave L. Scheffler, Assistant Professor of Environmental Health and Safety
Robert W. Schwanke, Assistant Professor of Public Health and Chemical Dependency Counseling Program
Conrad P. Straub, Professor of Environmental Health

PubH 3001 PERSONAL AND COMMUNITY HEALTH. 3 degree credits, \$3004. \$43.50.
 Fundamental principles of health conservation and disease prevention. (No prereq)
Winter Qtr Sec 1 T—7-9:30, Mayo 100, O'Brien

PubH 3005 INTRODUCTION TO ANATOMY AND MEDICAL TERMINOLOGY. 3 degree credits, \$43.50.
 Presentation of a method of medical terminology by body systems; review of anatomy including the regions and systems of the body. (No prereq)
Spring Qtr Sec 1 T—6:30-8:30, Jach 74, Heggstad

(See also Anatomy; Physiology)

***PubH 5009 HONORS COURSE: ISSUES AND CONTROVERSIES IN CONTEMPORARY HEALTH.** 3 degree credits, \$46.50.
 Exploration of selected current issues and controversies in health through readings, discussion, and limited field assignment. Special emphasis will be given to the balance between personal and community needs, interests, rights and responsibilities. (Prereq advanced application and \$. A joint Day/Extension course limited to 30 Extension students. Qualified students may register for graduate credit at the University of Minnesota)
Spring Qtr Sec 1 Th—7-9:30, HSUnitA 2-520, Greene and others

***PubH 5070 COMMUNICATION SKILLS FOR HEALTH PROFESSIONALS.** 3 degree credits, \$46.50.
 Designed to upgrade knowledge and skills in interpersonal communication for people who are preparing for or are working in health related fields. The course will focus on the development of knowledge in (a) one-to-one communication, (b) small group communication and (c) organizational communication. (No prereq. Limited to 50 students. Qualified students may register for graduate credit at the University of Minnesota.)
Fall Qtr Sec 1 M—6:30-9:00, HSUnitA 2-571, Malban

(See also Family Planning Administration 5243, Topics in Family Planning and 5245, History and Development of Family Planning.)

chemical dependency courses

Your attention is called to the Chemical Dependency Counseling Certificate Program, page 88.

Registration forms for all courses (except 5033) offered by the Chemical Dependency Counseling Program (see page 88) are available *only* through the Chemical Dependency Counseling Program, University of Minnesota, 5400 Powell Hall, Minneapolis, Minnesota 55455. To obtain a formal application or any further registration information, write to the above address or call the program office at 373-8175.

(See also Adult Psychiatry; and Industrial Relations courses in chemical dependency)

***PubH 3030 FUNDAMENTAL ASPECTS OF DRUG ABUSE AND DEPENDENCY.** 3 degree credits, \$43.50.
 Series of lectures with emphasis on the historical and cultural perspectives of drug use and abuse and the principles of pharmacology as applied specifically to the various classifications of mind altering chemicals. (Prereq advance appli-

Symbols, abbreviations, off-campus class locations begin on page 389.

cation or †. Under special circumstances this course may be taken for graduate credit; check at time of application for admission. Requests for admission should be made to Dennis A. Armstrong, Program Director)

***PubH 3031 THE DISEASE PROCESS AND SOCIAL IMPLICATIONS OF DRUG DEPENDENCY.** 3 degree credits, \$43.50.

Lectures and small group discussions with emphasis on the nature of drug dependency, the variety of treatment modalities and some of the legal and social problems related to drug dependency. (Prereq 3030 or †. Under special circumstances this course may be taken for graduate credit; check at time of application for admission. Requests for admission should be made to Dennis A. Armstrong, Program Director)

***PubH 3032 COUNSELING THE ALCOHOLIC AND OTHER DRUG DEPENDENT PERSONS.** 3 degree credits, \$43.50.

Lectures and small group discussions with emphasis on some basic individual, group and family counseling techniques as specifically related to drug abuse and its effects on all aspects of a person's life. (Prereq 3031 or †. Under special circumstances this course may be taken for graduate credit; check at time of application for admission. Requests for admission should be made to Dennis A. Armstrong, Program Director)

***PubH 3034 TOPICS IN ALCOHOL AND DRUG ABUSE.** 2-5 degree credits, \$14.50 per credit.

Selected readings in alcohol and drug abuse with discussion based on these readings. (Prereq †. Requests for admission should be made to Robert W. Schwanke, School of Public Health, 1325 Mayo, Minneapolis, Minnesota 55455 or to Dennis A. Armstrong, Program Director)

***PubH 3035 INTERNSHIP IN ALCOHOL AND DRUG ABUSE.** 2-9 degree credits, \$14.50 per credit.

A six-month (150 working days) rotating clinical internship in approved and affiliated institutions or agencies under professional supervision. (Prereq 3032 and †. Requests for admission should be made to the Internship Program Coordinator at 5400 Powell Hall)

***PubH 3036 BASIC HELPING SKILLS.** 4 degree credits, \$58.

Combines lecture, small groups, role playing, and modeling to provide background in skills required to establish effective helper-helpee relationships. Emphasis is on learning and practicing basic interpersonal skills found to be critical in helping other people. (Prereq †. Requests for admission should be made to Dennis Armstrong, Program Director)

***PubH 3037 CHEMICAL DEPENDENCY: A FAMILY ILLNESS.** 3 degree credits, \$43.50.

new

Lectures and small group discussions designed to increase the student's understanding and awareness of family systems and to develop strategies for including family members in the treatment and recovery process. (Prereq †. Under special circumstances this course may be taken for graduate credit; check at time of application for admission. Requests for admission should be made to Dennis A. Armstrong, Program Director)

PubH 5033 FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. 3 degree credits, \$46.50.

new

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. (Prereq †. Qualified students may register for graduate credit at the University of Minnesota. Course meets teacher education requirements.)

Spring Qtr Sec 1 T—6:30-8:30, HSUnitA 2-520, Schwanke, Rothenberger

***PubH 5034 TOPICS IN ALCOHOL AND DRUG ABUSE.** 2-5 degree credits, \$15.50 per credit.

Selected readings in alcohol and drug abuse with discussion based on these readings. (Prereq advanced application or †. Requests for admission should be made to Professor Robert W. Schwanke [Public Health, 1325 Mayo, University of Minnesota, Minneapolis 55455]. Qualified students interested in graduate credit should inquire at time of registration)

Symbols, abbreviations, off-campus class locations begin on page 389.

***PubH 5036 GROUP COUNSELING TECHNIQUES RELATED TO CHEMICAL DEPENDENCY TREATMENT.** 3 degree credits, \$46.50.

The course's primary focus is on the small group and the role it plays in the recovery process. Techniques of facilitating group interaction, both in therapy and in staff meetings are considered. (Prereq 3035 or §. Requests for admission should be made to Dennis A. Armstrong, Program Director)

environmental health courses

(See other environmental concerns courses, page 170)

PubH 5151 ENVIRONMENTAL HEALTH. 3 degree credits, \$46.50.

Methods for promoting man's 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, Mayo 1250, Straub

PubH 5159 SEMINAR: ENVIRONMENTAL HEALTH. 1 degree credit, \$15.50.

To be offered alternate years. (Prereq §. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 Th—7-8:30, HSUnitA 2-580, Straub

PubH 5171 ENVIRONMENTAL MICROBIOLOGY. 3 degree credits. To be offered **Spring Qtr, 1977** and alternate years thereafter.

PubH 5181 INTRODUCTION TO AIR POLLUTION PROBLEMS. 3 degree credits, \$46.50.

History, sources, controls, effects, surveys, legal aspects, and administration of air pollution programs. (Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 M—6:20-8:00, Mayo 1250, Paulus

PubH 5182 AIR POLLUTION CONTROLS AND SURVEYS. 3 degree credits. To be offered **Spring Sem, 1977** and alternate years thereafter.

PubH 5201 MEASUREMENT AND APPLICATION OF IONIZING RADIATION. 3 degree credits. To be offered **Winter Qtr, 1977** and alternate years thereafter.

PubH 5202 ENVIRONMENTAL RADIOACTIVITY. 3 degree credits, \$46.50.

Sources, measurement, evaluation, and control of environmental radioactivity; hazards to general population. To be offered alternate years. (Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—7-9:30, Mayo 1250, Barber

PubH 5223 FOOD SERVICE SANITATION FOR THE HOSPITALITY INDUSTRY. 3 degree credits, \$46.50.

Designed for dietitians, managers, supervisors, and other individuals employed in a supervisory capacity in the hospitality industry. Basic principles of food sanitation are reviewed, with strong emphasis on developing an educational program for the food service worker in each food establishment. Emphasis will be placed on microbial implications in food-borne disease outbreaks and personal hygiene of the food service worker. Considerable time will be spent on the many teaching aids available to the industry. Public health implications of food preparation and service are covered, as well as the basic health aspects of regulatory control by official public health agencies. (Prereq §. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 Th—7-9:30, HSUnitA 2-533, Jopke

(See related courses in Food Science and Nutrition)

PubH 5241 ENVIRONMENTAL HEALTH ASPECTS OF WATER SUPPLY. 3 degree credits. To be offered **Spring Qtr, 1977** and alternate years thereafter.

Symbols, abbreviations, off-campus class locations begin on page 389.

PubH 5244 ENVIRONMENTAL HEALTH ASPECTS OF LIQUID WASTE DISPOSAL. 3 degree credits, \$46.50.

Role of liquid wastes in health of man; physical, chemical, and biological characteristics; evaluation of source, treatment, and disposal facilities. To be offered alternate years. (Prereq **3**. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—7-9:30, Mayo 1250, Straub

public policy

For information on non-credit conferences or workshops in Public Policy, please contact William C. Rogers, 306 Wesbrook Hall; telephone 373-3709.

(See also related courses in Public Affairs, History, Political Science, and Urban Studies)



quantitative analysis (QA)

Norman Chervany, Associate Professor of Quantitative Analysis

***QA 1050 ELEMENTARY MANAGERIAL STATISTICS.** 4 degree credits, \$58 plus \$4 course fee. Total \$62.

Introduction to quantitative decision making. Probabilistic and statistical techniques in decision making, data analysis, and management information systems, e.g., laws of probability, sampling, estimation, and regression. (Prereq Math 1111 or 1131 or 1141 or **3**. Limited to 50 students)

Fall Qtr	Sec 1	M —5:30-8:50, AndH 330, Chervany
	Sec 2	T —5:30-8:50, AndH 330
	Sec 3	W —5:30-8:50, AndH 330
	Sec 4	Th —5:30-8:50, AndH 330
Winter Qtr	Sec 5	M —5:30-8:50, AndH 350, Chervany
	Sec 6	T —5:30-8:50, AndH 350
	Sec 7	W —5:30-8:50, AndH 210
Spring Qtr	Sec 8	M —5:30-8:50, AndH 350, Chervany
	Sec 9	T —5:30-8:50, AndH 350
	Sec 10	W —5:30-8:50, AndH 350

Symbols, abbreviations, off-campus class locations begin on page 389.



real estate (RE)

(See also BLaw 0098C, Real Estate Law; and GC 3582, Legal Studies; Real Estate)

Marcella Anderson, Realty Center, Inc.
Russell Brackett, Chase-Brackett Company
Gerald Carroll, Attorney, Wurst, Bundlie, Carroll & Crouch
Sampson Child, Clifford R. Johnson & Associates
Edward J. Driscoll, Commissioner of Securities
Gary Elliott, Elliott Realty
Leslie Gensmer, Minneapolis Star and Tribune
Richard Hafner, Northland Mortgage Company
Ernest O. Hartwick, broker, Hartwick Realty, Inc.
Arthur Helland, Vice President, Farmers & Mechanics Savings
Clifford Johnson, real estate appraisals, Clifford R. Johnson & Associates
Wayne L. Johnson, Investment Realty Solutions
Fred Kueppers, Jr., Attorney, Kueppers, Kueppers and Von Feldt
John Larson, Real Estate Supervisor
Larry Laukka, The Sussel Company
Mary Leslie, Lybrand, Ross Bros. and Montgomery
Ray N. McCloughan, Minnesota State Highway Dept.
Lawrence Melody, Northland Mortgage Company
Linus F. Munger, Munger Insurance Agency
Kenneth O. Parke, The Crosby Co.
Paul F. Resberg, First National Bank of Minneapolis
Jack Rice, Dayton Hudson Properties
Bernard G. Rice, Executive Vice President, Greater Minneapolis Area Board of Realtors, Minnesota Association of Realtors
Peter Rosko, Associate Professor of Finance and Insurance
Howard Shenehon, Shenehon-Goodlund & Associates, Inc.
Gerald Smedberg, broker, Smedberg, Diebold, Berwyn & Kruger Gallery of Homes
Russell C. Smith, Boblett and Smith, Appraisers
James Wadsworth, The Griffin Companies, Inc.

The University of Minnesota cooperates with the Real Estate Boards of St. Paul and Minneapolis and the Minnesota Association of Realtors in a program of educational training leading toward competence in the professional aspects of real estate practice. Instructional staff for each course will be made up of a number of practicing realtors in the Twin Cities. Coordinator for the Real Estate Boards is Bernard G. Rice, 6101 Wayzata Boulevard, Minneapolis, Minnesota 55416.

Successful completion of RE 0001C and RE 0011C, Fundamentals of Real Estate Practice and Advanced Real Estate, meets the requirement of the Real Estate License Law of the State of Minnesota for 60 hours of approved study within two years of initial licensing as a sales person.

Further information regarding this course may be obtained by calling Continuing Business Education, 373-3680.

***RE 0001C FUNDAMENTALS OF REAL ESTATE PRACTICE.** 3 certificate credits, \$43.50.

The basics of various aspects of the real estate business—appraisal, property management, sales brokerage, financing, real estate investments, land development and preparation of essential contracts. A basic course; should be taken prior to other courses in real estate curriculum. (No prereq. Limited to 125 students)

Fall Qtr Sec 1 **Th**—6-9:00, AndH 310, Rice
Spring Qtr Sec 2 **W**—6-9:00, AndH 310, Rice

***RE 0002C PRINCIPLES OF COMMERCIAL AND INDUSTRIAL REAL ESTATE.** 4 certificate credits. \$58.

Fundamentals of analyzing and evaluating investments in income-producing real estate properties. Operating statement; financing effects; depreciation methods; tax analysis; exchanging properties; valuation. Collection and analysis of investment data from a current field of study. (Prereq open to persons having completed one or more RE courses, or persons experienced in real estate. Limited to 30 students)

Spring Qtr Sec 1 **Th**—5:30-8:00, BlegH 260, Rosko

RE 0004C REAL ESTATE APPRAISAL. 3 certificate credits, \$43.50.

Primarily for the consideration of principles and practices in the valuation of residential real estate; the approaches to value, capitalization and depreciation, a case study, and summation and the appraisal report. Secondary consideration only to specialized income appraisal reports. (No prereq but real estate experience or RE 0001C is desirable)

Spring Sem Sec 1 **Th**—6:20-8:00, AndH 250, Rice

RE 0006C REAL ESTATE FINANCING AND INSURANCE. 3 certificate credits, \$43.50.

Kinds and types of insurance necessary and advisable to adequately cover property of all kinds, residential real estate financing—F.H.A., V.A., conventional contract for deed—determining degree of risk and extending the loan, sources of money available and procedures and policies of same. (No prereq)

Fall Sem Sec 1 **T**—6:20-8:00, AndH 370, Rice

***RE 0011C ADVANCED REAL ESTATE.** 3 degree credits, \$43.50 plus \$10 course fee. Total \$53.50.

new

Advanced appraising, financing, marketing, real estate law; sale of special properties—condominiums, town houses, land; real estate advertising; real estate securities; state and federal taxation, real property taxation property insurance and customer communication. (Prereq RE 0001C or 10001C or real estate experience. Limited to 125 students)

Fall Qtr Sec 1 **M**—6-9:00, AndH 310, Rice

Spring Qtr Sec 2 **M**—6-9:00, AndH 310, Rice

recreation

(See Physical Education)

religious studies (ReIS)

(See related courses on page 179)

Robert F. Spencer, Professor of Anthropology
Un Chol Shin, Instructor in East Asian Languages

ReIS 1032 RELIGIONS OF EAST ASIA. 4 degree credits, \$EAS 1032. \$58. (♦\$29)

Major religious traditions of China and Japan—Confucianism, Taoism, Buddhism, Shintoism, and the post-war religions—as phenomena of the contemporary world, with some historical background as an aid to understanding the modern

Symbols, abbreviations, off-campus class locations begin on page 389.

new

developments. (No prereq. Meets concurrently with EAS 1032. May be applied toward the CLA foreign language requirement, Route II for Chinese and Japanese [see page 68])

Winter Qtr Sec 1 T—6:20-8:50, FoH 202, Shin

ReIS 5001 APPROACHES TO THE STUDY OF RELIGION. 4 degree credits, \$1001, 3001. \$62. (◆\$31)

new

The thought and behavior of religious persons from historical and analytical perspectives: the ways a person is religious. Particular attention to the academic study of religion in publicly supported secondary and postsecondary education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, FoH 104, Spencer

rhetoric (Rhet)

(Technical Communication Program)

(See also Study Skills; General College and English Communications; and other study helps, page 178)

James E. Connolly, Professor of Rhetoric

Richard W. Ferguson, Instructor in Rhetoric

John F. Griffin, Lecturer in Rhetoric

James R. Holloway, Associate Professor of Rhetoric

Richard O. Horberg, Associate Professor of Rhetoric

William M. Marchand, Professor of Rhetoric

Earl E. McDowell, Lecturer in Rhetoric

Starling W. Price, Professor of Rhetoric

*Rhet 1101 **COMMUNICATION I.** 4 degree credits. \$58.

Writing from observation and personal experience. Emphasis on expository and descriptive prose that is clear, vigorous, honest and economical. Attention to effectively written sentences and sound paragraph construction. (No prereq. Satisfies the first quarter of the freshman English requirement. Students receiving an "A" in the course may take a test for exemption from Rhet 1102. Limited to 25 students)

Winter Qtr Sec 1 T—7-9:30, Bklyn Ctr HS 33

*Rhet 1147 **EFFICIENT READING.** 3 degree credits in Business Administration, General College, the Institute of Technology, and Agriculture. \$43.50 plus \$2 special fee. Total \$45.50. ★

Designed for students, business, or professional people of average or above-average reading ability who wish to improve their reading speed and comprehension. Emphasizes reading techniques useful in achieving or maintaining scholastic or professional status. A suggested follow-up for PO 1001, How to Study. (No prereq. Limited to 30 students)

Fall Qtr	Sec 1	M —6:20-8:50, ForH 115, Price
	Sec 2	T —6:20-8:50, ForH 160, Horberg
	Sec 3	W —7-9:30, Sandburg JHS 210, Golden Valley, Holloway
	Sec 4	Th —6:20-8:50, ForH 115, Price
Winter Qtr	Sec 5	M —6:20-8:50, ForH 115, Horberg
	Sec 6	T —6:20-8:50, ForH 115, Marchand
	Sec 7	W —7-9:30, Minnetonka HS 116-117, Holloway
Spring Qtr	Sec 8	M —6:20-8:50, ForH 115, Price
	Sec 9	T —6:20-8:50, ForH 115, Marchand
	Sec 10	W —7-9:30, Richfield HS 143, Holloway

Symbols, abbreviations, off-campus class locations begin on page 389.

Rhet 1222 PUBLIC SPEAKING. 4 degree credits, \$58.

new

Practical course in fundamentals of speechmaking. Emphasis upon organizing the speech and projecting it to the audience. (Prereq soph, completion of rhetoric communication requirement)

Fall Qtr Sec 1 **W**—7-9:30, Hillside JHS 102, Maplewood; Connolly

***Rhet 1500 INFORMATION ORGANIZING, MAPPING, AND WRITING.** 3 degree credits, \$43.50.

new

A systems approach to identifying, organizing and writing of information utilizing a set of protocols for displaying information about a subject. Students will categorize information according to a classification scheme and assign each chunk of information into labeled blocks. Term project will be the mapping and blocking of an actual program for user application. Compatible with information storage and retrieval, technical writing, and programmed instruction. (No prereq. Limited to 25 students)

Spring Qtr Sec 1 **Th**—6:20-8:50, ForH 160, McDowell

***Rhet 3257 SCIENTIFIC AND TECHNICAL SPEAKING.** 4 degree credits. **To be offered 1976-77.**

***Rhet 3551 PROFESSIONAL WRITING.** 4 degree credits, \$58.

new

Projects and reports in professional communication; the resume, application letter, interview; study of professional journals; the review of literature; specialized bibliographic tools; the feature article. (Prereq jr standing. Limited to 23 students)

Fall Qtr Sec 1 **T**—6:20-8:50, ForH 175, Griffin

***Rhet 3562 SCIENTIFIC AND TECHNICAL WRITING.** 4 degree credits, \$58.

new

Methods of exposition in scientific and technical writing; types of reports; audience analysis; continuous practice in report writing. (Prereq jr standing. Limited to 23 students)

Winter Qtr Sec 1 **T**—6:20-8:50, ForH 175, Ferguson

(See also technical writing courses in English and in Informal Courses)

***Rhet 5170 MANAGERIAL COMMUNICATIONS.** 4 degree credits. **To be offered 1976-77.**

russian

(See Slavic and East European Languages)



salesmanship (Sal)

(See also Marketing; Journalism; and General College marketing sequence)

Perry Jacobson, Lecturer in Salesmanship

***Sal 0001C SALESMANSHIP.** 3 certificate credits, \$43.50. ★

Course designed to build a foundation for a more successful sales or business career. A study of principles that influence people; presentation of the product or service; key words; motivation; praise and appreciation; power closing tech-

Symbols, abbreviations, off-campus class locations begin on page 389.

niques. Develops confidence, a creative mind, and earning potential through a positive plan of action, using the creative approach to sales. (No prereq. Limited to 30 students)

Fall Qtr	Sec 1	M —6:20-8:50, BlegH 340, Jacobson
Winter Qtr	Sec 2	T —7-9:30, Richfield HS 141, Jacobson
Spring Qtr	Sec 3	M —6:20-8:50, BlegH 250, Jacobson

scandinavian languages

(See also Finland: Its Crafts and Family Life, page 233; and other ethnic study courses, page 168)

Marianne Clerget, Teaching Specialist in Scandinavian
Anne Lundquist, Instructor in Scandinavian
William Mishler, Assistant Professor of Scandinavian

Cassette tapes are available to extension classes students on a take-home basis. Students can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resource Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

The following non-language classes may be applied toward the CLA foreign language requirement, Route II for Danish, Finnish, Norwegian, Swedish (see page 68): Scan 1504, 5501, 5601, 5613; Phil 5054.

Scan 1504 SCANDINAVIAN IMMIGRANT CULTURE AND ITS BACKGROUND. 4 degree credits, \$58. (♦\$29)

A study of the background, reasons and nature of Scandinavian immigration to America, with special study of Scandinavian culture in the Midwest. May be applied toward the CLA foreign language requirement, Route II for Danish, Finnish, Norwegian, Swedish (see page 68). (No prereq)

Fall Qtr Sec 1 **Th**—6:20-8:50, FolH 304

Scan 5501 SCANDINAVIAN MYTHOLOGY. 4 degree credits, \$62. (♦\$31)

Scandinavian myths based on the Poetic Edda and the Prose Edda (readings in translation). (No prereq. May be applied toward the CLA foreign language requirement, Route II for Danish, Finnish, Norwegian, Swedish [see page 68]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—6:20-8:50, FolH 406

Scan 5601 INGMAR BERGMAN IN THE CONTEXT OF MODERN SCANDINAVIAN LITERATURE. 4 degree credits, \$62 plus \$5 course fee. Total \$67. (♦\$31 plus \$5 course fee. Total \$36)

Viewing of several of Ingmar Bergman's films, readings of film scripts and discussion. May be applied toward the CLA foreign language requirement, Route II for Danish, Finnish, Norwegian, Swedish (see page 68). (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—6:20-8:50, NH 45, Mishler

(See other film courses, page 164)

Scan 5613 CONTEMPORARY SCANDINAVIAN LITERATURE. 4 degree credits. \$62. (♦\$31)

The works of authors representing major trends after 1945 (readings in translation for nonmajors). (No prereq. May be applied toward the CLA foreign lan-

Symbols, abbreviations, off-campus class locations begin on page 389.



guage requirement, Route II for Danish, Finnish, Norwegian, Swedish [see page 681. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 W—6:20-8:50, FolH 103, Mishler

danish (Dan)

Dan 1101-1102 BEGINNING DANISH. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester.

This course, intended for students who have little or no previous knowledge of Danish, stresses spoken Danish, but provides, in addition, the essentials of grammar and some practice in simple composition. (No prereq for 1101; 1101 or § for 1102)

Fall Sem 1101 Sec 1 M—6:20-9:05, FolH 208, Clerget

Spring Sem 1102 Sec 2 M—6:20-9:05, FolH 208, Clerget

norwegian (Nor)

Nor 1101-1102 BEGINNING NORWEGIAN. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester.★

This course, intended for students who have little or no previous knowledge of Norwegian, stresses spoken Norwegian, but provides, in addition, the essentials of grammar and some practice in simple composition. (No prereq for 1101; 1101 or § for 1102)

Fall Sem 1101 Sec 1 M—6:20-9:05, FolH 305, Mishler

Spring Sem 1102 Sec 2 M—6:20-9:05, FolH 305, Mishler

swedish (Swed)

Swed 1101-1102 BEGINNING SWEDISH. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester. ★1101

This course, 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)

Fall Sem 1101 Sec 1 M—6:20-9:05, FolH 302, Lundquist

Sec 2 T—6:20-9:05, Cambridge HS 217-218

Spring Sem 1102 Sec 3 M—6:20-9:05, FolH 302, Lundquist

Sec 4 T—6:20-9:05, Cambridge HS 217-218

Swed 1103-1104 INTERMEDIATE SWEDISH. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester.

(No prereq for 1102; 1102 or § for 1103; 1103 or § for 1104)

Fall Sem 1103 Sec 1 W—6:20-9:05, FolH 302, Lundquist

Spring Sem 1104 Sec 2 W—6:20-9:05, FolH 302, Lundquist

school health education (Hlth)

(See also Education)

Lyle E. Lewis, Lecturer in Health Education

Elizabeth Peterson, Associate Professor of Family Social Science

Frank C. Thissen, Lecturer in Health Education

S-N registration not permitted in School Health Education unless specifically indicated in course description.

Symbols, abbreviations, off-campus class locations begin on page 389.

***Hlth 5100 DRIVER EDUCATION I.** 4 degree credits, \$62 plus \$12 special fee. Total \$74.

Materials and methods for driver education; building a plan for driver education for a specific school; behind-the-wheel training. Valid Minnesota driver's license required. (Additional time arranged for behind-the-wheel instruction.) (No prereq. Limited to 32 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **W**—7-10:00, Richfield HS 116, Lewis

***Hlth 5101 DRIVER EDUCATION II.** 4 degree credits, \$62 plus \$12 special fee. Total \$74.

See course description for Hlth 5100. Second of 3 courses to meet Minnesota certification requirements after September 1, 1966 (Prereq 5100. Limited to 32 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **W**—7-10:00, Richfield HS 116, Lewis

***Hlth 5130 SAFETY EDUCATION.** 4 degree credits, \$62.

Scope and nature of the accident problem in our society; study of curricular areas leading to accident prevention. (Prereq senior. Limited to 32 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—7-10:00, NorrisH 201, Thissen

Hlth 5350 FAMILY LIFE AND SEX EDUCATION IN ELEMENTARY SCHOOLS. 3 degree credits, \$46.50.

Research on sexual behavior of the pre-adolescent child; terminology, appropriate content, and effective methods for teaching. (I. Why Sex Education in the Schools? II. Concept of Human Sexuality; III. Development of Values Related to this area; IV. Sexual Structure and Functioning from Conception to Puberty; V. Concepts and Methods, K-3, K-6; VI. Criteria for Selecting Materials.) (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—4-6:15, Bd of Ed, 807 NE Broadway, Mpls, Peterson

Hlth 5602 THE DRIVER SIMULATOR. 4 degree credits, \$62 plus \$12 special fee. Total \$74.

Working with the simulator program to improve, expand, and reduce the cost of conventional driver education. (Prereq 5100. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **W**—7-10:00, Richfield HS 116, Lewis

secondary education (SeEd)

(See also Education)

Richard N. Hey, Professor and Head of Family Social Science

Michael Koffman, Assistant Professor in Curriculum and Instruction, College of Education

Betty W. Robinett, Professor of Linguistics

S-N registration not permitted in Secondary Education courses unless specifically indicated in course description.

SeEd 5112 FAMILY LIFE EDUCATION. 3 degree credits, \$46.50.

Sources and types of materials available; techniques of family life education, preparation and evaluation of instructional materials. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—6:20-8:50, Bu 123, Hey

Symbols, abbreviations, off-campus class locations begin on page 389.

SoEd 5371 CURRICULUM WORKSHOP. 3 degree credits, \$46.50.

new

Emphasis this offering: Instructional materials design in accordance with systems principles, including design of a specific unit of courseware. (Prereq 5113 or Elem 5100 or 3. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **M**—6:20-8:50, PeikH 335, Koffman

SoEd 5396 LINGUISTICS AND ENGLISH AS A SECOND LANGUAGE. 3 degree credits. Tentatively scheduled for 1976-77.

slavic and east european languages

(See other ethnic studies courses, page 168)

Keith Armes, Assistant Professor of Slavic Languages

Adele Donchenko, Associate Professor of Slavic Languages

Catherine Kulesov, Assistant Professor of Slavic Languages

Leonard A. Polakiewicz, Instructor in Slavic Languages

Marilyn J. Sjoberg, Assistant Professor of Slavic Languages

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slavic (Slav)

Slav 1501 THE SLAVIC HERITAGE. 4 degree credits, \$58. (♦\$29)

new

Traditions and culture of the Slavic world and of Slavic ethnic groups in America. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Russian [see page 68])

Fall Qtr Sec 1 **W**—6:20-8:50, FolH 104, Donchenko

russian (Russ)

(See also Hist 5389, Soviet-Russian American Relations; Hist 5264, Modern Russia; and Geog 3181, Soviet Union)

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (see page 68): Hist 5264, 5265, 5266; Geog 3181; Russ 5203, 5401.

Russ 1101-1102 BEGINNING RUSSIAN. 5 degree credits each semester, \$72.50 plus \$3 course fee. Total \$75.50 each semester. ★

Grammar, pronunciation, reading, and practice in speaking. (No prereq for 1101; 1101 or 3 for 1102)

Fall Sem 1101 Sec 1 **T**—6:20-9:05, FolH 205, Polakiewicz

Spring Sem 1102 Sec 2 **T**—6:20-9:05, FolH 205, Polakiewicz

Russ 1104-1105 INTERMEDIATE RUSSIAN. 5 degree credits each semester. To be offered 1976-77.

Russ 5203 SOVIET RUSSIAN LITERATURE IN TRANSLATION: SOLZHENITSYN. 4 degree credits, \$62. (♦\$31)

new

Solzhenitsyn's work and philosophy will be discussed with particular reference to *August 1914*, *Cancer Ward*, *Candle in the Wind*, *First Circle* and *One Day in*

Symbols, abbreviations, off-campus class locations begin on page 389.

the Life of Ivan Denisovich. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 W—6:20-8:50, FolH 205, Armes

Russ 5401 DOSTOEVSKY. 4 degree credits, \$62. (◆\$31)

Structural, psychological and philosophical approaches to the study of the major novels of Dostoevsky. (No prereq. May be applied toward the CLA foreign language requirement, Route II. [see page 68]. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 W—6:20-8:50, FolH 205, Kulesov

reading russian

Russ 0221 and Russ 0222 are specifically designed for individuals who desire only a reading knowledge of the language. The Russian language requirement for an advanced degree may also be satisfied by a program of study based on Russ 0221 and Russ 0222. Students may take a final examination at the conclusion of Russ 0222. If the student achieves a grade of "B" or better in this examination, the Department of Slavic Languages will certify to the Graduate School a reading knowledge of Russian. Graduate students should check with their advisers for specific language requirements in their field of study.

Russ 0221 READING RUSSIAN. No credit, \$43.50.

This course is designed to help students acquire a reading knowledge of basic Russian as rapidly as possible. Russ 0221 assumes no knowledge of Russian on the part of the student. The course includes reading of simple, graded material.

Fall Sem Sec 1 T—6:20-8:50, WuH 130, Sjoberg

Russ 0222 READING RUSSIAN. No credit, \$43.50.

As a continuation of Russ 0221, this course concentrates on intensive reading of Russian texts. This experience should enable graduate students to satisfy departmental language requirements for an advanced degree. The Department of Slavic Languages will certify to the Graduate School a reading knowledge of Russian for those taking the final examination and receiving a grade of "B" or better.

Spring Sem Sec 1 T—6:20-8:50, FolH108, Sjoberg

social and behavioral sciences

(See General College)

social work (SW)

(See related courses, page 165)

Shirley M. Buttrick, Acting Director

Did you know that a major in Social Work can be completed in the evening?

Those courses required in the Bachelor of Arts major are offered yearly. Interested students should discuss plans with an Extension counselor (373-3905).

Symbols, abbreviations, off-campus class locations begin on page 389.

B.A. MAJOR SEQUENCE

Required Preparatory Courses

SW 1001

1 course each from 4 of the 5 following categories: (1) Soc 1001; (2) Psy 1001; (3) Anth 1002; (4) Econ 1001, 1014, 3001, 3002; (5) Pol 1001, 1027, 1031, 1041, 1051.

Major Requirements

SW 1001, 3004, 3005, 3101, 3984

32 cr from the following areas (specific courses listed at undergraduate adviser's office): 1 course in cross-cultural studies, 1 in organization theory; remaining cr from communication; urban and regional settings; social problems; human growth, development, and change; social history; law and social policy.

You need not be majoring in Social Work to register for these classes.

SW 1001 INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES. 5 degree credits, \$72.50.

new

Fields of community-based social services, representative of societal responses to needs. Characteristics of such services reviewed historically, dynamically, and and comparatively. (No prereq)

Fall Qtr Sec 1 T—6:20-8:50, ForH 30

SW 3004 SOME CONCEPTS OF HUMAN DEVELOPMENT AND CHANGE. 4 degree credits, \$5201. \$58.

new

Concepts of human development and change from various schools of thought: Erikson, Skinner, Maslow, and Jung. Relevance and implications for practice in the human services. (Prereq 1001)

Winter Qtr Sec 1 Th—6:20-8:50, ForH 30

SW 3005 SOCIAL WORK PROCESSES: METHODS OF INTERVENTION. 4 degree credits, \$5401. \$58.

new

The function of values and knowledge in social work practice; the meaning of giving and receiving help; the process in intervention; some social work principles. (Prereq 1001)

Spring Qtr Sec 1 W—6:20-8:50, ForH 60

SW 3101 SOCIAL WELFARE: A FRAMEWORK FOR ANALYSIS. 4 degree credits, \$5101. \$58.

new

Historical development, legislative enactments, administrative policy, and program structure under which federal, state, and local governmental programs of income maintenance, medical care, and public housing operate. (Prereq jr or sr)

Winter Qtr Sec 1 T—6:20-8:50, ForH 150

SW 3984 INTRODUCTION TO COMMUNITY DEVELOPMENT. 4 degree credits, \$58.

new

Trends, pace, and dynamics that dominate urban communities; strategies used to achieve neighborhood goals; factors that control and influence change in planning; action on the community level. (Prereq 1001 or §)

Spring Qtr Sec 1 W—6:20-8:50, ForH 150

SW 5101 INTRODUCTION TO SOCIAL POLICY: SOCIAL WELFARE PERSPECTIVES. 3 degree credits, \$3101. \$46.50.

Open to students who lack undergraduate social work education in the social welfare institutional structure. Basic concepts and perspectives necessary for understanding and analyzing social welfare programs. (Qualified students may register for graduate credit at the University of Minnesota. Prereq § for undergrad)

Fall Qtr Sec 1 M—6:20-8:50, ForH 349

Symbols, abbreviations, off-campus class locations begin on page 389.

SW 5201 THEORIES OF HUMAN GROWTH AND CHANGE: IMPLICATIONS FOR SOCIAL WORK. 3 degree credits, \$3004. \$46.50.

Beginning synthesis of concepts of human growth and change. Review of various theories of human behavior and their implications for social work practice. A frame of reference within which the student may view the individual in his life's cycle will be developed. (Prereq \dagger for undergrad. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 T—6:20-8:50, ForH 30

SW 5401 INTERVENTIVE METHODS IN SOCIAL WORK PRACTICE. 3 degree credits, \$3005. \$46.50.

General concepts, functional concepts, strategies, and actions of social work practice. Introduction to the "problem-solving approach" as a framework for analyzing and dealing with situations of concern to social work. (Prereq \dagger for undergrad. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—6:20-8:50, ForH 349

social work, continuing education in

(See also Personal Social Services Certificate, page 89; Adult Psychiatry, page 80; Early Childhood Studies Certificates, page 82; and Foster Care Education Certificate, page 83)

William Hoffman, Director of Continuing Education in Social Work and Professor of Social Work

Bruce Dotter, Supervisor, Hennepin County Court Services

Marvin Feit, Assistant Professor of Social Work

Michael Frumkin, Instructor of Social Work

Donald Hadfield, Consultant in Human Relations, Minnesota Department of Education

Rosemary Hart, Teaching Associate in Speech and Communication

Michael Howe, Instructor of Social Work

Elizabeth Jerome, M.D., Clinical Assistant, University Medical School

Ronald Kyllonen, Clinical Assistant Professor of Child Psychiatry

Lew Linde, Executive Officer, Juvenile Releases, Minnesota Department of Corrections

Carole Olson, Lecturer in Continuing Education in Social Work

Frank Quisenberry, Management Development Specialist, Minnesota Hospital Association

Robert Spano, Associate Professor of Social Work

Shirley Zimmerman, Assistant to Director and Instructor in Continuing Education in Social Work

Courses offered through Continuing Education in Social Work are not intended to duplicate any social work courses currently being taught in the School of Social Work. For the most part, they are specialized and/or refresher courses designed to enhance professional competence in social work practice and related helping professions at all levels. They are designed particularly for those individuals with Bachelor's degrees currently employed in social welfare agencies and in others of the related human services professions. Students without a Bachelor's degree may be accepted by petition addressed to the Director, Continuing Education in Social Work, 321 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455. For a copy of the CESW brochure, listing possible changes and/or additions in the program, please write to the above address or call 373-5831.

Symbols, abbreviations, off-campus class locations begin on page 389.

SW 0204C AMERICAN SOCIAL POLICY: ISSUES AND PERSPECTIVES. 3 certificate credits, \$43.50.

The historical development of American social policy in terms of its contemporary relevance. Competing philosophies and values guiding its evolution will be examined. Issues from fields such as income security, poverty, family and child welfare, corrections and mental health will also be explored. (No prereq. This course must be completed for the Personal Social Services Certificate)

Fall Qtr Sec 1 T—4-6:30, FoIH 201, Zimmerman

SW 0206C PSYCHOSOCIAL THEORIES OF PERSONALITY DEVELOPMENT. 3 certificate credits, \$43.50.

Exploration and comparison of several schools of thought regarding human behavior, human development, and change. Emphasis will be given to their relevance to social work practice. The central concepts will be taken from Maslow; other schools of thought will be related to this central theme. Material relating to various "liberation" movements will be discussed as they relate to and challenge traditional concepts of human behavior. (No prereq. This course must be completed for the Personal Social Services Certificate)

Fall Qtr Sec 1 T—7-9:30, FoIH 102

SW 0207C SYSTEMS VIEW OF PERSONALITY DEVELOPMENT 3 certificate credits, \$43.50.

Selected major influences on human social functioning. Examination of appropriate theory from various disciplines including sociology, anthropology, psychology, and related areas. The unifying construct will be social systems theory. Content will be organized around culture, organization, group, family and individual. The social work perspective will be stressed. (No prereq. This course must be completed for the Personal Social Services Certificate)

Winter Qtr Sec 1 T—4-6:30, Armory 202

SW 0208C BASIC CONCEPTS OF SOCIAL WORK PRACTICE. 3 certificate credits, \$43.50.

This basic course will include such concepts as: person-in-situation, client self-determination, the dynamics of situations, worker self-awareness, values, attitudes, etc., in relation to the social worker's approach to working with people. (No prereq. This course must be completed for the Personal Social Services Certificate)

Winter Qtr Sec 1 T—7-9:30, Armory 202

SW 0209C PERSONAL AND SOCIAL TREATMENT. 3 certificate credits, \$43.50.

To acquaint students with the knowledge, skills and attitudes needed to work with individuals, families and groups. Theory will be drawn from both casework and groupwork as guides to practice. (No prereq. This course must be completed for the Personal Social Services Certificate)

Spring Qtr Sec 1 T—4-6:30, FoIH 201

SW 0211C COMMUNITY ORGANIZATION AND DEVELOPMENT. 3 certificate credits, \$43.50.

To provide an understanding of the phenomenon of community—focusing on the many component parts of communities, how they interact, and the implications this has for the planning and delivering of social welfare services and for effecting community change. Emphasis is placed on both developing a working model of community and on techniques and strategies for bringing about change in communities. (No prereq. This course must be completed for the Personal Social Services Certificate)

Spring Qtr Sec 1 T—7-9:30, FoIH 201, Frumkin

SW 0213C SINGLE WORKER—SINGLE CLIENT SYSTEM EVALUATION. 3 certificate credits, \$43.50.

In quest of discovering how practitioners and clients might independently describe, measure, and evaluate their day-to-day clinical activities, a series of "unfinished" or "developing" topics in the general area of single worker-single client evaluation will be presented. Course boundaries will be set by issues

of theory construction and model development as well as practice orientation, practice wisdom, and research methodology that relate to the general rubric of "practice as research." Current models being developed will be discussed. Non-statistical course. (No prereq)

Fall Qtr Sec 1 **Th**—4-6:30, FolH 201, Howe

SW 0215C SPECIAL TOPIC: WORKING WITH THE NON-INSTITUTIONALIZED AGED. 3 certificate credits, \$43.50.

An examination of the aging process and the attendant needs and problems of the older person(s). The focus of the course will be directed towards understanding and support of individuals who are able to remain relatively independent in their own homes, including public housing facilities. At least two of the sessions will be held in nursing homes and public housing projects. The course is recommended for paraprofessionals and beginners in the field. (No prereq)

Spring Qtr Sec 1 **M**—7-9:30, FolH 202, Hoffman

SW 0220C VOLUNTEERS I: THEIR TRAINING AND SUPERVISION. 2 certificate credits, \$29.

For persons new to the experience of working with volunteers and responsible for the development and implementation of volunteer programs. Discussion will include the impact of societal trends on organizations and volunteer manpower utilization, volunteer recruitment, orientation and retention, supervision, and program design. Opportunities will be provided for individual assessment of organization structure and function, practicing basic volunteer and coordinator-director skills, and the development of on-going volunteer training programs. (No prereq)

Fall Qtr Sec 1 **M**—5:20-7:00, FolH 202, Hadfield

SW 0221C VOLUNTEERS II: AN ADVANCED COURSE IN TRAINING AND SUPERVISION. 2 certificate credits, \$29.

To help participants to explore and develop programs for professional staff and volunteer orientation relationship; develop with volunteers an inter-agency in-service training model for volunteers; develop volunteer-agency service contracts; develop competence in program evaluation; develop skills in working with volunteers in planning and evaluating their experiences. (Prereq 0220C or #)

Spring Qtr Sec 1 **M**—5:20-7:00, Army 202, Hadfield

SW 0510C APPROACHES TO COUNSELING THE ADOLESCENT. 3 certificate credits, \$43.50.

To provide social workers and other professionals who work with adolescents and their families with an increased understanding of adolescence and approaches to counseling with this age group. The course will explore the dynamics and function of the adolescent, the adjustment and emotional problems that adolescence presents, and techniques of helping adolescents communicate, relate, gain self-understanding and modify adjustment patterns. How to deal with inter-accidental problem patterns between adolescents and their peers and parents will also be discussed. (No prereq)

Fall Qtr Sec 1 **M**—7-9:30, FolH 102, Kyllonen

SW 0512C CORRECTIONS: AN OVERVIEW OF LAWS, CONCEPTS AND TREATMENT PROGRAMS. 3 certificate credits, \$43.50.

Basic principles of corrections' relationship to the other criminal justice components, non-criminal approach to victimless crime, the four discretionary points of the criminal justice system, recent due process requirements of parole and institutional disciplinary hearings and current correctional legislation. Special emphasis will be placed upon community corrections programs such as youth service bureaus, diversion projects, restitution centers, half-way houses and chemical dependency treatment programs. (No prereq)

Fall Qtr Sec 1 **W**—5-7:30, FolH 209, Linde

SW 0513C WORKING WITH RESISTIVE CLIENTS IN THE CORRECTIONAL SYSTEM. 3 certificate credits, \$43.50.

To help individuals employed as probation officers, parole officers, etc., to deal with the non-voluntary "needing but unwilling" client. Interviewing techniques applicable to individuals and families will be taught with special reference to

Symbols, abbreviations, off-campus class locations begin on page 389.

areas of conflict, as well as real and potential strengths. The supportive use of authority and the worker as coordinator of community services will be developed. (No prereq)

Winter Qtr Sec 1 **W**—5-7:30, FolH 104, Dotter

SW 0515C INTERVIEWING: INDIVIDUAL AND FAMILY. 3 certificate credits, \$43.50.

For all persons employed in the helping professions whose assignment includes interviewing and counseling. Attention will be given to the purpose of the interview and to the utilization of interviewing principles as well as roles and functions of social workers and other related disciplines in counseling individuals and families. (No prereq)

Fall Qtr Sec 1 **Th**—7-9:30, FolH 102, Olson

SW 0516C SPECIAL TOPIC: FAMILY PLANNING—METHODS AND ISSUES. 3 certificate credits, \$43.50.

Examination of some of the medical, social, cultural, psychological and religious aspects of family planning and their related issues. Current methods of contraception will be discussed, as well as alternatives to pregnancy, including abortion. The role of the doctor, nurse, and social worker will be explored as each relates to one another in the context of family planning. Students will be expected to share practice problems in class discussion. The course is designed particularly for social workers involved in family planning, but other allied practitioners are also encouraged to register. (No prereq)

Winter Qtr Sec 1 **M**—6:30-9:00, FolH 307, Jerome

SW 0517C SPECIAL TOPIC: SOCIAL WORK IN THE HEALTH SETTING. 3 certificate credits, \$43.50.

This course will examine direct social services to consumers of health care, will review social service planning in health settings, and will assess the impact of legislation on the delivery of social services in comprehensive health care. It will also define issues related to financing, staffing, directing and evaluating a social service program in a health care setting. (No prereq)

Spring Qtr Sec 1 **Th**—4-6:30, FolH 209, Spano

SW 0518C INTERVIEWING II. 3 certificate credits, \$43.50.

For those interested in learning more about interviewing theory and techniques. Through the use of films, tapes, lectures, and participation in interviews, it will be possible to examine the interview process in various settings. There will also be focus on group interviewing. (Prereq 0515C, experience in interviewing, or §)

Spring Qtr Sec 1 **Th**—7-9:30, FolH 102, Olson

SW 0519C BEHAVIOR ANALYSIS AND THERAPY. 3 certificate credits, \$43.50.

Examination of the theoretical and empirical contributions of behavior analysis to the interpersonal practice of social work. Emphasis will be given to operant approaches of self control within a general constructional framework of personal and social problems. Issues of goals and methods of intervention, contracts and organizational context will be addressed. While the primary emphasis of the course will be on individual change, application to families and groups may be considered. (No prereq)

Spring Qtr Sec 1 **Th**—5:30-8:00, FolH 104, Howe

SW 0520C COMMUNICATION SKILLS AS APPLIED TO SOCIAL WORK PRACTICE. 3 certificate credits, \$43.50.

Development of skills for clear, responsive communication as it relates to social work practice. Emphasis will be on: verbal and nonverbal dimensions of communication; constructive feedback; effective listening; and conflict resolution. Practice in using the skills will focus on relationships between co-workers, between co-worker and client, and between co-worker and supervisors. The course format will integrate discussion and lecture, with primary attention to giving members actual practice in using specific skills in job-related situations. (No prereq)

Winter Qtr Sec 1 **M**—4-6:30, Armory 202, Hart

Symbols, abbreviations, off-campus class locations begin on page 389.

SW 0521C SPECIAL TOPIC: METHODS IN GROUP WORK. 3 certificate credits, \$43.50.

To acquaint students with an understanding of the many skills necessary to perform the social group work job. From a systems and problem-solving approach students will explore the utilization of these skills in practice. (No prereq)

Winter Qtr Sec 1 Th—7-9:30, FoIH 201, Feit

management in human service agencies program

Continuing Education in Social Work is offering a three-course sequence, currently in its third year, designed to provide supervisory and management personnel working in human service agencies with a background in modern management concepts and practices. The sequence is especially intended for the manager or supervisor who has not had the benefit of formal management training and for staff who may be moving into such positions in the near future. The courses are also designed to introduce students to relevant theory and practice in the administration and management of agencies and to broaden their understanding of day-to-day agency life. **These courses may be taken singly or as a total 9-credit program, as outlined.**

SW 0310C INTRODUCTION TO MANAGEMENT. 3 certificate credits, \$43.50.

To give the supervisor and the administrator of the human service agency an introduction to the management of human and material resources necessary to accomplish agency objectives. Topics will include: definition of management, planning, organizing, leadership, decision making, management philosophy, communication, and the role of the manager as a change agent. The emphasis will be on practical application. (No prereq)

Fall Qtr Sec 1 W—6:30-9:00, FoIH 102, Quisenberry

SW 0311C MANAGEMENT TECHNIQUES APPLIED TO HUMAN SERVICE AGENCIES. 3 certificate credits, \$43.50.

To acquaint the administrator and supervisor of human service agencies with some of the tools and techniques available to better enable them to accomplish agency objectives. Topics will include: industrial engineering techniques, planning techniques, financial management, the computer, and other management tools. The emphasis will be on practical application. (No prereq)

Winter Qtr Sec 1 W—6:30-9:00, FoIH 103, Quisenberry

SW 0312C PERSONNEL MANAGEMENT IN HUMAN SERVICE AGENCIES. 3 certificate credits, \$43.50.

To focus on the management of human resources in human service agencies. Topics will include: methods of employee selection, employee evaluation, work group behavior, employee development, theories of employee motivation, legal environment of supervision, industrial relations, and methods of supervision. The emphasis will be on practical application. (No prereq)

Spring Qtr Sec 1 W—6:30-9:00, FoIH 102, Quisenberry

sociology (Soc)

(See also General College courses in social and behavioral sciences; and ethnic studies courses, page 168)

Brian C. Aldrich, Assistant Professor of Sociology

Edward Brent, Instructor in Sociology

T. Allen Caine, Instructor in Sociology

David Chein, Instructor in Sociology

Philip J. Cunnien, Instructor in Sociology

Symbols, abbreviations, off-campus class locations begin on page 389.

Robert Friedman, Instructor in Sociology
Richard C. Hollinger, Instructor in Sociology
Steve Jorgensen, Instructor in Sociology
Gary Jurek, Instructor in Sociology
David Klein, Instructor in Sociology
Herman J. Milligan, Instructor in Sociology
Herbert Northcott, Instructor in Sociology
Peter Nowak, Instructor in Sociology
Diana Tostenrud, Instructor in Sociology
Howard R. Schneider, Instructor in Sociology
Richard E. Sykes, Assistant Professor of Sociology

Did you know that a major in Sociology can be completed in the evening?

Those courses required in the major are offered yearly. Interested students should discuss plans with an Extension counselor (373-3905).

B.A. MAJOR SEQUENCE

Major Requirements

3505, 3506

3801, 3802, 3803 (should be taken soph yr)

A theory course from 5305, 5701, 5705, 5711

16 additional 3xxx- or 5xxx-level sociology cr

You need not be majoring in Sociology to register for these classes.

Soc 1001 INTRODUCTION TO SOCIOLOGY. 4 degree credits, \$58. (◆\$29)★

A survey of the main substantive fields of sociology for non-prospective sociology majors, illustrative material drawn from current social problem areas. (No prereq. Usually not for sociology majors; however, prospective sociology majors wishing to apply 1001 to a degree program should contact the undergraduate adviser in the department of Sociology)

Fall Quarter	Sec 1	M —6-8:30, AndH 250, Jorgenson
	Sec 2	T —6-8:30, AndH 350, Caine
	Sec 3	W —7-9:30, Richfield HS 251-252, Nowak
	Sec 4	Sa —9 a.m.-11:30, BlegH 155, Nowak
Fall Sem	Sec 5	Th —6:20-8:00, BlegH 155, Friedman
Winter Qtr	Sec 6	T —7-9:30, Minnetonka HS 116-117, Klein
	Sec 7	M —6-8:30, AndH 370, Aldrich
	Sec 8	W —6-8:30, BlegH 10, Jurek
	Sec 9	Sa —9 a.m.-11:30, BlegH 155, Jorgenson
	Sec 10	Th —1-3:30, Ramsey HS, Roseville, Schneider
	Sec 11	W —6:20-8:00, BlegH 235, Friedman
Spring Sem	Sec 12	M —6:30-9:00, Kellogg HS 168-170, Little Canada, Northcott
	Sec 13	T —6-8:30, BlegH 145, Schneider
	Sec 14	Sa —9 a.m.-11:30, BlegH 130, Chein

Soc 1002 AMERICAN COMMUNITY. 4 degree credits, \$58. (◆\$29)★

Sociological analysis of modern American society. Topics include distribution of population, urban-rural differences, social factors in business systems, occupational groups, determination of social status, and minority group adjustment. (No prereq)

Fall Sem	Sec 1	M —6:20-8:00, BlegH 250, Cunnien
Spring Sem	Sec 2	M —6:20-8:00, BlegH 270, Cunnien

Symbols, abbreviations, off-campus class locations begin on page 389.

*Soc 1002 **AMERICAN COMMUNITY.** 4 degree credits, \$58.

Part of an integrated series "Values in Transition: an Examination of Forces Acting on the Individual in Modern America." (See page 166). See description above. (Prereq concurrent registration in *AmSt 1920 or 3920 sec 2. Students registered in Fall Sem part of series will be given registration priority. Limited to 50 students.)

Spring Sem Sec 3 T—8:15-9:55, LindH 217, Sykes

Soc 3101 **ELEMENTS OF CRIMINOLOGY.** 4 degree credits. \$58. (♦\$29)★

General survey of field of criminology. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §)

Fall Sem Sec 1 T—6:20-8:00, BlegH 10, Chein

Spring Sem Sec 2 T—6:20-8:00, BlegH 10, Milligan

(See also Criminal Justice Studies)

Soc 3405 **INEQUALITY: INTRODUCTION TO STRATIFICATION.** 4 degree credits, \$58. (♦\$29)

Inequality—causes and consequences. Inequality in American society. Related concepts of class, class cultures, status, aggregates; the social forms of inequality, their consequences for life changes and life styles. (Prereq 1001)

Fall Qtr Sec 1 W—6-8:30, BlegH 235

Soc 3505 **PRINCIPLES OF SOCIAL ORGANIZATIONS.** (replaces 1505) 5 degree credits, \$72.50.

Develop understanding of basic concepts, substantive materials, and general issues in the area of social organization. (Prereq 1001 and 3801 or equivalent)

Spring Qtr Sec 1 M—5:30-8:00, AndH 250, Aldrich

Soc 3506 **PRINCIPLES OF SOCIAL PSYCHOLOGY.** (replaces 1506) 5 degree credits, \$72.50.

Knowledge of the ideas and findings related to social psychology and experience with the activities involved in developing empirically based knowledge in social science. (Prereq 1001 and 3801 or equivalent)

Winter Qtr Sec 1 W—6:20-8:50, SocSci 860, Brent

Soc 3801 **SOCIOLOGICAL METHODS I: DESCRIPTIVE STATISTICS.** 5 degree credits, \$72.50 plus \$4 course fee. Total \$76.50.

Descriptive statistics as utilized in analysis of sociological data, measures of central tendency, deviation, correlation and regression graphs, simple treatment of three and four variables, probability. (No prereq. Some beginning algebra recommended)

Fall Qtr Sec 1 TTh—6-8:00, AndH 210, Schneider

Soc 3802 **SOCIOLOGICAL METHODS II: STATISTICAL INFERENCE.** 5 degree credits, \$72.50 plus \$4 course fee. Total \$76.50.

Statistical inferences, probability, hypothesis tests, use of statistical reasoning in analysis of sociological data. (Prereq 3801 or §)

Winter Qtr Sec 1 TTh—6-8:00, BlegH 235, Northcott

Soc 3803 **SOCIOLOGICAL METHODS III: RESEARCH METHODS.** 5 degree credits, \$72.50 plus \$4 course fee. Total \$76.50.

Survey of data collection methods, including advantages of major methods and limitations when applied to specific types of problems. (Prereq 3802 or §)

Spring Qtr Sec 1 TTh—6-8:00, BlegH 150, 215, Klein

Soc 5135 **WHITE-COLLAR CRIME.** 4 degree credits, \$62. (♦\$31)

Analysis of various types of white-collar crime, broadly construed; roots in American society; responses by theoreticians, amateur and professional politicians. (No prereq. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 Th—5:30-8:00, BlegH 425, Hollinger

Symbols, abbreviations, off-campus class locations begin on page 389.

Soc 5151 RELIGION AS A SOCIAL INSTITUTION. 4 degree credits, \$62. (◆\$31)

◆ Structure and function of religious organizations in various types of societies, nature of religious leadership, type of religious participations and relationship of religion to other social institutions. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 Th—6-8:30, BlegH 435, Northcott


(See related courses, page 179)

Soc 5201 INTRODUCTION TO SOCIAL PSYCHOLOGY. 4 degree credits, \$62. (◆\$31)★

◆ Research and theory regarding relation of individual to social groups. Emphasis on socialization processes; effects of social interaction and isolation; individual behavior under conditions of social organization and disorganization; cultural influence and its limits. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 2 M—5:30-8:00, BlegH 340, Brent

Soc 5305 SOCIAL LIFE AND CULTURAL CHANGE. 4 degree credits, \$62. (◆\$31)

◆  Theories of social change; particular attention to their methodological problems. Materials drawn from comparative social thought and structure of antiquity utilized as basic data for analysis. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 W—6-8:30, RarigC 610, Cunnien

Soc 5311 SOCIOLOGY OF CONFLICT. 4 degree credits, \$62. (◆\$31)

◆ Theoretical, empirical study of group conflict. Methods and models. Animal conflict; aggression and conflict. Types of conflict: feuds, community, ecologies of urban conflict, racial, internal war, revolution. Conflict and social organization: relation of stratification, industrial and social change to conflict. (Prereq 1001 or 3505, 3506 or old 1505, 1506 or §. Qualified students may register for graduate credit at the University of Minnesota.)

Spring Qtr Sec 1 T—6-8:30, BlegH 230, Caine


Soc 5501 THE FAMILY SYSTEM. 4 degree credits, \$62. (◆\$31)★

◆ Evolution of family, development of unity or disunity, roles of the several members of family, methods of investigation of family. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:00-8:30, BlegH 220, Jorgensen

(See related courses in Education; and Family Social Science)


Soc 5551 WORLD POPULATION PROBLEMS. 4 degree credits, \$62. (◆\$31)

◆  Population policy, both historical and present day, in Europe, Asia and other selected areas but with special emphasis on the U.S. Some discussion given to the field of population and power politics. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota.)

Winter Qtr Sec 1 M—6-8:30, BlegH 340, Nowak

(See also Family Planning Administration)

Soc 5601 URBAN SOCIOLOGY. 4 degree credits, \$62. (◆\$31)

◆  Cities, urban ecology; urban institutions and urban way of life. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 M—5:30-8:00, BlegH 420, Aldrich

(See related courses in Political Science; Public Affairs; Urban Studies; History; and General College)

Symbols, abbreviations, off-campus class locations begin on page 389.

Soc 5705 BACKGROUNDS OF MODERN SOCIAL THOUGHT. 4 degree credits, \$62. (◆\$31)

Major trends of social thought from Renaissance to 19th century; factors contributing to origin of sociology. (Prereq 1001 or 3505, 3506 or old 1505-1506. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—6:00-8:30, BlegH 260, Schneider

Soc 5951 MINORITY GROUP RELATIONS. 4 degree credits, \$62. (◆\$31)★

Interaction of social and cultural groups in America; particular reference to the Negro. Processes leading to group contact; characteristics and contribution of ethnic groups in United States; mechanisms and problems of group adjustment. Democratic theory and practice; sources of prejudice; contemporary status of principal minority groups; international implications; trends and proposed solutions. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **T**—6-8:30, AndH 270, Caine

(See other ethnic studies courses, page 168)

Soc 5956 SOCIOLOGY OF DEATH. 4 degree credits, \$62. (◆\$31)

Issues and problems that mortality presents to contemporary society. (Prereq 6 or sociology or §. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 **T**—6-8:30, AndH 270, Tostenrud

Soc 5957 SOCIOLOGY OF AGING. 4 degree credits, \$62. (◆\$31)

Survey of situations and problems facing aging people in modern societies and of the devices these societies have developed or might develop to change situations and solve problems. (Prereq 1001 or 3505, 3506 or old 1505-1506 or §. Qualified students may register for graduate credit at the University of Minnesota.)

Fall Qtr Sec 1 **W**—6:20-8:50, BlegH 250, Jurek

soil science (Soil)

(See also Agriculture)

Russell S. Adams Jr., Professor of Soil Science

Harold F. Arneman, Professor of Soil Science

Lowell Hanson, Professor of Soil Science and Extension Specialist

Soil 0100C GARDEN SOIL MANAGEMENT. 3 certificate credits, \$43.50. (◆\$21.75)

Designed for the home gardener or hobby farmer. Lectures give a description of soils and the factors that make them suitable or unsuitable for productive gardens. Topics include effects of different methods of fertilizer, tillage, mulching, water use and their influence on plant growth. Deficiency symptoms are examined briefly. (No prereq)

Winter Qtr Sec 1 **T**—6:20-8:50, So 215, StP Campus, Adams, Arneman, Hanson

***Soil 5114 SPECIAL PROBLEMS, BASIC SOIL SCIENCE.** 4 degree credits. \$62 plus \$10 course fee. Total \$72.

Basic physical, chemical and microbiological properties of soils. Soil genesis, classification and principles of soil fertility. (Prereq 1 course college chemistry. Limited to 14 students. Sec 1 and 2 lectures meet concurrently. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Lect TTh**—6:20-7:00, So 115, StP Campus, Arneman
Lab T—7:05-10:00, So 130

Sec 2 **Lect TTh**—6:20-7:00, So 115, StP Campus, Arneman
Lab Th—7:05-10:00, So 130

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south asian studies

(See also Art History; and other ethnic studies courses, page 168)

Paul Staneslow, Assistant Professor of South Asian Studies

indic (Indc)

The following non-language classes may be applied toward the CLA foreign language requirement, Route II (See page 68): Arth 3014; Indc 3501, 3506.

Indc 1506 INTRODUCTION TO CONTEMPORARY SOUTH ASIA. 5 degree credits, \$3506. \$72.50. (◆\$36.25)



Land, people, modern historical development, contemporary problems, global setting, and future outlook of South Asia. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Meets concurrently with 3506.)

Winter Qtr Sec 1 **W**—6-8:30, FolH 307

Indc 3501 SURVEY OF INDIAN CIVILIZATION. 5 degree credits. \$72.50. (◆\$36.25)



Contemporary civilization in light of its development. Social, cultural, economic, and political life. Hindu, Muslim, and Buddhist contributions. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68])

Fall Qtr Sec 1 **W**—6-8:30, FolH 307, Staneslow

Indc 3506 INTRODUCTION TO CONTEMPORARY SOUTH ASIA. 5 degree credits, \$1506. \$72.50. (◆\$36.25)



See course description for 1506. May be applied toward the CLA foreign language requirement, Route II (see page 68). (No prereq. Meets concurrently with 1506.)

Winter Qtr Sec 1 **W**—6-8:30, FolH 307

SPAN

(Student Project for Amity Among Nations) see page 381.

spanish and portuguese

(See other ethnic studies courses, page 168)

Robert Estelle, Assistant Professor of Spanish

Rodolfo O. Floripe, Professor of Spanish

Larry M. Grimes, Assistant Professor of Spanish

Russell Hamilton, Professor of Portuguese

Ruth E. Jones, Associate Professor of Spanish

Lawrence Mantini, Associate Professor of Spanish

Ricardo Narváez, Professor of Spanish

Antonio Ramos, Assistant Professor of Spanish

Ileana Rodriguez, Instructor in Spanish

Ronald Sousa, Assistant Professor of Spanish and Portuguese

Nicholas Spadaccini, Assistant Professor of Spanish

Constance Sullivan, Assistant Professor of Spanish

Hernán Vidal, Associate Professor of Spanish

Symbols, abbreviations, off-campus class locations begin on page 389.

spanish (Span)

There are two sequences of courses in beginning Spanish from which the prospective student may select the one best suited to his needs. Within the 1101-1103 sequence, one group of courses meets for two hours twice a week, and the other is an intensive session which meets for four hours once a week. Students may select the appropriate section depending on their weekly schedule.

Span 1101-1102-1103 BEGINNING SPOKEN SPANISH: ORAL APPROACH, carrying 5 degree credits per unit, comprises the standard course in first-year Spanish. The principal aim of the course is to teach the student to understand and speak Standard Spanish so that he can communicate in Spain, Spanish America and among U.S. Spanish-speaking minority groups. As the student progresses 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.

The following non-language courses may be applied toward the CLA foreign language requirement, Route II for Spanish (see page 68); Span 1501, 1503, 3601, 3602, 3614.

Span 1101-1102-1103 BEGINNING SPOKEN SPANISH: ORAL APPROACH. 5 degree credits each quarter. \$72.50 plus \$3 course fee each quarter. Total \$75.50.★

Intensive work in understanding and speaking Spanish. See note above. (No prereq for 1101; 1101 or § for 1102; 1102 or § for 1103)

Fall Qtr	1101	Sec 1	TTh—6-8:05, FolH 207
		Sec 2	Th—6-10:05, FolH 208
Winter Qtr	1102	Sec 3	TTh—6-8:05, FolH 207
		Sec 4	Th—6-10:05, FolH 208
Spring Qtr	1103	Sec 5	TTh—6-8:05, FolH 207
		Sec 6	Th—6-10:05, FolH 208

Span 1104 INTERMEDIATE SPANISH, ORAL APPROACH: INTERPRETATION OF MODERN PROBLEMS. 4 degree credits, \$58.★

Intensive review of the spoken language, coupled with continued development of reading, comprehension and writing skills, with an emphasis on active use of readings dealing with modern social and cultural problems in Spain and Spanish America to build vocabulary and to model compositions. (Prereq 1103 or 1205 or §)

Fall Qtr	Sec 1	TTh—6-7:40, FolH 209
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Span 1105 INTERMEDIATE SPANISH, ORAL APPROACH: DISCUSSIONS OF MODERN LITERATURE AND THE PRESS. 4 degree credits, \$58.★

Intensive advanced review of the spoken language, coupled with continued development of reading, comprehension and writing skills, with an emphasis on active use of readings from modern Spanish and Spanish-American literature and the press. (Prereq 1104 or §)

Winter Qtr	Sec 1	TTh—6-7:40, FolH 203
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Span 1201-1202-1203-1204-1205 BEGINNING SPANISH: MODIFIED ORAL APPROACH. 3 degree credits each quarter, \$43.50 plus \$3 course fee. Total \$46.50 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)

Symbols, abbreviations, off-campus class locations begin on page 389.

Fall Qtr	1201	Sec 1	TTh—6-8:30, FolH 104
	1204	Sec 2	TTh—6-8:30, FolH 105
Winter Qtr	1202	Sec 3	TTh—6-8:30, FolH 105
	1205	Sec 4	TTh—6-8:30, FolH 103
Spring Qtr	1203	Sec 5	TTh—6-8:30, FolH 105

Span 1501 CULTURE, CIVILIZATION OF SPAIN, PORTUGAL: THE ROOTS OF MODERN SPAIN, PORTUGAL. 4 degree credits, \$58. (◆\$29)

Designed to introduce the culture and civilization of Spain and Portugal. The course will include the presentation of audio-visual materials such as art, architecture and music. Knowledge of Spanish not necessary. (No prereq. May be applied toward the CLA foreign language requirement, Route II [see page 68]. Not to be used for Spanish or Portuguese major credit)

Fall Qtr Sec 1 M—6-8:30, NH 213

Span 1503 CULTURE, CIVILIZATION OF MODERN LATIN AMERICA: SOCIETIES IN CHANGE. 4 degree credits, \$58. (◆\$29)★

Culture and civilization of the South American nations; the influences and fusing of the Spanish and Portuguese with the Indian or the African cultures. Taught in English. (No prereq. May be applied toward the CLA foreign language requirement, Route II for Spanish or Portuguese [see page 68]. Not to be used for Spanish or Portuguese major cr)

Winter Qtr Sec 1 M—6-8:30, FolH 202

Span 3014 SPANISH COMPOSITION AND COMMUNICATION SKILLS: EVERYDAY SPEECH, ARGOT AND DIALOGUE. 5 degree credits, \$72.50. (◆\$36.25)

A course taught in Spanish and designed to improve the student's ability to comprehend, speak and write Spanish through the use of everyday, high frequency expressions and speech patterns drawn from the living language of Spain and Spanish America. (Prereq 1105 or †)

Fall Qtr Sec 1 TTh—6-8:05, FolH 202

Span 3601 SPANISH AMERICA: REVOLUTION AND THE NEW LITERARY CONSCIOUSNESS. 4 degree credits, \$58. (◆\$29)

A course in English designed to explore the contemporary novels that best capture the relationship between political consciousness and literary expression. The culture and political situation of Spanish America has given birth to some of the most exciting, controversial and talked about novels in the world. This course will introduce the avant-garde movements in the fiction of the Latin American continent and show how they correspond to the revolutionary trends prevailing in the different Spanish speaking countries. The course will concentrate on famous novels translated into English. (No prereq. May be applied toward the CLA foreign language requirement, Route II, for Spanish or Portuguese [see page 68]. Not to be used for Spanish or Portuguese major credit)

Fall Qtr Sec 1 W—6-8:30, FolH 202

Span 3602 THE PICARESQUE WAY OF LIFE IN SPAIN AND EUROPE: LITERATURE AND THE DELINQUENT. 4 degree credits, \$58. (◆\$29)

Designed to introduce the major picaresque novels of Europe and Latin America by concentrating on the Spanish origins of the genre, XVI Century, its zenith, XVII Century, and its evolution to the present day. The course stresses the literary and sociological examination of picaresque novels and traces the new directions of the picaresque genre in modern times. The course will concentrate on famous Spanish and Latin American novels translated into English. Knowledge of Spanish not necessary. May be applied toward the CLA foreign language requirement, Route II for Spanish [see page 68]. (No prereq. Not to be used for Spanish or Portuguese major credit)

Spring Qtr Sec 1 M—6-8:30, FolH 102

Span 3614 DON QUIJOTE: STUDY OF LOST ILLUSIONS. 4 degree credits, \$58. (◆\$29)

The Spanish classic Don Quijote de la Mancha by Miguel de Cervantes in English. The humor, pathos, and philosophy of Don Quijote, as well as Cervantes'

Symbols, abbreviations, off-campus class locations begin on page 389.

style. (No prereq. May be applied toward the CLA foreign language requirement, Route II, for Spanish or Portuguese [see page 68]. Not to be used for Spanish or Portuguese major credit)

Winter Qtr Sec 1 **W**—6-8:30, FolH 102

Span 3615 LITERATURE AND FILM. 5 degree credits, \$72.50. (♦\$36.25)



Artistic techniques and social content of the literature and cinema of the Spanish and Portuguese speaking worlds: Spanish America, Spain, Brazil and Portugal. (No prereq. Not for Spanish or Portuguese major cr. May be applied toward the CLA foreign language requirement, Route II for Spanish or Portuguese)

Spring Qtr Sec 1 **M**—6-8:30, FolH 105

(See other film courses, page 164)

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, \$43.50.★

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)

Winter Qtr Sec 1 **Th**—6:20-8:50, FolH 102

Spanish 0221 is offered as a Summer Extension Class.

portuguese (Port)

Cassette tapes are available to extension classes students on a take-home basis. Students can pick up tapes at the Learning Resources Center on the second floor of Walter Library or the second floor of Temporary South of Coffey on the St. Paul Campus. Students must present a fee statement when checking out tapes. Rental costs are covered by the special fees paid with tuition.

Learning Resources Center hours are: 8 a.m.-10 p.m., Monday-Thursday; 8 a.m.-6 p.m., Friday; 9 a.m.-6 p.m., Saturday; Sunday hours being planned.

The following non-language classes may be applied toward the CLA foreign language requirement, Route II for Portuguese: Span 1501, 1503, 3601, 3614, 3615. (See page 68).

Port 1001-1002-1003 BEGINNING PORTUGUESE. 5 degree credits each quarter. \$72.50 plus \$3 course fee. Total \$75.50 each quarter.

Aural comprehension, pronunciation, basic grammar; practical reading knowledge. Brazilian speech stressed; Lusitanian forms also studied. (No prereq for 1001; 1001 for 1002; 1002 for 1003)

Fall Qtr **1001** Sec 1 **T**—6-10:05, FolH 107

Winter Qtr **1002** Sec 2 **T**—6-10:05, FolH 104

Spring Qtr **1003** Sec 3 **T**—6-10:05, FolH 107



Symbols, abbreviations, off-campus class locations begin on page 389.

special education (SpEd)

(See also Education)

Robert H. Bruininks, Associate Professor of Special Education
Barbara J. Hibbs, Instructor in Psychoeducational Studies
Robert W. McCauley, Assistant Professor of Special Education
Allen R. Sullivan, Associate Professor of Special Education
Judy Wolf, Instructor in Special Education
Frank H. Wood, Professor and Coordinator of Special Education

S-N registration not permitted in Special Education unless specifically indicated in course description.

***SpEd 5100 CHILDHOOD LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS.** 3 degree credits, \$46.50.

Recent trends and findings in language acquisition; classroom implications for the education of exceptional children. (No prereq. Limited to 40 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 T—7-9:30, Pt 111
Spring Qtr Sec 2 T—7-9:30, Pt 102

***SpEd 5101 EDUCATION OF EXCEPTIONAL CHILDREN.** 3 degree credits, \$46.50.

Introduction to field of special education for classroom teachers and other school personnel. (No prereq. Limited to 45 students. Qualified students may register for graduate credit at the University of Minnesota).

Spring Qtr Sec 1 M—7-9:30, Sandburg JHS 213, Golden Valley, Wood

***SpEd 5112 EDUCATION OF LEARNING-DISABLED CHILDREN.** 3 degree credits, \$46.50.

Analysis of considerations in design and conduct of services for learning-disabled children; approaches to education of such children. (No prereq. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 M—7-9:30, Kellogg HS 237, Little Canada, Hibbs
Spring Qtr Sec 2 M—7-9:30, Richfield HS 341

SpEd 5120 INTRODUCTION TO MENTAL RETARDATION. 4 degree credits, \$CPsy 5315. \$62.

Issues which relate to educational practices; community planning; educational philosophy, administration and organization, and programming. (Prereq SpEd 5101. Meets concurrently with CPsy 5315. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 Th—6:20-8:50, Pt 214, Bruininks

***SpEd 5150 EDUCATION OF EMOTIONALLY DISTURBED AND SOCIALLY MALADJUSTED CHILDREN.** 3 degree credits. \$46.50.

Discussion and evaluation of curricula, materials, and methods for instruction of disturbed and delinquent children in hospital, training school, and public school settings. (Prereq grad or 1. Limited to 35 students. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—7-9:30, Sandburg JHS 209, Golden Valley, McCauley

***SpEd 5180 EDUCATION OF THE DISADVANTAGED.** 3 degree credits, \$46.50.

Educational needs of children handicapped by behavior related to deficiencies of physical and/or cultural environment; adaptations of educational programs. (Prereq 12 cr in psy, ed psy, or soc. Limited to 30 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 W—7-9:30, Pt 102, Sullivan

Symbols, abbreviations, off-campus class locations begin on page 389.

speech-communication (Spch)

(See also Communications courses in English, General College, and Rhetoric)

Leonard D. Bart, Associate Professor of Speech-Communication
Ernest G. Bormann, Professor of Speech-Communication
Donald R. Browne, Professor of Speech-Communication
Karen J. Garvin, Assistant Professor of Speech-Communication
Ronald S. Geizer, Assistant Professor of Speech-Communication
William S. Howell, Professor of Speech-Communication
Harold A. Miller, Associate Professor of Speech-Communication
David Rarick, Assistant Professor of Speech-Communication
George L. Shapiro, Professor of Speech-Communication
Donald Z. Woods, Professor of Speech-Communication

***Spch 0001C BEGINNING SPEECH-COMMUNICATION.** 3 certificate credits, \$43.50 (plus \$5.50 special fee for Minneapolis Campus only. Total \$49) (Total \$43.50 for Richfield and Sandburg)

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 25 students)

Fall Qtr Sec 1 **M**—6:20-8:50, NH 216, Woods
 Sec 2 **T**—7-9:30, Richfield HS 343
Winter Qtr Sec 3 **M**—6:20-8:50, NH 216, Woods
Spring Qtr Sec 4 **M**—6:20-8:50, NH 216, Woods
 Sec 5 **Th**—7-9:30, Sandburg JHS 210, Golden Valley, Browne

***Spch 1101 FUNDAMENTALS OF SPEECH COMMUNICATION: ORAL COMMUNICATION.** 4 degree credits, \$58.

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 25 students)

Fall Qtr Sec 1 **M**—6:20-8:50, FoIH 306, Garvin
Spring Qtr Sec 2 **W**—6:20-8:50, FoIH 306, Bart

Spch 1102 FUNDAMENTALS OF SPEECH-COMMUNICATION: COMMUNICATION PROCESS. 4 degree credits, \$58. (♦\$29)

Introduction to the identification and analysis of variables in intrapersonal, interpersonal, and group communication.

Winter Qtr Sec 1 **M**—6:20-8:50, NH 45, Garvin

Spch 1104 FUNDAMENTALS OF SPEECH-COMMUNICATION: THE CREATIVE PROCESS AND THE MASS MEDIA. 4 degree credits, \$58. (♦\$29)

Analysis of mass media structure and the effects of that structure on the creative process.

Fall Qtr Sec 1 **W**—6:20-8:50, NH 45, Bart

***Spch 3201 INTRODUCTION TO BROADCASTING PRODUCTION.** 4 degree credits, \$58.

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 25 students)

Winter Qtr Sec 1 **W**—6:20-8:50, RarigC 616, Bart

Symbols, abbreviations, off-campus class locations begin on page 389.

Spch 3401 THEORIES OF INTERPERSONAL COMMUNICATION. 4 degree credits, \$58.
(♦\$29)



Analysis of various theories of interpersonal communication and their usefulness for particular purposes. (Prereq 1102, Psy 1001 or ‡)

Spring Qtr Sec 1 **M**—6:20-8:50, FoIH 406, Geizer

***Spch 5402 PROBLEMS IN INTERPERSONAL COMMUNICATION.** 4 degree credits, \$62.

A study of factors contributing to misunderstanding, not understanding, disagreement and cessation of contact in dyads. (Prereq 3401 or ‡. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—6:20-8:50, FoIH 306, Rarick

***Spch 5403 THEORY CONSTRUCTION AND ANALYSIS IN COMMUNICATION.** 4 degree credits, \$62.



Problems in the development of communication theory. Analysis of existing theory. Relationship of theory to research. (Prereq 3401 or ‡. A joint Day/Extension course limited to 10 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **TTh**—4:15-6:00, FoIH 306, Geizer

***Spch 5411 SMALL GROUP COMMUNICATION.** 5 degree credits, \$77.50.

Study of communication and dynamics within the small, task-oriented group. Cohesiveness, leadership, role structure, information processing and decision making. **S-N registration only.** (Prereq 3641 or ‡. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **TTh**—4:15-6:00, FoIH 306, Howell (A joint Day/Extension course limited to 10 Extension students [plus day school registrants])

Sec 2 **T**—6:20-9:30, FoIH 306, Bormann (Limit 25 students)

***Spch 5421 QUANTITATIVE RESEARCH IN COMMUNICATION.** 4 degree credits, \$62.

Review and discussion of experimental and descriptive research; analysis of research and design and procedures; individual research projects. (Prereq 3401 or 5403, or ‡. A joint Day/Extension course limited to 10 Extension students. [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **MW**—4:15-6:00, FoIH 307, Geizer

***Spch 5422 INTERVIEWING AND COMMUNICATION.** 4 degree credits, \$62.

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 social science or ‡. A joint Day/Extension course limited to 10 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **MW**—4:15-6:00, FoIH 306, Rarick

Spch 5431 THE PROCESS OF PERSUASION. 4 degree credits, \$62.

Theories of modern motivational communication. Analysis of the process of social control through persuasive speech. (Prereq 1102 or Psy 1001. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **TTh**—4:15-6:00, FoIH 306, Howell (A joint Day/Extension course limited to 10 Extension students [plus day school registrants].)

Spring Qtr Sec 2 **Th**—6:20-8:50, FoIH 306, Miller

***Spch 5441 COMMUNICATION IN HUMAN ORGANIZATIONS.** 4 degree credits, \$62.

Analysis of functions of communication in organizational settings. Organizational structure and dynamics and their effect upon communication process. Collateral readings and individual projects. (Prereq 1102 or 3401, 3641 or 5411, or grad.

Symbols, abbreviations, off-campus class locations begin on page 389.

A joint Day/Extension course limited to 10 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **MW**—4:15-6:00, FolH 201, Shapiro

***Spch 8201 INTRODUCTION TO SURVEY RESEARCH IN SPEECH-COMMUNICATION.** 3 degree credits, \$49.50.

Consideration of survey research-based projects in broadcasting and public address. Design and execution of small-scale survey research-based study, with emphasis on problems attendant upon execution of studies. (Prereq 8101 or Jour 8001 or §. A joint Day/Extension course limited to 5 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **M**—4:15-6:00, FolH 201, Browne

***Spch 8411 SEMINAR: SMALL GROUP COMMUNICATION.** 3 degree credits, \$49.50.

Research problems and methods in small group communication. (Prereq 1101, 5411. A joint Day/Extension course limited to 5 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **M**—4:15-6:00, FolH 306, Bormann

***Spch 8431 SEMINAR: PERSUASION.** 3 degree credits, \$49.50.

Contemporary public address. Literature of persuasion, methods in study of persuasion. (Prereq 5431. A joint Day /Extension course limited to 5 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 **T**—4:15-6:00, FolH 307, Howell

***Spch 8621 SEMINAR: HISTORY AND CRITICISM OF PUBLIC ADDRESS.** 3 degree credits, \$49.50.

Methods of rhetorical criticism. Application of method in individually selected research projects. (Prereq 5617, 5618 or §. A joint Day /Extension course limited to 5 Extension students [plus day school registrants]. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—4:15-6:00, FolH 307, Bormann

student project for amity among nations (SPAN)

SPAN provides unusual opportunities for undergraduate study abroad through a unique summer research project conducted in three or four different countries each year. In 1976, four groups, each with an academic adviser who is an expert on the country concerned, will go to the Dominican Republic, Hungary, Pakistan, and Turkey. Participants are selected a year prior to their summer abroad and undergo a nine-month orientation in the language and culture of their selected country. For further information, contact SPAN, 720 Washington Avenue S.E., Minneapolis, Minnesota 55414 (373-3677).

study skills

(See also Rhetoric; General College; and other study helps, page 178)

Sue Johnson, Instructor, Student Counseling Bureau

David M. Wark, Professor, Student Counseling Bureau

personal orientation (PO)

***PO 1001 HOW TO STUDY.** 2 degree credits. (Credits do not count toward a B.A. degree; however, grades are included in the over-all grade point average.) \$43.50 plus \$2 course fee. Total \$45.50.★

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 are also provided. (No prereq. Limited to 30 students)

Fall Qtr	Sec 1	T—6:20-8:50, EdH 102
Fall Sem	Sec 2	M—6:20-8:00, EdH 102
Spring Sem	Sec 3	T—6:20-8:00, EdH 102
Spring Qtr	Sec 4	M—6:20-8:50, EdH 102

swedish

(See Scandinavian Languages)



textiles and clothing (TexC)

(See also Home Economics; and ArEd 5001, Art Media Techniques, Textile Design)

Margaret P. Grindering, Head of Textiles and Clothing
Robert F. Johnson, Professor of Textiles and Clothing

TexC 5622 ISSUES, TRENDS IN TEXTILE CONSUMER PROBLEMS. 3 degree credits, \$46.50.

new

The needs of the textile consumer for protection from deception and hazard; critical analysis of federal, state, and local legislation as well as voluntary industrial systems; case histories; change mechanisms. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 W—6:20-8:50, McNH 227, Johnson

TexC 5641 TOPICS IN MERCHANDISING. 3 degree credits, \$46.50.

new

Study and analysis of a current issue related to merchandising of textile and clothing products. *Focus this offering: Textile and Clothing Production and Distribution as it Affects the Consumer.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spring Qtr Sec 1 T—6:20-8:50, McNH 103N, Grindering

theatre arts (Th)

(See also Engl 5175, Drama; Engl 5910, Plays of the Guthrie Season)

Arthur H. Ballet, Professor of Theatre Arts
Deborah Bell, Teaching Assistant in Theatre
C. Lance Brockman, Assistant Professor of Theatre Arts
Louis Dezseran, Assistant Professor of Theatre Arts

Symbols, abbreviations, off-campus class locations begin on page 389.

Th 1101 INTRODUCTION TO THE THEATRE. 4 degree credits, \$58. (♦\$29)

An orientation in the great dramatic tradition through a consideration of plays and playwrights from Sophocles to Tennessee Williams. It covers the history of theatrical customs, conventions, and traditions as they affect modern stage production and includes a view of the highlights of theatre, architecture, scenic design, stagecraft, lighting, costumes, make-up and special effects. Lectures will be presented on video tape. Spring quarter only: discussion during first 45 minutes is on production materials and elements, acting, directing, and specific discussion of selected plays running in the Twin Cities. (No prereq)

Fall Qtr Sec 1 T—6:20-8:50, SciCB 125, Ballet
Spring Qtr Sec 2 M—6-9:00, SciCB 125, Ballet

***Th 1321 BEGINNING ACTING: CREATIVE APPROACH.** 4 degree credits, \$58.

Creation and presentation of original scenes and exercises. Ability to respond to the imaginative situation with individuality and effectiveness stressed. (Prereq 1504 or 11504. Limited to 24 students)

Fall Qtr Sec 1 Sa—9:15 a.m.-12:00, WeH 302, Dezseran

Th 1328 MIME AND THE ACTOR. 2 degree credits, \$29.

Basic techniques and the domain of mime explored through class participation. (Prereq 1321)

Fall Qtr Sec 1 Sa—12:30-2:30, WeH 302, Dezseran

Th 1502 MAKEUP FOR THE ACTOR. 2 degree credits, \$29.

The art of stage make-up. (Prereq 1504 or 11504)

Fall Qtr Sec 1 Th—6:20-8:50, RarigC 45, Bell

new

Th 1504 ELEMENTS OF TECHNICAL THEATRE. 4 degree credits, \$58.

The practice of the arts and crafts of the theatre; scenery and particularly construction and painting, stage operation, theatre lighting, costumes, or makeup. (Prereq 1101 or 11101. Further sessions will be scheduled at first class meeting)

Fall Qtr Sec 1 T—6:20-10:30, RarigC 616, Brockman
Winter Qtr Sec 2 T—6:20-10:30, RarigC 616, Brockman

Th 3321 ADVANCED ACTING. 4 degree credits, \$58.

Presentation of scenes from great plays. (Prereq 1321 or 1326)

Winter Qtr Sec 1 Sa—12:30-2:30, WeH 302, Dezseran

Th 3322 ADVANCED ACTING: DIALECTS. 4 degree credits, \$58.

(Prereq 1321 or 1326)

Spring Qtr Sec 1 Sa—12:30-3:30, WeH 302, Dezseran

***Th 5131 CREATIVE DRAMATICS.** 4 degree credits, \$62 plus \$2 special fee. Total \$64.

This course will introduce elementary school classroom teachers to the principles and methods of developing original dramatization with children and how these activities may be integrated as an essential part of the language arts and /or social studies curriculum. Class work will involve observations of children's classes in creative dramatics, readings, projects, term papers. (Prereq elem school teacher, 1101 or 1. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 Th—4-7:30, Marshall-University HS
Spring Qtr Sec 2 Th—4-7:30, RarigC 610

(See also Education)

See page 189 for information on
Th 5186 AMERICAN THEATRE★
a credit television course

Symbols, abbreviations, off-campus class locations begin on page 389.

Th 5329 ALEXANDER TECHNIQUE FOR THE PERFORMING ARTS. 4 degree credits, \$62.

new

An exploration of body movement and voice to develop a feeling of relaxation under the duress of public performance through a realization of extraneous nervous habits, postural deficiencies. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 **Sa**—12:30-2:30, WeH 302, Dezseran

transportation (Tran)

Frederick J. Beier, Associate Professor of Transportation and Logistics
Donald V. Harper, Professor of Transportation and Logistics
James P. Rakowski, Assistant Professor of Transportation and Logistics

Transportation courses may not be taken S-N.

***Tran 3054 FUNDAMENTALS OF TRANSPORTATION.** 4 degree credits, \$8154, \$58.

Organization and economic aspects of the transportation system of the United States including rail, highway, air, pipeline, and water transportation. Administration of transportation by users of transportation, providers of transportation (carriers), and government. (Prereq Econ 1002 or equiv. Limited to 40 students)

Fall Qtr Sec 1 **M**—5:30-8:00, AndH 210, Harper
Sec 2 **W**—5:30-8:00, AndH 350, Rakowski

Winter Qtr Sec 3 **M**—5:30-8:00, AndH 310, Harper
Sec 4 **W**—5:30-8:00, AndH 310, Rakowski

Spring Qtr Sec 5 **M**—5:30-8:00, AndH 230, Harper
Sec 6 **Th**—6:30-9:00, Kellogg HS 167-169, Little Canada, Rakowski
(Limit 35 students*)

Tran 3064 BUSINESS LOGISTICS. 5 degree credits, \$8264, \$72.50.

Control of the flow of physical product by the firm. Topics include rate negotiation, transportation alternatives, logistics information systems, inventory control, warehouse operations and location, and logistics system design. Meets concurrently with 8264. (Prereq 3054. For graduate credit register in 8264)

Fall Sem Sec 1 **W**—5:30-8:00, BlegH 105, Beier

Tran 3084 CARRIER MANAGEMENT. 5 degree credits, \$8284, \$72.50.

Managerial problems of carriers by rail, highway, air, and water. Topics include problems associated with carrier organization, operations, traffic and sales, finance and control, labor relations, public policy issues, and shipper-carrier interface. (Prereq Tran 3054. Meets concurrently with 8284. For graduate credit register in 8284)

Spring Sem Sec 1 **W**—5:30-8:00, BlegH 115, Beier

Tran 8264 BUSINESS LOGISTICS. 5 degree credits, \$3064, \$82.50.

See course description for 3064. Meets concurrently with 3064. (Prereq 3054 or 8154. Qualified students may register for graduate credit at the University of Minnesota)

Fall Sem Sec 1 **W**—5:30-8:00, BlegH 105, Beier

Tran 8284 CARRIER MANAGEMENT. 5 degree credits, \$3084, \$82.50.

See course description for 3084. Meets concurrently with 3084. (Prereq 3054 or 8154. Qualified students may register for graduate credit at the University of Minnesota)

Spring Sem Sec 1 **W**—5:30-8:00, BlegH 115, Beier

Symbols, abbreviations, off-campus class locations begin on page 389.



urban affairs

(See Public Policy)

urban studies (urbs)

(See also Public Affairs; Public Policy; GC 1212, Urban Problems; Hist 3901, 3902, American Urban History; Pol 1027, Urban Politics; and Soc 5601, Urban Sociology)

Judith Martin, Lecturer in Urban Studies

Urbs 3103 URBAN STUDIES COLLOQUIUM. 2 degree credits, \$29. (♦\$14.50)

Urban political machines. Broad historical overview of urban political structure: why machines came about, what needs they served, their present or potential utility; also, the question of whether democracy can succeed in an urban setting and what consequences it can have. The course will likely focus closely on one urban machine as an example of others, with some attention to the future of urban politics. May not be taken A-N. (No prereq)

Spring Qtr Sec 1 **W**—6:20-8:50, BlegH 245, Martin



veterinary medicine (VM)

James O. Hanson, Director of Veterinary Medicine Continuing Education

George W. Mather, Professor of Veterinary Medicine

VM 1100 CARE, MANAGEMENT, SHOWING AND DISEASES OF HORSES. 3 degree credits, \$43.50.

Lectures and demonstrations by faculty members of the College of Veterinary Medicine and qualified well-known authorities on horses and horsemanship from the metropolitan area. (No prereq)

Spec Term Sec 1 **Th**—Jan 8-April 29, 7:30-9:30, VetC A325, Hanson, Mather (coordinators)
(register Dec. 22-Jan. 8)

vocabulary building

(See General College communication skills)

Symbols, abbreviations, off-campus class locations begin on page 389.

vocational and technical education

Continuing education courses for in-service vocational and practical arts teachers are offered on campus during late afternoons and off-campus through Continuing Education and Extension in the following programs:

- Agricultural Education
- Business Education
- Distributive Education
- Home Economics Education
- Industrial Education
- Vocational Education

Late afternoon classes are scheduled each quarter and are listed in the day school **Class Schedule**. Continuing Education and Extension courses for vocational certification and degree programs are scheduled at the request of and in cooperation with vocational program administrators. Requests for information about specific courses to be provided through Continuing Education and Extension should be directed to David Pucel, 125 Peik Hall, University of Minnesota, Minneapolis, Minnesota 55455 (373-7798).



women's studies (WoSt)

(See also Hist 3347, 3348, Women in American History; Psy 5141, Psychology of Women; and non-credit Informal Courses, page 282)

Pat Faunce, Associate Professor of Psychology
Mary Jo Kingston, Instructor in Women's Studies
Toni McNaron, Coordinator of Women's Studies
Miriam Roshwald, Assistant Professor in Women's Studies
Sue Short, Assistant Professor in Women's Studies
Gayle Graham Yates, Assistant Professor in Women's Studies

See page 189 for information on

WoSt 1005 INTRODUCTION TO WOMEN'S STUDIES★

a credit television course

WoSt 1006 INTRODUCTION TO WOMEN'S STUDIES. 4 degree credits, \$58 plus \$3 course fee. Total \$61. (◆\$29 plus \$3 course fee. Total \$32)

new

Brief history of feminism, nationally and locally; survey of women's issues; survey of biological and/or learned behaviors. (No prereq)

Fall Qtr Sec 1 **M**—6:20-8:50, ForH 120, Yates

WoSt 1977 THE PSYCHOLOGICAL ENVIRONMENT OF WOMEN. 4 degree credits, \$58. (◆\$29)★

An examination of psychological principles and theories which have a unique application to the development, growth, and behavior of women; to inform and to contribute to the woman's awareness of where she is now and how she got there; to foster self-actualization of the young woman. (No prereq)

Winter Qtr Sec 1 **Th**—6:20-8:50, ForH 120, Faunce

Symbols, abbreviations, off-campus class locations begin on page 389.

WoSt 3001-3002 WOMEN: BIOLOGY AND BEHAVIOR. 4 degree credits each quarter, \$58 plus \$3 course fee. Total \$61 each quarter. (♦\$29 plus \$3 course fee. Total \$32)

new

To educate both women and men about the biological aspects of being a woman. This sequence will combine material from many disciplines rather than follow any specific disciplinary approach. (No prereq for 3001; 3001 for 3002)

Fall Qtr 3001 Sec 1 T—6:20-8:50, ForH 285, Kingston

Winter Qtr 3002 Sec 2 T—6:20-8:50, ForH 130, Kingston

WoSt 3103 THE MODERN FEMINIST NOVEL. 4 degree credits, \$58. (♦\$29)

new

Readings will include major twentieth-century novels by such British and American women as Kate Chopin, Willa Cather, Ellen Glasgow, Doris Lessing, Edith Wharton, and Virginia Woolf. (Prereq English comp or equiv)

Spring Qtr Sec 1 W—6:20-8:50, ForH 285

WoSt 3302 COMPARATIVE STUDY OF WOMEN: SOCIAL SCIENCE PERSPECTIVE. 4 degree credits, \$58. (♦\$29)★

new

Investigation in some detail and depth of comparative treatment and theories of women from two separate social science disciplinary points of view. Includes theoretical views, research methods for asking questions about women, basic readings combining discipline and Women's Studies. (Prereq intro courses in 1-2 social sciences.)

Spring Qtr Sec 1 M—6:20-8:50, ForH 285

***WoSt 3701 WOMAN'S LITERARY QUEST FOR SELF-REALIZATION.** 4 degree credits, \$58.

Woman's quest for self-fulfillment is explored through the study of classics in modern fiction. The texts examined will include works of English, French, Russian and Hebrew writers, which will set the problem in a wide comparative perspective. (No prereq. Limited to 30 students)

Fall Qtr Sec 1 Th—6:20-8:50, ForH 359, Roshwald

WoSt 5311 WOMEN AND THE LAW. 4 degree credits, \$62 plus \$5 course fee. Total \$67. (♦\$31 plus \$5 course fee. Total \$36)

Course intends to make students more aware of the areas of the law that affect women, while providing, through the use of several local women lawyers, a model to all the students of women functioning well within a traditionally male-oriented profession. Areas of law covered include criminal, employment, welfare, labor, corporate, legal education. (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Winter Qtr Sec 1 W—6:20-8:50, ForH 285, Short

world affairs

For information on non-credit conferences or workshops in world affairs, please contact William C. Rogers, 306 Westbrook Hall; telephone 373-3709.

Symbols, abbreviations, off-campus class locations begin on page 389.



youth studies (YoSt)

(See also Education)

Dan Conrad, Instructor in Youth Studies

Diane Hedin, Instructor in Youth Studies

Mirlam Pew, Lecturer in Youth Studies

***YoSt 5130 SPECIAL TOPICS: ACTION LEARNING FOR SECONDARY STUDENTS.** 3 degree credits, \$46.50.

new

The purposes of service-learning and action-learning in schools and youth-serving agencies; development and implementation of programs in which adolescents are performing valued service and work in their communities, and evaluation of action-learning programs. Each student will be expected to develop an action-learning program that could be implemented in a school or youth-agency. (No prereq. Limited to 25 students. Qualified students may register for graduate credit at the University of Minnesota)

Fall Qtr Sec 1 **Th**—4-6:00, a Mpls school setting to be selected, Conrad, Hedin

Spring Qtr Sec 2 **W**—4-6:00, a Mpls school setting to be selected, Conrad, Hedin

***YoSt 5130 SPECIAL TOPICS: SOCIAL GROUP WORK.** 3 degree credits, \$46.50.

new

Course includes basic principles of group work including practical ideas of how to get started, establishing trust, etc. Group leadership styles and how one decides which style fits with her/his personality. Special issues such as working with hostile, silent, discouraged group members, role playing and conflict management. Special concern for how adolescents learn to get along with themselves, their role in the family, relationships with peers and on the job. Lectures, group work. (No prereq. Limited to 26 students. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 3 **Oct 8, 15, 22** **W**—8 a.m.-5 p.m., a Mpls youth center to be selected, Pew (register Sept 24-Oct 8)

Spec Term Sec 4 **Apr 7, 14, 21** **W**—8 a.m.-5 p.m., a Mpls youth center to be selected, Pew (register Mar 24-Apr 7)

Symbols, abbreviations, off-campus class locations begin on page 389.

numbering/symbols/maps/
abbreviations

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course numbering

All University courses for 1975-76 will carry course numbers of four-digit numerals. The first digit indicates the credit level of the course. See sample below:

OXXXC	Certificate course
OXXX	No credit course
1XXX	Degree credit course primarily for freshmen and sophomores
3XXX	Degree credit course, primarily for juniors and seniors. Also open to other students with at least C averages overall and in all prerequisite work
5XXX	Degree credit course primarily for juniors, seniors, and graduate-level students
8XXX	Degree credit course open only to students registering for graduate credit

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 primarily for graduate students) for graduate credit, see **graduate credit**, page 40.

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 classes, page 23-24.
- † All courses listed before dagger must be completed before credit may be received.
- § No credit is given if credit has been received for equivalent course listed after section mark.
- ‡ Means "concurrent registration in" (i.e., course must be taken simultaneously).
- ‡ Consent of instructor.
- ★ Course also available through Department of Extension Independent Study.
- ◆ Regular credit course open for registration on a reduced, no-credit, tuition plan (see page 44).

cr Credit

Qtr Quarter

Sem Semester

Spec Special

abbreviations for off-campus classes

The following abbreviations for off-campus class sites are used throughout this Bulletin:

Arboretum, Chaska	Minnesota Landscape Arboretum Chaska, Minnesota
Bklyn Ctr HS	Brooklyn Center High School 6500 Humboldt Ave. N., Brooklyn Center
Cambridge HS	Cambridge High School Cambridge, Minnesota
Elim Church, Robbinsdale	Elim Church 40th and W. Broadway, Robbinsdale
Hillside JHS, Maplewood	Hillside Junior High School 2051 E. Larpenteur Ave., Maplewood
Irondale HS, New Brighton	Irondale High School 2425 Long Lake Rd., New Brighton
Jewish Community Ctr, StLPk	Jewish Community Center 4330 S. Cedar Lake Rd., St. Louis Park
Jonathan Community Ctr, Chaska	Jonathan Community Center Chaska, Minnesota
Kellogg HS, Little Canada	Kellogg High School 15 E. Country Road B2, Little Canada
Minnetonka HS	Minnetonka Senior High School Highway 7, Excelsior
Nicollet JHS, Burnsville	Nicollet Junior High School 400 E. 134th St., Burnsville
Ramsey HS, Roseville	Alexander Ramsey High School 1261 W. Highway 36, Roseville
StP Ramsey Hosp	St. Paul-Ramsey Hospital University Avenue and Jackson, St. Paul
Richfield HS	Richfield Senior High School 7001 Harriet Ave. S., Richfield
Sandburg JHS, Golden Valley	Carl Sandburg Junior High School 2400 Sandburg Lane, Golden Valley
StP Sunray Lib	Sunray Shopping Center Library 2105 Wilson Ave., St. Paul
StP Talmud Torah	The Talmud Torah of St. Paul 636 S. Mississippi River Blvd., St. Paul
WCCO Radio Bldg, Mpls	WCCO Radio Building, Room 512 7th Street and 2nd Ave. S., Minneapolis (downtown)
St Stephens Church, WStP	St. Stephens Church 1575 Charlton, West St. Paul

See course listings for these locations on page 193.
See map on page 174.

department abbreviations

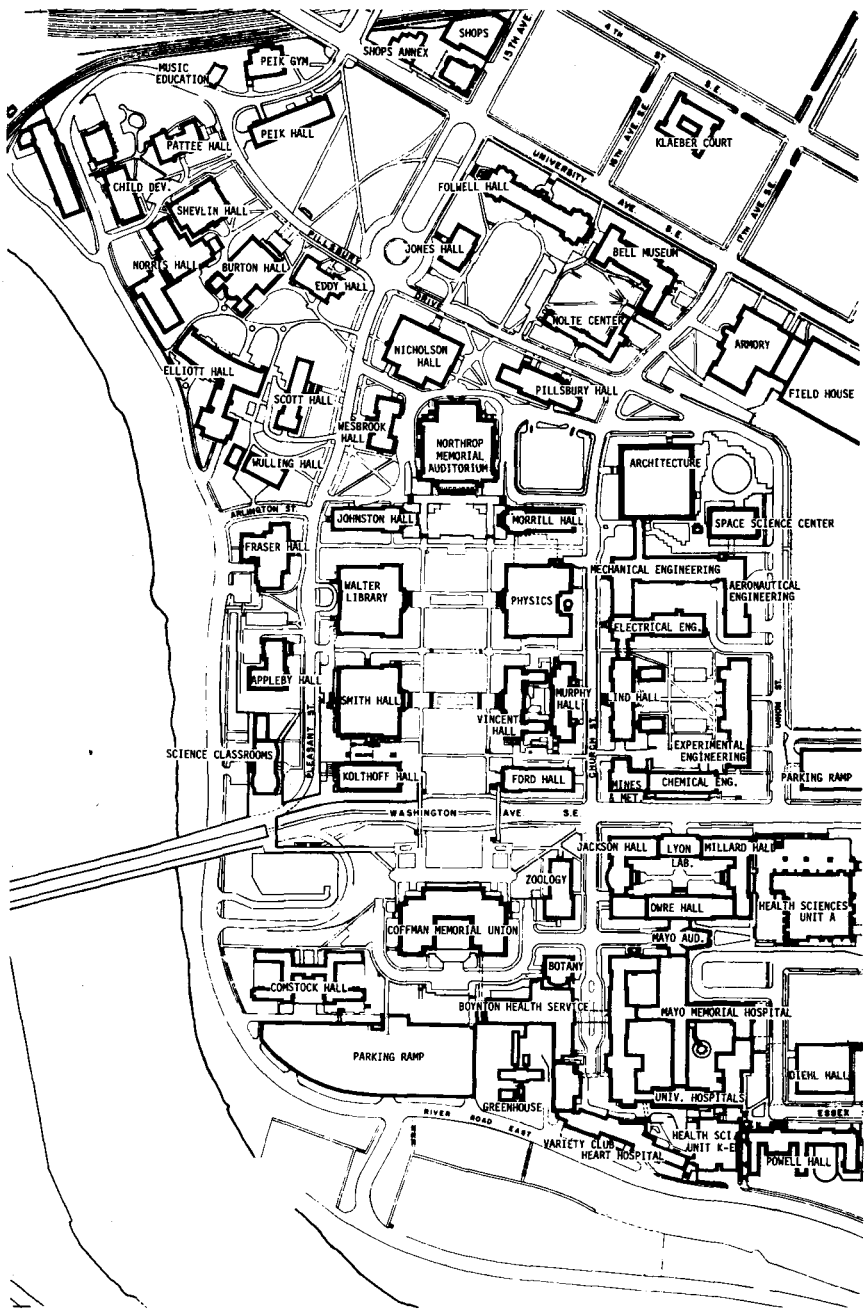
Acct, Accounting
AdPy, Adult Psychiatry
AEM, Aerospace Engineering
and Mechanics
Afro, Afro-American Studies
AmIn, American Indian Studies
AmSt, American Studies
Anat, Anatomy
Anth, Anthropology
Arab, Arabic
Arch, Architecture
ArEd, Art Education
Arth, Art History
ArtS, Art, Studio
Ast, Astronomy
Biol, Biology
Bot, Botany
BA, Business Administration
BLaw, Business Law
Chem, Chemistry
CPsy, Child Psychology
Chn, Chinese
CE, Civil and Mineral Engineering
Clas, Classics
Comm, Communication
Comp, Composition
CICS, Computer, Information, and
Control Sciences
CSPP, Counseling and Student
Personnel Psychology
CJS, Criminal Justice Studies
Dan, Danish
Dsgn, Design
Dtch, Dutch
Eas, East Asian Languages
EBB, Ecology
Econ, Economics
EdAd, Educational Administration
EE, Electrical Engineering
Elem, Elementary Education
EG, Engineering Graphics
Engl, English
FPAd, Family Planning Administration
FSoS, Family Social Science
BFin, Finance (business)
Fin, Finnish
FScN, Food Science and Nutrition
FS, Foreign Study
ForP, Forest Products
FRD, Forest Resources Development
Fren, French
GC, General College
GCB, Genetics and Cell Biology
Geog, Geography
Geo, Geology and Geophysics
Ger, German
Heb, Hebrew
Hist, History
HMed, History of Medicine
Hort, Horticultural Science
Hum, Humanities
Indc, Indic
IC, Informal Courses
IEOR, Industrial Engineering/
Operations Research
IR, Industrial Relations
I of T, Institute of Technology
Ins, Insurance
IIA, Insurance Institute of America
CLU, American College of Life
Underwriters
Ital, Italian
Jpn, Japanese
JwSt, Jewish Studies
Jour, Journalism and Mass
Communication
LMed, Laboratory Medicine
LA, Landscape Architecture
Lat, Latin
Lib, Library Science
Ling, Linguistics
Mgmt, Management
MIS, Management Information
Sciences
Mktg, Marketing
Math, Mathematics
ME, Mechanical Engineering
MedT, Medical Technology
MetE, Metallurgical Engineering
MicB, Microbiology
MidE, Middle Eastern Languages
Mus, Music
MuEd, Music Education
NSci, Natural Science and Technology
Nor, Norwegian
Nurs, Nursing
OAM, Operations Analysis and
Management
PO, Personal Orientation
Phil, Philosophy
PE, Physical Education and Recreation
PMed, Physical Medicine and
Rehabilitation
Phys, Physics
Phsl, Physiology
PIPa, Plant Pathology
Pol, Political Science
PsyF, Psychological Foundations
Psy, Psychology
PubH, Public Health
QA, Quantitative Analysis
RE, Real Estate

Rec, Recreation
RelS, Religious Studies
Rhet, Rhetoric
Russ, Russian
Sal, Salesmanship
Scan, Scandinavian
Hlth, School Health Education
SeEd, Secondary Education
SSci, Social Science
SW, Social Work
Soc, Sociology

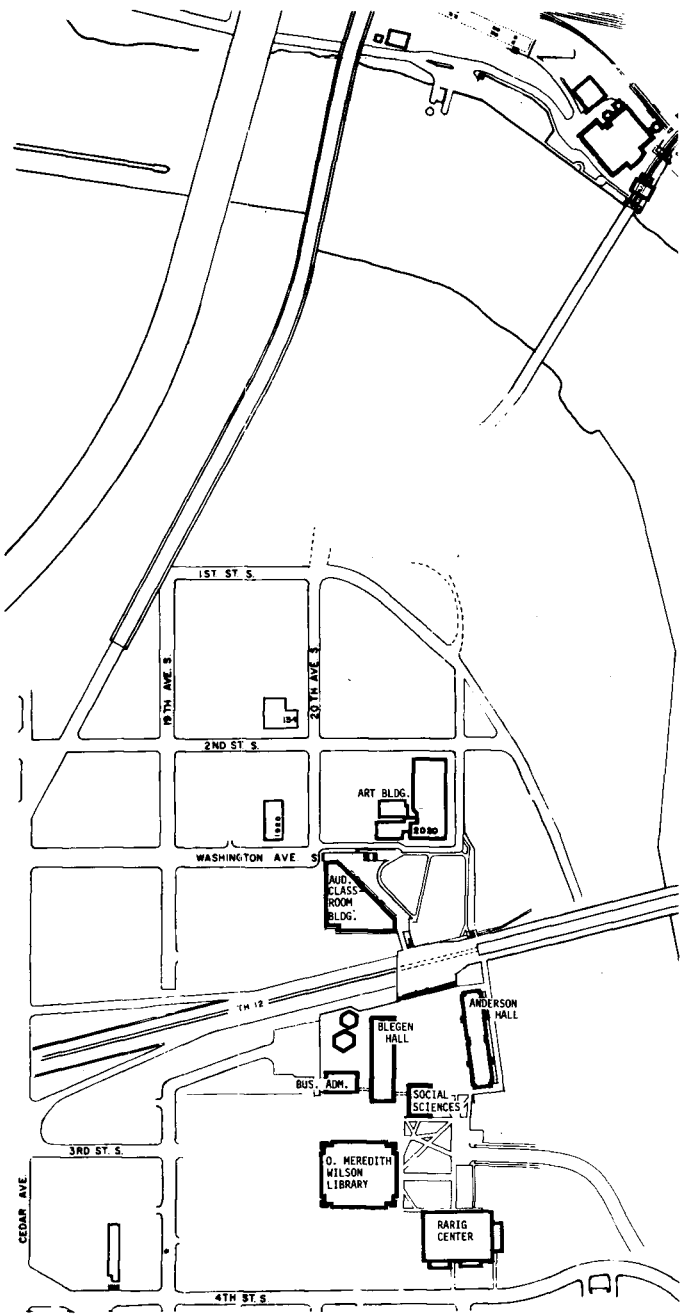
Soil, Soil Science
Span, Spanish
SpEd, Special Education
Spch, Speech-Communication
Swed, Swedish
TexC, Textiles and Clothing
Th, Theatre Arts
Tran, Transportation
VM, Veterinary Medicine
WoSt, Women's Studies
YoSt, Youth Studies

campus building abbreviations

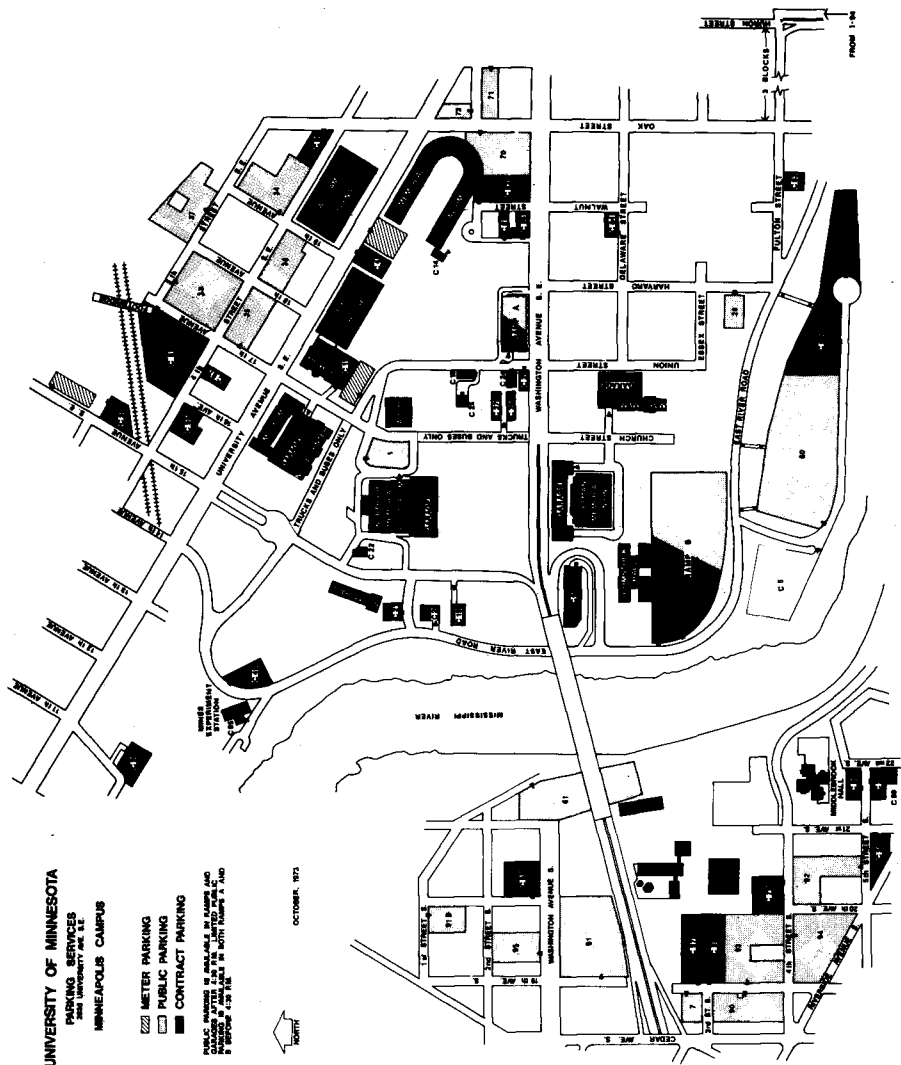
Aero, Aeronautical Engineering
AgEng(StP), Agricultural Engineering
AH, Appleby Hall
AlderH(StP), Alderman Hall
AndH, Anderson Hall
Arch, Architecture
Armory, Armory Bldg.
ArtB, Art Building (2020 Washington Ave. So., Minneapolis)
AudCB, Auditorium Classroom Bldg.
BA, Business Administration Bldg.
BFAB, Bierman Field Athletic Bldg.
BioSci(StP), Biological Sciences Center
BlegH, Blegen Hall
Bo, Botany
BoB, Botany (basement)
Bu, Burton Hall
CD, Child Development
CH, Cooke Hall
ChRC, Children's Rehabilitation Center
CMU, Coffman Memorial Union
CofH(StP), Coffey Hall
DiehlH, Diehl Hall
DinC(StP), Dining Center
EdH, Eddy Hall
Elth, Elliott Hall
EntFW(StP), Entomology, Fisheries, and Wildlife Bldg.
Ex, Experimental Engineering
FolH, folwell Hall
ForH, Ford Hall
FP(StP), Forest Products
FraH, Fraser Hall
FScN(StP), Food Science & Nutrition
HckrH(StP), Haecker Hall
HolB, Holman Building (2035 University Ave.)
Hr(StP), Horticulture (old building)
HrG(StP), Horticulture Greenhouse
HS, Health Service
HSUnitA, Health Sciences Unit A
Jach, Jackson Hall
JohH, Johnston Hall
Jones, Jones Hall
KlaCt, Klaeber Court
Kolth, Kolthoff Hall
LindH, Lind Hall
MacP, MacPhail Center (1128 LaSalle Ave., Minneapolis)
Mayo, Mayo Memorial Hospital
McNH(StP), McNeal Hall
MechE, Mechanical Engineering
MinMet, Mines & Metallurgy
MlrdH, Millard Hall
MMA, Mayo Memorial Auditorium
MNH, Bell Museum of Natural History
MRRRC, Mineral Resources Research Center
MSciL(StP), Meat Science Laboratory
MurH, Murphy Hall
MusEd, Music Education
NCCE, Nolte Center for Continuing Education
Norrish, Norris Hall
NH, Nicholson Hall
NMA, Northrop Memorial Auditorium
NorH(StP), North Hall
OMWL, O Meredith Wilson Library
Owre, Owre Hall
Peikh, Peik Hall
Ph, Tate Laboratory of Physics
PillsH, Pillsbury Hall
Poh, Powell Hall
PolDB, Police Department Bldg.
Pt, Pattee Hall
RarigC, Rarig Center
SBkSt, Smith Bookstore
Sch, Scott Hall
SciCB, Science Classroom Bldg.
ShopsB, Shops Bldg.
SmithH, Smith Hall
So(StP), Soils
SocSci, Social Sciences Bldg.
Stad, Stadium
StakH(StP), Stakman Hall of Plant Pathology
TNM, Temporary North of Mines
VetC(StP), Veterinary Clinic
VH, Vincent Hall
WaLib, Walter Library
WeH, Westbrook Hall
WuH, Wulling Hall
Z, Zoology



EAST BANK CAMPUS








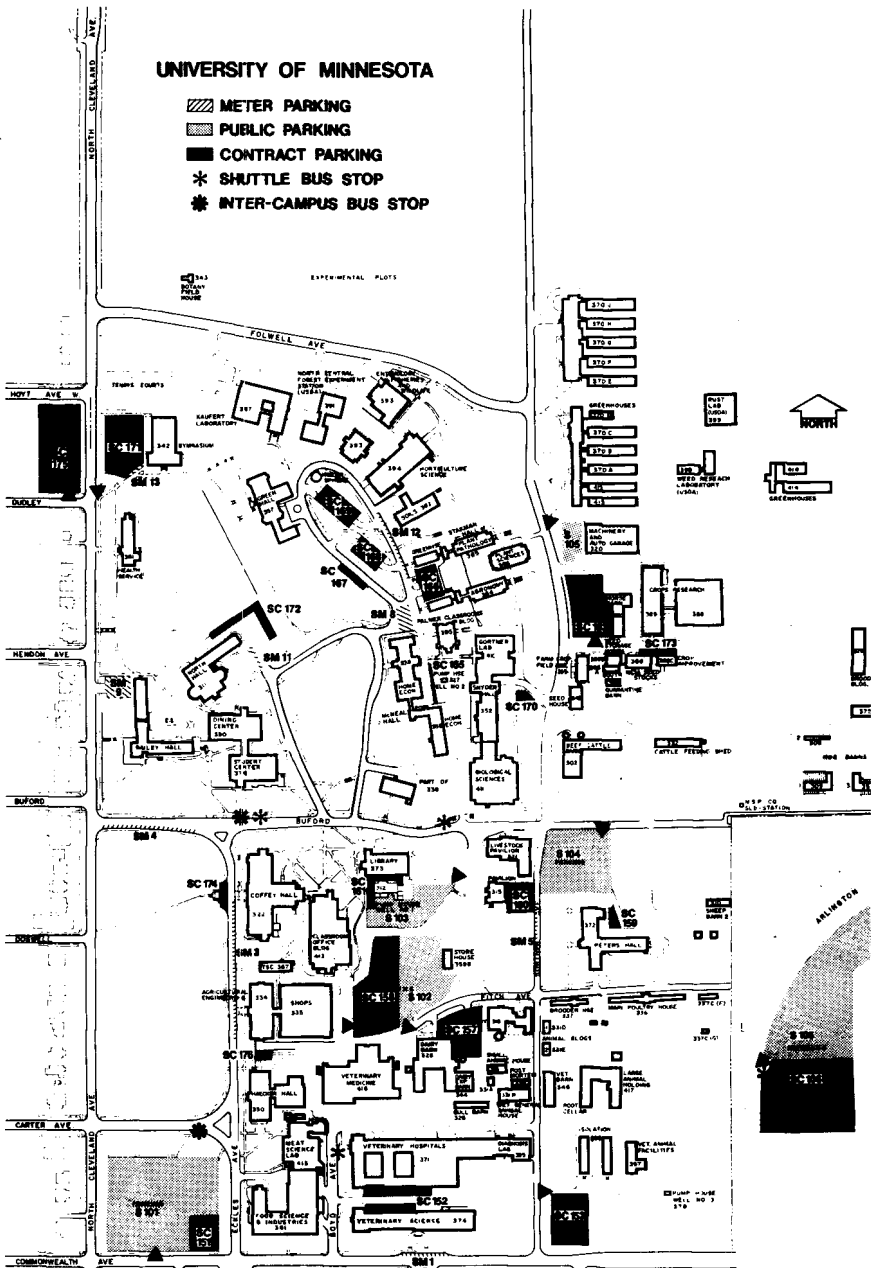
WEST BANK CAMPUS



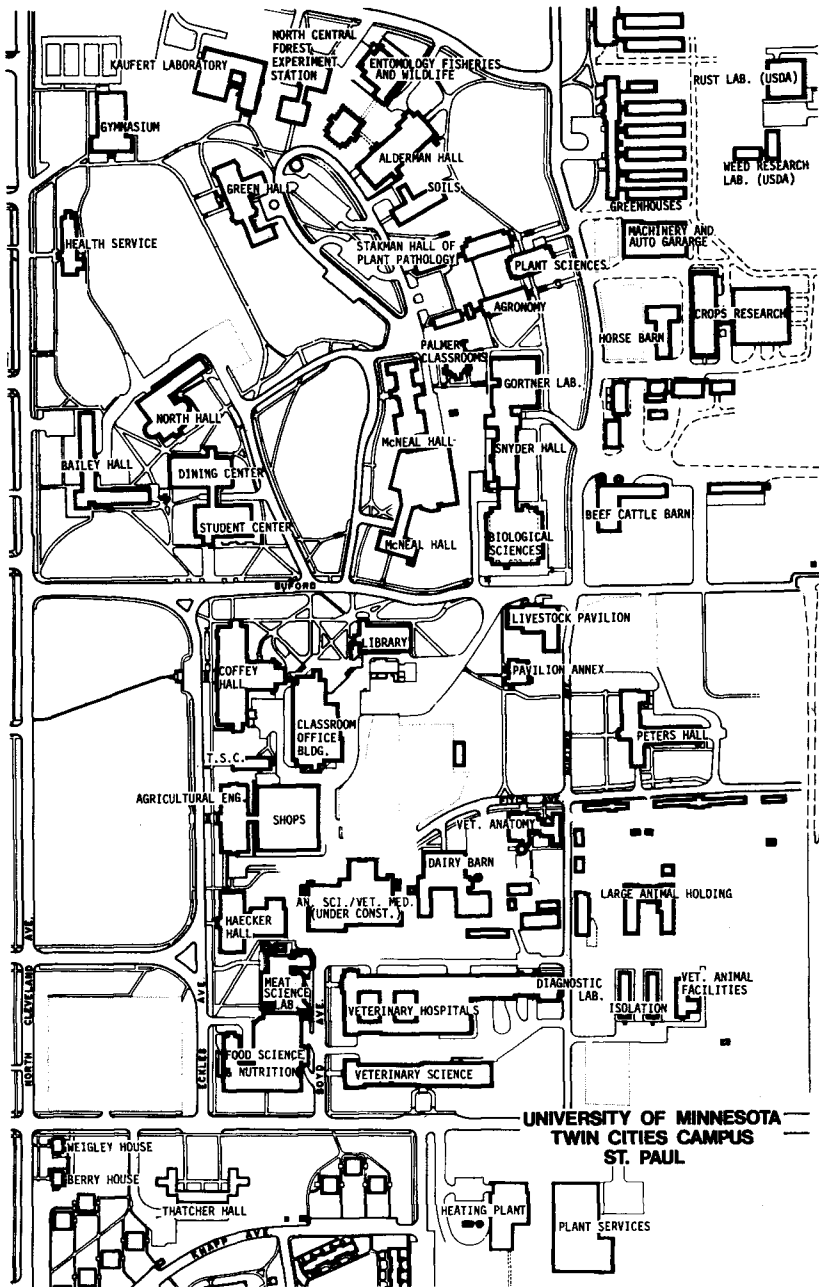
PARKING FACILITIES (East and West Bank)

UNIVERSITY OF MINNESOTA

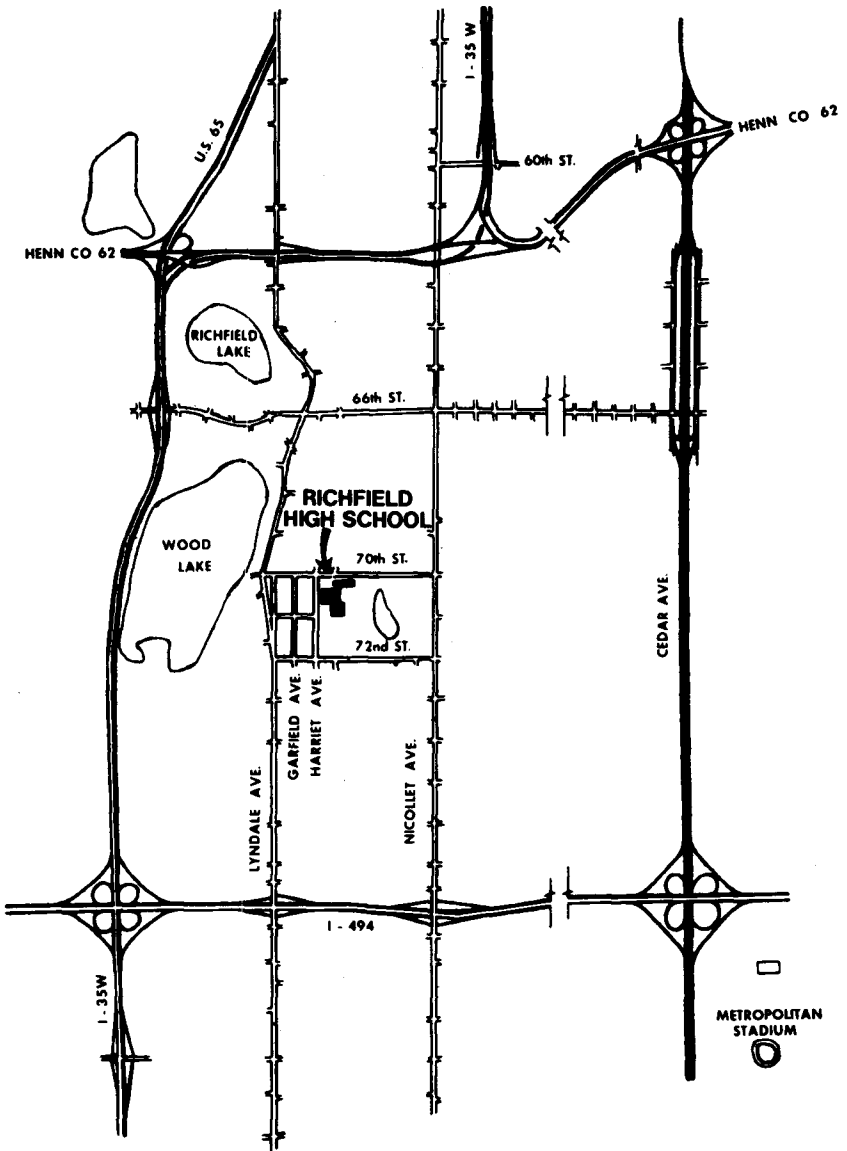
-  METER PARKING
-  PUBLIC PARKING
-  CONTRACT PARKING
-  SHUTTLE BUS STOP
-  INTER-CAMPUS BUS STOP



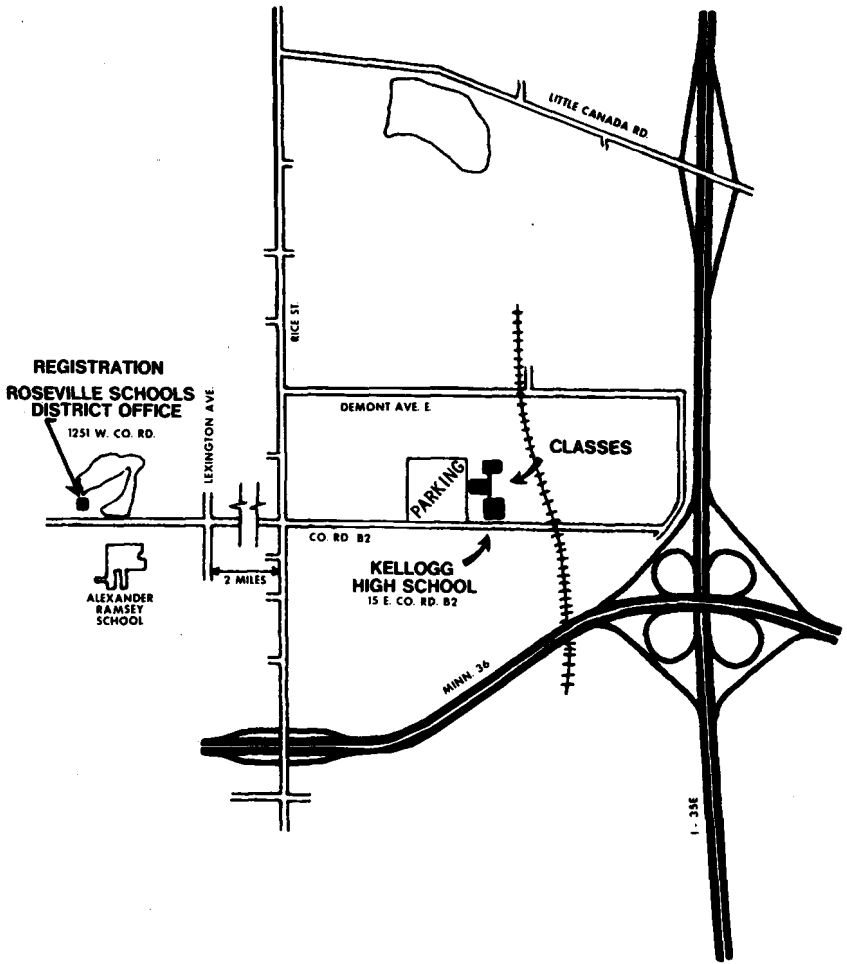
ST. PAUL CAMPUS PARKING



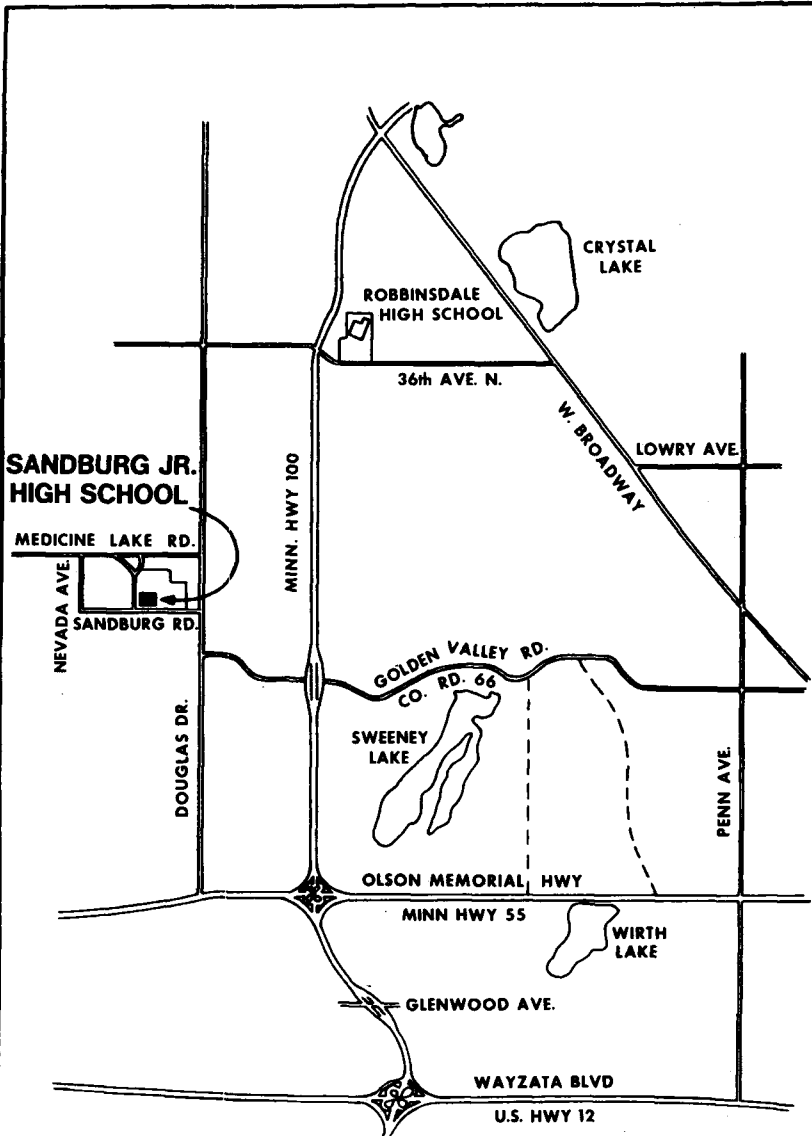
ST. PAUL CAMPUS MAP



RICHFIELD DISTRICT OFFICE
(Richfield Senior High School)



**ROSEVILLE DISTRICT OFFICE
(Kellogg Senior High School)**



CARL SANDBURG JUNIOR HIGH SCHOOL

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Summer '76



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Schedule of Terms

Fall Quarter	September 29- December 17
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Spring Semester	February 9- June 12
Spring Quarter	March 29- June 12

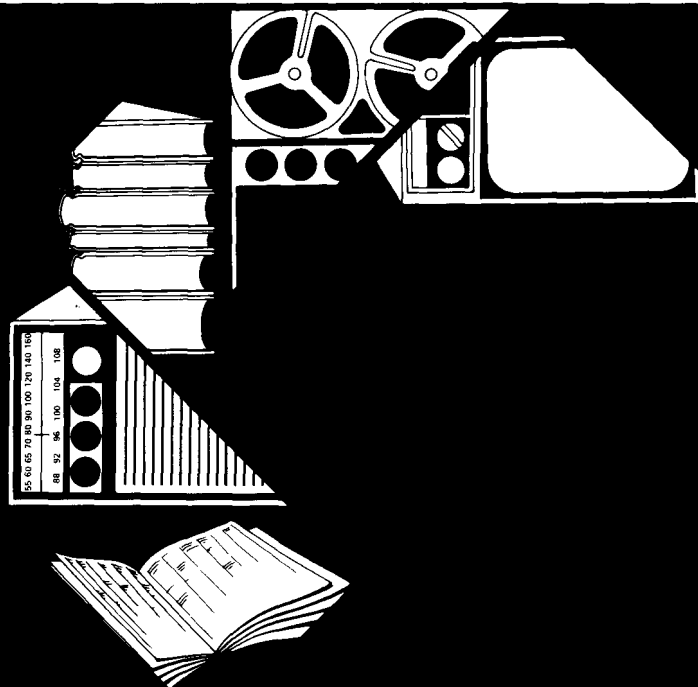
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UNIVERSITY OF MINNESOTA EXTENSION INDEPENDENT STUDY

1975-76 Bulletin



Continuing Education and Extension
UNIVERSITY OF MINNESOTA



LEARNING THROUGH INDEPENDENT STUDY

The Department of Independent Study is pledged to extend the resources of the University into the community. And in a way no other method can, independent study brings the University to the student by offering him the opportunity to study wherever he is, whenever he has the time. The process is simple: using a variety of media, students prepare assignments and submit them, along with any questions they may have, to their instructor. The instructor then evaluates the work, returning it promptly with his comments and the answers to any questions raised by the student. With their first exchange, student and instructor develop a personal relationship which often goes beyond course content and lasts long after the course is finished.

An essential quality of independent study is its flexibility: the student may enroll in a course at any time and work at his own pace; the instructor may modify a course for individual students according to their backgrounds, interests, and progress; an individual may carry on an educational program while earning a living, caring for a family, traveling, or participating in other activities.

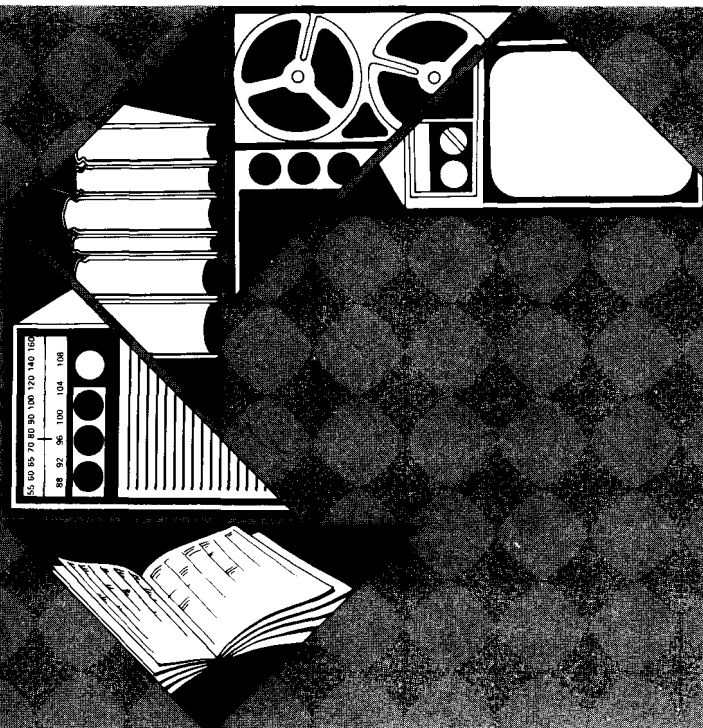
In return for such flexibility, independent study asks something from the student: motivation and self direction. Responsibility for individual progress lies completely with the student, and he is the one who decides upon and finally achieves or does not achieve his own educational objectives. For the student who can meet the challenge, the rewards are great: a truly satisfying and individualized learning experience.

Historically, what is now referred to as independent study was originally called "correspondence study." Highly successful in meeting the educational needs of millions of students, correspondence courses have, in the past, been shunned by many as too rigid, too difficult and somehow less prestigious than on-campus study. With the advent of new media and a greater understanding and respect for self-directed learning, however, the traditional correspondence course has blossomed into a better and more valuable learning tool than ever before. As a result, "Correspondence Study" departments all over the country (including Minnesota's) have changed their names to "Independent Study" to reflect both changes which have already taken place and a continuing emphasis on future innovation.

More than five million students in the United States today are enrolled in independent study through correspondence. For these people, independent study obviously *does* fill an educational need which they either cannot or do not wish to fill in any other way. It is for them that the University of Minnesota will continue to provide, as it has since 1909, quality independent study opportunities.

UNIVERSITY OF MINNESOTA EXTENSION INDEPENDENT STUDY

1975-76 Bulletin



Continuing Education and Extension
UNIVERSITY OF MINNESOTA





The idea that our major public universities have a clear responsibility to serve large numbers of people with diverse educational backgrounds and goals is not new. It has been at the heart of American public higher education for almost a century.

But while the University of Minnesota has long had the good fortune of providing educational services to hundreds of thousands of persons, we have only begun to see and appreciate the true potential in the area of continuing, or as I prefer to call it, lifelong education. When I say "we," I make no distinction between educators and students.

For many reasons—economic, demographic, and social—a growing number of Americans will enroll in these programs in the years immediately before us. This is encouraging primarily because it is an educationally stimulating development both for our institutions and for our students.

I look forward to the continued growth of the University of Minnesota's Continuing Education and Extension programs.

C. Peter Magrath

C. Peter Magrath
President,
University of Minnesota

Students who elect to continue their education through Independent Study are very special persons. They have a definite idea of what they want out of their educational experience. They are self-motivated enough to keep going with no set schedule but their own, and they are mature enough to work independently, with their instructor's guidance, on what interests them most. We're proud of our Independent Study students. Each is in a class by himself.

Harold A. Miller

Harold A. Miller
Dean,
Continuing Education and Extension



UNIVERSITY OF MINNESOTA

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The Board of Regents has committed itself and the University of Minnesota to the policy that there shall be no discrimination in the treatment of persons because of race, creed, color, sex, or national origin. This is a guiding policy in the admission of students in all colleges and in their academic pursuits. It is also a governing policy principle in University-owned and University-approved housing, in food services, and in student and staff services. This policy must also be adhered to in the employment of students either by the University or by outsiders through the University and in the employment of faculty and civil service staff.

HOW TO ENROLL IN INDEPENDENT STUDY

1. Read carefully the General Information section of this bulletin. You are responsible for all rules and information contained there, so it is to your advantage to read and understand it before enrolling.
2. Choose a course or courses for which you wish to enroll, and fill out the registration blank in the center portion of this bulletin. If you are working toward a degree or certificate and plan to apply credits earned through Independent Study toward that program, check before enrolling with your advisor, a college counselor, or the Extension Counseling Office, 314 Nolte Center, regarding the applicability of Independent Study credits to your particular specialization.
3. Send or bring in the completed registration blank, full or partial payment and, if applicable, out-of-state fee, payment for airmail postage and other information requested for special types of enrollment to:

Department of Independent Study
45 Wesbrook Hall
University of Minnesota
Minneapolis, MN 55455

Make checks or money orders payable to the University of Minnesota.

4. As soon as your enrollment is processed, you will receive lesson materials and a study guide listing the texts and materials necessary to complete your course. Obtain required texts and materials from your local library or bookstore, from the publishers, from the Nicholson Hall Bookstore (Room 7) on the Minneapolis campus of the university, or by mail from the Department of Independent Study. When ordering from the Department of Independent Study, be sure to use the book order form included with your lesson materials.
5. If you have any questions or comments about your instructor, the study guide, lesson procedures or other aspects of your course, please call or write the Department of Independent Study. Phone: (612) 373-3256.

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COURSE DESCRIPTIONS

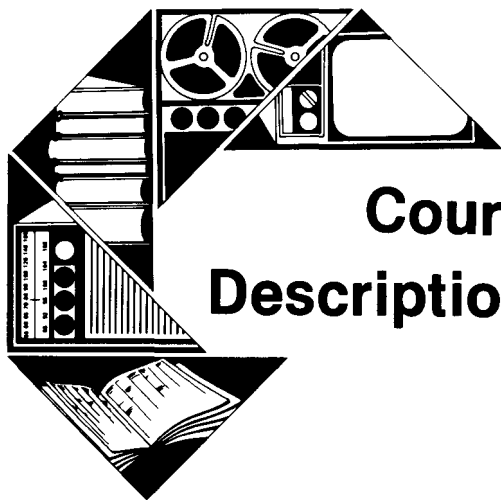
Courses in this bulletin are listed under departmental or subject headings, alphabetically arranged. Where several classifications are possible, cross references are given. Please refer to the index at the back of this bulletin for additional help in locating courses.

It is important to understand the course description format; it can help you choose the most appropriate course and will enable you to complete the registration form properly. A sample course description on page 58 indicates the information that may be found in all course descriptions listed in this bulletin. Additional information can be obtained by writing to the Department of Independent Study for an introduction to the study guide. The introduction provides complete information regarding course requirements, topics covered, grading procedures, textbooks, and examinations. The form used to request a study guide introduction is included in the back of this bulletin.

Sample Course Description

1	2	3	4	5	6	7	8
Engl 5261.	MILTON	(3692).	9 lessons	— \$60	— 4 degree credits	— text price \$11-13	— McNaron
9	Course covers the following poems: Comus, Lycidas, Areopagitica, Paradise Lost, and Samson Agonistes. (Prerequisite: Freshman English and 5 additional credits in English or consent of instructor)						

1. Department designation and course number (See Course Numbering).
2. Course title.
3. Department of Independent Study reference number (for office use only).
4. Number of lesson assignments to be submitted for evaluation (does not include examinations).
5. Tuition cost (at \$15 credit).
6. Number and kind (i.e., degree or certificate) of credits offered.
7. Approximate price of all required texts and materials.
8. Instructor's last name (for full name and title, see faculty list).
9. Description of course content and prerequisite, if any.



Course Descriptions

ACCOUNTING

Acct 1024. PRINCIPLES OF ACCOUNTING I (1524). 16 lessons — \$45 —

3 degree credits — text price \$15-17 — Lund

Recording, reporting and interpreting business events. Use of accounting as a tool of business management. Topics: financial statements; journal, ledger and trial balance; adjusting process; receivables, payables and interest; merchandise inventory; plant assets and intangibles.

Acct 1025. PRINCIPLES OF ACCOUNTING II (1525). 16 lessons — \$45 —

3 degree credits — text price \$19-21 — Lund

Continuation of Acct 1024. Topics: Control over cash; bank reconciliation; petty cash; voucher system, payroll records; partnership accounting; corporation accounting; manufacturing statements; process cost systems; job order cost systems; fund statement; cash-flow statement and financial statement analysis. (Prerequisite: Acct 1024 or introductory college accounting course)

Acct 1026. PRINCIPLES OF ACCOUNTING III (1526). 16 lessons — \$45 —

3 degree credits — text price \$11-13 — Lund

Use of accounting data in making managerial decisions. Topics: job order cost systems, manufacturing overhead variance; process cost accounting; standard cost accounting; variable costing; cost-volume-profit relationships; budget-sales-production relationships; financial planning; managerial decision making; capital investment decision making and price decision making. (Prerequisite: Acct 1025 or equivalent)

Acct 5135. INCOME TAX ACCOUNTING (1585). 14 lessons — \$60 —

4 degree credits — text price \$17-19 — Black

The more common and important provisions of the federal income tax system as applied to individuals and corporations. Begins with a consideration of which types of income are taxable and which are not. Consideration is then given to gains and losses, dividends, and deductions. (Prerequisite: Acct 1025, 1050, or equivalent)

Course Descriptions

ADOLESCENT PSYCHOLOGY

See Child Psychology

AEROSPACE ENGINEERING AND MECHANICS

AEM 3016. DEFORMABLE BODY MECHANICS (3237). 11 lessons — \$60 —
4 degree credits — text price \$16-18 — Moran

The determination of forces and moments on and within structures in static equilibrium. The concepts of stress and strain. Relations between stress and strain for elastic and other materials. Analysis of beam-like structures under axial, torsional, or transverse loading. An unusual grading system will be employed; to get a C, students need only pass short-answer quizzes on each lesson. Performance in problem solving, as evidenced in three one-hour exams, determines who gets A's and B's. (Prerequisite: Calculus through integration and partial derivatives)

AGRICULTURAL ECONOMICS

AgEc 3800. FARM RECORDS AND BUSINESS ANALYSIS (1080). 16 lessons — \$45 —
3 degree credits — text price \$11-13 — Nodland

Forms and procedures for recording inventories, cash receipts and expenses, crop acreages and yields, feed consumed by livestock, and other information concerning the farm business. Calculation of measures of farm earnings and factors affecting earnings.

AGRICULTURE

Please see the following departmental listings for course offerings:

Agricultural Economics

Animal Science

Entomology

Food Science and Nutrition

Horticultural Science

AMERICAN INDIAN STUDIES

AIn 1101. AMERICAN INDIAN HISTORY: A SURVEY (4730). 12 lessons — \$60 —
4 degree credits — text price \$7-9 — Voights

Indians in North America prior to white contact; Indian-white relations; development of federal Indian policy; persistence and change in American Indian cultures.

AMERICAN STUDIES

AmSt 1101. INDIVIDUALISM IN AMERICAN LIFE (1401). 14 lessons — \$60 —
4 degree credits — text price \$21-23 — Malmshemer

The core of American Studies 1101 is the study of individualism in America. Individualism, in the minds of some, is our most admirable national trait; in the minds of others, it is our most notorious. To acquire a critical understanding of this crucial issue in American culture, students will work with poetry, essays, fiction, historical documents, music, art, architecture, and the writings of both laymen and experts in economics, politics, sociology, and philosophy. In addition to providing ways of understanding individualism, the course is designed to introduce students to the use of materials from several disciplines as they relate to and illuminate a particular aspect of American culture.

AmSt 1102. RELIGION IN AMERICAN LIFE (1402). 14 lessons — \$60 —
4 degree credits — text price \$20-22 — Malmshemer

The most immediate aim of the course is to introduce the student to the study of religion in American thought and experience. To this end, materials from several disciplines will provide multiple perspectives on certain major currents in American belief systems which seem to have been particularly important in the development of American culture as a whole. The course's interdisciplinary approach will continuously allow students to raise questions about the interrelationships between these belief systems and developments in politics, economics, science, art, music and literature. **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

AmSt, AMERICAN SOCIETY IN THE MAKING (N143). \$60 — 4 degree credits

Examines some of the principal conditions affecting the development of American ideas and institutions. It focuses on the peopling of the North American continent, the changing configuration of the national landscape, the emergence of a political ideology for a free society, and the formation of a democratic political structure. All of these topics are discussed with particular attention to their bearing on the United States in 1976. **This course will be offered through selected Minnesota newspapers, Fall 1975.**

AmSt, THE MOLDING OF AMERICAN VALUES (N144). \$60 — 4 degree credits

Concentrates on the ways in which American values and assumptions about national character can be tested by a people's activities. It examines phases of America at work and at leisure, the nation's self-conceived role in the international scene, and the social institutions which have directed and shaped American character. The problems and realities of contemporary America are constantly raised or alluded to in this course. **This course will be offered through selected Minnesota newspapers, Winter 1976.**

ANIMAL SCIENCE

AmSc 1600. HORSE PRODUCTION (1041). 12 lessons — \$60 — 4 degree credits — text price \$13-15 — Jordan

Breeds and selection, inheritance and reproduction, nutrition and management of the weanling, mare and stallion; farriery, tack and equipment, diseases and health; and business aspects of stable management.

ANTHROPOLOGY

Anth 1002. INTRODUCTION TO ANTHROPOLOGY: CULTURAL ANTHROPOLOGY (1102).

22 lessons — \$75 — 5 degree credits — text price \$34-36 — Cohen
Study of cultures in all parts of the world, directed toward a broad understanding of how men view their world, cope with their environments, and organize their lives.

Anth 3211. INDIANS OF NORTH AMERICA (1180). 17 lessons — \$75 — 5 degree credits — text price \$14-26 — Cohen

Focuses on the traditional culture of the Indians of North and Middle America. A survey of native life-ways in different regions. Opportunities for student-selected in-depth study of specific cultures are also provided. Primary emphasis is on the Indian cultures prior to extensive contacts with Europeans, but some attention is also directed toward the history of Indian-white contact and toward the contemporary Indian living on reservations or in cities. (Prerequisite: Anth 1002)

Anth 5141. CULTURE AND PERSONALITY (1196). 15 lessons — \$75 — 5 degree credits — text price \$21-23 — Cohen

Roll of culture in formation of personality. Cross-cultural patterns of childrearing. Problems of individual adjustments to demands of culture. Psychological approach to culture. **A 5-credit revision of this course is now in preparation; you may enroll immediately in the 3-credit course described above or write for information on the new course.** (Prerequisite: Anth 1002)

ART HISTORY

ArH 1015. ART IN WESTERN CIVILIZATION (1205). 13 lessons — \$60 — 4 degree credits — text price \$14-16 — Waldfoegel

A concise history of Western art and culture. It is based on Sir Kenneth Clark's "Civilisation" films that were first shown by the British Broadcasting Corporation in the late sixties. The content of the thirteen films is provided verbatim in a text prepared by Sir Kenneth himself. Clark's text is profusely illustrated (partly in color), as is a second book that is employed in the course because of its excellence in establishing the historical settings of the works of art discussed by Clark.

ASTRONOMY

GC 1161. PHYSICAL SCIENCE: SOLAR ASTRONOMY (1312). 16 lessons — \$75 — 5 degree credits — text price \$15-17 — Policoff

Course Descriptions

An introductory survey of the solar system, including a study of the earth, planets, satellites, asteroids, comets and meteorites. Topics include the celestial sphere, coordinate systems, time intervals, motions and physical attributes of planets in the solar system, and instruments used by the astronomer. Observations of the night sky will be required.

GC 1162. PHYSICAL SCIENCE: STELLAR ASTRONOMY (1313). 15 lessons — \$75 —
5 degree credits — text price \$13-15 — Policoff

An introductory survey of the large scale structure of the universe including the definition of certain properties of stars, such as magnitude, luminosity and brightness. Topics include the sun, the spectral classification of the stars, clusters, nebulae, galaxies, quasars, cosmology and cosmogony. Observations of the night sky will be required. Knowledge of high school algebra helpful.

BEEKEEPING

See Entomology

BUSINESS ADMINISTRATION

Please see the following departmental listings for course offerings:

Accounting
Business Law
Business Studies (General College)
Industrial Relations
Insurance
Marketing
Real Estate

BUSINESS WRITING

See English Composition

BUSINESS LAW

BLaw 3058. INTRODUCTION TO LAW, AND THE LAW OF CONTRACTS AND AGENCY (1858).
12 lessons — \$60 — 4 degree credits — text price \$18-20 — Donnelly

Study of the origin of law, its place in and effect upon society; the history and development of law; the systems of courts; and legal procedure. An extensive study of the law of contracts as the basic law affecting business transactions. Also a study of law affecting the relationship between principal and agent, master and servant, and employer and employee. (Prerequisite: Econ 1002 or equivalent)

BLaw 3078. PARTNERSHIPS, CORPORATIONS, AND LAW OF REAL PROPERTY (1878).
12 lessons — \$60 — 4 degree credits — text price \$18-20 — Donnelly

A 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. Also a study of the basic concepts and principles of real property law; transfers of ownership, control of and encumbering such interests. (Prerequisite: BLaw 3058)

BLaw 3088. LAW OF PERSONAL PROPERTY, SALES CONTRACTS, COMMERCIAL PAPER, AND WILLS AND ESTATES (1888). 12 lessons — \$60 —
4 degree credits — text price \$18-20 — Donnelly

Study of the basic concepts of personal property, including rights of possessors, bailee, finders and holders of security interests. An extensive study of the law affecting sales of goods contracts and contracts referred to as commercial papers (negotiable instruments), with emphasis on effect of the Uniform Commercial Code. Concludes with a brief study of the law of wills and estates in passing rights to property in event of death. (Prerequisite: BLaw 3058)

BUSINESS STUDIES (General College)

Also see Data Processing

GC 1511. INTRODUCTION TO MODERN BUSINESS (1616). 15 lessons — \$75 —

5 degree credits — text price \$11-13 — Hower

Intended for both business and general education; provides an overview of economic environment in which business operates. Major functions of a business organization are surveyed, including production, finance, personnel, and marketing. A useful introductory course for students planning to do more work in business, but also recommended for those who want to survey the field without studying it in detail.

GC 1513. PRINCIPLES OF SMALL BUSINESS OPERATIONS (1617). 14 lessons — \$60 —

4 degree credits — text price \$14-16 — Ludlow

Designed for those who plan to purchase or begin some form of small business in a marketing-related field; i.e., non-manufacturing. The course revolves around the basic areas of inquiry necessary to start the business. Topics include: identification of the market and business location, organizational structure and management of employees, financial resources and projecting financial needs, record keeping, and developing advertising-promotional plans. The approach used is to familiarize the student with resources available to aid him in making decisions to open the business. The student will complete all assignments relating to a business area of his choosing. Essentially, completion of assignments involves the investigation of various resources to aid in making the decisions and the following of logical steps necessary to open a business operation.

GC 1537. SALESMANSHIP (1621). 10 lessons — \$45 —

3 degree credits — text price \$8-10 — Goodnough

Designed for the student in a sales position or interested in a sales career. Topics include attitudes, knowledge, and skills needed for success in selling; consumer motivation; pre-sales planning and approach; determining wants and needs; answering objections and completing the sale. Emphasis is on a customer-oriented approach using a problem-solving method. (Concurrent employment in a selling or sales related occupation is recommended but not required)

GC 1731. CONSUMER PROBLEMS (1618). 17 lessons — \$75 —

5 degree credits — text price \$11-13 — Kroll

Consumer Problems is for anyone who feels the need to improve his understanding of how our economy functions, what challenges he faces, and what can be done to function more efficiently in our marketing-oriented system. The assignments include reading, field work, and writing, and they will help the student: 1. identify consumer problems and where to get help in dealing with them; 2. understand how the marketing system affects the consumers' ability to make appropriate decisions; 3. develop skill in managing his time and budgeting financial resources; and, 4. make decisions in such specific purchasing areas as food, housing, insurance, saving, etc. **This course is now in preparation; please inquire before enrolling.**

CHILD PSYCHOLOGY

Also see Psychology

CPsy 3301. CHILD PSYCHOLOGY (8280). 14 lessons — \$60 —

4 degree credits — text price \$10-12 — Dickison

Designed to provide an understanding of children and their development, the methods used by child psychologists, and the critical evaluation of research. Topics include: personality and social behavior, biological bases and cognitive development, and the work of Jean Piaget. (Prerequisite: 5 credits introductory psychology)

CPsy 5303. ADOLESCENT PSYCHOLOGY (8281). 13 lessons — \$60 —

4 degree credits — text price \$14-16 — Keating

Survey of the behavior and psychological development of the adolescent, including: biological considerations, cognition and creativity, moral development, parent-child relations, peers, ego identity, sexual development, school adjustment, social-cultural considerations, and the adolescent subculture. (Prerequisite: 5 credits introductory psychology)

Course Descriptions

CHINESE

See East Asian Languages

CIVIL ENGINEERING

CE 0001C. SOILS ENGINEERING (2855). 13 lessons — \$60 —

4 certificate credits — text price \$14-16 — Kersten

Intended for engineers and students who wish to become familiar with the basic principles of soil behavior. Texture and mechanical analysis; weight-volume-moisture relationships; compaction; soil constants and engineering classification. Permeability; shear strength; stresses due to boundary loads. Lateral pressures; compressibility and consolidation; frost action. **This course is now in preparation; please inquire before enrolling.**

CE 0302C. CONCRETE AND CONCRETE MATERIALS (2896). 16 lessons — \$45 —

3 certificate credits — text price \$4-6 — Skok

Includes a study of materials from which concrete is made, methods of designing a concrete mixture, the principles of air-entrained concrete, methods of measuring and controlling the air content, the chemical constitution of cement, properties of concrete, the practical aspects of proportioning, mixing, placing and curing concrete and other special related topics. (Prerequisite: basic knowledge of algebra, physics, and chemistry)

CLASSICS

Classics

Clas 1048. TECHNICAL TERMS OF SCIENCE, MEDICINE, AND THE HUMANITIES (5248)

16 lessons — \$45 — 3 degree credits — text price \$1 — Bisel

Presentation in English contexts of Greek and Latin prefixes, suffixes, and root words in modern technical vocabularies; special attention to medical terminology. No previous study of Greek or Latin required.

Clas 3071. RELIGION IN ANTIQUITY: GREEK, HELLENISTIC (5249). 15 tapes — \$60 —

4 degree credits — text price \$15-17 — audio tape price \$22.50 — Wigtil

The course will focus on the Greek religion of the Archaic, Classical and Hellenistic periods. Some of the specific topics which will be examined include: Death, Sexuality, Time, Heroes, Goddesses, and Rituals. These topics will be examined in the broader context of the non-Greek religions and philosophies of that period. See **Tapes and Tape Recorders** for information on securing a cassette recorder.

Greek

Grk 1101. BEGINNING CLASSICAL GREEK I (5901). 15 lessons — \$75 —

5 degree credits — text price \$9-11 — Carveth

An introduction to Homeric and Classical Greek language: alphabet, vocabulary, and idioms. Selected readings from *Iliad* and *Odyssey* of Homer and Classical Greek selections of moderate difficulty. Written translation exercises, oral exercises, and introduction to scansion and meter. After the successful completion of two courses in Homeric Greek, the student may continue readings in the *Iliad* and *Odyssey*, or go on to Classical Drama, Hesiod, Xenophon, The New Testament, etc.

Grk 1102. BEGINNING CLASSICAL GREEK II (5903). 15 lessons — \$75 —

5 degree credits — text price \$10-12 — Carveth

This course is a continuation of Grk 1101, an introduction to Homeric and Classical Greek language. Included in the course are a review of materials covered in Grk 1101, completion of the Greek grammar, readings from the *Iliad* and *Odyssey*, and a transition to the Attic Greek dialect. Completion of this course should enable the student to read Homeric Greek, Classical Greek, and New Testament Greek with the aid of a dictionary. **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Latin

Lat 1101. BEGINNING LATIN I (6201). 15 lessons — \$75 —

5 degree credits — text price \$10-12 — Benson

Basic grammar and vocabulary, practice in reading and writing Latin, workbook exercises, easy Latin readings and Roman legends.

Lat 1102. BEGINNING LATIN II (6207). 17 lessons — \$75 —

5 degree credits — text price \$10-12 — Benson

Continuation of Lat 1101. Similar in content and method, leading to connected reading in *Fabulae Faciles* (Easy Stories). (Prerequisite: Lat 1101 or equivalent)

Lat 1103. BEGINNING LATIN III (6208). 15 lessons — \$75 —

5 degree credits — text price \$10-12 — Benson

A review of the elements of Lat 1101 and 1102, with a shift of emphasis to longer passages of continuous reading on Roman life. A considerable amount of historical and literary background is presented in English to orient the student to the material. (Prerequisite: Lat 1102 or equivalent)

Lat 1104. LATIN READINGS (6209). 15 lessons — \$75 —

5 degree credits — text price \$5-7 — Adams

Selections from Cicero, Livy and Ovid will be read. In addition to the review of Latin grammar which will be incorporated in the readings, the selections will familiarize the student with the legends of Rome's founding and early heroes, the defeat of her army by Hannibal at Cannae, the first important speech of her most brilliant orator, Cicero, and his correspondence after the assassination of Julius Caesar, and Ovid's poetic interpretation of several Greek myths. Literary and historical background material is provided in English with each lesson. **This course is now in preparation; please inquire before enrolling.**

Lat 3471. CICERO (6206). 16 lessons — \$45 —

3 degree credits — text price \$2-4 — Brauch

Readings from the most famous humanistic essays (Prerequisite: Lat 1103 or equivalent)

COMPOSITION

See English Composition

DATA PROCESSING

GC 1535. INTRODUCTION TO DATA PROCESSING (1966). 9 lessons — \$45 —

3 degree credits — text price \$18-20 — Folz

Designed to acquaint students with fundamentals of data processing. The following topics are covered: history of data processing; computer and data processing terminology; description and structure of computers; number systems; description, characteristics, data format, and applications of secondary storage devices; block diagramming; elementary programming in **BASIC** and **COBOL**; systems analysis in accounts receivable, payroll and invoicing.

GC 1572. INTRODUCTION TO BLOCK DIAGRAMMING AND PROGRAMMING (1972).

14 lessons — \$75 — 5 degree credits — text price \$13-15 — Folz

Designed to provide an orientation to the technique of problem definition and analysis, including the formulation and use of a block diagram (flow chart). Programming techniques such as switches, branching, and use of input/output devices are examined. Also emphasized are basic elements of computers such as computer number systems, languages, various storage devices, their use in specific applications, and how they are linked to the computer. (Prerequisite: GC 1535 or equivalent, or consent of instructor)

DESIGN

Dsgn 1525. DESIGN I (2001). 10 lessons — \$45 —

3 degree credits — text price \$16-18 — Selkurt

Principles of design applied to a series of interesting and practical problems using a variety of

Course Descriptions

techniques: a basic course useful in elementary or junior high school teaching and as a foundation for other art courses.

EAST ASIAN LANGUAGES

Chinese

Chin 1101. BEGINNING CHINESE I (5501). 20 lessons — \$75 —

5 degree credits — text price \$15-17 — Na

Prepares for the reading and speaking of conversational Chinese. Introduces 312 characters and the basic structure of the Chinese sentence. A series of cassette tapes, corresponding to the lessons, is provided.

Chin 1102. BEGINNING CHINESE II (5502). 17 lessons — \$75 —

5 degree credits — text price \$15-17 — Na

A continuation of Chin 1101. Basic grammatical points and paragraph structures. Introduces 329 new characters. (Prerequisite: Chin 1101)

Chin 1103. BEGINNING CHINESE III (5503). 15 lessons — \$75 —

5 degree credits — text price \$20-22 — Na

A continuation of Chin 1102. Final five lessons study simplified characters used today in mainland China. (Prerequisite: Chin 1102)

Chin 3501. ASIAN CIVILIZATION: CHINA (5520). 16 lessons — \$45 —

3 degree credits — text price \$11-13 — Na

A course of readings to introduce students to selected materials in the fields of Chinese history, philosophy, religion, literature and art. Students are required to submit brief essays on specific problems designed to focus on the dynamics of Chinese intellectual history. A longer paper at the end of the course is also required.

Japanese

Jpn 1011. BEGINNING JAPANESE I (6101). 20 lessons — \$75 —

5 degree credits — text price \$10-12 — Matsumoto

An introduction to reading and writing modern Japanese. Provides the basic grammar and vocabulary for learning to read modern fiction, newspapers, magazine styles, and for learning conversational Japanese.

Jpn 1012. BEGINNING JAPANESE II (6102). 18 lessons — \$75 —

5 degree credits — text price \$10-12 — Matsumoto

A continuation of Jpn 1011, with greater emphasis on composition. (Prerequisite: Jpn 1011 or equivalent)

Jpn 1013. BEGINNING JAPANESE III (6103). 12 lessons — \$75 —

5 degree credits — text price \$10-12 — Matsumoto

A continuation of Jpn 1012. (Prerequisite: Jpn 1012 or equivalent)

ECOLOGY

See Forestry

ECONOMICS

Also see Agricultural Economics

Econ 1001. PRINCIPLES OF MACROECONOMICS (2101). 14 lessons — \$60 —

4 degree credits — text price \$18-20 — Gupta

Economic principles and their relation to the functioning of the economy. Topics covered include gross national product with its measurement, components, and weaknesses, government fiscal policy, monetary policy and the creation of money, the coordination of monetary and fiscal policy, international economics, and an introduction to wage-price controls.

Econ 1002. PRINCIPLES OF MICROECONOMICS (2102). 13 lessons — \$60 —

4 degree credits — text price \$18-20 — Puri

Principles of underlying economic activity and the way these principles work through the different market structures of American Capitalism. Demand and supply, competition and monopoly, the price system and its operation, and the pricing and employment of economic resources are also examined.

Econ 3102. MACROECONOMIC THEORY (2166). 14 lessons — \$60 —

4 degree credits — text price \$14-16 — Tansel

Income and employment. Determinants of national income, employment, and price level, with particular attention to aggregate consumption and investment. (Prerequisite: Econ 1001 or equivalent)

Econ 3751. MONEY AND BANKING (2167). 13 lessons — \$60 —

4 degree credits — text price \$22-24 — Tansel

Money, banks, and financial intermediaries as economic institutions; the mechanics of monetary transactions; the value of money; international monetary relationships; issues relating to monetary policy. (Prerequisite: Econ 3102 or equivalent)

Econ 5534. ECONOMIC SECURITY (2183-K211). 13 lessons — \$60 —

4 degree credits — text price \$9-11 — Turnbull, Williams

Origins and development of economic and social problems of the individual worker, public and private attempts to deal with these issues; economic and social implications. (Prerequisite: Econ 3501 — Labor Economics, or Econ 3551 — Labor Economics, or equivalent, or consent of instructor) **This course is available as a correspondence course, will be available on KUOM Radio 770, Fall 1975, and as an audio cassette course, Winter 1976. Students may not receive credit for both Econ 5534 and Ins 3210.**

Econ 5537. LABOR MARKET BEHAVIOR AND REGULATION (2173). 16 lessons — \$60 —

4 degree credits — text price \$12-14 — Turnbull

Employer-employee-union relationships and their social control; legislative, executive, and judicial attempts to deal with these issues; economic and social implications. (Prerequisite: Econ 3501 — Labor Economics, or Econ 3551 — Labor Economics, or equivalent, or consent of instructor)

EDUCATION

Also see Child Psychology; Recreation and Park Administration

Elementary Education

EIEd 3355. (Duluth) TEACHING MATHEMATICS — ELEMENTARY (2698). 16 lessons — \$45 —

3 degree credits — text price \$21-23 — H. Johnson

Present practices and trends in methods, materials, and curriculum development; principles of learning, with emphasis on discovering techniques and meaningful approaches to operations with numbers; evaluation and diagnosis of difficulties, problem solving. (Prerequisite: 9 credits in education)

History and Philosophy of Education

HEd 1004. INTRODUCTION TO PHILOSOPHY OF EDUCATION (2604). 21 lessons — \$60 —

4 degree credits — text price \$3-4 — Nordberg

A study of the ideas influencing contemporary education in the United States. An effort will be made to show how these ideas might influence the day-to-day work of the teacher. Helps teachers clarify their thinking in respect to the many conflicting viewpoints in educational philosophy.

Course Descriptions

Hed 3090. THE SCHOOL AND SOCIETY (2690). 9 lessons — \$45 —

3 degree credits — text price \$17-19 — Dupuis

Readings in social science and philosophy give the student an opportunity to integrate points of view in thinking about the role of the school in present-day society. (Prerequisite: 135 quarter credits or equivalent)

Hed 5141. CRITICAL ISSUES IN CONTEMPORARY EDUCATION (2691). 9 lessons — \$45 —

3 degree credits — text price \$12-14 — Dupuis

The principal aim is to answer the following question: What are the outstanding points of view in education today? Such practical questions as discipline, freedom, indoctrination, teacher-pupil relations, and progressive methods will be treated as they relate to underlying theory; but the central objective will be to appreciate the crucial agreements and differences among leading thinkers in contemporary education.

Psychological Foundations of Education

PsyF 3102. INTRODUCTION TO STATISTICS (2660). 16 lessons — \$45 —

3 degree credits — text price \$12-14 — Giese

Elementary statistical methods and their application to behavioral science and educational problems. The commonly used statistical terms and methods such as mean, median, mode, percentiles, graphs, standard deviation, correlation, standard scores, and test analysis are considered. An attempt is made to give the student a thorough understanding of statistics, including an introduction to inferential statistics. Emphasis is placed on the intelligent use of statistical methods so that the student may interpret behavioral science data correctly. (Prerequisite: 6 credits in psychology or permission of instructor)

ELEMENTARY EDUCATION

See Education

ENGINEERING

Please see the following departmental listings for course offerings:

Aerospace Engineering and Mechanics

Civil Engineering

Industrial Engineering/Operations Research

ENGLISH

Composition

Comp 0001. PREPARATORY COMPOSITION (3500). 16 lessons — \$45 —

no credit — text price \$17-19 — Malmshaimer

Intensive drill on grammatical forms, structure, and theme writing. Recommended for those whose primary need is organization and development of themes; any passing grade admits students to Comp 1001.

Comp 0002. GRAMMAR REVIEW (3505). 11 lessons — \$30 —

no credit — text price \$5-7 — O'Connell

A step-by-step review and explanation of grammatical forms, punctuation, spelling, and vocabulary. Recommended for anyone who needs to start with English composition fundamentals, or for the student who requires a thorough review of grammar. Additional exercises provided when lessons indicate the student should do extra work. No theme or letter writing required in this course.

Comp 0011. THE WRITING OF POETRY (3509). 12 lessons — \$30 —

no credit — text price \$27-29 — Carson

The student will be given an opportunity to write both traditional and free verse. The student's work will be evaluated by the instructor. Designed to develop an appreciation of poetry and the student's ability in the writing of poetry. (Prerequisite: consent of instructor)

Course Descriptions

Comp 0012. THE ADVANCED WRITING OF POETRY (3510). 12 lessons — \$30 —
no credit — text price \$27-29 — Carson

The student will have complete independence to submit work for evaluation by the instructor. Designed to provide the student with a sympathetic yet critical appraisal of his work. (Prerequisite: consent of instructor)

Comp 0017. INDEPENDENT WRITING (3580). 16 lessons — \$45 —
no credit — no required text — Malmshaimer

Consists of manuscript criticism. There are no assignments or lesson materials. Intended for advanced students who want criticism and suggestions on their own projects. The instructor will read approximately 16,000 words divided into lessons as the student wishes. Poetry is not covered in the course. S-N grading only. (Prerequisite: consent of instructor)

Comp 0018. SHORT MANUSCRIPT CRITICISM (3581). 6 lessons — \$15 —
no credit — no required text — Malmshaimer

There are no assignments or lesson materials. The student submits up to 8,000 words for criticism and suggestions. The maximum of 8,000 words may be in one to six submissions. S-N grading only.

Comp 1001. INTRODUCTORY COMPOSITION (3511). 12 lessons — \$60 —
4 degree credits — text price \$10-12 — Meyer and Galle

Concentrates on developing the student's skill in expository writing through a close examination of the principles of organization, coherence, and unity, particularly at the paragraph level. Subject matter for essays drawn chiefly from student's personal experience. (The English Placement Test is available to students who wish to test their level of competency, but the test is not a prerequisite for enrollment in Comp 1001)

Comp 1002. INTRODUCTORY COMPOSITION (3512). 10 lessons — \$60 —
4 degree credits — text price \$15-18 — Meyer and Galle

Continuation of Comp 1001 with emphasis on style, tone, and such larger strategies as argumentation and analysis. Subject matter for essays drawn from assigned readings of non-fictional prose. (Prerequisite: Comp 1001) **This course is now in preparation; please inquire before enrolling.**

Comp 1027. INTERMEDIATE COMPOSITION: EXPOSITION (3527). 12 lessons — \$60 —
4 degree credits — text price \$14-16 — Klemz

Mastery of the techniques of expository writing. Attention to rhetorical modes, logic, and organization; analysis of assigned essays to develop skill in critical reading; emphasis on reader awareness, language, and style. (Prerequisite: Freshman English or equivalent)

GC 1531. BUSINESS WRITING (3513). 14 lessons — \$60 —
4 degree credits — text price \$14-16 — Warren

A course in effective business writing, emphasizing the relationship between creative writing and successful management; the course will focus on various challenging business situations, all calling for a knowledge of human needs and the ability to write complete, concise, clear, correct, and convincing business letters, memorandums, and informal reports. In writing, the student will learn to understand and use aspects of human psychology, tone, correct letter, memorandum, and report formats, and the fundamentals of grammar, punctuation, and sentence structure.

Literature

GC 1374. LITERATURE OF THE THEATRE: FILM AND DRAMA (3605). 15 lessons — \$60 —
4 degree credits — text price \$10-12 — Warren

This course examines the art of film and drama in order to develop in the student an appreciation of the film and the play as art forms and as media of communication. The student will read selected plays by major playwrights and view films on television and/or in film theatres. He will study basic differences between film and drama, the elements of cinematography, and the elements of plot structure in plays; furthermore, he will receive practice in the writing of shooting scripts and film and drama review. The student, therefore, should have access to television, a film society, or a film theatre. **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Engl 1016. INTRODUCTION TO AMERICAN LITERATURE: SOME MAJOR FIGURES AND THEMES

(3671). 12 lessons — \$60 — 4 degree credits — text price \$14-16 — Griffin
Examination of a few selected themes that recur in American writing. Not a survey of literary history. Main emphasis on the fate of innocence in American fiction with some attention to the ways several writers treat the problem of establishing a distinctively "American" identity. (Prerequisite: Freshman English or equivalent)

Engl 1018. INTRODUCTION TO MODERN LITERATURE: PROSE FICTION (3638).

16 lessons — \$60 — 4 degree credits — text price \$15-17 — Basham
The British and American novel in the 20th century: Dreiser, Lawrence, Joyce, Huxley, Faulkner, Hemingway, Steinbeck, Cary, and Bellow. (Prerequisite: Freshman English or equivalent)

Engl 1821. INTRODUCTION TO LITERATURE I (3621). 15 lessons — \$60 —

4 degree credits — text price \$9-11 — Warren
A chronological study of the leading English writers in poetry and prose and of their historical backgrounds, including an introduction to types of literature and literary ideas. The complete sequence of three terms (1821, 1822, 1823) begins with Chaucer and ends with Arnold. Some knowledge of English history from Edward III to Victoria is required. English 1821 includes: Chaucer, Marlowe, Spenser, Shakespeare, and Milton. (Prerequisite: Freshman English or equivalent)

Engl 1822. INTRODUCTION TO LITERATURE II (3622). 23 lessons — \$60 —

4 degree credits — text price \$10-12 — Grant
Continuation of Engl 1821. The Restoration and the 18th century. Pope, Swift, Addison and Steele, Johnson, Boswell, Fielding, and Sheridan. (Prerequisite: Freshman English or equivalent)

Engl 1823. INTRODUCTION TO LITERATURE III (3623). 27 lessons — \$60 —

4 degree credits — text price \$9-11 — Grant
Continuation of Engl 1822. The Romantic movement and the Victorians. Wordsworth, Coleridge, Byron, Shelley, Keats, Carlyle, Tennyson, Browning, and Arnold. (Prerequisite: Freshman English or equivalent)

Engl 3241. SHAKESPEARE I (3655). 16 lessons — \$60 —

4 degree credits — text price \$14-16 — Shaw
The development of Shakespeare's dramatic art is traced chronologically from the earliest plays to two of the mature tragedies. The student becomes familiar with the various types of Shakespeare's drama: comedy, tragedy, and history. (Prerequisite: Freshman English or equivalent and 5 additional credits in English, or consent of instructor)

Engl 3242. SHAKESPEARE II (3656). 16 lessons — \$60 —

4 degree credits — text price \$14-16 — Shaw
Continuation of Engl 3241. Shakespeare's later career from 1600 to 1611. Tragedies, romantic comedies, romances, and one problem comedy. (Prerequisite: Engl 3241 or consent of instructor)

Engl 3411. AMERICAN LITERATURE I (3672). 16 lessons — \$60 —

4 degree credits — text price \$16-18 — Kurak
The development of American literature and thought from the beginnings through the early American Renaissance. Authors studied include some from the colonial and early national periods and such major figures as Poe, Emerson, Melville and Hawthorne. (Prerequisite: completion of Freshman English requirement or equivalent and 5 additional credits in English, or consent of instructor)

Engl 3412. AMERICAN LITERATURE II (3673). 16 lessons — \$60 —

4 degree credits — text price \$22-24 — Kurak
Continuation of Engl 3411. American literature from the American Renaissance to the end of the 19th century. Among the authors studied are Thoreau, Whitman, Dickinson, Twain, James and Crane. (Prerequisite: Engl 3411 or consent of instructor)

Engl 3413. AMERICAN LITERATURE III (3674). 16 lessons — \$60 —

4 degree credits — text price \$12-14 — Kurak
Continuation of Engl 3412. American literature from the end of the 19th century to the 1960's. Authors studied include Dreiser, Frost, Eliot, O'Neill, Cather, Fitzgerald, Faulkner, and Hemingway, as well as a selection of contemporary poets. (Prerequisite: Engl 3411 or consent of instructor)

Course Descriptions

Engl 5153. TWENTIETH CENTURY ENGLISH NOVEL (3660). 15 lessons — \$60 —

4 degree credits — text price \$13-15 — P. Reed

A study of the British novel in the 20th century, emphasizing some of its main ideas, techniques, and relationships to the history of the novel. Selected authors of historical or representative importance include Forster, Joyce, Lawrence, Woolf, Waugh, Cary, Amis, Sillitoe, Murdoch and Burgess. **This course is now in preparation; please inquire before enrolling.**

Engl 5221. CHAUCER (3675). 21 lessons — \$60 —

4 degree credits — text price \$9-11 — Ferris

A study of **The Canterbury Tales** of Geoffrey Chaucer, the last and greatest work of the first major English poet. The course emphasizes Chaucer's varied artistry in characterization, narrative, and humor, his presentation and criticism of the society he lived in, and his relation to the great authors, such as Dante and Shakespeare, who preceded and followed him. Opportunity is given for additional reading and original critical writing. The reading is done in the original early English, but only such emphasis is put on the language as serves to illuminate the quality and meaning of the poetry.

Engl 5261. MILTON (3692). 9 lessons — \$60 —

4 degree credits — text price \$11-13 — McNaron

Course covers the following poems: **Comus, Lycidas, Areopagitica, Paradise Lost, and Samson Agonistes.** (Prerequisite: Freshman English or equivalent and 5 additional credits in English, or consent of instructor)

ENTOMOLOGY

Ent 0004C. PRINCIPLES OF BEEKEEPING (1004). 16 lessons — \$45 —

3 certificate credits — text price \$8-10 — Furgala

Useful to both the nonexperienced and experienced beekeeper. History of beekeeping, life history and behavior of honey bees; colony and apiary management; pollination and hive products; honey bee diseases and their control.

FAMILY STUDIES

FSoS 1001. THE DYNAMICS OF DATING, COURTSHIP, AND MARRIAGE (4101).

10 lessons — \$45 — 3 degree credits — text price \$20-22 — Sprenkle

Designed to improve interpersonal relations and self-understanding. Includes a discussion of communication, dating, and love involvement, changing sex roles, human sexuality, mate selection and engagement, marital interaction, marital conflict, parenthood and the family in American society.

FSoS 5210. FAMILY IN WORLD PERSPECTIVE (4105). 15 lessons — \$75 —

5 degree credits — text price \$19-21 — Henry

The course will emphasize comparison of kinship, marriage, family organization, the family life cycle, and modes of family functioning across cultures. It will also concern itself with the relationship of the family to the economic, the political, the religious and other social institutions, with particular attention being addressed to the adaptive techniques of the family to industrialization and urbanization. It is hoped that the student will be stimulated to an appreciation of the essential similarities between peoples and kinship groupings across cultures. **This course is now in preparation; please inquire before enrolling.**

FSoS 5240. SPECIAL TOPICS: THE DYNAMICS OF DIVORCE (T411). \$45 —

3 degree credits — Hey

Designed to help couples and individuals achieve an understanding of the divorce process, including the troubled marriage and marital breakdown, legal aspects and implications, re-entry into the single life: parent and person, the child and divorce, and coping with divorce: the psychological aspects. **This course will be broadcast on KTCA-TV Channel 2, Winter 1976.**

GC 1722. PARENT-CHILD RELATIONSHIPS (4102). 14 tapes — \$45 —

3 degree credits — text price \$9-11 — audio tape price \$19-21 — Latts

An interdisciplinary course aimed at helping students to develop their own philosophy of child-rearing — attitudes, principles, and perspectives that will guide them in their relations to their children and performance of their parental responsibilities. Focus is on helpful information related to crises of parenthood. Relevant research is used to emphasize principles of parent-child relations and to prepare students for tasks of parenthood. The course materials are on audio tapes rather than in the traditional written format. Students are encouraged to listen to the tapes in small groups and, after listening to the tapes, to discuss their content with others in the group. See **Tapes and Tape Recorders** for information on securing a cassette recorder.

Course Descriptions

FINNISH

See Scandinavian Languages

FIRE PROTECTION

FPro 0004C. FIRE PREVENTION AND CONTROL (5004). 11 lessons — \$45 —

3 certificate credits — text price \$25-54 — Buresh

In addition to the traditional fire prevention methods that govern the maintenance of buildings and premises, the course develops an inter-relationship between the design and construction features that relate to maintaining the protection provided through the enforcement of a building code; in short, the built-in control that keeps a small fire small. The course is designed to expose the student to the many aspects of fire prevention and control and provide the background for recognizing, researching and development of practical solutions to fire prevention and fire control problems.

FPro 0005C. FIRE PROTECTION AND LIFE SAFETY SYSTEMS IN BUILDING DESIGN (5005).

9 lessons — \$45 — 3 certificate credits — text price \$6-8 — Bose

The major systems for protecting the occupants of modern buildings from the hazards of fire, smoke, and similar unsafe conditions are studied here. Offered as a professional development course of study, it can be helpful to members of the fire services, architects, engineers, building inspectors, and others with life safety responsibilities within buildings. While a certain amount of technical subject matter is included, a minimal technical background is sufficient for a good comprehension of the subject.

FPro 0007C. FIRE DEPARTMENT ADMINISTRATION (5007). 10 lessons — \$45 —

3 certificate credits — text price \$21-23 — Bell

Analysis of objectives, organization and management of municipal fire departments, including a brief historical review. The relationships the fire department has with associate municipal departments, the municipal organizational structure and the community are examined. A variety of administrative areas will be considered to strengthen the fire officer's knowledge and skill in the decision-making process.

FOOD SCIENCE AND NUTRITION

FScN 1010. MAN'S FOOD (4301). 16 lessons — \$60 —

4 degree credits — text price \$33-35 — Morris

This course concentrates on such topics as man's nutritional needs, food composition, world food supply, consumption patterns, food acceptance, food fads, quality programs and regulations, food preservation, commercial processes, packaging, marketing, national and international food programs.

FScN 1012. FOOD FOR THOUGHT (K431). \$60 — 4 degree credits — Labuza

Provides the student with information from which he can develop sound nutritional guidelines for himself, explains why food is processed as well as how it is processed, and gives guidelines in analyzing the effectiveness of nutritional claims for special food and diets. The course will cover nutritional requirements of man and the physiology of digestion. An analysis of food fads and the world food malnutrition problem will also be examined. **This course will be broadcast on KUOM Radio, Winter 1976.**

FORESTRY

For 1201. CONSERVATION OF NATURAL RESOURCES (4201). 16 lessons — \$45 —

3 degree credits — text price \$7-9 — Scholten

Current status, utilization, and sound management of natural resources with emphasis on the ecological approach. Conservation principles and their application to soil, water, forests, grasslands, wildlife, minerals, and energy sources.

FRENCH

Fren 0001. FRENCH FOR GRADUATE STUDENTS (5717). 16 lessons — \$45 —

no credit — text price \$5-7 — O'Donnell

Fundamentals of grammar; reading of appropriate prose. Prepares for graduate reading examination in French.

Course Descriptions

Fren 1101. BEGINNING FRENCH I (5701). 27 lessons — \$75 —
5 degree credits — text price \$10-12 — Akehurst
Essentials of the French language: grammar, reading, and composition.

Fren 1102. BEGINNING FRENCH II (5702). 27 lessons — \$75 —
5 degree credits — text price \$11-13 — Akehurst
Continuation of Fren 1101: grammar, reading, and composition. (Prerequisite: Fren 1101 or 1 year of high school French)

GARDENING

See Horticultural Science

GENERAL COLLEGE

Please refer to the following pages for General College course offerings:

GC 1071, Introduction to Aging, p. 38
GC 1161, Solar Astronomy, pp. 11-12
GC 1162, Stellar Astronomy, p. 12
GC 1221, Minnesota History, p. 27
GC 1283, Psychology of Human Development, p. 38
GC 1355, Ethics, p. 33
GC 1374, Literature of the Theatre: Film and Drama, p. 19
GC 1404, Vocabulary Building, p. 41
GC 1445, Mathematics: Intermediate Algebra, p. 31
GC 1511, Introduction to Modern Business, p. 13
GC 1513, Principles of Small Business Operation, p. 13
GC 1531, Business Writing, p. 19
GC 1535, Introduction to Data Processing, p. 15
GC 1537, Salesmanship, p. 13
GC 1572, Introduction to Block Diagramming and Programming, p. 15
GC 1631, The Helping Process in the Social Services, p. 38
GC 1637, Supervised Work Experiences in the Social Services, p. 38
GC 1722, Parent-Child Relationships, p. 21
GC 1731, Consumer Problems, p. 13

GEOGRAPHY

Geog 3101. GEOGRAPHY OF THE UNITED STATES AND CANADA (4453). 14 lessons — \$60 —
4 degree credits — text price \$12-14 — Steinhauser
Provides an opportunity to study and evaluate the character and diversity of the various regions of the United States and Canada. The influence of both cultural and physical elements upon man and his use of the land is emphasized. Cities are observed as the dominant feature of the technological-industrial complex. Problems are considered on both a national and regional basis.

Geog 3111. GEOGRAPHY OF MINNESOTA (4407). 14 lessons — \$60 —
4 degree credits — text price \$3-5 — Steinhauser
Provides an opportunity to study and evaluate the cultural and physical characteristics of Minnesota. The choices man has made in the use of the physical environment are observed. Agriculture and urban-industrial development are emphasized, and the interdependence of urban and rural areas is stressed.

Geog 3121. GEOGRAPHY OF SOUTH AMERICA (4450). 14 lessons — \$60 —
4 degree credits — text price \$12-14 — Steinhauser
Provides an opportunity to study and evaluate the character and diversity of the South American continent. Individual countries and major regions within them are analyzed. The influence of both cultural and physical elements upon man and his use of the land is emphasized. Problems are considered on both a national and regional basis.

Course Descriptions

Geog 3181. GEOGRAPHY OF THE U.S.S.R. (4452). 14 lessons — \$60 —

4 degree credits — text price \$17-19 — Steinhäuser

Provides an opportunity to study and evaluate the character and diversity of the regions of the Soviet Union. The major regions are observed from a cultural, physical and economic viewpoint. Following the study of the regions, the Soviet Union is presented by topical analysis of cultural and economic phenomena including foreign trade, aid and international relations.

GEOLOGY AND GEOPHYSICS

Geo 1001. PHYSICAL GEOLOGY (4501). 18 lessons — \$75 —

5 degree credits — text price \$12-14 — Sloan

An introduction to general geology. Survey of the main features of the physical world and the processes that have evoked them. Topics include: maps, rock formation, weathering, soils, deserts, oceans, and the phenomena of earthquakes, glaciers, and volcanoes.

Geo 1006. HISTORICAL GEOLOGY (4502). 16 lessons — \$45 —

3 degree credits — text price \$10-12 — Sloan

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; emphasis on the geological history of the North American continent. (Prerequisite: Geo 1001 or 1111)

Geo 5151. INTRODUCTION TO PALEONTOLOGY (4551). 18 lessons — \$75 —

5 degree credits — text price (including fossil kit) \$38-40 — Sloan

An introduction to morphology and classification of major fossil groups. The use of fossils in the study of evolution, along with methods of collection and identification, are emphasized. (Prerequisite: Geo 1002 or 1112, or introductory college biology)

GERMAN

Ger 0221. GERMAN FOR GRADUATE STUDENTS I (5817). 16 lessons — \$45 —

no credit — text price \$17-19 — Menze

Designed to help graduate students acquire a reading knowledge of basic German as rapidly as possible. (Not intended to be preparation for the Graduate German Reading Examination, but the first step toward that objective.) Assumes no knowledge of German on the part of the student. Grammar is reduced to an essential minimum. Progresses from intensive reading of simple, graded material to selections of moderate difficulty. Vocabulary building and word formation are emphasized.

Ger 0222. GERMAN FOR GRADUATE STUDENTS II (5818). 21 lessons — \$60 —

no credit — text price \$6-8 — Menze

Designed to give graduate students experience in intensive reading of German literary texts. Students may satisfy the German language requirement for an advanced degree by achieving a grade of B or better on the final examination. (Prerequisite: Ger 0221 or 2 years of high school German)

Ger 1101. BEGINNING GERMAN I (5801). 27 lessons — \$75 —

5 degree credits — text price \$7-9 — Ramras

Grammar and easy composition. Intended to give the student a knowledge of the elements of German grammar and the facility to read and to write simple German sentences.

Ger 1102. BEGINNING GERMAN II (5802). 27 lessons — \$75 —

5 degree credits — text price \$7-9 — Ramras

Continuation of Ger 1101. (Prerequisite: Ger 1101 or 1 year of high school German)

Ger 1103. BEGINNING GERMAN III (5803). 27 lessons — \$75 —

5 degree credits — text price \$9-11 — Menze

Grammar and composition continued; selected readings in easy prose. (Prerequisite: Ger 1102 or 2 years of high school German)

Ger 1301. INTERMEDIATE GERMAN (5804). 26 lessons — \$75 —

5 degree credits — text price \$7-9 — Menze

Reading of 11 short stories of medium difficulty and 1 drama; composition continued. (Prerequisite: Ger 1103, or 3 years of high school German)

Course Descriptions

Ger 3011. ELEMENTARY COMPOSITION I (5857). 11 lessons — \$30 —
2 degree credits — text price \$8-10 — Menze

A review of the fundamentals of German grammar with particular attention to the idioms and characteristics of written German. Practice in writing original compositions. (Prerequisite: Ger 1301)

Ger 3012. ELEMENTARY COMPOSITION II (5858). 11 lessons — \$30 —
2 degree credits — text price \$8-10 — Menze

Continuation of Ger 3011; grammar, idioms, and characteristics of written German. Further practice in writing original compositions. (Prerequisite: Ger 3011)

Ger 3013. ELEMENTARY COMPOSITION III (5859). 11 lessons — \$30 —
2 degree credits — text price \$5-7 — Menze

Intensive practice in the use of conversational and written German and in the writing of original compositions. (Prerequisite: Ger 3012)

Ger 3311. DRAMA: THE CLASSICAL PERIOD (5873). 16 lessons — \$60 —
4 degree credits — text price \$11-13 — Menze

Selected plays of Lessing, Schiller, and Goethe, with assigned readings and 1 report. (Prerequisite: Ger 1301 or consent of instructor)

Ger 3312. DRAMA: THE 19th CENTURY (5874). 16 lessons — \$60 —
4 degree credits — text price \$10-12 — Menze

Selected plays of Kleist, Grillparzer, and Hebbel, with assigned readings and 1 report. (Prerequisite: Ger 3311 or consent of instructor)

Ger 3313. DRAMA: THE MODERN PERIOD (5875). 16 lessons — \$60 —
4 degree credits — text price \$11-13 — Menze

Selected plays representing the more recent movements in German literature — naturalism, impressionism, expressionism. Includes assigned readings and 1 report. (Prerequisite: Ger 3312 or consent of instructor)

Ger 3321. GERMAN PROSE OF THE 19th CENTURY (5876). 16 lessons — \$60 —
4 degree credits — text price \$4-6 — Menze

Selected novellen by Grillparzer, Stifter, Keller, and Storm. (Prerequisite: Ger 1301 or consent of instructor)

Ger 3322. GERMAN PROSE OF THE 19th AND 20th CENTURIES (5877).

16 lessons — \$60 — 4 degree credits — text price \$8-10 — Menze
Selected novellen by Gerhart Hauptmann, Arthur Schnitzler, Thomas Mann, Ricarda Huch, Wilhelm Schafer, and Hermann Hesse. (Prerequisite: Ger 3321 or equivalent)

Ger 3323. GERMAN PROSE OF THE 20th CENTURY (5878). 16 lessons — \$60 —
4 degree credits — text price \$8-10 — Menze

Selected novellen by Franz Kafka, Robert Musil, Wolfgang Borchert, Heinrich Boll, and other renowned mid-century prose writers. (Prerequisite: Ger 3322 or equivalent)

GREEK

See Classics

HISTORY

Hist 1001. INTRODUCTION TO MODERN EUROPEAN HISTORY I (4701).

12 lessons — \$60 — 4 degree credits — text price \$20-22 — Harris
A survey of European history to the 18th century. Emphasis is on the rise of the nation state and the role of Christianity and exploration in its development.

Hist 1002. INTRODUCTION TO MODERN EUROPEAN HISTORY II (4702).

12 lessons — \$60 — 4 degree credits — text price \$20-22 — Harris
A survey of European history in the 18th and 19th centuries. Emphasis is on the struggle for control of the state, the Age of Reason, the French Revolution.

Course Descriptions

Hist 1003. INTRODUCTION TO MODERN EUROPEAN HISTORY III (4703).

12 lessons — \$60 — 4 degree credits — text price \$20-22 — Harris

A survey of European history in the 19th and 20th centuries. Emphasis is on the impact of industrialization on 19th-century civilization and the development of the international problems of the 20th century.

Hist 1051. HISTORY OF ANCIENT CIVILIZATION I (4714). 16 lessons — \$45 —

3 degree credits — text price \$13-15 — Jones

Survey of the rise of civilization in the Ancient Near East from the earliest times to 500 B.C. Emphasis is on the origin of culture and its development in complexity from the primitive to the civilized stage. Special attention is given to the civilizations of Babylonia, Egypt, Indus Valley, Syria, Palestine, and Crete. **See also Hist 1061.**

Hist 1052. HISTORY OF ANCIENT CIVILIZATION II (4715). 16 lessons — \$45 —

3 degree credits — text price \$18-20 — Jones

History of the rise and flowering of Greek civilization from the earliest times to the death of Alexander the Great in 323 B.C. Special emphasis is placed on Greek civilization in the fifth century (Age of Pericles) with attention to the political, social, literary, artistic, and philosophic achievements of that period. (No prerequisite; Hist 1051 helpful in providing background for the Greek period) **See also Hist 1062.**

Hist 1053. HISTORY OF ANCIENT CIVILIZATION III (4716). 16 lessons — \$45 —

3 degree credits — text price \$29-31 — Jones

The climax of ancient civilization during the Hellenistic Age (323-133 B.C.) and the Roman Imperial Period followed by the decline of Rome and of ancient civilization (to about A.D. 300). The three main topics to be considered are civilization of the ancient world at its peak, rise and flowering of Roman culture, and reasons for the decline of ancient civilization. Special attention will be paid to political institutions, art, literature, economics and society, philosophy, and ancient science. (No prerequisite; Hist 1051 and 1052 recommended for background) **See also Hist 1063.**

Hist 1061. BASIC READINGS IN ANCIENT CIVILIZATION I (4717). 12 lessons — \$30 —

2 degree credits — text price \$5-7 — Jones

An introduction to ancient history as a discipline: the principles of historical analysis and criticism as well as the methods and techniques used in the reconstruction of the past. Among the topics considered are archaeological excavation; uses of evidence provided by pottery, coins, and other artifacts; type problems posed by literary sources; ancient Near Eastern literature, the Greek epic, and the meaning of the Old Testament as a literary and historical document. (Prerequisite: Hist 1051 or concurrent registration)

Hist 1062. BASIC READINGS IN ANCIENT CIVILIZATION II (4718). 12 lessons — \$30 —

2 degree credits — text price \$11-13 — Jones

An introduction to the major authors of the classical Greek period. Selections from poets, dramatists, Herodotus, Thucydides, Xenophon, orators, Plato, and Aristotle. (Prerequisite: Hist 1052 or concurrent registration)

Hist 1063. BASIC READINGS IN ANCIENT CIVILIZATION III (4719). 12 lessons — \$30 —

2 degree credits — text price \$16-18 — Jones

An introduction to the literature of the Hellenistic and Roman periods. Selections from poetry, drama, history, biography, science, philosophy, oratory, and letters. The New Testament and early Christian writings will be considered in their relation to pagan literature. (Prerequisite: Hist 1053 or concurrent registration)

Hist 1101 (3101). MEDIEVAL AND RENAISSANCE HISTORY I (4731 or 4732). 12 lessons — \$60 —

4 degree credits — text price \$10-15 — Bachrach

This is a three course sequence, and part one (1101 or 3101) covers the period from the fall of the Roman Empire to ca. 900. Students enrolling in the 3-level course will be expected to do additional research and writing. **This course is now in preparation; please inquire before enrolling.**

Hist 1102 (3102). MEDIEVAL AND RENAISSANCE HISTORY II (4733 or 4734).

12 lessons — \$60 — 4 degree credits — text price \$10-15 — Bachrach

Part two of this three-course sequence covers the High Middle Ages. Students enrolling in the 3-level course will be expected to do additional research and writing. **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Hist 5051. HISTORY OF THE ANCIENT NEAR EAST I (4783). 16 lessons — \$45 —
3 degree credits — text price \$26-29 — Jones

The first civilization in the Ancient Near East. Main topics: archaeology; the beginnings of agriculture and the advent of civilization in the great river valleys; the Old Kingdom in Egypt and the Sumerian period in Mesopotamia; the Egyptian Middle Kingdom; the Age of Hammurabi; characteristics of ancient Near Eastern civilization. (Prerequisite: junior or senior, or 9 credits in history)

Hist 5052. HISTORY OF THE ANCIENT NEAR EAST II (4784). 16 lessons — \$45 —
3 degree credits — text price \$5-7 — Jones

The Age of Empires: 1600-1000 B.C. Main topics: the New Kingdom (Empire) in Egypt; the Hittite Empire; developments in Syria and Palestine with special attention to the Canaanites, Philistines, and Hebrews; the spread of civilization to Asia Minor and Aegean lands. (Prerequisite: junior or senior, or 9 credits in history)

Hist 5274. THE MODERN NEAR EAST: THE OTTOMAN EMPIRE AND THE SUCCESSOR STATES-
(4799). 16 lessons — \$60 —

4 degree credits — text price \$23-25 — Stavrou

Covers the period from the Treaty of Jassy (1792) to the Congress of Berlin (1878).

GC 1221. MINNESOTA HISTORY (4708). 15 lessons — \$75 —
5 degree credits — text price \$10-12 — Moen

An introduction to the people and institutions of the state. Topics surveyed are geography, exploration frontier settlement, changes forced upon Indian people, statehood, economic development, parties and politics, and education, arts, and letters.

HORSE PRODUCTION

See Animal Science

HORTICULTURAL SCIENCE

Hort 1010. HOME LANDSCAPE GARDENING AND DESIGN (5151). 13 lessons — \$45 —
3 degree credits — text price \$17-19 — Phillips

Working knowledge of propagation and culture of common landscape materials: turf, flowers, trees and shrubs. Principles and practices of gardening; prepared for beginners, but also valuable for the advanced or experienced gardener. Textbook assignments and home projects in propagating plants for the garden. Topics include: planting, transplanting, seeds, soils, fertilizers, preparing beds and planting areas, selecting a good garden site, controlling insects and diseases, weeding, watering, cultivating, pruning, tools and equipment. Also discusses varieties of annuals, perennials, bulbs, and roses recommended for northern gardens.

Hort 3026. RESIDENTIAL LANDSCAPE DESIGN (5161). 14 lessons — \$60 —
4 degree credits — text price \$6-8 — Phillips

Principles of landscape design with special reference to their practical application in planning of residential landscapes. Relationships of landscape design, architectural design, and interior design. Planning home grounds for greater use and enjoyment. Uses an artistic approach to the problems and prospects of home landscaping. Students will plan a home plot with the guidance of the instructor. For nurserymen, teachers, homeowners, and others interested in home landscaping.

HOSPITAL ADMINISTRATION

See Special Courses and Programs section

Course Descriptions

HOW TO STUDY

See Study Skills

HUMANITIES

Hum 1101. HUMANITIES IN THE MODERN WORLD I (5201). 16 lessons — \$45 —
3 degree credits — text price \$11-14 — Ouren

The Enlightenment and Romanticism, as 18th century responses to the Modern World (and the Scientific Revolution), are approached through the reading of major works of the age. The first part of the course centers on a discussion of reason, human nature and the problem of evil in Pope, Voltaire, and Rousseau. Goethe's *Faust* and Tolstoy's *War and Peace* represent later German and Russian reactions to these perennial themes. **Note: A 5-credit revision of this course is now in progress. You may enroll immediately in the 3-credit course described above or write for information on the new course.**

Hum 1002. HUMANITIES IN THE MODERN WORLD II (5202).
16 lessons — 5 degree credits — \$75 — text price \$10-12 — Bisztray

Industrial Revolution, romanticism, socialism, individualism; Smith, Malthus, Carlyle, selected documents of romanticism, Zola, Ibsen, Dostoevsky, Tolstoy. **This course is now in preparation; please inquire before enrolling**

Hum 1103. HUMANITIES IN THE MODERN WORLD III (5203). 16 lessons — \$45 —
3 degree credits — text price \$17-19 — Kanun

The impact of science — especially Darwinism — on philosophy, religion, and the prevailing values of western Europe from about the middle of the 19th century to the opening of World War I. Intellectual roots of existentialism. Writings by influential scientists and philosophers of the age. **Note: A 5-credit revision of this course is now in progress. You may enroll immediately in the 3-credit course described above or write for information on the new course.**

Hum 1104. HUMANITIES IN THE MODERN WORLD IV (5204). 16 lessons — \$45 —
3 degree credits — text price \$13-15 — Kanun

Civilization between two wars; the impact of psychoanalysis; a critique of communism; a prediction of the future. Covers the period from World War I to the present. Authors studied include: Huxley, Bellamy, Freud, O'Neill, Lenin, Malraux, Koestler. **Note: A 5-credit revision of this course is now in progress. You may enroll immediately in the 3-credit course described above or write for information on the new course.**

INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH

IEOR 0210C. MOTION AND TIME STUDY ENGINEERING (3118). 27 lessons — \$75 —
5 certificate credits — text price \$14-16 — Gunderson

Efficient plant operation and accurate wage determination; the skeletal structure of methods analysis, process analysis, operation analysis, micromotion study, motion study problems; the skeletal structure of time study, breakdown of job into elements, determination of time consumed, job rating; personal, fatigue, and delay allowances; timing techniques for typical industrial operations; time study problems.

IEOR 0221C. INDUSTRIAL PLANT LAYOUT (3117). 27 lessons — \$75 —
5 certificate credits — text price \$19-21 — Gunderson

Lessons on the application of industrial engineering principles in simplifying and improving the layout of manufacturing plants, shops, and warehouses, and in planning new layouts. Topics covered include types of layouts, analysis of flow, safety factors in layout work, determination of equipment and space requirements, service facilities, buildings. (Prerequisite: Math 3221 or concurrent registration, and Phys 1031)

INDUSTRIAL RELATIONS

IR 0001C. SUPERVISION I (2231). 11 lessons — \$45 —
3 certificate credits — text price \$9-11 — Scott

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 on human relations aspects of such problems. Deals with selection, induction and training of new employees, role of the supervisor, communication, employee appraisal, giving orders, handling grievances, discipline, and employee morale.

Course Descriptions

IR 3002. SYSTEMS OF INDUSTRIAL RELATIONS: LABOR MARKETING (2252).

12 lessons — \$60 — 4 degree credits — text price \$24-26 — Estenson
Introductory analysis of employment relationships, emphasizing economic analysis. Fundamentals of application and conservation of human resources in employment with consideration of related social and economic problems. Labor marketing, collective bargaining, unions and employer associations, industrial unrest and conflict, employment and unemployment, wage problems. (No prerequisite; introductory courses in the principles of economics [Econ 1001, 1002] will be helpful)

IR 3012. SYSTEMS OF INDUSTRIAL RELATIONS: MANPOWER MANAGEMENT (2272).

13 lessons — \$60 — 4 degree credits — text price \$15-17 — Gomez
Introductory analysis of personnel management and labor relations. The strengths and weaknesses of current practices in recruiting, testing, interviewing, training, and compensation. An examination of the influence of manpower management on the organization and the individual.

INSURANCE

Ins 3100. RISK MANAGEMENT AND INSURANCE (2353). 20 lessons — \$60 — 4 degree credits — text price \$12-14 — Williams

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 — retention, loss prevention, and insurance — and the conditions under which they should be used. How to select and deal with an insurer. Public policy issues — government regulation, social insurance, and automobile insurance problems.

Ins 3210. ECONOMIC AND SOCIAL SECURITY (K211). \$60 — 4 degree credits — Williams

Public and private approaches to problems of economic insecurity and poverty. Nature and causes of economic insecurity and poverty. Details and economic and social implications of private and public programs, with emphasis on public programs such as social insurance and public assistance and proposals such as guaranteed minimum income. **This course will be broadcast on KUOM Radio, Winter 1976 and will be available on audio cassette tapes beginning in Spring 1976. Students may not receive credit for both Ins 3210 and Econ 5534.**

Ins 3220. PROPERTY AND LIABILITY INSURANCE I (2393). 16 lessons — \$45 — 3 degree credits — text price \$10-12 — Williams

The nature and relative importance of property and liability risks, analysis of property and liability insurance contracts, insurance surveys; optimum property and liability insurance programs. (Prerequisite: Ins 3100)

JAPANESE

See East Asian Languages

JOURNALISM AND MASS COMMUNICATION

Jour 1001. INTRODUCTION TO MASS COMMUNICATIONS (3701). 6 lessons — \$30 — 2 degree credits — text price \$7-9 — Sim

The nature, functions, and responsibilities of communications media and agencies from the point of view of professional journalists. News, opinion, entertainment, and persuasion functions; specialized communication; aspects of advertising. (Prerequisite: Freshman Composition or equivalent)

Jour 1101. REPORTING (3714). 16 lessons — \$75 — 5 degree credits — text price \$10-12 — Sim

Fact gathering and journalistic writing. Many exercises in straight news and types of news features. Problems in judgment and handling of news and feature values, interviews. (Prerequisite: Jour 1001)

Jour 5601. HISTORY OF JOURNALISM (3791). 12 lessons — \$60 — 4 degree credits — text price \$21-23 — Emery

Development of American newspapers and periodicals, from beginnings in Europe to present day; rise of radio and television; relation of communications developments to political, economic, and social trends; current press-government credibility crises. **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

LATIN

See Classics

LAW

See Business Law

LIBRARY SCIENCE

The courses in library science do not earn credit in the University of Minnesota Library School, which is a graduate program leading to a Master's degree. The credits are acceptable in other undergraduate colleges at Minnesota, usually as electives. Most states will accept the credits for teacher certification. If you have questions about the transfer of credits write to your state's Department of Education or similar agency.

Because of the difficulties in shipping the texts that must be loaned with these courses, no registration can be accepted from students overseas.

Lib 1401. DESCRIPTIVE CATALOGING (7152). 16 lessons — \$45 —

3 degree credits — text price \$19-21 — Davenport

The forms and principles involved in making a dictionary card catalog. Based primarily on **Akers Simple Library Cataloging**. Directions for the use of printed cards by the Wilson Company and the Library of Congress.

Lib 1402. ELEMENTARY CLASSIFICATION AND SUBJECT HEADING (7154).

16 lessons — \$45 — 3 degree credits — text price \$30-32 — Davenport

Based on the abridged edition of the **Dewey Decimal Classification** and **Sears' List of Subject Headings for Small Libraries**. Aims to give an understanding of methods of classification and the principles of assigning subject headings to books in a library. Attention is given to modifications and adaptations useful in school or small public libraries. Includes use of Cutter-Sanborn author numbers and preparation of a shelf list. (No prerequisite; Lib 1401 recommended)

MANAGEMENT

See Industrial Relations

MARKETING

Mktg 3098. CONSUMER BEHAVIOR (2522). 14 lessons — \$60 —

4 degree credits — text price \$13-15 — Walker

Applications of the behavioral sciences to understanding human behavior in the marketplace. Topics include perception, learning, attitude theory and measurement, motivation, personality, social and cultural influences, family decision making, social influence processes, consumer decision-making strategies, managerial implications of consumer research, and "consumerism."

MATHEMATICS

It is essential that students have the prerequisite knowledge for each course as well as credit for the courses listed as prerequisites. If there has been a time lapse since the previous course in mathematics, students should review thoroughly or repeat the prerequisite. It is impossible to make progress in mathematics without a sound knowledge of previous concepts and applications.

Note:

In addition to the following non-credit courses in mathematics, certain courses available through the High School program of the Department of Independent Study also fulfill entrance requirements of IT and other colleges. For Independent Study courses in high school mathematics, write for the bulletin, **Independent Study for High School Students**, University of Minnesota, Department of Independent Study, 25 Wesbrook Hall, Minneapolis, Minnesota 55455.

Course Descriptions

Math 0001. BASIC MATHEMATICS REVIEW I (7201). 16 lessons — \$45 —
no credit — text price \$8-10 — Giese

A thorough review of arithmetic, and a good foundation in elementary algebra, including the fundamental operations involving positive and negative numbers, fractions, the solution of simple equations and fractional equations, exponents, symbols of grouping, special products and factoring, and simplification of fractional expressions.

Math 0002. BASIC MATHEMATICS REVIEW II (7203). 16 lessons — \$45 —
no credit — text price \$8-10 — Giese

Continuation of the development of algebra and an introduction to the numerical part (mensuration) of plane geometry, solid geometry, and trigonometry. In algebra: simultaneous linear equations; exponents and radicals; solution of quadratic equations, irrational equations; ratio, proportion, variations; graphical representation of statistical data and of equations; and the use of formulas. In geometry: formulas from plane and solid geometry and how to apply them. In trigonometry: logarithms and how to use them; the trigonometric functions; and solution of right and oblique triangles. (Prerequisite: Math 0001 or equivalent)

GC 1445. MATHEMATICS: INTERMEDIATE ALGEBRA (7205). 16 lessons — \$75 —
5 degree credits — text price \$9-11 — Giese

Concepts and manipulative skills of algebra necessary for student to compete in a college algebra course. Topics studied include discussion of the real number system, special products and factoring, exponents and radicals, linear equations in one and two variables, quadratic equations in one variable, progressions, inequalities, variation, and logarithms. (Prerequisite: Math 0002 or equivalent)

Math 1201. PRECALCULUS (7215). 27 lessons — \$75 —
5 degree credits — text price \$11-13 — Ekstrand

(May be substituted for Math 1111) Functions and graphs, quadratic equations in one and two variables, progressions, complex numbers, inequalities, theory of equations, permutations and combinations, binomial theorem probability, mathematical induction, determinants. (Prerequisite: Math 0009 or GC 1445 or high school higher algebra, and Math 1008 or high school trigonometry)

Math 1211. ANALYSIS I (7224). 16 lessons — \$75 —
5 degree credits — text price \$11-13 — Varadachari

Analytical geometry and calculus of functions of one variable.

Math 1221. ANALYSIS II (7225). 16 lessons — \$75 —
5 degree credits — text price \$11-13 — Varadachari

A continuation of Analysis I.

Math 1231. ANALYSIS III (7226). 16 lessons — \$75 —
5 degree credits — text price \$11-13 — Varadachari

A continuation of Analysis II. Infinite series and power series. **This course is now in preparation; please inquire before enrolling.**

Math 3211. ANALYSIS IV (7234). 16 lessons — \$75 —
5 degree credits — text price \$11-13 — Varadachari

Partial differentiation, chain rule, implicit functions, applications. Multiple integrals in two and three dimensions. (Prerequisite: Math 1231 or equivalent)

Math 3221. INTRODUCTION TO LINEAR ALGEBRA AND LINEAR DIFFERENTIAL EQUATIONS.
(7235). 16 lessons — \$75 — 5 degree credits — text price \$10-12 — Varadachari

Vectors, systems of linear equations, matrices, determinants, bases, eigenvalues. Linear differential equations and systems with constant coefficients, initial value problem and general solution, variation of parameters for inhomogeneous equations. (Prerequisite: Math 1231 or equivalent)

Math 3066. DIFFERENTIAL EQUATIONS (7296). 16 lessons — \$60 —
4 degree credits — text price \$10-12 — Marchand

Equations of first order, singular solutions; linear equations with constant coefficients, simultaneous equations, integration in series. (Prerequisite: Math 1231 or equivalent)

Course Descriptions

IT 3501. MEASUREMENT AND THE METRIC SYSTEM (7204). 10 lessons — \$60 —

4 degree credits — text price \$8-10 — Holte

Brief history of measurement systems. Discussion of the importance of measurement in various technological and communicative aspects of work and everyday life. Introduction to the international metric system (SI). Investigation of particular aspects of metric transition in the United States compared with current experience in other countries. The above is a bulletin description. Mostly, you will be given a series of learning experiences through which you may become personally aware of the implications to you of US conversion to the worldwide SI system of metric measurement. An investigation of your own choosing will let you show how much good the course has been for you.

MOTION AND TIME STUDY ENGINEERING

See Industrial Engineering/Operations Research

MUSIC

Mus 1501/1511. MATERIALS AND STRUCTURE OF MUSIC I/EAR TRAINING AND SIGHT SINGING I (7311). 12 lessons (90-minute cassettes) — \$60 — 4 degree credits — text price \$18-20 — tape price \$31 — Oberg

An integrated course in music theory incorporating sight singing, spelling, writing and playing of melodic and harmonic patterns. Topics include notation, aural perception, playing of rhythms in simple and compound time, and the basic rules for four-voice part-writing. Can be taken by music and music education majors (for whom it is required) and by high school students or adults who wish to augment their private music study, enhance their participation in a musical ensemble, or increase their understanding and listening enjoyment of music. Also covers the rudiments of music required of all elementary education majors. Much of the course material is on tapes rather than in the traditional written format. See **Tapes and Tape Recorders** for information on securing a cassette recorder.

Mus 5711. AMERICAN POPULAR MUSIC (T731). \$60 —

4 degree credits — Riedel

Examines popular music in the United States during the 19th century. It includes ethnic music; technology in music; social dance music; parlor songs; barber shop songs; theatre music; Civil War music, and more. **This course will be broadcast on KTCA-TV Channel 2, Spring 1976.**

NORWEGIAN

See Scandinavian Languages.

ORIENTATION TO INDEPENDENT STUDY

See Study Skills

PARLIAMENTARY PROCEDURE

See Rhetoric

PHILOSOPHY

Phil 1001. LOGIC (7602 and 7605). 10 lessons — \$45 —

3 degree credits (or 18 lessons — \$75 — 5 degree credits) — text price \$9-11 — Zanoni

Rules and procedures of sound argument and valid inference. Relationship of formal patterns of reasoning to such uses of ordinary language as argument, propaganda, and persuasion. How formal logic can be employed as a tool for critical thinking. Course may be taken for either 3 or 5 credits. Students who take the 3-credit course can register later for the additional 2 credits, pay the \$30 fee, and complete eight more lessons and a final examination.

Phil 1002. PROBLEMS OF PHILOSOPHY (7604). 15 lessons — \$75 —

5 degree credits — text price \$10-12 — Dana

An examination of some important problems in epistemology and metaphysics. Epistemological questions include: What is the relation between perception and reality? Are there any innate ideas, and is anything knowable independently of experience? What is the rational foundation of belief? Is knowledge possible, or is each person's opinion ultimate? The question of whether religious beliefs are rational is investigated through an evaluation of several different efforts to show that belief in the existence of God is. The metaphysical topics are the Mind-Body problem and the problem of Free Will vs. Determinism: What does "having a mind" involve, and does the possibility that human behavior is

Course Descriptions

causally determined mean that "Free Will" is a myth? The question of whether punishment of criminals can be legitimate if all behavior is causally determined is investigated. The aim of the course is to introduce the student to some of the basic concerns of philosophy and, through the study of how several important philosophers have dealt with them, to introduce him or her to the process or activity of philosophy itself. **This course is now in preparation; please inquire before enrolling.**

Phil 1011. SCIENCE AND RELIGION (7610). 12 lessons — \$60 —
4 degree credits — text price \$5-7 — Zanoni

A historical and philosophical inquiry into the conflict between modern science and religion, attempting to find grounds of conflict and/or reconciliation.

Phil 3001. GENERAL HISTORY OF WESTERN PHILOSOPHY: GREEK PHILOSOPHY (7650).
20 lessons — \$75 — 5 degree credits — text price \$11-13 — Kielkopf

Greek philosophy, an introduction to early Western thought; emphasizes Socrates, Plato, and Aristotle.

Phil 3003. GENERAL HISTORY OF WESTERN PHILOSOPHY: DESCARTES THROUGH HUME. (7652). 21 lessons — \$75 — 5 degree credits — text price \$6-8 — Kielkopf

Philosophical thought from Descartes through Hume. The impact of science; backgrounds of contemporary philosophical problems.

Phil 3004. GENERAL HISTORY OF WESTERN PHILOSOPHY: KANT THROUGH NIETZSCHE (7653).
21 lessons — \$75 — 5 degree credits — text price \$9-11 — Kielkopf

Philosophical thought from Kant through Nietzsche. Contains lessons on Hegel, Marx, Mill, Comte, Schopenhauer, and Kierkegaard.

GC 1355. ETHICS (7606). 15 lessons — \$60 —
4 degree credits — text price \$5-7 — Zanoni

The course aims at providing the student with an understanding of the development of moral thought in Western civilization and the problems generated by changing views about the nature of human beings and their behavior. The emphasis of the course is on showing how thinking clearly about the various factors in the development of moral thought in the West is relevant to contemporary moral practice.

This course is now in preparation; please inquire before enrolling.

PHYSICAL EDUCATION

See Recreation and Park Administration

PHYSICS

Phys 1031. INTRODUCTION TO PHYSICS: MEASUREMENT AND APPLICATIONS (7705).

15 lessons — \$75 — 5 degree credits — text price \$18-20 — Poppe

Applications of physics will be emphasized. Topics include graphical analysis, fundamental physical concepts, electricity and magnetism, waves, sound, light, and optics. Primarily for students interested in those topics useful in various technical areas. Some simple home laboratory exercises will be included. (Prerequisite: high school algebra and plane geometry)

Phys 1032. INTRODUCTION TO PHYSICS: MEASUREMENT AND APPLICATIONS (7706).

15 lessons — \$75 — 5 degree credits — text price \$18-20 — Poppe

Applications of physics will be emphasized. Topics include mechanics, properties of matter, random processes, thermo-dynamics, atoms and spectra, nuclei and radioactivity. Primarily for students interested in those topics useful in various technical areas. Some simple home laboratory exercises will be included. (Prerequisite: Phys 1031)

POLICE ADMINISTRATION

PoAd 0015C. METHODS IN POLICE SUPERVISION (7815). 16 lessons — \$45 —
3 certificate credits — text price \$11-13 — Bennett

Principles of supervision and leadership. Survey of the problems of supervision with emphasis on human relations. Various types of supervisory positions. Delegation problems of the supervisor. Designed to assist those who are already supervisors in police departments and those who desire to become supervisors.

Course Descriptions

PoAd 0016C. METHODS IN CRIMINAL PROCEDURE (7816). 16 lessons — \$45 —

3 certificate credits — text price \$8-10 — Bennett

Analysis of the current code and criminal court procedure, adaptable to other state code and statutes. Emphasis is on the understanding of the elements of offenses. Arrest, search, and evidence procedures are discussed. Especially useful for those engaged in law enforcement at state, county, and local levels.

PoAd 0017C. METHODS OF POLICE PLANNING, MANAGEMENT, AND ORGANIZATION (7817).

16 lessons — \$45 — 3 certificate credits — text price \$11-13 — Bennett

Emphasis is on the major factors of the planning, management, and organization functions of police departments. Each division of the police department is examined in detail. Students of police operations will find the information especially helpful. The information is as useful for the patrolman in understanding the total department operation as it is for those in command functions in understanding their responsibilities.

PoAd 0018C. METHODS OF CRIMINAL INVESTIGATION (7818). 16 lessons — \$45 —

3 certificate credits — text price \$14-16 — Bennett

Investigation of the techniques of criminal offense commission and the best methods of solving various crimes. Report writing, search procedures, interrogation procedures, court processes, identification technique, scientific aids to investigation, and investigative operational procedures are emphasized.

POLISH

See Slavic and East European Languages

POLITICAL SCIENCE

Pol 1001. AMERICAN GOVERNMENT AND POLITICS (7903). 16 lessons — \$75 —

5 degree credits — text price \$17-19 — Scott

Analysis of principles and processes of national, state, and local government in the United States. The relationships of political forces and philosophies. Topics include: the Constitution, civil liberties, public opinion, interest groups and political parties, Congress, the judiciary, and the presidency.

Pol 1025. WORLD POLITICS (7925). 16 lessons — \$45 —

3 degree credits — text price \$9-11 — Rogers

An introduction to world affairs. Development of the state system. The facts of power in international relations. The causes of war and the forces that make for peace. Introduction to the foreign policies of the United States, the Soviet Union, and China.

Pol 1026. AMERICAN FOREIGN POLICY (7927). 16 lessons — \$60 —

4 degree credits — text price \$10-12 — Walcott

Goals and values in American foreign policy; traditional and post-World War II policies. The formulation and administration of foreign policy and the role of public opinion. **This course is now in preparation; please inquire before enrolling.**

Pol 1031. AMERICAN PUBLIC POLICY (7931). 14 lessons — \$60 —

4 degree credits — text price \$12-14 — Eyestone

How American public policies are made—the development of issues, actors, and decision techniques; evaluation of policies. Analysis of current issues in the areas of civil rights, environmental concerns, foreign policy, welfare, and labor, business, and the economy. Emphasis throughout on the policy process and on alternative solutions to current policy problems, primarily at the national level.

Pol 5443. GOVERNMENT AND POLITICS OF THE SOVIET UNION (7955). 14 lessons — \$60 —

4 degree credits — text price \$20-22 — Noonan

Analysis of politics in the U.S.S.R., including the political heritage and environment, the impact of Marxism-Leninism, the principal institutions, historical development since 1917; the decision-making process; the roles of elites, major economic, political and cultural issues. (Prerequisite: 12 credits in social sciences or consent of instructor)

Pol 5448. GOVERNMENT AND POLITICS OF AFRICAN COUNTRIES (7978).

12 lessons — \$60 — 4 degree credits — text price \$8-10 — Dodge
 Political institutions and behavior of sub-Saharan African countries in their social and cultural settings; influence of class and tribal structure; parties and elections; source and nature of ideologies; economics and social policies. (Prerequisite: 12 credits in social sciences or consent of instructor)

Pol 5454. CHINESE GOVERNMENT AND POLITICS (7954). 12 lessons — \$60 —

4 degree credits — text price \$5-7 — Dodge
 Analysis of the political system of Communist China with particular emphasis on Maoist ideology; party organization and behavior; developmental economic and social policies; foreign policy goals and strategies. (Prerequisite: 12 credits in social sciences or consent of instructor)

Pol 5737. POLITICAL PARTIES (7987). 14 lessons — \$60 —

4 degree credits — text price \$12-14 — Eyestone
 Party activities in the United States — recruiting, nominating, and campaigning. Parties in power. Party organization and membership, party identification, third parties and independents. Party reform and the functions of parties. Attention throughout to the impact of parties on democratic government (Prerequisite: Pol 1001 or consent of instructor)

PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

See Education

PSYCHOLOGY

Also see Child Psychology

Psy 1001. GENERAL PSYCHOLOGY (8101). (Equivalent to and replaces General Psychology 1001 and General Psychology 1002) 18 lessons — \$75 —

5 degree credits — text price \$12-14 — Schletzer
 Introduction to the study of human behavior with emphasis on its development. Includes motivation, emotion, learning, and the neural basis of behavior. Factors which determine individual differences in personality. Measurement of personality traits. Consideration of behavior disorders and determinants of social adjustment. Principles of social and political psychology including techniques of political persuasion and an evaluation of opinion polls. Prerequisite for all advanced courses in psychology. (Prerequisite: sophomore, 3rd quarter freshman with a B average, or consent of instructor)

Psy 1911. PSYCHOLOGY AND RELIGION (T811). \$60 — 4 degree credits — Bradshaw

Explores religiousness from a psychological viewpoint. The course is designed to help the student understand his/her own religious expression, in the context of what is known about psychological processes to be involved in religious behavior. **This course will be broadcast on KTCA-TV Channel 2, Fall 1975.**

Psy 3101. INTRODUCTION TO PERSONALITY (8188). 15 lessons — \$60 —

4 degree credits — text price \$11-13 — Bradshaw
 This course is a basic introduction to the study of personality. It will discuss major theories, personality development, empirical research, personality assessment, and several selected topics in the field of personality. (Prerequisite: 5 credits introductory psychology)

Psy 3604. ABNORMAL PSYCHOLOGY (8193). 14 lessons — \$60 —

4 degree credits — text price \$19-21 — Dorset
 The field of abnormal psychology. Etiologies of behavioral disorders; discussion of available treatments. (Prerequisite: 5 credits introductory psychology)

Psy 3911. PERSONALITY AND RELIGION (8196). 15 lessons — \$60 —

4 degree credits — text price \$14-16 — Bradshaw
 This course studies religious behavior with a topical approach. Areas covered include origins and development of religiousness, religious practices, doubt and belief, guilt and alienation, self-management, altered states of consciousness, social influences, life crises, transcendence, and religious maturity. (Prerequisite: 5 credits introductory psychology or consent of the instructor) **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

REAL ESTATE

BFin 0500C. REAL ESTATE (1796). 9 lessons — \$45 —

3 certificate credits — text price \$11-13 — Ulseth

Valuation of urban real estate, problems of real estate financing, rent control, housing, land development, zoning, and other factors affecting real estate values. (Prerequisite: Econ 1002 or equivalent; open on a non-credit basis without prerequisite)

RECREATION AND PARK ADMINISTRATION

Rec 1520. ORIENTATION TO LEISURE AND RECREATION (8410). 16 lessons — \$75 —

5 degree credits — text price \$32-34 — Cheatham

Examination of the history and development of the park and recreation movement; sociological, economical, psychological, and political considerations of leisure and recreation in contemporary societies; professional and service organizations and their interrelationship; orientation to the professional field of recreation, leisure and parks.

Rec 3800. WORKSHOP: SPECIAL TOPICS IN RECREATIONAL PROGRAMMING, FOCUS ON RECREATIONAL SPORTS. (T831). \$45 —

3 degree credits — Anderson, Mueller

Identifies the human values produced in sports participation and subsequently provides the basic ingredients to insure successful recreational sports programming. The course is meaningful for personnel involved in sports programming in all levels of education, community recreation, business, industry, and the military, as well as those who have a general interest in recreational sports. **This course will be broadcast on KTCA-TV Channel 2, Winter 1976.**

Rec 5140. RECREATION PROGRAMMING (8490). 14 lessons — \$75 —

5 degree credits — text price \$20-22 — Cheatham

Designed to provide the student with an understanding of recreation programming as it relates to a variety of program settings and activity types. Special emphasis is placed on the formal processes of organizing programs. Explores typical leadership roles and responsibilities with additional emphasis on leadership methodology and technique. Principles of program planning and leadership in all aspects of recreation.

Rec 5170. CAMP ADMINISTRATION (8487). 11 lessons — \$45 —

3 degree credits — text price \$6-8 — Chapman

Covers all aspects of administration for group camps: objectives, camp settings, organization and structure, facilities and equipment, the director, staff selection and supervision, programs, health and safety, and public relations. (Prerequisite: organized camp experience desirable)

Rec. 5210. INTRODUCTION TO THERAPEUTIC RECREATION (8491). 11 lessons — \$45 —

3 degree credits — text price \$12-14 — Chapman

Introductory principles of therapeutic recreation. Types of hospitals and their patients' activities programs. Philosophy and purposes of institutional recreation; program content. Beginning methods in the leadership and supervision of recreation programs for the ill and disabled.

RELIGION

See Humanities; Philosophy

RHETORIC

Also see Study Skills

Rhet 1226. PARLIAMENTARY PROCEDURE (7425). 6 lessons — \$15 —

1 degree credit — text price \$6-8 — Miller

Principles and practices of parliamentary procedure. Provides leadership training for presiding officers and members of various rural and urban organizations. How to open and close a meeting, draft a constitution, discuss unfinished business and introduce new business, entertain motions in order of their precedence, handle amendments, appoint committees, dispose of committee reports, and nominate and elect officers.

RUSSIAN

See Slavic and East European Languages

SALESMANSHIP

See Business Studies (General College)

SCANDINAVIAN LANGUAGES

Finnish

Fin 1101. BEGINNING FINNISH (5617). 27 lessons — \$75 —

5 degree credits — text price \$7-9 — Lahti

For beginners with little or no previous knowledge of Finnish. Stresses fundamentals of grammar, the facility to read and write easy Finnish.

Norwegian

Nor 1101. BEGINNING NORWEGIAN I (6301). 27 lessons — \$75 —

5 degree credits — text price \$12-15 — Gundersen

A complete survey of Norwegian grammar, plus composition and the reading of easy prose.

Nor 1102. BEGINNING NORWEGIAN II (6302). 27 lessons — \$75 —

5 degree credits — text price \$3-5 — Gundersen

Continuation of Nor 1101, but with primary emphasis on reading and writing. Short stories and folk tales are used for reading assignments. (Prerequisite: Nor 1101 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Swedish

Swed 1101. BEGINNING SWEDISH I (6901). 27 lessons — \$75 — 5 degree credits — text price

\$6-8 — McKnight

Grammar and composition; selected readings in easy prose and verse.

SLAVIC AND EAST EUROPEAN LANGUAGES

Polish

Pish 1101. BEGINNING POLISH I (6401). 27 lessons — \$75 —

5 degree credits — text price \$16-18 — Kondy

For beginners with no previous knowledge of Polish. Covers the fundamentals of grammar, the facility to read, understand, and write simple Polish.

Russian

Russ 1101. BEGINNING RUSSIAN I (6601). 27 lessons — \$75 —

5 degree credits — text price \$12-14 — Prokopov

Provides a reading and writing knowledge of the Russian language. Acquaints students with Russian script, pronunciation, and essentials of grammar; translations from Russian and into Russian.

Russ 1102. BEGINNING RUSSIAN II (6602). 27 lessons — \$75 —

5 degree credits — text price \$14-16 — Prokopov

Continuation of Russ 1101: reading, writing, pronunciation, and grammar. (Prerequisite: Russ 1101)

Russ 1221. SCIENTIFIC RUSSIAN I (6624). 27 lessons — \$75 —

5 degree credits — text price \$5-7 — Prokopov

An introduction to the basic grammar and structure of the Russian language, using a vocabulary common to various sciences. Provides the ability to read Russian scientific texts.

Course Descriptions

Russ 1222. SCIENTIFIC RUSSIAN II (6625). 12 lessons — \$30 —
2 degree credits — text price \$4-6 — Prokopov

Directed reading and translation of Russian scientific texts in a field of the student's choice. Students may satisfy the graduate language requirement by passing Russ 1222 with a grade of B. (Prerequisite: Russ 1221)

Russ 1223. SCIENTIFIC RUSSIAN III (6626). 12 lessons — \$30 —
2 degree credits — no required text — Prokopov

Continuation of Russ 1222: reading and translating scientific texts. (Prerequisite: Russ 1222)

SOCIAL STUDIES (General College)

GC 1283. SOCIAL SCIENCE: PSYCHOLOGY OF HUMAN DEVELOPMENT (4104).

15 tapes — \$45 — 3 degree credits — text price \$11-13 — audio tape price \$22-24 — Latts

Focuses on growth and development of the individual from conception through adolescence. Aspects of development emphasized include physical, motor, social, emotional, and psychological growth. Integration of facets of development is made in order to understand the human being as a complex organism functioning in a complex environment. Since the individual is born into and grows up in a family, discussion is sometimes focused on the family as the main environmental factor in early development of the individual.

GC 1631. THE HELPING PROCESS IN THE SOCIAL SERVICES (8631). 10 lessons — \$45 —
3 degree credits — text price \$6-8 — Bloom

Dynamics of working effectively with people and institutions. Focuses on actual procedure of the helping process; includes development of frame of mind or attitude to help students communicate better with people and bureaucratic structures. Also intended to help students develop beginning skills in the helping professions as well as to evaluate their own interests and potential in the field. (Prerequisite: concurrent registration in GC 1637 or field experience in a human services setting)

GC 1637. SUPERVISED WORK EXPERIENCES IN THE SOCIAL SERVICES (8637).

10 lessons — \$60 — 4 degree credits — text price \$2-4 — Stewart

Course objective is to gain practical experience in developing goals and objectives, specific steps of implementation and evaluation procedures for the individual learning process of the student and his competence in working with others. The student will be jointly supervised by his University instructor and a supervisor in his area of work or "awareness" experience. Students must submit a description of their proposed experience before enrolling. May be repeated for credit. (Prerequisite: GC 1631 or concurrent registration)

GC 1071. INTRODUCTION TO AGING (8638). 12 lessons — \$60 —
4 degree credits — text price \$16-18 — Weiss and Smith

Behavioral components, clinical aspects, and social organization of aging.

SOCIAL WORK

Also see Social Studies (General College)

SW3001. INTRODUCTION TO AMERICAN SOCIAL WELFARE AND COMMUNITY SERVICES (8690). 16 lessons — \$75 — 5 degree credits — text price \$15-17 — Wiebler

Survey of social services and their components, including many fields of practice, multiple auspices and dependencies; numerous levels of participation, differing ideologies and methods of approach to social problems, and the dynamics of change from social movements to institutionalizations inherent in American social service delivery systems. Course is primarily about the "frames of reference" within which help is offered in American social services, public and private. The uneasy relationship between social service policies and professional social work practice. This course is equivalent to the regular course offered to on-campus students within the B.A. in Social Welfare Program. Course is seen as prerequisite for practice methods courses.

SOCIOLOGY

Soc 1001. INTRODUCTION TO SOCIOLOGY (8602). 13 lessons — \$60 —

4 degree credits — text price \$10-12 — Baker, McKee, Wise

A general introduction to a scientific analysis of social interaction, social structure, and socialization. Topics include socialization and language, stratification, deviance and conformity, social integration and social change, and collective behavior. General theoretical perspectives will be examined, and the conflict-consensus issue discussed. Emphasis will be placed on application of concepts and theories to everyday life.

Soc 1002. AMERICAN COMMUNITY (8604). 12 lessons — \$60 —

4 degree credits — text price \$8-10 — Thiel

Sociological analysis of modern American society. Distribution of population, urban-rural differences, social factors in business systems, occupational groups, determination of social status, minority group adjustment. **This course is now in preparation; please inquire before enrolling.**

Soc 3101. ELEMENTS OF CRIMINOLOGY (8654). 14 lessons — \$60 —

4 degree credits — text price \$12-14 — Chein

A general introduction to the study of crime and its relationship to society, including: an in-depth look at the criminal justice system in America (the police, the courts, the prisons); an examination of historical and contemporary theories of criminal behavior; and a look at several types of crime and the roles they play in society.

Soc 5201. INTRODUCTION TO SOCIAL PSYCHOLOGY (8671). 16 lessons — \$60 —

4 degree credits — text price \$11-13 — Baker

An intensive examination of the major issues in social psychology. Covers substantive areas of socialization and language, personality, person perception, interpersonal attraction, prejudice, attitudes, social influence, prosocial behavior and aggression, small groups, and collective behavior. Emphasis will be placed on application of theories and concepts to everyday life. Three major theoretical perspectives (symbolic interactionism, exchange, and cognitive consistency) are used to organize course material.

Soc 5501. THE FAMILY (8681). 16 lessons — \$60 —

4 degree credits — text price \$11-13 — A. Johnson

Origin of family life; variability and change of family institutions and mating customs; contemporary parent-child relationships, adolescence, mate finding, marital adjustments; divorce and other family problems, prediction of marital success; theories of family reform. (Prerequisite: Soc 1001 or consent of instructor)

Soc 5951. MINORITY GROUP RELATIONS (8673). 12 lessons — \$60 —

4 degree credits — text price \$7-9 — Alexander

Interaction of social and cultural groups in America, with particular reference to the Negro. Processes leading to group contact; characteristics and contributions of ethnic groups in the United States; mechanisms and problems of group adjustment; democratic theory and practice; sources of prejudice, contemporary status of principal minority groups; international implications; trends and proposed solutions. (Prerequisite: Soc 1001 or consent of instructor)

SPANISH

Span 0221. SPANISH FOR GRADUATE STUDENTS (6817). 16 lessons — \$45 —

no credit — text price \$7-20 — Estelle

Prepares students primarily for reading, and especially for reading general and technical nonliterary prose. Prepares for graduate reading examinations in Spanish.

Span 1101. BEGINNING SPANISH I (6801). 22 lessons — \$75 —

5 degree credits — text price \$11-13 — Cuneo

Fundamentals of Spanish grammar. Developing good ear training by means of records or tapes; learning to read and write simple Spanish. Question and answer method used in connection with the reader. Emphasis is on a cultural approach and a practical knowledge of Spanish.

Course Descriptions

Span 1102. BEGINNING SPANISH II (6802). 24 lessons — \$75 —

5 degree credits — text price \$11-13 — Cuneo

Continues the conversational and cultural training begun in Span 1101. Completes the study of the essentials of Spanish grammar needed by beginning Spanish students. Emphasis on expanding Spanish vocabulary and question-and-answer composition in Spanish. (Prerequisite: Span 1101 or equivalent)

Span 1103. BEGINNING SPANISH III (6803). 18 lessons — \$75 —

5 degree credits — text price \$7-9 — Cuneo

A review and more detailed study of the principles of written Spanish. More emphasis on composition. Reading a short play. Study of the Spanish-speaking nations. (Prerequisite: Span 1102 or equivalent)

Span 1104. INTERMEDIATE SPANISH (6825). 18 lessons — \$75 —

5 degree credits — text price \$8-10 — Cuneo

Study of Spanish grammar and the process of thinking in Spanish. Emphasis on pattern; introduces the subjunctive. Questions and answers in Spanish. (Prerequisite: Span 1103 or equivalent)

Span 1105. READING AND COMPOSITION (6830). 17 lessons — \$75 —

5 degree credits — text price \$8-10 — Cuneo

Concentrates on developing reading skills, expanding vocabulary, and improving written expression. Materials include a textbook containing articles from newspapers and magazines, and a novel. (Prerequisite: Span 1104)

Span 1502. CULTURES AND CIVILIZATIONS OF LATIN AMERICA: PRE-COLUMBIAN TIMES TO 1825 (6843). 14 lessons — \$60 — 4 degree credits — text price \$11-12 — Cuneo

Provides an opportunity to study and evaluate the cultures and civilizations of Latin America from pre-Columbian times, through the discovery of America by the Spaniards and its consequent explorations, conquest and colonization (15th to 18th centuries), to the movements of independence from Spain, Portugal and France in the first quarter of the 19th century. It is intended to illuminate the problems and revolutionary changes of modern Latin America, which are a part of its complementary course, Span 1503. Readings in English. Knowledge of Spanish not necessary. Not to be used for Spanish or Portuguese major credit. May be used to satisfy Route II requirements.

Span 1503. CULTURES AND CIVILIZATIONS OF LATIN AMERICA: 1825 to 1930

(6844). 12 lessons — \$60 — 4 degree credits — text price \$15-18 — Cuneo

Completes the study and evaluation of the social, political, economic and cultural transformation of Latin America from 1825 to 1930; from the Age of the "Caudillos" to contemporary social reform and revolution in the Tropical Plantation Zone, in the Mestizo Zone, in the European Commercial Zone, in the Indian Subsistence Zone, and in the Zone of Little Change. Readings in English. Knowledge of Spanish not necessary. Not to be used for Spanish or Portuguese major credit. May be used to satisfy Route II requirements. **This course is now in preparation; please inquire before enrolling.**

STATISTICS

See Education

STUDY SKILLS

SSk 0012. GUIDED READING (3901). 12 lessons — \$30 — no credit — no required text — Klohn

Offers a systematic plan of reading to help the average reader become better informed on subjects of current interest, such as science, art, history, biography. Instructions are provided on how to get the most from reading and how to discuss with others what one has read. Books may be borrowed from the University Library.

SSk 0013. SELECTING BOOKS FOR CHILDREN (3902). 12 lessons — \$30 —

no credit — text price \$11-13 — Klohn

An introductory course for parents, teachers, and others interested in guiding children's reading. It surveys the field of children's literature from preschool age through the teens.

Course Descriptions

PO 1001. HOW TO STUDY (3801). 6 lessons — \$30 —
2 degree credits — text price \$19-21 — Wark

Guided practice in developing an efficient approach to studying, founded on research in human learning. Using this background, students are taught to develop their concentration, improve their listening and note-taking by using audio tapes, schedule their time effectively for study, prepare for and take exams, and prepare research papers. Qualified students may be exempt from parts of the last lesson. The course stresses practice in all the above skills, as well as in rapid reading, vocabulary development and effective underlining. (This course does not count as part of the 180 credit degree requirement at the University of Minnesota.)

Rhet 1147. EFFICIENT READING (3947). 9 lessons — \$45 —
3 degree credits — text and materials \$70 — Brown

Designed to increase reading rate, comprehension, and vocabulary. Includes the use of cassette tapes for instruction and pacing activities. Useful for anyone who wants to achieve and maintain superior reading improvement. Not a remedial course. See **Tapes and Tape Recorders** for information on securing a cassette recorder.

US 1201. ORIENTATION TO INDEPENDENT STUDY: ASKING QUESTIONS (3811).

4 lessons — \$45 — 3 degree credits — text price \$5-6 — J. Johnson

A module designed to provide both a structure for asking and examining questions and a broad theoretical framework relating to the question-asking approach to learning. Emphasizes the influence of media, "technocracy," and change on question-asking behavior. May be taken on S-N basis only.

GC 1404. VOCABULARY BUILDING (4002). 10 lessons — \$45 —

3 degree credits — text price \$8-10 — Kurak

A course designed for those who want to increase their active (speaking, writing) and passive (reading, listening) vocabularies by a variety of means. The lessons include drill in Latin and Greek word parts, practice in the use of vocabulary in context, and listening exercises on cassette tapes. Grades are based on a series of quizzes and a final exam.

Theatre Arts

TH 0001C. INDEPENDENT PLAYWRITING (4080). 16 lessons — \$45 —
no credit — no required text — Weinberg

Specifically designed for advanced students. Student is given complete freedom. Plays in any stage of development will receive detailed criticism. Course work consists of two full-length plays or approximately the same amount of writing made up of shorter dramatic forms. (Prerequisite: consent of instructor)

TH 5115. PLAYWRITING (4075). 16 lessons — \$60 —
4 degree credits — no required text — Weinberg

Reading assignments as an introduction to dramatic form and content. Practice in writing dramatic plots, characters, themes and dialogue. Writing exercises will include scenario, rough draft, and final revision of a one-act play (approximately 15 types pages or 30 minutes in playing time). (Prerequisite: TH 1101 or equivalent and consent of instructor)

TH 5186. AMERICAN THEATRE (T401). \$60 — 4 degree credits — Nolte

Examines the theatre from Colonial days to the present as a mirror of our society. Playwrights, performers, and productions are seen in the context of our cultural, social, and political life as America approaches its 200th birthday. **This course will be available as follows: KTCA-TV Channel 2, Spring 1976; KUOM Radio 770, Summer 1975; audio cassette tapes, Fall 1975.**

WOMEN'S COURSES

WOMEN: IS ANATOMY DESTINY? (8802). 5 lessons — \$15 —
no credit — text price \$2-4 — E. Reed.

Covers the material in the text **Our Bodies, Ourselves**. The lessons are on the basic biology of women (menstruation, childbirth, contraception and abortion, menopause) and also on the attitudes of women toward themselves and toward others. The objective is twofold: to increase the student's information about the biology of women and to raise the student's consciousness in regard to women and their sexuality.

Course Descriptions

WOMEN AND DRUG DEPENDENCY (8803). 8 lessons — \$30 —
no credit — text price \$5-7 — Kimball

Deals with the core of drug dependence. Since prevention is the key to success in dealing with drug dependency, women must be informed in order to effectively help themselves and influence the young or uninitiated. Theories for drug-taking, as well as an overview of prevalent usage, prejudices, biases and the stigma of "labeling," are examined from the woman's point of view. The course will present an idea of effective counseling for drug dependent women and the team approach in counseling. Non-drug ways of achieving alternative paths to intoxication are explored. The importance of interpersonal relationships, communication and the utilization of the woman's innermost spiritual resources are stressed.

WoSt 1005. INTRODUCTION TO WOMEN'S STUDIES (T881). \$60 — 4 degree credits — McNaron
Introduces several topics of basic concern to anyone trying to understand feminism. These topics include self-esteem and images of self, economics, politics, visual arts, history, religion, literature, the world of work, and the problem of multiple allegiance. The course will make tentative hypotheses about the implications of established theories and their challenges upon the lives of individual women (and men) presently and for the future. **This course will be broadcast on KTCA-TV Channel 2, Fall 1975.**

WoSt 1977. PSYCHOLOGICAL ENVIRONMENT OF WOMEN (8805). 12 lessons — \$60 —
4 degree credits — text price \$43-45 — audio tape price \$15-20 — Faunce

An examination of behavioral and social science principles and theories which have a unique application to the development, growth, and behavior of women. The course materials are on audio tapes rather than in the traditional written format. See **Tapes and Tape Recorders** for information on securing a cassette recorder.

WoSt 3302. WOMEN AND POLITICS (8801). 14 lessons — \$60 —
4 degree credits — text price \$17-19 — audio tape price \$22.50 — Arnaud

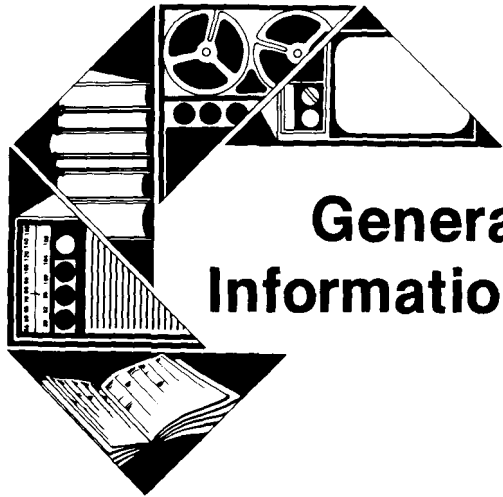
This course deals with the relationship of woman to her political culture and structures. Across cultures and time, women have had certain political roles closed to them. As a separate subgroup as seen by male politicians, women have also been the recipients of special political legislation and policy. We will investigate these patterns of political sexual discrimination in theory and in practice. Our goal is the achievement of a deeper understanding of the status of women in contemporary societies. The course materials are on audio tapes rather than in the traditional written format. See **Tapes and Tape Recorders** for information on securing a cassette recorder.



Professor Charles Nolte video taping a program for his TV credit course.



You can take courses by newspaper and radio through Independent Study.
(Steve Benson, KUOM radio, bottom photo.)



General Information

ADMISSION

There are no entrance requirements for admission to Extension Independent Study, although registration in specific programs or courses may require prerequisite study or experience. Prerequisites are noted in the course descriptions in this bulletin.

To enroll in an Extension Independent Study course, you need only complete and submit, along with the appropriate fees, the registration form found in the center of this bulletin. Additional registration forms are available on request.

COURSE DESCRIPTIONS

Courses in this bulletin are listed under departmental or subject headings, alphabetically arranged. Where several classifications are possible, cross references are given. Please refer to the index at the back of this bulletin for additional help in locating courses.

It is important to understand the course description format; it can help you choose the most appropriate course and will enable you to complete the registration form properly. A sample course description on page 8 indicates the information that may be found in all course descriptions listed in this bulletin. Ad-

General Information

ditional information can be obtained by writing to the Department of Independent Study for an introduction to the study guide. The introduction provides complete information regarding course requirements, topics covered, grading procedures, textbooks, and examinations. The form used to request a study guide introduction is included in the back of this bulletin.

COURSE NUMBERING

In the fall of 1970, the University of Minnesota instituted a four-digit course numbering system in which the first number indicates the credit level of the course. This numbering system is coded as follows:

0001 to 0998	Certificate or noncredit courses. Certificate credit course numbers are followed by a "C."
1000 to 1998	Lower division courses designed primarily for freshmen and sophomores.
3000 to 3998	Upper division courses designed primarily for juniors and seniors; (also open to other students with at least a C average overall and the necessary prerequisites).
5000 to 5998	Graduate level courses designed primarily for juniors, seniors and graduate students. NOTE: 5000 level courses taken through Independent Study will not be accepted for credit in the University of Minnesota Graduate School.

CREDITS

The University of Minnesota uses the quarter hour as the basis of credit evaluation. The ratio between the quarter hour and the semester hour is approximately as follows:

2 quarter hours	=	1 $\frac{1}{3}$ semester hours
3 quarter hours	=	2 semester hours
4 quarter hours	=	2 $\frac{2}{3}$ semester hours
4 $\frac{1}{4}$ quarter hours	=	3 semester hours
5 quarter hours	=	3 $\frac{1}{2}$ semester hours

All credits listed in this bulletin are quarter-hour credits.

The following credit designations are used in the course descriptions in this bulletin:

1. **Degree credit**—credit earned may be used in a degree program. Check the policy of your college concerning the acceptability of Extension Independent Study credits toward a degree program. University of Minnesota students should consult an advisor in their major department. (For more information, see **Degree Candidates** and **University Degree Programs**)

2. **Certificate credit**—credit earned may be used in appropriate Extension certificate programs. Certificate credit courses are college-level but do not carry degree credit and have no counterpart in day classes at the University of Minnesota. (For more information, see **Extension Certificate Programs**)
3. **No credit**—no credit is given for the course although grades may be assigned. (See also **Enrolling in Credit Courses on a Non-credit Basis**)

It is important, when filling out the Independent Study registration form, that you indicate clearly in the "credit" column the type of credit (outlined above), as well as the number of credits the course carries.

Resident Credit

Degree courses described in this bulletin parallel or are equivalent to courses with the same title and course number offered on the University of Minnesota campus. Credits earned through Extension Independent Study may be applicable to an undergraduate degree from the University of Minnesota. Students wishing to apply credits to a University of Minnesota degree program should carefully read the Degree Candidates, University Degree Programs, and Transcripts sections of this bulletin.

Graduate Credit

Credits earned through Extension Independent Study are not acceptable for graduate credit in the University of Minnesota Graduate School. They may be used, however, to satisfy undergraduate prerequisites for Graduate School admission, to complete the graduate language requirement, or to acquire additional background in particular subject areas.

Enrolling in Credit Courses on a Non-Credit Basis

Any course listed in this bulletin, whether offered for credit or not, may be taken on a non-credit basis by simply indicating "NC" in the credit section of the registration form. In some cases, an individual instructor may take into account, in his grading or lesson requirements, that a student has an objective other than degree or certificate credit. Usually, however, instructors will expect the same quality of work and will grade both credit and non-credit students on the same basis. You may not change from a non-credit to a credit registration once you have begun submitting lessons.

DEGREE CANDIDATES

Also see University Degree Programs

It is possible, through Extension Independent Study, to work on a variety of degrees at the University of Minnesota. There may be limitations, however, on the use of Independent Study credits in degree programs in certain major departments or individual schools. If you wish to apply credits earned through Independent Study to a University of Minnesota degree program you are urged to consult an academic advisor or a college administrator before enrolling.

General Information

If you have never been admitted to the University of Minnesota but wish to work toward a University of Minnesota degree, you should contact the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455 as early in your planning as possible. It is also essential to read the official bulletin of the college to which you wish to be admitted. College bulletins can be obtained by writing the Service Bureau, B-3 Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455.

Officials at other colleges or universities determine which Independent Study courses will be accepted to fulfill degree requirements at their institutions. To receive credit at another institution for courses taken through Independent Study, you should obtain prior approval from that institution before enrolling. A transcript of courses taken through Independent Study will be sent to other colleges and universities by sending your name, address, and the name of the institution to which the transcript should be sent to:

Extension Transcripts Department
Window 17
105 Morrill Hall
University of Minnesota
Minneapolis, Minnesota 55455

Students at the University of Minnesota or elsewhere must take full responsibility for meeting graduation or certification deadlines. All lessons and examinations must be completed at least three weeks before the date on which the final grade must be recorded for graduation or certification. This is especially important during May, June and September when, because many students are completing courses, the recording process is somewhat slower than at other times. Students with special time limitations should check with the Department of Independent Study **before** enrolling. (See also Time Limitations)

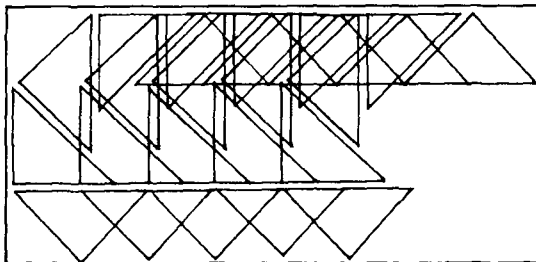
DISCONTINUED COURSES

The unavailability of materials, books or instructors sometimes makes it necessary to discontinue accepting enrollments in an Independent Study course. Tuition received for registration in courses cancelled since this bulletin was published will either be refunded or, if requested, transferred, free of charge, to another course with an equal number of credits.

EXAMINATIONS

Most Independent Study courses include a final examination and one or more mid-course quizzes. Examinations are usually supervised and may be taken at the following offices or under the supervision of the following individuals:

1. Department of Independent Study, 45 Wesbrook Hall, Minneapolis campus of the University. Office hours are from 7:45 a.m. to 4:30 p.m., Monday through Friday. No appointment is necessary during regular hours. If you wish to take your examination on the first or second Tuesday evening of the month, you should call 373-3256.



WAYS TO EARN CREDIT

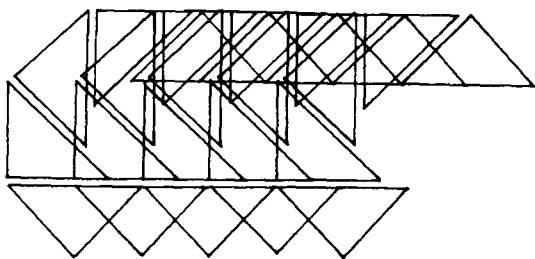
LESSON METHOD

The lesson method is based on the traditional correspondence format. When you enroll under this method, you receive a study guide that includes a list of required texts and materials, study instructions, supplementary information and specific lesson assignments. Using the study guide, textbooks, and other materials, you complete at your own pace a series of assignments for evaluation by your instructor. In most courses, you must successfully complete one or more mid-course examinations and a final examination to receive credit. The lesson method is most suitable for students wishing an organized program of study that closely approximates the content and format of daytime classes at the University of Minnesota. You will be enrolled automatically under this method unless you specifically request one of the following methods.

CONTRACT ALTERNATIVE

CREDIT BY EXAMINATION

These methods may be used only for courses listed in this bulletin. To enroll under contract alternative or credit-by-examination you should send, along with the registration form, a letter describing your background and reason for choosing this method, as well as a *transcript* of all college-level work to Deborah Nelson, Assistant Director, Department of Independent Study, 69A Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455. The Assistant Director, in consultation with an appropriate instructor, will decide either to approve your special enrollment, to recommend lesson-method enrollment, or, with contract alternative, to ask that you submit a trial number of regular lessons before a final decision is reached. As with other Independent Study



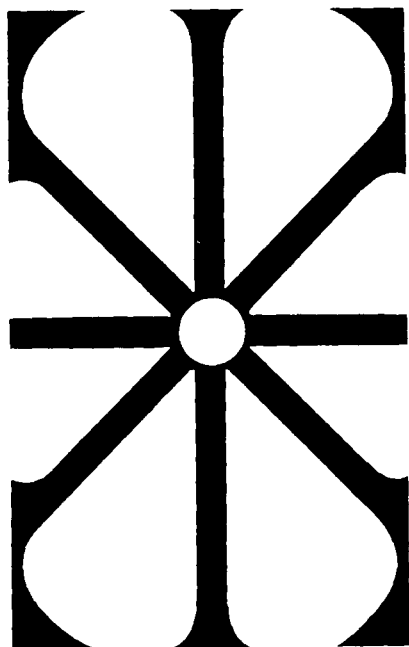
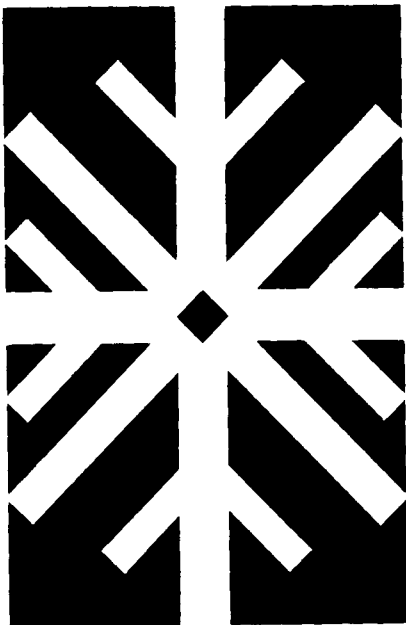
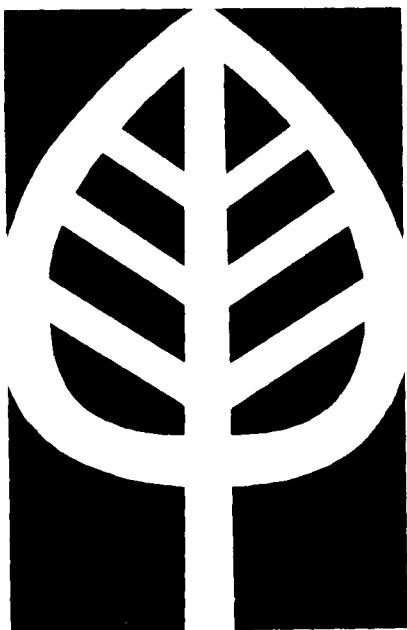
methods, you will receive a study guide upon acceptance of your registration even though you may not be required to follow the lesson assignments outlined there.

Contract Alternative

This method provides considerable freedom by exempting you from submitting all of the lesson assignments. Instead, you propose a project that you will complete in lieu of lesson assignments. Enrollment for the Contract Alternative carries full tuition. To receive credit for the course, you will be expected to pass a final examination and/or, in some other way chosen by the instructor, demonstrate your mastery of the course content.

Credit by Examination

The Credit-by-Examination method allows you to prepare on your own for a final examination, the passing of which entitles you to credit for the course. You will not be allowed to submit work for your instructor's evaluation before writing the examination. This method is designed primarily for students who wish to earn credit for their extensive background in a specific area. It is not recommended for students who do not have substantial prior knowledge in a subject area. You will be asked to pay the special examination fee of \$25 (\$20 for the examinations, plus \$5 for materials) and to inform the Department of Independent Study of your proctor's name, so that when you are ready to take the examination it may be sent to your proctor. Ten dollars plus \$5 for materials is nonrefundable.



A GUIDE TO
**UNIVERSITY
OF
MINNESOTA
TV
CREDIT
COURSES**



Extension Independent Study
University Media Resources
Continuing Education and Extension
UNIVERSITY OF MINNESOTA

TELEVISION INDEPENDENT STUDY

Earn University of Minnesota credit right in your home by enrolling in a television independent study course. Television Independent Study provides an integrated teaching system which includes some of the following components:

television presentations
written material and graphics
audio tapes
instructor feedback

Evaluation for these courses may include reviews, tests, papers, or exams.

Call 376-4925 for more information or registration forms.



FALL 1975

Psychology and Religion

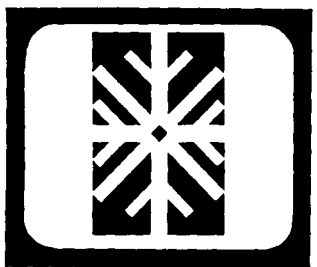
Psy 1911 – 4 credits

Instructor: Mary Jo Bradshaw

Introduction to Women's Studies

WoSt 1005 – 4 credits

Instructor: Toni McNaron



WINTER 1976

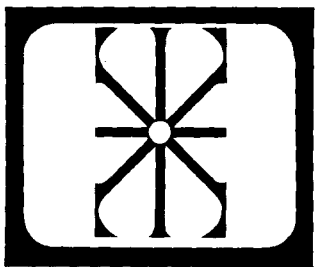
Workshop: Special Topics in Recreational Programming Rec 3800 – 3 credits

Instructors: Bruce Anderson, C. Pat Mueller

Special Topics: The Dynamics of Divorce

FSoS 5240 – 3 credits

Instructor: Richard Hey



SPRING 1976

American Theatre

Th 5186 – 4 credits

Instructor: Charles Nolte

American Popular Music

Mus 5711 – 4 credits

Instructor: Johannes Riedel

Fall 1975

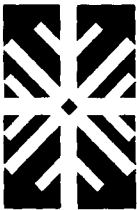


PSYCHOLOGY AND RELIGION (Psy 1911 – 4 cr) explores religiousness from a psychological viewpoint. The course is designed to help the student understand people's religious expression, or lack of it, in the context of what is known about psychological processes.

INTRODUCTION TO WOMEN'S STUDIES

(WoSt 1005 – 4 cr) introduces several topics of basic concern to anyone trying to understand feminism including self-esteem and images of self, economics, politics, visual arts, history, religion, literature, the world of work, and the problem of multiple allegiance. The course will make tentative hypotheses about the implications of established theories and their challenges upon the lives of individual women (and men) presently and for the future.

Winter 1976



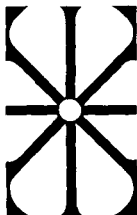
WORKSHOP: SPECIAL TOPICS IN RECREATIONAL PROGRAMMING, FOCUS ON RECREATIONAL SPORTS (Rec 3800 – 3 cr)

identifies the human values produced in sports participation and subsequently provides the basic ingredients to insure successful recreational sports programming.

The course is meaningful for personnel involved in sports programming in all levels of education, community recreation, business, industry, and the military as well as those who have a general interest in recreational sports.

SPECIAL TOPICS: THE DYNAMICS OF DIVORCE (FSoS 5240 – 3 cr) is designed to help couples and individuals achieve an understanding of the divorce process, including the troubled marriage and marital breakdown, legal aspects and implications, re-entry into the single life: parent and person, the child and divorce, and coping with divorce: the psychological aspects.

Spring 1976



AMERICAN THEATRE (Th 5186 – 4 cr) examines the theatre from Colonial days to the present as a mirror of our society. Playwrights, performers, and productions are seen in the context of our cultural, social, and political life as America approaches its 200th birthday.

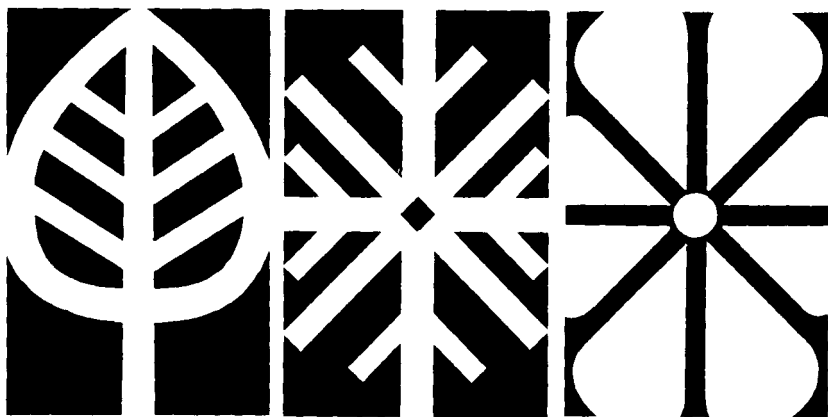
AMERICAN POPULAR MUSIC (Mus 5711 – 4 cr) examines popular music in the United States during the 19th century. It includes ethnic music; technology in music; social dance music; parlor songs; barber shop songs; theatre music; Civil War music, and more.

REGISTRATION INFORMATION

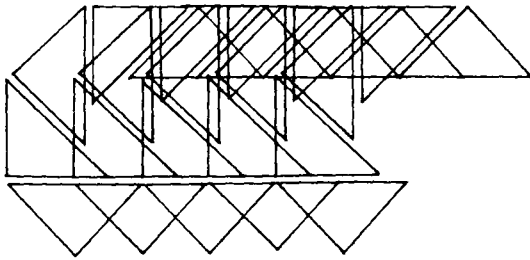
To register for a Television Independent Study course you may use the registration form stapled in the center of this bulletin.

Tuition for Television Independent Study is \$15.00 *per credit*. Students may register up to the third program without a late fee. Required texts can be purchased from Nicholson Book Store.

People not wishing to register for credit may purchase a study guide for the course from Independent Study.



IF YOU HAVE ANY FURTHER QUESTIONS PLEASE
CALL 376-4925.



DIRECTED STUDY

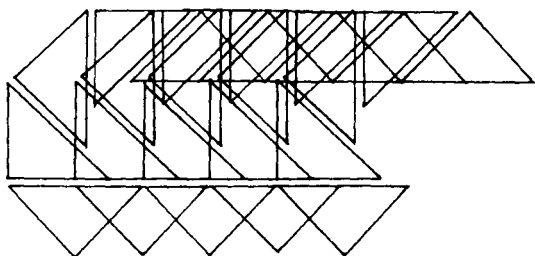
(Individual Study)

This method is suggested for courses not listed in this bulletin and not available through departmental readings courses. Projects requiring cross-disciplinary study are most appropriate for this option.

Directed Study lets you undertake and complete academic work of your own design in either the General College or University College. Before registering for credits through Directed Study, you need to secure the approval of an instructor in whose field the course is relevant. To apply for approval, please request the appropriate Individual Study Proposal form, (specify General College or University College in your request) available by writing Deborah Nelson, Assistant Director, Department of Independent Study, 69A Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota, 55455. This form will be mailed to you along with further instructions for Directed Study registration. As with other Independent Study courses, you will have up to one year to complete your work before your registration expires.

PUBLIC MEDIA COURSES

Earn University credit by enrolling in a course offered through selected Minnesota newspapers and the Department of Independent Study. Requirements for the course by newspaper include reading weekly newspaper articles and assigned readings, attending several sessions at the University, and taking a mid-term and a final examination. Tuition for this course is \$15 per credit.



Via Radio

Campus radio station KUOM 770, in cooperation with the Department of Independent Study, broadcasts degree credit courses each quarter. These courses are usually broadcast from 12:00 A.M. on Mondays, Wednesdays and Fridays.

The fee for these credit courses is \$15 a credit. To receive registration materials or further information on newspaper and radio courses, write: Department of Independent Study, 45 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota, 55455, or call (612) 376-9256.

SPECIAL INDEPENDENT STUDY PROGRAMS

For groups of 20 or more students, the Department of Independent Study will, upon request, investigate the possibility of coordinating a special study program. Special Independent Study Programs consist of the basic correspondence course supplemented by lectures by the instructor, video and/or audio.

This option adds the dimension of group interaction without diminishing the flexibility or personal nature of Independent Study instruction. Group meetings will be arranged at a time most convenient for the students involved.

Those wishing to discuss the possibility of Special Independent Study Programs should call or write Anita Steinbicker, Coordinator, Department of Independent Study, 27 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota, 55455; telephone: (612) 376-4987.

General Information

Students in the Twin Cities area are urged to take their examinations at the offices of the Department of Independent Study.

2. Continuing Education and Extension Offices (by appointment only):

Crookston:	209 Selvig Hall, 281-6510, ext. 243
Duluth:	431 Administration Building, 726-8113
Morris:	226 Engineering Building, 589-1464
Rochester:	2120 E. Center Street, Building 4, 288-4584
Wadena:	411 Colfax Avenue Southwest, (218) 631-2413

3. The Independent Study Department of any member institution of the National University Extension Association. (A list is available on request.)

4. A school superintendent, principal, or counselor; a college instructor or administrator.

5. A commissioned officer whose rank is higher than your own. (For students in the military only.)

The Department of Independent Study reserves the right to reject any supervisor. Regardless of his academic qualifications, no relative may proctor an examination. No proctor fees are authorized.

One or more **Request for Examination** forms are included in the study guide for each course. To take your examinations at locations other than the offices of the Department of Independent Study, you must contact the individual who will proctor your examination **before** sending the Request for Examination form to the Department of Independent Study. Examinations are mailed directly to the supervisor at his or her business location.

EXTENSION CERTIFICATES

Thirty certificate programs have been developed and are offered by Continuing Education and Extension. They are generally regarded by business and industry as valuable preparation for employment and promotion and are designed for those who do not wish to pursue a regular degree program. For more information and a detailed listing of requirements, see the special section in this bulletin, Extension Certificate Programs.

FACULTY

Instructors for all Extension Independent Study credit courses are approved by the academic departments through which the courses are offered. In most cases, Independent Study instructors are faculty members of the University of Minnesota, although faculty members from other colleges and universities, or specialists in professional and business fields, also teach Independent Study courses. A complete listing of the faculty of the Department of Independent Study appears at the end of this bulletin.

General Information

FEES

Tuition and Out-of-State Fees

Tuition for Independent Study courses is \$15 per credit. A 3-credit course, therefore, costs \$45, a 4-credit course \$60, and a 5-credit course \$75. The tuition for each course is listed with the course description. Books and materials are not included in the tuition and must be purchased separately. (See Text-books and Materials.) Students who are not residents of Minnesota or Wisconsin must pay an additional \$3 fee per course. Wisconsin residents are exempt because of the Minnesota-Wisconsin Reciprocal Education Agreement. If you wish your lessons to be sent airmail, money for extra postage must be added to the cost of tuition. (See explanation of postage fees below). Checks or money orders should be made payable to the University of Minnesota, and students must register for Independent Study courses directly with the Department of Independent Study. A \$2 handling fee is charged for all checks returned by a bank. Independent Study has no commercial agents in this country or abroad.

Postage

Students pay postage on all mail sent to the Department of Independent Study; return mail is paid by the Department at surface mail rates. Foreign or American students may arrange for lessons, or texts and materials, or both to be sent airmail by enclosing a special fee with their registration. Overseas students who do not arrange for airmail postage may encounter considerable delay and possible loss of delivery.

Foreign or American students who wish corrected lessons returned by airmail or other rapid-service mail should remit the following amounts in addition to the tuition for each course:

Africa	\$12.50	Central America	\$7.50
Near and Far East	12.50	Canada	5.00
Europe	7.50	Mexico	5.00
South America	7.50	United States	5.00

Any balance remaining after the completion of a course will be refunded.

Students in the United States and Canada who wish texts and materials sent airmail should remit \$5.00 in addition to the tuition for each course. Overseas students should remit \$10.00 per course. Any balance remaining after postage has been paid will be refunded. Indicate clearly on the registration blank the purpose for which additional payment for postage is included.

Refunds

If you wish to cancel your registration in a course, a partial refund of your tuition may be requested, providing you do so within three months of the date of registration and prior to the completion of half the lessons in the course. Twenty-five percent of the cost of the course, and \$2.50 for each lesson evaluated, are nonrefundable. The service charge and first payment under the partial payment plan are also nonrefundable. If you have made the second payment under the

partial payment plan, however, you may receive a refund in the same manner as other Independent Study students. (See complete explanation of Partial Payment Plan under **Financial Assistance**.)

Reinstatements

You will have one year from the date of registration to complete a course; if you cannot complete the course in that period, you may reinstate your enrollment for one additional year for a fee of \$10.00. Reinstatements should be requested before enrollment expires, and the reinstatement fee must be paid before additional lessons can be submitted. If arrangements to reinstate are not made within 30 days after expiration date of your original enrollment, you will be allowed to complete the course only by re-enrolling with full tuition fees.

FINANCIAL ASSISTANCE

The following paragraphs describe some of the programs and methods through which financial aid for Independent Study can be arranged. Full-time students at the University of Minnesota should also contact the Office of Student Financial Aid, 107 Armory, University of Minnesota, Minneapolis, Minnesota 55455, regarding additional assistance opportunities.

Business firms—Many business firms are willing to help subsidize the education of their employees. Before enrolling, you are urged to talk with your company's personnel officer about possible tuition assistance for Independent Study.

Handicapped Students—Rehabilitation funds for the education of disabled persons are available through most State Departments of Education. Applications for aid in Minnesota should be sent to the Division of Vocational Rehabilitation, State Department of Education, Centennial Office Building, St. Paul, Minnesota 55101; telephone: (612) 296-2891.

Low-income Adult Scholarships—Tuition assistance scholarships are available through the Continuing Education and Extension Tuition Assistance Program for low-income adults who wish to enroll in Independent Study courses. Applicants must be Minnesota residents, and eligibility for tuition assistance is based on monthly net income, number of dependents and special expenses. For information, call 376-4500 or write to the Department of Independent Study, 25 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

Prisoner's Tuition Assistance Fund—The Department of Independent Study has available limited funds to help offset the cost of Independent Study tuition for those confined to Minnesota State correctional institutions. Persons interested in obtaining such assistance should send a letter of application to Roger Young, Director, Department of Independent Study, 33 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

Prisoners are also urged to consult their prison education officer about possible financial aid available through their own institution.

General Information

Cold War Veterans—(Chapter 34, Title 38, U.S. Code) A G.I. bill providing educational benefits for eligible veterans became effective June 1, 1966. Eligibility is based on active military service on or after February 1, 1955, with veterans receiving 1½ months of eligibility for each month or part of a month of active service after that date. Maximum period of training is 36 months, but this period is reduced by training taken under other Veterans Administration programs. For further information on registration procedures, write or telephone the Department of Independent Study, University of Minnesota, Minneapolis, Minnesota 55455, telephone: (612) 373-3822.

Partial Payment Plan—The Department of Independent Study offers a partial payment plan for those who cannot pay full tuition at the time of registration. This plan applies only to courses with tuition of \$30.00 or more. Texts and materials ordered through the Department of Independent Study must be paid in full at the time of purchase, as must the out-of-state fee, if applicable.

Under this plan, ⅓ of the total tuition, plus a service charge of \$3.00 per course, is paid at the time of registration. The remaining ⅔ is payable in two equal monthly payments due 30 and 60 days after the date of registration.

Sample payment schedules:

Tuition	1st pmt (at registr.)	2nd pmt (30 days)	3rd pmt (60 days)
\$30 (2 cr at \$15.00/cr)	\$13.00	\$10.00	\$10.00
\$45 (3 cr at \$15.00/cr)	\$18.00	\$15.00	\$15.00
\$60 (4 cr at \$15.00/cr)	\$23.00	\$20.00	\$20.00
\$75 (5 cr at \$15.00/cr)	\$28.00	\$25.00	\$25.00

Instruction will not be received for any lessons submitted exceeding that percentage of the course for which tuition has been paid. Students enrolled in a three-credit course of 12 lessons, for example, will not receive instruction beyond lesson four if they have made only the first payment.

Registration will be cancelled if the total amount of the tuition has not been paid within 90 days of the original registration unless special permission has been obtained from the Director of the Department of Independent Study to extend the payment deadline. Once registration has been cancelled, you may continue a course only by re-enrolling.

The first payment and the service charge for partial payment is nonrefundable. Students who have made the second payment, however, may request a refund or transfer to another course in line with the regular refund and transfer procedures. (See Fees)

Students wishing to use the partial payment plan should fill in the appropriate spaces on the regular registration form and send it, along with the service charge, the first payment, and any other special fees to the Department of Independent Study.

GRADES

The University of Minnesota employs two grading systems: the A-N system and the S-N system. You must indicate on your registration form the system by which you wish to be graded in each course, and you may not change to another system after you have begun submitting lessons. Certain courses may not be taken on an S-N basis; where this is so, it is indicated in the course descriptions in this bulletin. Reports of final grades earned in Independent Study are sent automatically to the student upon completion of each course.

A-N Grading System

In the A-N system there are four passing grades: A (highest), B, C, D (lowest). A grade of N indicates unsuccessful completion of the course. A grade of D, while a passing grade, reflects substandard work and must be balanced by grades of A or B in order to maintain the C average required to graduate from the University of Minnesota. Grading procedure and requirements are left largely to the discretion of the instructor, who is in the best position to evaluate a student's skill, knowledge and progress. Grading policies employed in specific courses are usually outlined in the study guide for each course. Questions or problems concerning grades earned in Independent Study should be directed to Deborah Nelson, Assistant Director, Department of Independent Study, 69A Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

S-N Grading System

The S-N system represents an alternative to the A-N system. S represents achievement that is satisfactory to the instructor. (The standards for S may vary from one course to another). The symbol N, which stands for no credit, is assigned when the student does not earn an S.

Students wishing to take courses under the S-N grading system should be aware of the limitations placed on the system by the college from which a degree will be granted. 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 a particular grading system.

Students intending to apply Independent Study credits taken on the S-N basis toward a degree at the University of Minnesota should contact their college office or the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455, before enrolling.

Up to 25 percent of the course credits may be presented toward completion of a Certificate Program. Students not working on a degree or certificate program, and not intending to later apply credits toward such a program, may elect the S-N system for any number of courses.

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, four grade points; B, three

General Information

grade points; C, two grade points; D, one grade point; N, O grade points. A student's grade point average is determined by dividing the sum of grade points by the sum of credits attempted, both passed and failed. Credits attempted in classes taken on the S-N grading system are not included in determining grade point average.

Withdrawals, Cancellations and Incompletes

No grade will be recorded for students who cancel a course or who fail to complete their Independent Study work within the one-year time limit. Upon completion of all course requirements, students receive a grade report from the Office of Admissions and Records.

GROUP STUDY

See Ways to Earn Credit through Independent Study in center section of bulletin.

GUIDANCE AND COUNSELING SERVICES

Independent Study students may obtain counseling by mail by writing:

Extension Counseling Office
314 Nolte Center
University of Minnesota
Minneapolis, Minnesota 55455
Phone: (612) 373-3905

The Extension Counseling Office offers both counseling and program advising services, without fee, to all students registered in or planning to register in courses offered by Continuing Education and Extension.

Program advising is available to help students select programs of study, determine prerequisites and standing, evaluate transcripts of previous college work, choose the kind and number of courses in which to enroll, evaluate the applicability of Independent Study credits to specific programs, and make decisions regarding participation in degree or certificate programs at the University of Minnesota.

In addition, professional counseling and testing services are available to students seeking help with personal problems, wishing to learn more about their own abilities and interests, or needing help with educational and vocational planning. A fee of \$25 is charged for students (\$50 for non-students) wishing to take a battery of tests.

The Counseling Office is located at 314 Nolte Center on the Minneapolis campus of the University of Minnesota and is open for appointments daily, Monday through Friday, from 9:00 to 12:00 a.m. and from 1:00 to 4:00 p.m. Evening appointments are also available Monday through Thursday from 5:00 to 8:00 p.m. and at other specified times during the fall registration period of each academic year.

HIGH SCHOOL STUDENTS

The Department of Independent Study offers approximately 45 courses for high school credit suitable for students who need specific credits for college entrance; students who have dropped out of school but wish to complete their diploma; handicapped students who cannot attend public high school; above-average students who have permission to accelerate their high school completion; or adults preparing for the General Educational Development (GED) tests for high school equivalency. Qualified high school students may, with permission of their local school authorities, take college-level Independent Study courses for credit.

Independent Study courses for high school students are approved by the State Department of Education and satisfy University of Minnesota entrance requirements. For more information and a complete list of courses, write to the Department of Independent Study for a **High School Bulletin**.

Adults 19 years or older who have left school and are eligible to take the General Educational Development (GED) tests for high school equivalency may also find it useful to take high school courses through Independent Study. Courses in English, mathematics, social studies, and other subjects can serve as a valuable review for students preparing to take the examinations. Detailed information about the GED examinations in Minnesota may be obtained by contacting Mr. Donald A. Peterson, Coordinator, Community Education Section, State Department of Education, Capital Square Building, St. Paul, Minnesota 55101. (612) 296-4057.

LESSON SERVICE

The Department of Independent Study makes every effort to provide reasonable and prompt lesson service throughout the calendar year. Because some lapse of time is inevitable, however, in the handling and evaluation of assignments, students should allow at least one week between the time an assignment is received by the department and the time it is placed in the return mail. All assignments for a course should be completed at least two weeks before taking the final examination.

Circumstances such as insufficient postage, no zip code, and the submission of a large number of lessons at one time may delay the return of lessons beyond the one week period. At certain times of the year, especially during the summer months when many lessons must be sent to off-campus addresses, lesson return may be somewhat slower. However, students are urged to contact the Department of Independent Study regarding any lesson not returned within three weeks from the date on which it was submitted.

LESSON SUBMISSION

One of the major advantages of Independent Study is that it permits students to progress at their own pace. Although the time required for preparation varies

General Information

with the course and the individual, the average time required to read and prepare a written or taped assignment is between six and ten hours. Whether one or several assignments are submitted per week or month, more value will be derived from the course if assignments are completed on a regular schedule. For optimum learning, new assignments should not be submitted until after receiving the instructor's comments on assignments already submitted. Students should not hold assignments but should submit them as they are completed.

Generally, students should plan on a minimum of two weeks to complete each quarter-hour credit. A three credit course, therefore, would require a minimum of six weeks to complete. In addition, students should allow at least three weeks from the date the course is completed for the final grade to be recorded on their transcript in the office of Admissions and Records. Students with special time limitations should check with the Department of Independent Study, before enrolling, about the feasibility of meeting their particular credit deadline.

An Independent Study course may be started at any time and completed within one year from the date of registration. For information on reinstating enrollments that have expired, see Reinstatements under **Fees**.

LIBRARY AND AUDIO-VISUAL FACILITIES

While it is expected that students enrolled in Extension Independent Study courses will purchase the required textbooks, they have access to a variety of library resources. Students are urged to use their local public, school or college library for both supplemental and required reading other than textbooks. Many Minnesota colleges and universities will extend library privileges to University of Minnesota Independent Study students who show a fee statement. Students must agree to abide by the regulations of any lending college or university library. Course grades may not be issued or transferred for students who fail to comply with individual institutional library regulations.

In addition, most Minnesota libraries are participants of MINITEX (Minnesota Interlibrary Telecommunications Exchange) a legislatively funded program that shares library resources. If the local library does not have a needed item, it can generally secure this from another library. Students needing assistance in identifying or locating community library resources may call (612) 376-3925 or (800) 552-1138.

The following library and resource facilities are also available:

University of Minnesota Libraries—Independent Study students are entitled to borrow books from the University of Minnesota libraries. These include the St. Paul Campus Library, Walter Library on the East Bank of the Minneapolis campus, and Wilson Library on the West Bank of the Minneapolis campus. Independent Study students are subject to all library regulations including those covering loan periods, fines on overdue books, and the recall of books needed by other students or for course reserves. Students borrowing in person must present a current fee statement (the student's copy of the registration form) when checking out books. If you reinstate for a second year in a course, you must present your proof-of-reinstatement slip at the library to withdraw books.

General Information

Students wishing to borrow by mail should fill out the request form sent with their course materials and return it to the Circulation Department, Wilson Library, University of Minnesota, Minneapolis, Minnesota 55455. Library loans by mail are subject to all library regulations and must be returned on demand. No library books can be sent overseas.

Loan Library—The Department of Independent Study operates a small loan library from which required and recommended books for some courses may be rented. The study guide for each course indicates any books available for that course from the loan library. Rental fee for three months is 25 percent of the new book price; the minimum charge is 50 cents. A book may be retained an additional month, if needed, for an additional 15 percent of the list price. Borrowers must observe the library courtesy of returning books when due so they may be used by other students who need them. No library books can be sent overseas.

Audio Visual Extension—The Department of Audio Visual Extension provides audio visual library services for assistance in the use of nonprint and print media as a learning resource. Over 8,500 titles (20,000 prints), an audio tape library of 3,000 subjects, and a library of other nonprint subjects are available in a film library on a fee basis as an educational resource for patrons. Extensive bibliographic data and reference service are also provided on request. Limited preview facilities and equipment are available on the departmental premises. For more information and a catalog of available resources, contact the Librarian, Department of Audio Visual Extension, 3300 University Avenue S.E., Minneapolis, Minnesota 55414; telephone: (612) 373-5452.

Language Laboratory—The University of Minnesota Language Laboratory and Instructional Resource Center houses over 5,000 cassette and reel-to-reel tapes for use in languages, music, social sciences and other disciplines. Independent Study students are eligible to use the language laboratory and/or to borrow materials on a long-term loan basis upon presentation of the student's copy of the completed registration form. Students wishing to borrow materials by mail should fill out the request form sent with their course materials and return it directly to the Language Laboratory. The addresses and phone numbers of both the St. Paul and Minneapolis resource centers appear below. Please call for information on relevant course materials and on laboratory hours.

Language Laboratory
204 Walter Library
Minneapolis Campus
Phone: (612) 373-2538

Instructional Resources Center
2nd Floor, Temporary South of Coffey
St. Paul Campus
Phone: (612) 373-1623

NEWSPAPER COURSES

See Ways to Earn Credit through Independent Study in center section of bulletin.

General Information

NUEA

(National University Extension Association)

The Department of Independent Study is a member of the Independent Study Division of the National University Extension Association. The division publishes a GUIDE TO INDEPENDENT STUDY that lists Independent Study courses offered by 64 colleges. It is available from the National University Extension Association, One Dupont Circle, Suite 360, Washington, D.C. 20036. For single copies, the cost is \$1.00.

OFFICE HOURS

The office of the Department of Independent Study is open Monday through Friday, 7:45 a.m. to 4:30 p.m., throughout the calendar year. The Department does not observe regular academic holidays except for the following:

July 4, 1975	Independence Day
September 1, 1975	Labor Day
November 27, 1975	Thanksgiving Day
November 28, 1975	Friday after Thanksgiving (Floating Holiday)
December 25, 1975	Christmas Day
December 26, 1975	Friday after Christmas (Floating Holiday)
January 1, 1976	New Year's Day
February 16, 1975	Presidents' Day (Floating Holiday)
May 31, 1976	Memorial Day

OVERSEAS AND FOREIGN STUDENTS

The Department of Independent Study welcomes registrations from foreign students or Americans living or traveling abroad. Since courses are available only in English, foreign students must have enough facility in English to be able to read and write assignments without difficulty.

The Department of Independent Study does not employ agents abroad. The students or Americans living or traveling abroad. Since courses are available only in English, foreign students must have enough facility in English to be able to read and write assignments without difficulty.

Loan Library materials, records and certain other supplementary materials cannot be sent overseas. Where this is so it is noted in the study guide sent to each student upon registering.

PARTIAL PAYMENT PLAN

See Financial Assistance

POSTAGE

See Fees

PURCHASE OF STUDY GUIDES

Students not wishing instruction or credit for an Independent Study course may purchase individual study guides. Requests for information on the purchase of study guides should be addressed to Irene Anderson, Office Supervisor, Department of Independent Study, 38 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

RADIO COURSES

See Ways to Earn Credit through Independent Study in center section of bulletin.

REFUNDS

See Fees

SPECIAL COURSES AND PROGRAMS

The Department of Independent Study is involved in a number of special programs designed to create flexible continuing education opportunities for special groups. The following are some of the programs which, to a greater or lesser degree, use the resources of the Department of Independent Study to extend the University into the community.

Independent Study Program for Hospital and Health Care Facility Administrators

The Independent Study Program for Hospital and Health Care Facility Administrators is a three-year sequence of courses designed to improve administration of health care delivery institutions and to provide health care administrators with an educational alternative to full-time residential study.

For additional information, contact the Project Coordinator, Independent Study Program for Hospital and Health Care Facility Administrators, 186 Frontier Hall, University of Minnesota, Minneapolis, Minnesota 55455.

General Information

Independent Study Program in Patient Care Administration

The intent of the Independent Study Program in Patient Care Administration is to improve the practice of patient care administration and, as a result, to improve the delivery of health care. Applicants must be presently employed as administrators of patient care (Directors of Nursing or equivalent) who wish to broaden their academic preparation in administration to enable them to evaluate and meet their present or projected levels of responsibility.

For additional information contact the Project Director, Independent Study Program in Patient Care Administration, 186 Frontier Hall, University of Minnesota, Minneapolis, Minnesota 55455.

Independent Study Program in Long Term Care Administration

Four independent study courses in long term care have been designed for persons who administer nursing homes, homes for the aged, and geriatric centers. Three courses combine in-residence seminars with correspondence study and are 15 weeks long; the fourth course is a 15-week practicum. Courses are designed for new entrants to the field, but may also be used as continuing education for administrators and directors of nursing who wish to obtain formal preparation in the field. Credits are transferable to many colleges and universities throughout the United States.

For additional information, write to the Center for Long Term Care Administration Education, 194 Frontier Hall, University of Minnesota, Minneapolis, Minnesota 55455, telephone: (612) 376-3287.

TAPES AND TAPE RECORDERS

The Department of Independent Study has available for loan a number of cassette recorders for use with those Independent Study courses that use audio tapes as required or optional materials. Cassette tape recorders may be borrowed for three months for a service fee of \$20.00 (\$15.00 is a non-refundable rental fee, and \$5.00 is refundable when the tape recorder is returned undamaged.) The loan period may be renewed for additional months for a fee of \$5.00 per month. Students will be charged a fine for use, without renewal, beyond the basic loan period and will be held responsible for any loss or damage to machines while in their possession or in transit back to the Department of Independent Study. Cassette recorders will not be sent overseas. For more information regarding cassette recorders on loan, call or write the Department of Independent Study, 45 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455; telephone: (612) 373-3256.

TEACHER CERTIFICATION

Most Independent Study courses can be used in the acquisition and renewal of teachers' certificates. However, the Department of Independent Study only provides the courses and does not evaluate teaching or educational experience for a certificate or recommend courses.

Questions concerning teacher certification should be directed to the State Department of Education or a similar agency. (In Minnesota—Director of Teacher Certification and Placement, 6th Floor, Capitol Square Building, 10th and Cedar, St. Paul, Minnesota 55101).

TELEVISION COURSES

See Ways to Earn Credit through Independent Study in center section of bulletin.

TEXTBOOKS AND SUPPLIES

Textbooks and supplies needed for a course, and the procedure for ordering them, are explained in the study guide sent to the student upon registering. The tuition fee does not cover the cost of books and materials. Course descriptions in this bulletin list approximate book prices. Exact prices are listed in the study guide introduction, a copy of which will be sent upon request to students who wish to know more about a course before enrolling.

Students who wish to sell their books after a course is completed should contact Irene Phillips, Nicholson Hall Bookstore, Room 7, University of Minnesota, Minneapolis, Minnesota 55455; telephone: 373-3688. Only books in current use will be purchased. Please inquire before sending books.

TRANSFERRING TO ANOTHER COURSE

You may transfer from one Extension Independent Study course to another providing you do so within three months from the date of registration and prior to the completion of half the lessons in the course. The transfer fee is 25 percent of the cost of the first course, plus \$2.50 for each lesson evaluated. The balance of the original fee is applied to the tuition for the new course. The second course must be completed within one year from the original registration date unless the enrollment is reinstated as explained above. When a transfer is recommended by the Department of Independent Study, there is no charge except for lessons evaluated by the instructor.

Transfers are allowed only once per registration and cannot be made from one individual to another.

General Information

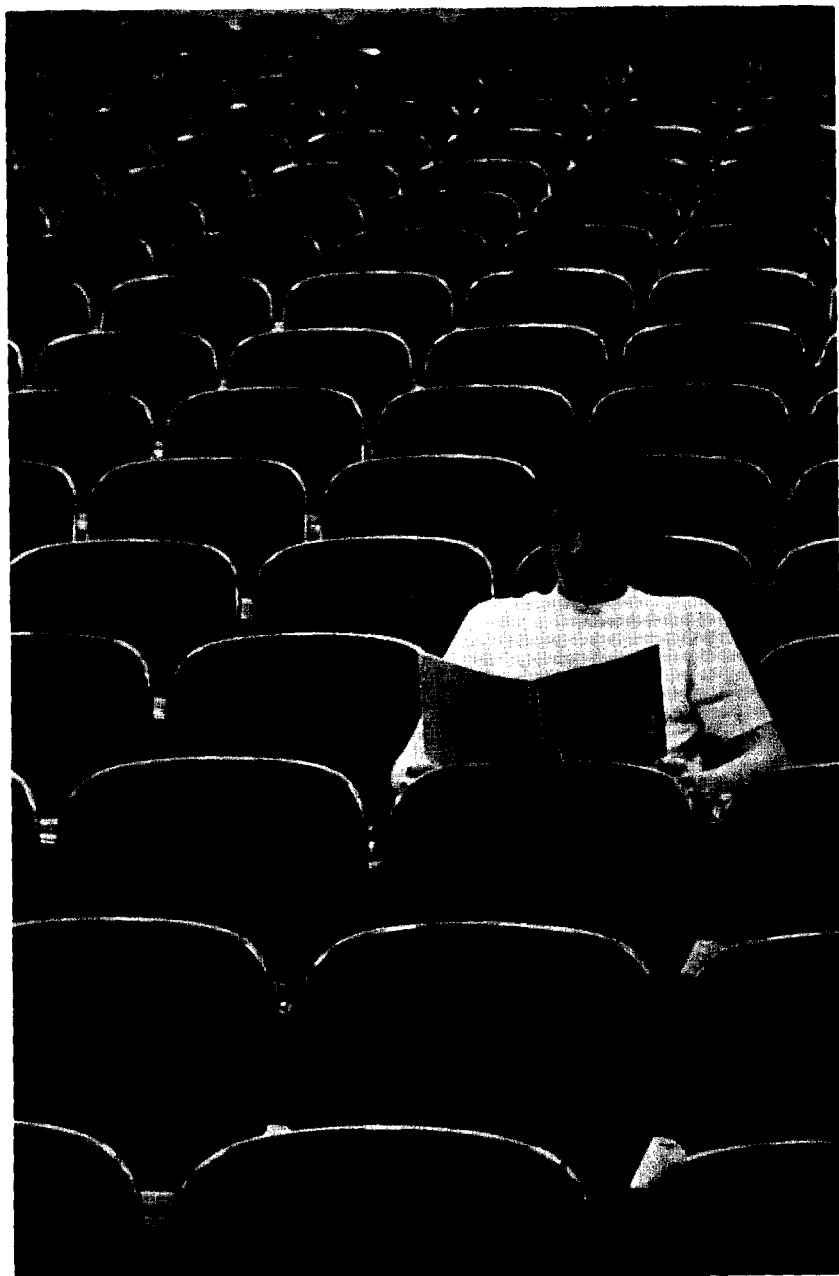
TRANSCRIPTS

An unofficial transcript is sent to each student upon completion of a course. An official transcript of work taken through Independent Study will be sent to other colleges and universities upon request. Students should send their name, address and the name of the institution to which the transcript should be sent to:

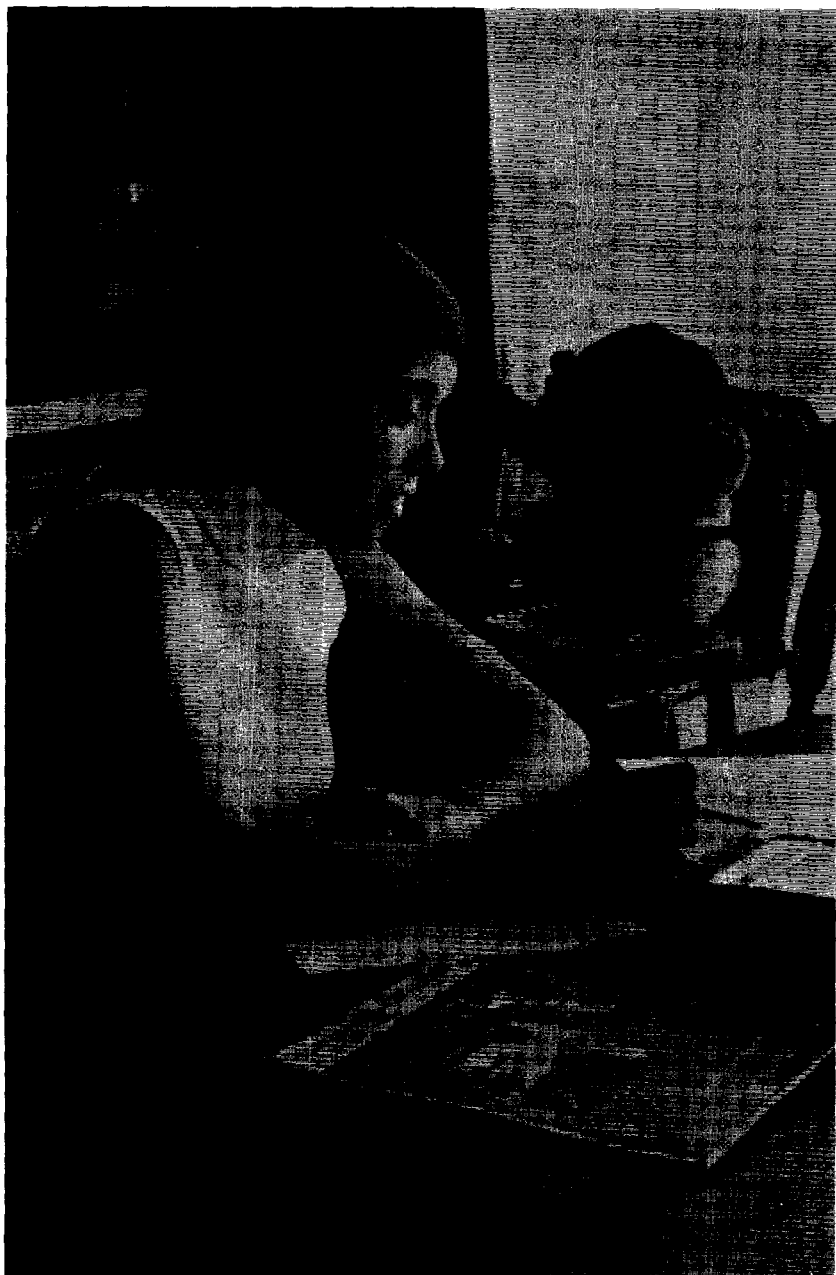
Extension Transcript Department
Window 17, 105 Morrill Hall
University of Minnesota
Minneapolis, Minnesota 55455

WITHDRAWALS

Students who wish to cancel their registration within three months of the date of registration and prior to the submission of half the lessons in a course may do so in line with the regular refund policy explained under Fees in this bulletin. Students who wish to withdraw from a course after that point may do so, in effect, by simply not submitting lessons for evaluation. No grade of any kind is recorded unless all work for the course is completed.



Independent Study correspondence courses put you in a class by yourself.



Cassette tapes are an important instruction method in many Independent Study courses. (See **Tapes and Tape Recorders.**)



Extension Certificate Programs

Students not certain they can devote the time necessary to earn a college degree are urged to consider a certificate program. These programs are generally regarded by business and industry as valuable professional and technical preparation for employment and promotion in areas requiring extensive knowledge. With careful planning, a certificate can be a stepping stone to a degree program.

Continuing Education and Extension conducts 32 certificate programs organized at the collegiate level; students entering them should have adequate educational preparation or other experience that qualifies them 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 subject matter in the areas represented. They are not, however, usually transferable to a degree program.

Work on a certificate may be done through Extension Independent Study, Extension Classes, day school, summer session, or any combination of these. Students may transfer credit from other accredited institutions of higher education, although a minimum of 25 percent of the credits required for any certificate must be earned at the University of Minnesota. In those certificates requiring 12 or fewer credits, all work must be done at the University of Minnesota. Core requirements must be completed by all applicants; the courses, however, need not be taken in order, except as prerequisites make it necessary.

Extension Certificate Programs

Certificate requirements may be modified from time to time. Although there is no time limit on the use of credits, no certificate will be granted that represents a certificate program more than seven years out of date.

Advice and information about the various programs, application and completion of forms, transfer of credits, grading systems, honors, and so forth may be secured from the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455.

Group I certificates are those that can be earned **entirely** through completion of Extension Independent Study courses. Group II certificates are those that can be partially completed through Independent Study, but in most instances, students will have to supplement these programs with credits earned in residence or transferred from accredited sources outside the University.

Extension Certificates—Group I

FIRE PROTECTION CERTIFICATE (44 credits)

The Fire Protection Certificate program was planned by the Fire Service Information, Research and Education Center, Continuing Education and Extension, and other members of the public and business sector responsible for fire protection. It is designed to expand the educational opportunities for persons employed by or concerned with municipal, institutional, and industrial fire protection, insurance inspection or rating bureaus, and manufacturers of protective equipment and systems.

The core courses will be available only through the Department of Independent Study here at the University of Minnesota. The three that are now available are FPro 0004C, 0005C, and 0007C. Additional core courses will become available at the rate of one or two each year thereafter. It may be possible to offer group study opportunities in the future, depending on the number of students who may be interested in registering together and meeting regularly at a central location.

Students may transfer credits for equivalent courses from other institutions accredited by the University of Minnesota, although a minimum of 12 credits must be earned at the University of Minnesota.

English Requirement (4 credits):

Spch 0001C, or Spch 1101; or Comm 1001, or Comp 1001**

Extension Certificate Programs

Core Requirement (26 credits):

Chem 1004—General Principles of Chemistry (or a Natural Science)
FPro 0001C—Introduction to Fire Protection**
FPro 0002C—Hazardous Materials and Processes I**
FPro 0003C—Hazardous Materials and Processes II**

FPro 0004C—Fire Prevention**
FPro 0005C—Fire Protection and Life Safety Systems in Building Design**
FPro 0006C—Institutional and Industrial Fire Protection**
FPro 0007C—Fire Department Administration**

Spread Requirement (14 credits):

Pol 1001—American Government and Politics**
Soc 1001—Introduction to Sociology**, or
Soc 1002—American Community**
Soc 5951—Minority Group Relations**
Psy 1001—General Psychology**

GENERAL STUDIES CERTIFICATE (45 credits)

The General Studies Certificate program is designed to recognize students' achievement after the completion of the equivalent of one year of college course work. There are no required courses in the program, but students are encouraged to take advantage of courses in most of the general education curriculum areas of the General College—natural sciences, social sciences, business studies, humanities, and communications. Of the 45 credits required for the certificate, a minimum of 30 credits must be earned through General College courses. (A list of General College courses offered through Extension Independent Study is found on page 23).

Students wishing to continue their education toward the Associate in Arts degree from the General College will find that all credits from this program will be accepted. For A.A. degree requirements, see General College under University Degree Programs.

LIBERAL ARTS CERTIFICATE (45 credits)

The Liberal Arts Certificate program is offered to students who wish an introduction to a liberal arts education. It is equivalent to one full year of university-level study. With careful planning, the certificate may constitute the freshman year of a degree program in arts or business fields.

Students transferring credits to this certificate program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

English Requirement (8 credits):

Comp 1001-1002, or equivalent.

Spread Requirement (32 credits): 8 credits in each of the following fields:

Communication, Language, Symbolic Systems: accounting, composition (other than freshman English), journalism, language, philosophy, mathematics, speech

Physical and Biological Sciences: astronomy, biology, chemistry, ecology, geology, physics

Extension Certificate Programs

Man and Society: anthropology, economics, family studies, geography, history, political science, psychology, social science, sociology

Artistic Expression: art, architecture, classics, humanities, literature, music, theatre arts

Electives: Additional liberal arts courses to make a minimum of 45 credits total for the certificate. For a listing of Extension Independent Study courses applicable to the spread requirement, students should call or write the Department of Independent Study, 45 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455, 373-3256.

MATHEMATICS AND SCIENCE CERTIFICATE (45 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

Prerequisite: Two years of algebra and two years of geometry including trigonometry.

Core Requirement (24 credits):

Comp 1001—Introductory Composition, or
Comm 1001—Communication
Math 1211—Analysis I

Math 1221—Analysis II
Math 1231—Analysis III
Math 3211—Analysis IV

Electives: Additional credits to make a total of 45 credits, selected from the following areas:

Astronomy
Chemistry
Engineering

Geology
Physics
Aerospace Engineering and Mechanics

POLICE ADMINISTRATION CERTIFICATE (46 credits)

The Police Administration Certificate program was planned by Continuing Education and Extension in cooperation with the School of Public Affairs, police administrators, and other municipal officials. Increasing numbers of police officers are being selected from applicants with college experience. This certificate provides an organized program of study, most of which can be transferred to a degree program.

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

English Requirement (8 credits):

Comp 1001-1002, or equivalent; or Comp 1001 and 4 additional credits selected from Engl 1002, Hum 1001 or 1101, 1002, 1003, 1004 or 1104.

Core Requirement (16 credits):

Soc 3101—Elements of Criminology
PoAd 0015C—Methods of Police Supervision
PoAd 0016C—Methods of Criminal Procedure
PoAd 0017C—Methods of Police Planning, Management, and Organization
PoAd 0018C—Methods of Criminal Investigation

Spread Requirement (22 credits):

Pol 1001—American Government and Politics
Psy 1001—General Psychology
Soc 1001—Introduction to Sociology

8 additional credits selected from:

Pol 1025—World Politics
Hist 1301, 1302—American History
Soc 5141—Delinquent Behavior

Extension Certificates—Group II

At least half of the requirements for the following certificates can be met with courses selected from this bulletin. Courses or sequences available from the Department of Independent Study are marked with a double asterisk(**).

ACCOUNTING CERTIFICATES

The Junior Accounting Certificate program is of value to junior accounting personnel, management personnel, and businessmen who need a basic understanding of the principles of accounting and corporation finance.

The requirements for the Senior Accounting Certificate are similar to those for a four-year degree in accounting. This program provides a good background for the Certified Public Accountant examinations.

Junior Accounting Certificate (53 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 13 credits in accounting at the University of Minnesota.

Requirements:

Comp 1001-1002—Introductory Composition**, or Comm 1001-1002—Communication, or equivalent

Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**

Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting

Acct 3105-3106-3107—Intermediate Accounting

Acct 3220-3221—Cost Accounting

BFin 3000—Finance Fundamentals

Math 1201—Pre-Calculus**, or 1131—Finite Mathematics, or Math III—College Algebra and Analytic Geometry

QA 1050—Elementary Managerial Statistics

Senior Accounting Certificate (94 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits in accounting at the University of Minnesota.

Requirements:

Comp 1001-1002—Introductory Composition**, or Comm 1001-1002—Communication, or equivalent

Comp 1027—Intermediate Composition: Exposition**

Math 1201—Pre-Calculus**, or 1131—Finite Mathematics, or Math III—College Algebra and Analytic Geometry

Math 1142—Introduction to Calculus of One and Several Variables, or 1211-1221—Analysis I-II**, or equivalent

Econ 1001, 1002—Principles of Macro-

economics and Microeconomics**

Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting

Acct 3105-3106-3107—Intermediate Accounting

Acct 3220-3221—Cost Accounting

12 Credits of accounting electives:

Fin 3000—Finance Fundamentals

BLaw 3058—Business Law: Contracts**

QA 1050—Elementary Managerial Statistics

Extension Certificate Programs

16 credits from the following:

IR 3002—Systems of Industrial Relations:
Labor Marketing**
Ins 3100—Risk Management and Insurance**
Tran 3054—Fundamentals of Transportation
Mktg 3000—Principles of Marketing
Mgmt 3001—Fundamentals of Management

Mgmt 3004—Business Policy: Strategy
Formulation and Implementation
Econ 3101—Microeconomic Theory
BA 3002—Business and Society
OAM 3055—Introduction to Management
Science
MIS 3099—Elementary Fortran

BUSINESS ADMINISTRATION CERTIFICATES

The Business Administration certificate programs have been approved by the College of Business Administration 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 4-year degree programs. They are designed especially for students who need an understanding of the principles and theories of business administration, and for those who want training or an opportunity for advancement in some specific field of business.

Junior Business Administration Certificate (46 credits)

This certificate, requiring the satisfactory completion of 46 credits of course work, represents the equivalent of 1 academic year of study.

It offers a firm background in most of the basic fields of business administration. All of the credits received in completing the Junior Certificate are automatically credited toward a Senior Certificate and represent half of its required work load.

Students transferring credits from other accredited institutions to this program must take a minimum of 12 credits at the University of Minnesota.

Pre-business Requirement (34 credits):

Comp 1001-1002—Introductory Composition**, or Comm 1001-1002—Communication, or equivalent
Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**

Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting
Math 1201—Pre-Calculus**, or Math 1131—Finite Mathematics, or Math III—College Algebra and Analytic Geometry
QA 1050—Elementary Managerial Statistics

Core Requirement (12 credits): Three courses selected from the following:

MIS 5100—Computers and Systems Design
IR 3002—Systems of Industrial Relations:
Labor Marketing**
Ins 3100—Risk Management and Insurance**
Mgmt 3004—Business Policy: Strategy Formulation and Implementation
Econ 3101—Microeconomic Theory
BA 3002—Business and Society
OAM 3055—Introduction to Management Science

MIS 3099—Elementary Fortran
Mgmt 3001—Fundamentals of Management
Math 1211-1221—Analysis I and II**, or
Math 1142—Introduction to Calculus of One and Several Variables
Tran 3054—Fundamentals of Transportation
BFin 3000—Finance Fundamentals
Mktg 3000—Principles of Marketing
BLaw 3058—Business Law: Contracts**

Senior Business Administration Certificate (91 credits)

The Senior Business Administration Certificate is a continuation of the Junior Certificate, expanding the core and spread requirements to provide a broader base of general knowledge and an opportunity for specialization. The completion of the certificate requirement of 91 credit-hours represents the equivalent of 2 full years of university-level study. The course program may be considered roughly equivalent to that of the sophomore and junior years of a 4-year degree program, with particular emphasis on the basic principles and theories of business administration.

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota.

Pre-business Requirement (39 credits):

Comp 1001-1002—Introductory Composition**, or Comm 1001-1002—Communication, or equivalent
 Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**
 Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting

Math 1201—Pre-Calculus**, or Math 1131—Finite Mathematics, or Math III—College Algebra and Analytic Geometry
 Math 1211—Analysis I**, and Math 1221—Analysis II**, or Math 1142—Introduction to Calculus of One and Several Variables
 QA 1050—Elementary Managerial Statistics

Core Requirement (24 credits): Six courses selected from the following:

MIS 5100—Computers and Systems Design
 MIS 3099—Elementary Fortran
 IR 3002—Systems of Industrial Relations: Labor Marketing**
 Ins 3100—Risk Management and Insurance**
 Tran 3054—Fundamentals of Transportation
 OAM 3055—Introduction to Management Science

BA 3002—Business and Society
 BFin 3000—Finance Fundamentals
 Mktg 3000—Principles of Marketing
 BLaw 3058—Business Law: Contracts**
 Mgmt 3001—Fundamentals of Management
 Mgmt 3004—Business Policy: Strategy Formulation and Implementation
 Econ 3101—Microeconomic Theory

Electives in the College of Business Administration: At least 16 additional credits in business administration. These may be selected from the core group above or from other courses.

Other Electives: Satisfactory completion of the pre-business degree requirements in physical and biological sciences, man and society, or artistic expression, to make a minimum of 91 credits for the certificate.

Note: Students contemplating working toward a degree from the College of Business Administration should choose electives that could become part of the degree program. Such students are urged to complete the pre-business degree requirements listed in the Degree Programs section of this bulletin.

CREDIT AND FINANCIAL MANAGEMENT CERTIFICATE (62 credits)

The Credit and Financial Management Certificate program was developed cooperatively by Continuing Education and Extension, the College of Business Administration, and the North Central Credit and Financial Management Association. The program is directed toward students seeking careers in trade credit management, commercial bank and finance company loan management, and senior executive positions in financial management.

Extension Certificate Programs

Students transferring credits to this program from other accredited institutions must take a minimum of 16 credits at the University of Minnesota.

Completion of the certificate qualifies students for the Associate and Fellow Awards of the National Institute of Credit. Persons interested in these awards should telephone or write Mr. E. Norman Eck, 330 Plymouth Building, Minneapolis, Minnesota 55402, telephone 336-8356.

Core Requirement (54 credits):

Acct 1024-1025-1026** , or Acct 1050-1051—Principles of Accounting
Acct 3160—Analysis of Financial Statements
BFin 3000—Finance Fundamentals
BFin 0002C—Credit and Financial Management Problems
BLaw 3058, 3078, 3088—Business Law**
Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**

Mgmt 3001—Fundamentals of Management
Mktg 3000—Principles of Marketing
Mktg 0087C—Credits and Collections
Comp 0004C—Business Correspondence, or GC 1531—Business Writing**
Spch 0001C—Beginning Speech: Communication

Electives (8 credits):

Acct 3105—Intermediate Accounting
Acct 3220—Cost Accounting
BFin 3100—Financial Management
Econ 3751—Money and Banking**
Ins 3100—Risk Management and Insurance**

Mgmt 3002—Psychology in Management
Mktg 3080—Industrial and Government Procurement
Tran 3054—Fundamentals of Transportation
Comp 0003C—Review of Business English

HUMAN SERVICES CERTIFICATE (46 credits)

The Human Services Certificate program was developed in response to an increasing demand for specialized certificates for paraprofessionals in community service. Paraprofessionals involved in community development agencies such as libraries, public and private schools, neighborhood health clinics, poverty agencies and housing authorities may find this certificate useful for personal development and professional advancement.

This certificate provides both general and career-related course work. Core requirements include 22-27 credits generic to all fields of human services, plus 3-8 credits of electives in the social sciences. The remaining 16 credits (the Concentration Requirement) must be earned through supervised work experience and/or career-related projects planned by the student and his counselor. The certificate is flexible and provides a variety of educational opportunities for paraprofessionals.

Students interested in following a degree program may, with careful planning, transfer credits earned for this certificate toward a degree in General College or the College of Liberal Arts. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

Students should consult an Extension counselor before taking courses in the Concentration Requirement. Appointments may be arranged by calling or writing the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455 (612) 373-3905.

Extension Certificate Programs

Core Requirement (22-27 credits):

GC 1421—Writing Lab: Personal Writing or Comp 1001—Introductory Composition** or Comm 1001—Communication
GC 1461—Oral Communication: Basic Principles, or Spch 1101—Fundamentals of Speech
GC 1471—Creative Problem Solving

GC 1627—Human Services: Special Topics
GC 1283—Psychology of Human Development**, or Psy 1003—Application of Psychology to Living
GC 1211—Man in Society: His Personal Role, or Soc 1001—Introduction to Sociology**
PubH 3001—Personal and Community Health

Concentration Requirement in one of the following fields (16 credits):

Education
Urban Problems
Community Library
Community Organizer
Day Care
Youth Care
Family Work

Welfare
Family Nutrition
Community Health
Minority Studies—American Indian
Minority Studies—Afro-American
Minority Studies—Chicano

Electives: Additional courses from the following areas to make a minimum of 46 credits total for the certificate:

GC 1285—Cultural Anthropology, or Anth 1002—Cultural Anthropology**
GC 1295—Economic Perspectives: General View
GC 1722—Parent-Child Relationships**, or FSoS 1025—Parenthood
Geog 1301—Human Geography
GC 1233—United States: Problems of Government, or Pol 1001—American Government and Politics**

GC 1281—Psychology of Modern Society, or Psy 1001—General Psychology**
CPsy 3301—Child Psychology**
SSci 3203—Structure and Dynamics of Poverty
Rhet 1147—Efficient Reading**
Up to 6 credits in art, music, literature or humanities, from either the General College or the College of Liberal Arts.

INDUSTRIAL RELATIONS CERTIFICATE (45 credits)

The Industrial Relations Certificate is arranged and coordinated by the Department of Industrial Relations of the College of Business Administration. 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 M.A. and Ph.D. programs.

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

Core Requirement (33 credits)

Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**
IR 3002—Systems of Industrial Relations: Labor Marketing**
IR 3007—Collective Bargaining Negotiations and Modern Labor Relations

IR 3010—Human Relations and Applied Organization Theory
Psy 1001—General Psychology**
Psy 3801—Introduction to Statistical Methods
Soc 1001—Introduction to Sociology**

Extension Certificate Programs

Electives (12 credits):

Econ 3501—Labor Economics
Econ 3551—Labor Economics
Econ 5541—Contemporary Labor Issues
Econ 5534—Economic Security**
Econ 5537—Labor Market Behavior and Regulation**
Econ 5561—Economics of Collective Bargaining
IR 0001C—Supervision I**
IR 3012—Systems of Industrial Relations: Manpower Management**
IR 3000—Topics in Industrial Relations
IR 0007C—Occupational Safety and Health
MIS 5100—Computers and Systems Design
Mgmt 3002—Psychology in Management
OAM 3055—Introduction to Management Science

Psy 3124—Psychology of Individual Differences
Psy 5044—Psychology of Motivation and Conflict
Psy 3011—Introduction to Psychology of Learning
Psy 3604—Abnormal Psychology**
Psy 5501—Vocational Psychology
Soc 5201—Social Psychology**
Soc 5411—Formal Organization
IEOR 0100C—Industrial Engineering and Management
IEOR 0210C—Motion and Time Study Engineering**
IEOR 0408C, 0409C — Corporate Standard Data I, II

MANAGEMENT OF ADMINISTRATIVE SERVICES CERTIFICATES

The Management of Administrative Services Certificate programs have been developed by Continuing Education and Extension in cooperation with the College of Business Administration and the Administrative Management Society.

These college-level certificate programs are designed especially for management employees who have not received such training in schools of business or commerce; their purpose is to assist such employees in becoming more competent in their present positions and to improve their opportunity for advancement.

Students may be entitled to certificates of the Administrative Management Society, in addition to the certificates granted by Continuing Education and Extension. Persons interested in the latter certificates may write to: Administrative Management Society, 218 South Tenth Street, Minneapolis, Minnesota 55403, ATTN: Education Director.

Associate In Management Of Administrative Services Certificate (46 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

Core Requirement (42-43 credits):

GC 1531—Business Writing**
or Comp 1001—Introductory Composition**, or Comp 0003C—Review of Business English, or Comm 1001—Communication, or equivalent
Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**
Math 1201—Pre-Calculus**, or Math 1131—Finite Mathematics, or Math III—College Algebra and Analytic Geometry

MIS 5100—Computers and Systems Design
Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting
BLaw 3058—Business Law**
Psy 1001—General Psychology**
Psy 3801—Introduction to Statistical Methods

Electives: Additional courses to be selected from the list of requirements or electives for the Senior Certificate that follows to make a total of 46 credits minimum.

Fellow In Management Of Administrative Services Certificate (91 credits)

Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits at the University of Minnesota.

Core Requirement (44-47 credits):

Comp 0003C—Review of Business English, and GC 1531—Business Writing**, or Comp 1001-1002—Introductory Composition**, or Comm 1001-1002—Communication, or equivalent

Econ 1001, 1002—Principles of Macroeconomics and Microeconomics**

Acct 1024-1025-1026**, or Acct 1050-1051—Principles of Accounting

BLaw 3058—Business Law**

Math 1201—Pre-Calculus**, or Math 1131, Finite Mathematics, or Math III—College Algebra and Analytic Geometry, or equivalent

MIS 5100—Computers and Systems Design

Psy 1001—General Psychology**

Psy 3801—Introduction to Statistical Methods

Group Requirements (36 credits):

Group I—At least four courses from the following (16 credits):

IR 3002—Systems of Industrial Relations:

Labor Marketing**

Mgmt 3002—Psychology in Management

BFin 3000—Finance Fundamentals

Ins 3100—Risk Management and Insurance**

Mktg 3000—Principles of Marketing

Group II—At least five courses from the following (20 credits):

BFin 3100—Financial Management

Tran 3054—Fundamentals of Transportation

Acct 3255—Managerial Costs, or

Acct 3220—Cost Accounting

Acct 3160—Analysis of Financial Statements

IR 3010—Human Relations and Applied Organization Theory

IR 3012—Systems of Industrial Relations: Manpower Management**

Mgmt 3001—Fundamentals of Management

BLaw 3088—Business Law**

Electives: Additional credits from the following courses or areas to make a minimum of 91 credits total for the certificate:

IR 0001C-0002C—Supervision I** . II

Psy 5751—Psychology of Advertising

Accounting

Economics

Finance

Production

Management

Industrial Relations

Insurance

Marketing

Office Management

Real Estate

Transportation

English

Humanities

Social Science

Speech

UNDERGRADUATE DEVELOPMENT CERTIFICATES

(UDC Series in Engineering and Science)

The UDC certificates are intended to provide a focus for the planning of continuing education activities in particular disciplines and to provide 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, with departmental approval, toward a subsequent baccalaureate degree. If the pursuit of a degree is anticipated, early contact with the academic department and application for admission to the Institute of Technology are important.

Extension Certificate Programs

In general, the 45-credit certificate indicates familiarity with the topical area and is equivalent to the first year of college-level study. An important feature of the UDC Series is that the number of credits required (i.e., 45, 90, 135) is 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 to an employer or agency for consideration.

Students interested in a listing of the Undergraduate Development Certificates—90 Credits, 135 Credits, or in additional information concerning these certificates, should write to the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455 or call 373-3905.

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 to enable them to handle certain support assignments in any engineering field. In addition, it is designed to give them background for more specialized or advanced study either as an engineer or as an engineering technician. All courses in the UDC in Engineering and Science—45 Credits program carry degree credit and are equivalent to the first year of required course work for an engineering degree. These credits will be applicable to a baccalaureate degree upon admission of the student to the Institute of Technology.

Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University of Minnesota.

Prerequisite: High School graduate or equivalent; 2 years of algebra and 2 years of geometry, including trigonometry.

Core Requirement (37 credits):

Math 1211—Analysis I**

Math 1221—Analysis II**

Math 1231—Analysis III**

EG 1025—Engineering Graphics, or CICS

1100-1101, Introduction to Fortran Pro-

gramming I and II, or CICS 1105—Intro-

duction to Algorithm Languages I

Phys 1271-1275-1281-1285—General Physics and Lab

Comp 1001-1002—Introductory Composition**, or equivalent

Electives: Courses from nontechnical electives to make a minimum of 45 credits total for the certificate. 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 bulletin of the Institute of Technology.)



University Degree Programs

It is possible, through Extension Independent Study, to work on a variety of degrees from the University of Minnesota, particularly since through action of the University Senate, Extension Independent Study credits are now considered resident credits.

Because it is important to follow the proper procedures while working for a degree, particularly in view of the new legislation, students should arrange for early consultation by contacting the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455.

Note: Bulletins are essential in planning your work toward a two- or four-year degree. To obtain an official bulletin for any college, write the Service Bureau, B-3 Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455.

COLLEGE OF EDUCATION 1425 University Avenue Southeast

Because of the variety of programs offered in the College of Education, it is not possible to present a specific curriculum or to indicate appropriate Extension Independent Study courses.

Students can use the two-year program listed under the College of Liberal Arts as a guide in completing many of the preprofessional requirements of the

University Degree Programs

College of Education. Some Extension Independent Study courses in education are acceptable in College of Education programs. For more information, write to the College of Education, 1425 University Avenue Southeast, Minneapolis, Minnesota 55414.

Teacher's Certificate

Most courses from the Department of Independent Study can be used in the acquisition and renewal of teachers' certificates. Note that the Department of Independent Study only provides the courses and **does not evaluate teaching or educational experience for a certificate or recommend courses.**

Questions concerning the regulations related to teachers' certificates should be directed to the State Department of Education or a similar agency. (In Minnesota—Director of Teacher Personnel, 4th Floor, Centennial Office Building, St. Paul, Minnesota 55101).

GENERAL COLLEGE

106 Nicholson Hall, Minneapolis Campus

Associate in Arts Degree

The General College of the University offers a two-year program of liberal and general studies leading to the Associate in Arts degree. The academic requirements for the A. A. degree are: (1) 90 passing credits; (2) passing the General College Degree Comprehensive Examination.

Of the 90 credits required for the degree, 30 residence credits must be taken in General College courses. It is possible, with careful planning, to obtain the entire AA degree through the Department of Independent Study.

The General College Comprehensive Examination may be scheduled through the Department of Independent Study and taken either in the Independent Study Examination Center or under the supervision of an appropriate proctor in an out-state location.

Interested students should contact the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455; or call 373-3905.

Bachelor Of Applied Studies (B.A.S.)

Bachelor Of General Studies (B.G.S.)

Students admitted to Baccalaureate Programs in General College work toward the Bachelor of General Studies (B.G.S.) or Bachelor of Applied Studies (B.A.S.) degrees. The basic requirement for admission is an Associate in Arts (A.A.) degree or its equivalent.

University Degree Programs

A minimum of 180 credits, including the 90 credits necessary for an AA degree, is required for both the B.A.S. and B.G.S. degrees. After completion of 90 credits, 45 credits in both baccalaureate degree programs must be taken in General College courses.

Students holding A.A. degrees or nearing completion of A.A. degrees may learn more about General College Baccalaureate Programs by making an appointment with the Coordinator of Baccalaureate Programs Advising, 10 Nicholson Hall, 373-4400.

GRADUATE SCHOOL

316 Johnston Hall, Minneapolis Campus

The University of Minnesota Graduate School will not accept Extension Independent Study credits toward a Master's or Doctor's degree. Graduate students may use Independent Study credits to satisfy undergraduate admission requirements or foreign language requirements.

INSTITUTE OF TECHNOLOGY

105 Main Engineering, Minneapolis Campus

The Institute of Technology grants degrees in approximately 11 fields of engineering and architecture, plus geophysics, geology, chemistry, physics, mathematics, and environmental design. In addition to the courses in mathematics and science required for all degrees, the Institute of Technology requires 36 credits of liberal education courses distributed as outlined in the IT bulletin. Independent Study courses may be used to satisfy these liberal education requirements in addition to some of the technical courses.

Assistance in planning a course of study, and in securing acceptance or transfer of credits, is available from the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455.

COLLEGE OF BUSINESS ADMINISTRATION

225 Business Administration Building, Minneapolis Campus

The pre-business requirements for the bachelor of science in business may be met almost entirely with courses through the Department of Independent Study. The business requirements may be satisfied in part with courses through the Department of Independent Study. Interested students should arrange for early consultation by contacting the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455.

Both the accounting and the regular business programs are outlined in the College of Business Administration Bulletin, available from the Service Bureau, B-3 Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455. For a list of pre-business and business courses that meet the College of Business requirements offered through the Department of Independent Study, write to

University Degree Programs

that office, 45 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

A copy of Procedures for Obtaining the Bachelor of Science in Business Degree through Extension may also be obtained through the Department of Independent Study.

COLLEGE OF LIBERAL ARTS

214 Johnston Hall, Minneapolis Campus

A copy of the College of Liberal Arts Bulletin is essential for students planning to earn an A.L.A., B.A., B.S., or B.E.S. degree. It may be obtained from the Service Bureau, B-3 Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455. In addition, students should contact the Extension Counseling Office, 314 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455, for a list of Extension Independent Study courses that can be used to satisfy CLA distribution requirements.

Associate In Liberal Arts (A.L.A.)

The Associate in Liberal Arts degree indicates the successful completion of a 90-credit program devoted largely to general education. The program is equivalent to two academic years of study and is granted by the College of Liberal Arts.

With careful planning, the entire degree may be obtained through the Department of Independent Study.

The current A.L.A. degree requirements are:

1. 90 credits acceptable to CLA, 45 of them on A-N grading.
2. At least 45 University of Minnesota credits.
3. Satisfaction of the CLA English composition requirement.
4. Satisfaction of four of the following: (a) Foreign language study through the college third-quarter level, or exemption based on 3 or more years of high school language; (b) 8 to 10 credits in Group A of the B.A. Group Distribution Requirements; (c) 12 to 15 credits in Group B; (d) 16 to 20 credits in Group C; (e) 12 to 15 credits in Group D.

Bachelor Of Arts (B.A.)

A candidate for the Bachelor of Arts degree must complete a minimum of 180 acceptable credits; the first 90 at the very least may be taken through the Department of Independent Study. Lack of departmental offerings would prove the only restriction against an external degree. Candidates for the B.A. degree must complete the 180 credits with grades of A, B, C, or S, 75 of them in 3000 and 5000 level courses (45 awarded in CLA courses). They must also satisfy the English composition, foreign language and Group Distribution requirements. Finally, B.A. candidates must complete a major sequence in the field of their choice and complete at least 30 credits in 3000 and/or 5000 level courses from areas outside of their majors.

Bachelor Of Science (B.S.)

The Bachelor of Science degree is now offered in CLA by the Departments of Communication Disorders and Economics, the School of Social Work, and the Urban Studies program. Its requirements are those of the B.A. program except that the foreign language requirement is not included and the major may be more extensive and concentrated. For further information call the Counseling Office, 373-3905.

Bachelor Of Elected Studies (B.E.S.)

The experimental Bachelor of Elected Studies degree is open to a limited number of Extension students. This degree offers wide latitude in individual program planning toward a degree. B.E.S. candidates must meet the usual CLA quality and quantity standards, but they are exempted from English composition, foreign language, and major requirements. They design their programs to meet their particular needs and desires and may include up to 30 credits in courses not normally acceptable for a CLA degree.

Students interested in any of the College of Liberal Arts programs should contact the Extension Counseling Office, 314 Nolte Center, Minneapolis, Minnesota 55455, or call 373-3905.

UNIVERSITY COLLEGE

105 Walter Library, Minneapolis Campus

The name University College means many things to many people because under this single rubric are several degree-granting units, each of which has its own particular set of goals and procedures. This unusual situation of "colleges within a college" is the result of University College's unique mission within the larger University of Minnesota: to house undergraduate experimental programs of collegiate scope. By their nature, most of University College's specific programs are, therefore, experimental and not permanent features in the college. From year to year new programs can be added and programs which have completed their experimental phase will go under some other auspices. Presently, University College has three degree-granting programs: the Inter-College Program, the Experimental College, and University Without Walls. Students interested in working toward a degree through one of these programs should contact the Extension Counseling Office, 314 Nolte Center, Minneapolis, Minnesota 55455, or call 373-3905.

UNIVERSITY WITHOUT WALLS

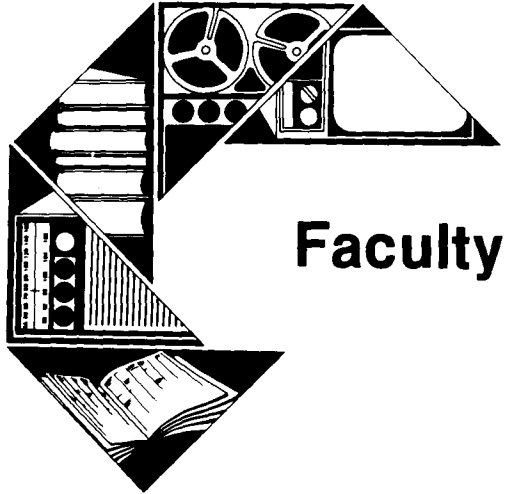
The University Without Walls is a program of University College designed to serve the "educationally mature" student who has clear learning objectives, but who, for a variety of reasons, cannot realize his educational aims through existing programs. UWW is intended for students who, because of reasons of geography, time limitations, unusual interest areas, etc., are "immobilized" and therefore cannot take advantage of other programs. The Independent Study courses described in this bulletin can play an important part in a UWW student's curriculum.

University Degree Programs

Additional information and/or applications may be obtained by contacting University Without Walls, 331 Nolte Center, University of Minnesota, Minneapolis, Minnesota 55455; telephone: (612)373-3919.

May We Help You Find A Course?

The Independent Study Curriculum of the University of Minnesota offers a wide range of subject areas. Occasionally, a student may need or want a course not offered by the University of Minnesota. A publication entitled **A Guide to Independent Study Through Correspondence Instruction** lists all of the courses offered by the more than 60 member institutions of the National University Extension Association. The cost of this publication is \$1.00.



Faculty

University of Minnesota Faculty, Current and Emeritus:

NANCY ADAMS, B.A.
Teaching Associate, Classics

ROBERT ALEXANDER, M.A.
Teaching Assistant, Sociology

BRUCE ANDERSON, Ph.D.
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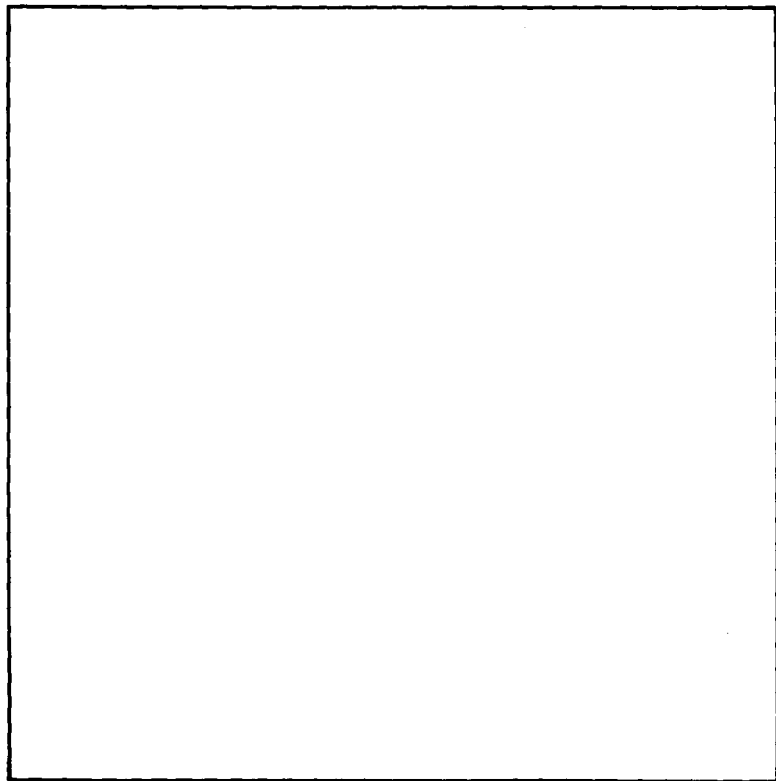
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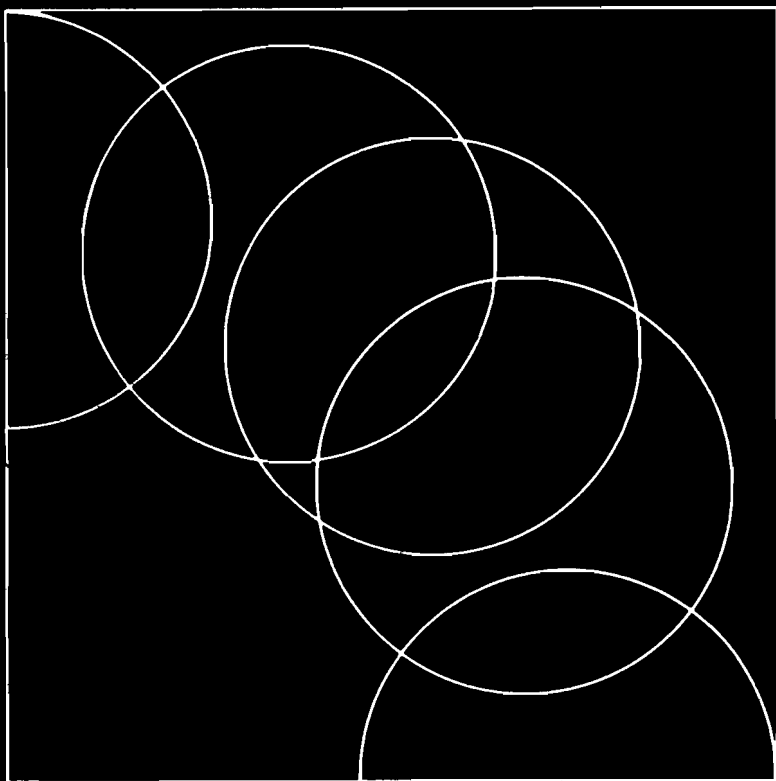
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Learn to develop and manage your personal or family budget. You will acquire the specific skills and abilities to use credit wisely, discriminate between your needs and wants in spending, set financial goals, develop contingency savings funds and generally move toward greater economic stability. The budgeting experiences in which you participate in and out of the classroom will immediately become part of your lifestyle. *Confidentiality will be maintained throughout the course.* Materials will be provided at the first class meeting; no other textbook purchase is necessary. Class sessions will vary in length from 1 to 2½ hours. The first session will be 1 hour in length.

Spec Term Fall Sec 1 **W**—6:30-9:00, Oct. 1, 8, 15, 22; Dec. 3;

Folwell Hall 105, Olson

Sec 2 **Th**—7-9:30, Oct. 2, 9, 16, 23; Dec. 4;

Irondale HS 310, New Brighton, Malmberg

Spec Term Winter Sec 3 **Sa**—9:30 a.m.-12, Jan. 10, 17, 24, 31; Mar. 6;

Folwell Hall 105, Malmberg

Spec Term Spring Sec 4 **T**—7-9:30, Apr. 6, 13, 20, 27; June 1;

Richfield High School 145, Olson

(John Malmberg is the associate director of the Department of Extension Classes, Continuing Education and Extension. Carol Olson is the director of the Department of Community Programs, Continuing Education and Extension.)

The following three courses are intended to provide a reasoned examination of various aspects and issues of parapsychology. There are no prerequisites; if you are interested, register for any one or for all three. (Instructors Dr. Jose Feola and Eleanor McGill have taught Psychical Phenomena courses in the University School of Cross-Disciplinary Studies and are actively engaged in psychical research. Both are past presidents of the Minnesota Society for Parapsychological Research.)

IC 0002 PSYCHIC MYSTERIES. \$20 (♦\$3)

Come to better understand psychic experiences, test *your* ESP and learn how latent extra-sensory powers might be developed. This introduction to parapsychology will examine in a disciplined manner alleged apparitions, hauntings, poltergeists, and occurrences at seances. Professor of Political Science Mulford Q. Sibley will deliver a guest lecture on the question of human personality and its survival of bodily death. Techniques to enhance psychic powers will also be considered.

Spec Term Fall Sec 1 **W**—7-9:00, Oct. 1-Nov. 5 (6 meetings),
Murphy Hall 308

IC 0003 PROPHETS AND HEALERS. \$13 (♦\$3)

Modern-day seers and spiritual healers—how much faith, if any, can we put in their predictions and methods? Four lectures will examine some 20th Century prophets and healers, including Edgar Cayce and Katherine Kuhlman. Discussion will center on the how's, why's and physical effects of healing and prophecy.

Spec Term Winter Sec 1 **Th**—7-9:00, Jan. 8-Feb. 12 (4 meetings),
Murphy Hall 308

IC 0004 ALTERED STATES OF CONSCIOUSNESS. \$20 (♦\$3)

Consider the expanded states of being of which many believe human consciousness is capable. Class members will look at theories of Transcendental Meditation, yoga, biofeedback, and the astraltravel of Eckankar, a non-denominational group that believes the soul itself can learn to travel. Representatives of at least one of these approaches will visit the class to share knowledge and experiences and answer questions.

Spec Term Spring Sec 1 **M**—7-9:00, Mar. 29—May 3 (6 meetings),
Murphy Hall 308

IC 0005 YOUR BRIGHT CHILD IN SCHOOL: WHERE TO START, WHAT TO DO. \$20 (♦\$3)

Gifted children are frequently "lost" in the day-to-day processes of schools. The purpose of this course is to acquaint teachers, counselors and the parents of very bright children or adolescents with some theories and methods of facilitating education for the gifted. Introductory sessions will examine definitions of giftedness, what happens to very bright children in school, and the meanings and uses of test score information. Later sessions will be devoted to ways to enhance the education of the gifted, at elementary, high school and higher levels, with a focus on specific cases and examples.

Spec Term Fall Sec 1 **Th**—7-9:00, Oct. 2-Nov. 6 (6 meetings),
Burton 120, Keating

(Daniel Keating, Assistant Professor of Child Psychology in the University's Institute of Child Development, is the editor of Intellectual Talent: Research and Development, The Johns Hopkins University Press, 1975.)

IC 0006 RECENT SHIFTS IN PREHISTORIC SUBJECTS: AN OVERVIEW OF MODERN GEOLOGY. \$16 (♦\$3)

Five special lectures will explain traditional and recent geological theories in such subjects as the origin of life, the extinction of dinosaurs, continental drift and plate tectonics, oceanography and the building of mountains. An *optional* all-day Saturday field trip to explore Minnesota's prehistory will be arranged at additional cost; further details will be available in class.

Spec Term Fall Sec 1 **W**—7-9:00, Oct. 1-29 (5 meetings), PillsH 110, Chase, Pillsbury Hall 110, Chase, Sloan, Stout

(Professors Clement G. Chase, Robert E. Sloan and James H. Stout are faculty members in the Department of Geology.)

IC 0007 ROMAN SATIRE. \$20 (♦\$3)

"What shall I do in Rome? I don't know how to lie . . ." Take a satirist's tour of the city that stirred Juvenal to such sarcasm, yet won his love. You will gather a vivid, if one-sided picture of the city—her cosmopolitan population, emperors, diversions, and vices—by reading three of her major satirists: Horace, Juvenal, and Petronius. Discussion will center on the targets of their attacks, the tone of their humor, and the goals of their criticism. Who knows—their humor may address our own unpredictable times as well. How accurate was Horace when he said, "Change the name, and the story is about you"? Recommended reading: *The Satires of Horace, Juvenal, The Sixteen Satires, and Petronius, The Satyricon.*

Spec Term Fall Sec 1 **T**—7-9:00, Sept. 30-Nov. 4 (6 meetings), Architecture 15, Rochefort

(George Rochefort is an Assistant Professor of Classics.)

IC 0008 WOMAN'S ROLE, WOMEN'S LIVES. \$20 (♦\$3)

How important are models and heroes to a woman in forming her personal identity? What is the relationship of an individual's background, responsibilities, values and world view to her professional achievement? These are some of the questions to be discussed as class members read the autobiographies of women who have achieved in a variety of areas and styles, including anthropologist Margaret Mead, social reformer Jane Addams, anarchist Emma Goldman, and the poet Anne Morrow Lindbergh. Emphasis will be placed on the multiple roles these women played and how they faced the conflicting needs and expectations arising from their roles. If possible, a special viewing of "Antonia: Portrait of the Woman," a moving documentary film about history's first woman symphonic conductor, Antonia Brico, will be arranged.

Spec Term Fall Sec 1 **M**—7-9:00, Sept. 29-Nov. 3 (6 meetings), Architecture 10, Hinding

(Andrea Hinding, whose academic field is history, has served as chairman of the Women's Studies Committee of the College of Liberal Arts and is the curator of the University Social Welfare History Archives.)

***IC 0009 NON-FICTION WRITING WORKSHOP—OR, HOW TO WRITE WHEN YOU HAVE TO OR WANT TO BUT CAN'T GET STARTED. \$26**

This is a tuneup course for people who are not professional writers but whose work requires them to compose papers, articles, detailed letters or essays of other kinds. Students will receive individual help in getting started; organizing and developing ideas; writing clearly and concisely to a specific audience; and revising and preparing manuscripts for publication. Course content will depend upon the particular needs and skills of the students. Bring a copy of your current writing project, or an example of the type of writing that is expected of you, to the first class. (Limited to 16 students)

Spec Term Fall Sec 1 **T**—7-9:00, Sept. 30-Nov. 4 (6 meetings), LindH 315, Lind Hall 315, Thomas

Spec Term Spring Sec 2 **W**—7-9:00, Mar. 31-May 5 (6 meetings), Lind Hall 320, Thomas

(Jane Resh Thomas has taught composition courses in Extension Classes and the General College and has published articles and book reviews.)

informal courses

IC 0010 THE ROYAL GAME: A NONTECHNICAL LOOK AT CHESS AND ITS PLAYERS. \$20 (♦\$3)

Chess, the oldest game in the western world, has fascinated kings and commoners, artists and scientists, soldiers and pacifists alike. This historical and anecdotal survey will expand your knowledge of the game beyond the chess board. This is *not* a course in how to play chess. Come, instead, to discuss its origin, history and significance (social, intellectual, moral and artistic). The personalities and styles of play of famous players will be examined; particular attention will be given to three American champions: Paul Murphy, Harry Nelson Pillsbury and Bobby Fischer. Further discussion will center on mental and physical preparation for match and tournament play and on opportunities offered by local chess organizations. (Prereq at least a novice familiarity with the game)

Spec Term Fall Sec 1 **M**—7-9:00, Sept. 29-Nov. 3 (6 meetings),
Nicholson Hall 209, Kirchner

(Paul Kirchner, who has played chess in Europe and the United States and knows several chess masters, has also taught English and Classics courses at the University.)

IC 0013 WOMEN AND LANGUAGE WORKSHOP \$20 (♦\$3)

Mistress and master, to mother and to father, a free woman and a free man— why have very different meanings evolved for seemingly parallel terms? This course will examine some of the many ways in which our language both reflects and shapes the roles, the status and the power of women and men. Class members will look at "masculine" and "feminine" speech patterns, value-laden connotations of gender terms, insightful word derivations and changes occurring in current usage. Format will be a combination of lecture, discussion, observation and practice in the use of assertive speech patterns.

Spec Term Winter Sec 1 **W**—7-9:00, Jan. 7-Feb. 11 (6 meetings),
Folwell Hall 202, George-Geisser

(Mary Lee George-Geisser, whose academic field is linguistics, is active in Twin Cities women's social change organizations and has published articles on language and on other aspects of feminism.)

School of Public Affairs Informal Courses are for the interested citizen as well as the public employee. We hope they will provide a forum for an exchange of ideas which will lead to a better understanding of public issues.

IC 0021 URBAN GROWTH CONTROL SYSTEMS \$20 (♦\$3)

A description of the various urban growth control systems existing in the U.S. and the administrative procedures involved in instituting and operating them. Discussion will focus in particular on local implications.

Spec Term Fall Sec 1 **T**—7-9:30, Sept. 30-Oct. 28 (5 meetings),
Blegen Hall 360, Gleeson

(Michael Gleeson is Assistant Professor in the School of Public Affairs.)

IC 0022 INTEGRATING HUMAN SERVICE PROGRAMS \$24 (♦\$3)

The course introduces various mechanisms for combining HEW or other federal grants in order to reduce barriers to the integrated provision of human services. A prime mechanism is the Integrated Grants Administration procedure.

Spec Term Winter Sec 1 **M**—7-9:30, Jan. 5-Feb. 9 (6 meetings),
Murphy Hall 308, Eustis

(Warren P. Eustis is Adjunct Professor of Law.)

IC 0023 GOVERNMENT REGULATION OF BUSINESS ACTIVITIES \$28 (♦\$3)

The course will examine the various means that Federal and State governments have used to control and shape business activity. Economic results of regulation will be explored primarily. Discussion will also focus on the political atmosphere surrounding regulation, legal questions involved, and administrative procedures employed.

Spec Term Spring Sec 1 **Th**—6:30-9:00, Apr. 1-May 20 (8 meetings),
Blegen Hall 255, 440, Kudrle

(Robert T. Kudrle is acting director of the Quigley Center of International Studies and Assistant Professor in the School of Public Affairs.)

IC 0024 COMMUNITY-BASED SERVICE SYSTEMS \$20 (♦\$3)

The course will examine institutional and professional services as they are now organized and operated, criticisms of them, and the various attempts to change them—especially by becoming more “community-based.”

Spec Term Spring Sec 1 **T**—7-9:30, Mar. 30-Apr. 27 (5 meetings),
Blegen Hall 335, Dewar

(Thomas R. Dewar is Assistant Professor in the School of Public Affairs.)

IC 0030 MINNESOTA HISTORY: POLITICS AND PERSONALITIES FROM THE DEPRESSION TO THE TROUBLED SIXTIES. \$20 (♦\$3)

Where were you ten years ago? or forty? Do you remember Gov. Floyd B. Olson (“Call me a radical”) and the Great Truck Driver’s Strike of 1934? Harold Stassen, “the Boy Wonder”? Luther Youngdahl and “the role of the practicing Christian in politics”? Hubert H. Humphrey and the founding of the DFL? The Minnesota Miracle and the Stassen-Eisenhower rivalry? The attempt of the DFL to dump a sitting governor? Through a lecture and discussion format you’ll have plenty of opportunity to refresh your memory and share your experiences. If you were there, relive it and pass it on; if you weren’t, come join it. (Recommended reading: *The Twenty-first Ballot*, David Lebedoff)

Spec Term Winter Sec 1 **M**—7-9:00, Jan. 5-Feb. 9 (6 meetings),
Wulling Hall 230, Moen

Spec Term Spring Sec 2 **Th**—7-9:00, Apr. 1-May 6 (6 meetings),
Richfield High School
145, Moen (books may be purchased at B.
Dalton, Southdale.

(Professor Norman W. Moen of the General College has recently developed a sequence of courses in Minnesota Studies, including Minnesota Arts and Letters, Indians, Biography, Resources and History.)

IC 0031 ART AND ARCHITECTURE OF THE JEWISH PEOPLE. \$20 (♦\$3)

This course will illustrate important artistic and architectural monuments left by Jews throughout their known history. It will also explore the historical and cultural context within which Jewish artistic monuments were created, the lively artistic exchanges between Gentile and Jewish cultures, and Jewish attitudes toward art in different historical periods. Jewish art, architecture, manuscripts and artists will be discussed, within a history extending from the times of Saul and the Temple of Solomon, through the periods of residence in Babylonia and, after the Diaspora, throughout the Mediterranean world, to the age of emancipation in Europe and the modern state of Israel.

Spec Term Winter Sec 1 **M**—7-9:00, Jan. 5-Feb. 9 (6 meetings), StP Talmud
Torah, Chiat

(Marilyn Chiat, instructor in the Art History Department, is completing a doctoral dissertation in the early art and architecture of the Jewish people.)

informal courses

IC 0032 THE AMERICAN WORK ETHIC. \$20 (♦\$3)

Mainly through class discussion, this course will explore the value we Americans place on work in our lives. Among the issues to be discussed are personal attitudes toward work, the economic and psychic importance of work, relationships between "private" and working life, and employees' role in governing their work situations. Recommended reading may include the following: *Working*, a series of interviews with people about their jobs; *Work in America*, a comprehensive study, *Something Happened*, a new novel by Joseph Heller, the author of *Catch 22*; and *Job Power*, a book about "industrial democracy."

Spec Term Winter Sec 1 T—7-9:00, Jan. 6-Feb. 10 (6 meetings),
Murphy Hall 308, Kell

(William Kell, whose academic field is American Studies, currently serves as assistant director of the honors program in the College of Liberal Arts.)

*IC 0033 GAMES PEOPLE (SHOULD) PLAY. \$30 (♦\$3)

Games and simulations are used more and more to help people understand and deal with complex social, urban and business problems. In this introduction to simulation games and gaming, class members will play a number of short (1-3 hr) games and explore some potential uses in problem-solving, the teaching of social, historical and value issues, environmental planning, and others. They will acquire an understanding of the value and the process of game playing, "de-briefing" and integrating games into other kinds of learning. Small work teams will each practice running a game for a "guinea pig" audience. Take a walk in another person's shoes, in a world of power politics ("Starpower"), ecological crises ("Dirty Water"), or social welfare ("The Helping Hand Strikes Again")—and you decide whose world it is. The only prerequisite is interest in and/or curiosity about games. (Limited to 35 students)

Spec Term Spring Sec 1 W—8:30-9:30, March 31-May 5 (6 meetings),
Murphy Hall 308, Samuels, Weeks

(Nina Samuels and Richard Weeks are program directors in Extension Classes.)

*IC 0034 FAMILY COMMUNICATIONS: WHAT ARE YOUR RULES? \$20 (♦\$3)

Are you—or another member of your family—a people pleaser? blamer? avoider? How has the way your parents treated you influenced your self-image, expectations, and the type of parent you are now or might become? A family is a rule-governed system whose impact on its members is felt all their lives. This course will describe how family systems function: the rules that are followed, how families raise or lower self-esteem, communication styles, and roles that family members play. The course will provide a better intellectual understanding of family systems; it is *not* a therapy group. (Limited to 35 students)

Spec Term Spring Sec 1 T—7-9:00, Mar. 30-May 4 (6 meetings),
Architecture 15, Hansen, Willmore

(Professor Evelyn U. Hansen teaches interpersonal and family communication courses in the General College. Doloris Willmore is a counselor in the General College, with an interest in family systems.)

registration

* **Registration must be made in advance.**

(Dates and hours on page 9)

* (Registration for those Informal Courses with limited enrollments will be processed on a first come, first served basis each term. Tuition checks will be returned if classes are filled).

* Fill out the green registration form, (either enclosed or available by calling 373-3195), using a ball point pen on a hard surface. (See sample on page 10).

Register in Person

University of Minnesota
Minneapolis Campus Office
101 Wesbrook Hall

Downtown Minneapolis Office
MacPhail Center
1128 LaSalle Avenue

Richfield District Office
Richfield Senior High School
7001 Harriet Avenue
Richfield, Minnesota 55423

(Only for those classes taught at Richfield)

Register by Mail

Return the form with a check or money order **payable to the University of Minnesota** for the exact amount of tuition. **Mail to:**

Informal Courses
202 Wesbrook Hall
University of Minnesota
Minneapolis, Minnesota 55455

Fall Special Term

By Mail

August 18-September 19

In Person

September 11-19

Campus Office

September 11, 15-19

12 noon-8 p.m.

September 12

12 noon-4:30 p.m.

MacPhail Office

September 11, 19

12 noon-8 p.m.

September 12

12 noon-4:30 p.m.

September 15-18

12 noon-6 p.m.

Winter Special Term

By Mail

November 3-December 29

In Person

December 3-12

Campus Office

December 3-4, 8-11

8 a.m.-3 p.m.

December 5, 12

8 a.m.-4:30 p.m.

MacPhail Office

December 3-4

8:30 a.m.-8 p.m.

December 5, 8-12

8:30 a.m.-4:30 p.m.

Spring Special Term

By Mail

February 16-March 24

In Person

March 15-24

Campus Office

March 15-18, 22-24

8 a.m.-8 p.m.

March 19

8 a.m.-4:30 p.m.

MacPhail Office

March 15, 24

8:30 a.m.-8 p.m.

March 16-18, 22-23

8:30 a.m.-6 p.m.

March 19

8:30 a.m.-4:30 p.m.

Late Registration

Late registrations must be accompanied by a late fee of \$5. No registrations will be accepted after the end of the second week of classes each term.

Sample Registration Form

UM Continuing Education and Extension UNIVERSITY OF MINNESOTA		Department of Extension Classes REGISTRATION FORM				OFFICE USE ONLY	
DEPARTMENT IC	COURSE NO 0001	COURSE TITLE AS APPEARS IN BULLETIN IND. & FAM. BUDGET PLANNING				NON TRANSCRIPT REGISTRATION % PRICE OVER 80 UNDER 16 OTHER <input checked="" type="checkbox"/>	
SECTION 1	CREDIT DAY - W	HOUR 6:30	LOCATION Fol H	ROOM 105	GRADE BASE A/N <input type="checkbox"/> S/N <input type="checkbox"/> AUD <input checked="" type="checkbox"/>	<small>(Graduate Credit Requested (See Bulletin))</small> <small>(If you have been admitted to Graduate School at the University of Minnesota and are now registering for the first time since admission, check this box)</small>	
TUITION \$16	SPECIAL FEES	COURSE FEES	LATE FEE	COURSE TOTAL \$16			
OFFICE USE ONLY						ENROLLMENT PERIOD IS _____	
NAME LAST Johnson						FALL QTR <input type="checkbox"/> (1) FALL SEM <input type="checkbox"/> (2)	
FIRST David						WIN QTR <input type="checkbox"/> (3) SPR SEM <input type="checkbox"/> (4)	
MIDDLE R.						SAR QTR <input type="checkbox"/> (5)	
BIRTH DATE (USE NUMERICAL) MONTH / DAY / YEAR 6 / 8 / 45						1st SUMMER TERM <input type="checkbox"/> (7) 2nd SUMMER TERM <input type="checkbox"/> (8)	
LOCAL STREET ADDRESS (INCLUDE APT NO IF APPROPRIATE) 123 Calhoun Ave.						SOCIAL SECURITY NO 123-45-6789	
CITY Mpls.						10 WEEK SUMMER TERM <input type="checkbox"/> (6)	
STATE ABBREV MN						SPECIAL TERM <input checked="" type="checkbox"/> (9)	
ZIP CODE 55408						MONTH DAY YEAR	
HOME PHONE 765-4321						START DATE 10 / 1 / 75	
SEX <input checked="" type="checkbox"/> M <input type="checkbox"/> F						MONTH DAY YEAR	
BUSINESS PHONE 567-1234						END DATE 12 / 9 / 75	
EXT 05							
PREVIOUS U of M ATTENDANCE NONE <input type="checkbox"/>							
CONTINUING EDUCATION DAY SCHOOL COLLEGE & YEAR							
and EXTENSION IS _____ 19 _____ 19 _____							
fill in							

books

Books for those courses in which outside reading is strongly recommended are available at Nicholson Bookstore on the East Bank campus of the University.

reduced tuition classes look for the diamonds

- ◆ Hundreds of specially marked credit classes in the 75-76 Extension Classes **Bulletin** may be taken for no-credit at one-half the regular credit tuition. Look through the **Bulletin**: courses preceded by a diamond (◆) in the margin next to the course description are available for half price.

Youth ages 12 to 16 may also register for any of these classes for \$3 when accompanied by an adult registered for the same course.

When you register for reduced tuition, you do not submit work for evaluation and you don't compete for grades. But you **do** keep up with readings and lectures and take an active part in class discussions.

Call 373-3195 for a free 75-76 Extension Classes **Bulletin**, and look for the diamonds!

senior citizens register free

Under a new state law, senior citizens may register free for University classes taken for no credit. If you are 60 years of age or over you may register for **any** class in the Extension Classes **Bulletin** for no credit, without charge. If you are 62 or over, you may register for academic credit at \$2 a credit. The 1975-76 **Bulletin** designates that only certain classes are available to older people at reduced rates. The new provision, which became law after the new Extension **Bulletin** was printed applies to all classes in the **Bulletin**, but with one restriction:

The law states that senior citizens may take courses "when space is available after all tuition-paying students have been accommodated." This means that in classes where enrollment is limited, senior citizens will not immediately be guaranteed a place, but must wait until the first week of the term to register.

sample the university for \$1

This year, choose topics which suit your interests from some 45 different University Sampler lectures. University faculty, representing a wide range of fields and interests, will present these special self-contained lectures to the public as part of their regular evening class meetings. Come to get a taste of Extension Classes – or just to learn something new. The cost per lecture is \$1. Topics include:

Wills and Probate

Mark Twain Sees Democracy's
End

The Jew in the Modern World

Sexual Practice in Ancient Greece

Environmental Impact Statements

Nutrition, Obesity and Your Heart

Call 373-3039 or write to **University Sampler**, 202 Westbrook Hall, University of Minnesota, Minneapolis 55455. Ask for a schedule of topics in the "University Sampler".

can we do more for you?

Are there topics for courses or lectures which are not currently offered which you would like to see scheduled? Do you or your group – civic, professional, neighborhood, church, etc. – have special educational needs or interests? The Department of Extension Classes can arrange non-credit (and credit) courses and lectures specially to meet your needs. Quick arrangements, flexible scheduling, off-campus locations convenient to you – all of these are possible. Call 376-5403 with inquiries or suggestions.

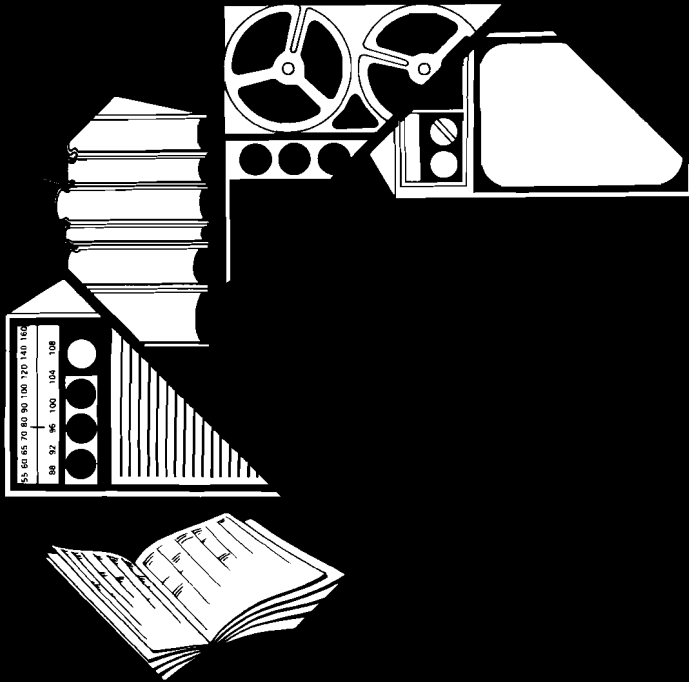
Call 373-3195 to request a complete 1975-76 Extension Classes Bulletin.

The University of Minnesota adheres to the principle that all persons shall have equal opportunity and access to facilities in any phase of University activity without regard to race, creed, color, sex, age or national origin. Under this principle, educational, cultural, social, housing, extra curricular, and employment opportunities are available to all on an equal basis.

August
1975

UNIVERSITY OF MINNESOTA EXTENSION INDEPENDENT STUDY Bulletin

For High School Students



Continuing Education and Extension
UNIVERSITY OF MINNESOTA



University Of Minnesota

Board of Regents

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To The High School Educator

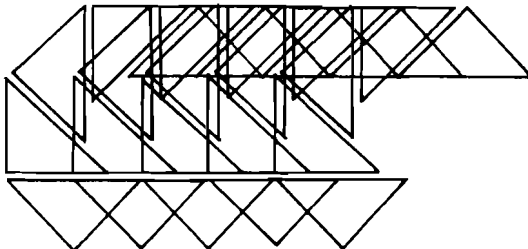
The courses in this bulletin were created to meet the special needs of students who cannot attend school or whose school's curriculum is necessarily limited. These courses can be used as a valuable supplement to the high school curriculum and need not interfere with the instructional function of the high school. Students whose schools cannot offer a wide variety of language, mathematics, and business courses may find in this bulletin the courses they need to meet college entrance requirements; others may find courses that satisfy a personal interest or present an unusual challenge.

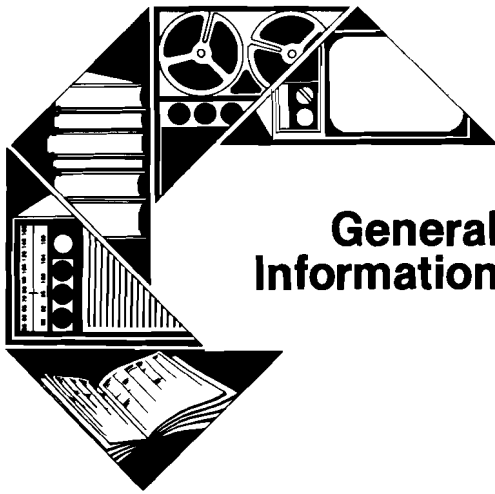
Independent Study

Historically, the course offerings described in this bulletin have been referred to as correspondence study courses. Recognizing that the term "correspondence" describes only the method of lesson submission, not the instructional method, the National University Extension Association has recommended that universities describe their programs by use of the term "independent study." In this bulletin, the terms "independent study courses" and "correspondence courses" are used interchangeably, but correspondence is only one of the many forms of independent study.

Equal Opportunity

The Board of Regents has committed itself and the University of Minnesota to the policy that there shall be no discrimination in the treatment of persons because of race, creed, color, sex, or national origin. This is a guiding policy in the admission of students in all colleges and in their academic pursuits. It is also to be a governing principle in University-owned and University-approved housing, in food services, student union, extracurricular activities, and all other student and staff services. This policy must also be adhered to in the employment of students either by the University or by outsiders through the University and in the employment of faculty and civil service staff.





General Information

The University of Minnesota Department of Independent Study offers high school correspondence courses as an educational service to the state. Independent study courses are approved by the State Department of Education and satisfy University of Minnesota entrance requirements. Courses offered through correspondence are particularly helpful for:

- students who need a particular language, science or mathematics credit for college entrance;
- students who have been forced to drop out of school;
- handicapped students who cannot attend public high school;
- above-average students who have permission to accelerate their high school completion; or
- anyone wishing to study for personal satisfaction.

With the approval of local school authorities, independent study courses may be used to fulfill requirements for high school graduation. The high school diploma itself, however, is not granted by the Department of Independent Study, but by the local school board only. **Students expecting to use credits earned through independent study to meet graduation requirements should therefore obtain permission from local school authorities before enrolling in independent study courses.**

Adults 19 years or older who have left school and are eligible to take the General Educational Development (GED) tests for high school equivalency may also find it useful to take high school courses through independent study. Courses in English, mathematics, social studies and other subjects can serve as a valuable review for students preparing to take the examinations. Detailed information about the GED examinations in Minnesota may be obtained by contacting Mr. Donald A. Peterson, Coordinator, Community Education Section, State Department of Education, Capitol Square Building, St. Paul, Minnesota 55101, (612)296-4057.

Admission And Fees

Independent Study courses are open to anyone who can benefit from them. High school credits are awarded, however, only in cooperation with local school authorities. **If you wish to earn credits for graduation, you must therefore enroll with the approval of your high school principal, counselor, or superintendent.** (See "Permission to Register" form.) Fees are \$16.25 per 1/4 unit, and \$32.50 per 1/2 unit. College level courses are \$15.00 per quarter credit.

Either you or your local school district may pay the fees for high school courses. If your school district has agreed to pay the tuition, you must submit an authorization for payment along with registration materials. (See "Permission to Register" form.)

The full amount of tuition and fees is payable at the time of registration. This amount should include an additional \$3.00 per course if you are not a resident of the state of Minnesota, as well as a remittance to cover the cost of airmail postage, if desired. (See "Lesson Service and Mailing Procedures.") Checks or money orders should be made payable to the University of Minnesota.

Transfers And Reinstatements

You may enroll for an independent study course at any time during the year. Courses should be completed within one year from date of registration. If it is not possible to complete a course within that time, extensions may be granted at a rate of \$10.00 for an additional 12-month period. Under certain circumstances, a second 12-month extension may be granted by the Director of the Department of Independent Study.

You may transfer your registration from one independent study course to another provided that your request is made within three months from your original registration. The transfer fee is 25% of the original fee plus \$2.50 for each completed lesson. The balance of the original payment will be applied to tuition for the new course. The second course must be completed within one year from the date of the original registration, but time extensions may be granted as explained above.

Cancellations

If you cancel a course, you may request a partial refund if no more than three months have passed since the date of registration and you have not completed more than half the lessons in the course. Twenty-five per cent of the cost of the course plus \$2.50 for each lesson processed are non-refundable.

Books And Materials

The cost of books and materials is not included in the tuition. Books may be obtained from your library or purchased from the publishers, from off-campus bookstores, or from the Nicholson Hall Bookstore on the Minneapolis campus (Room 7). If you wish to purchase from the Nicholson Hall Bookstore by mail, you should fill out the order blank included with your course materials and send it to the Department of Independent Study, 25 Westbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455. All mail orders must include a service charge of \$1.50. Indicate on the book order form if you do not want to be sent used books. Prices listed in this bulletin are subject to change without notice. Nicholson Hall Bookstore will often buy used books for 60% of the new book price. If you wish to sell your books when you have completed your independent study courses, you should contact the Nicholson Hall Bookstore, Room 7, University of Minnesota, Minneapolis, Minnesota 55455.

Lesson Service And Mailing Procedures

The Department of Independent Study will make every effort to provide reasonable and prompt lesson service throughout the calendar year. Insufficient postage will delay lessons at least two days. There may be some delay in service at certain times, such as during the summer months or vacation periods, when some lessons must be sent to off-campus addresses. You should allow 7-10 working days for the return of lessons and the final examination grade, and you should receive permission from your instructor before submitting more than one lesson at a time. You have the right, however, to expect reasonably prompt lesson service. You are therefore urged to contact the Department of Independent Study regarding any lesson not returned within three weeks from the date on which it was sent. If you intend to meet a credit deadline, you should have all lessons and the final examination completed and graded at least three weeks before the deadline.

You or your sponsoring school pay all postage on lessons mailed to the University; return mail to students is paid by the Department of Independent Study at surface mail rates. Foreign or American students who wish lessons returned by airmail or other rapid-service mail should include an additional fee for mailing according to the schedule below:

Africa	\$12.50	Central America	7.50
Near and Far East	12.50	Canada	5.00
Europe	7.50	Mexico	5.00
South America	7.50	United States	5.00

Any balance remaining after completion of the course will be refunded.

Credits, Grades And Examinations

Independent Study courses satisfy University of Minnesota entrance requirements and may be accepted by local school districts in fulfillment of requirements for high school graduation. Four passing grades are acceptable to earn credit in an independent study course: A, excellent; B, good; C, fair; and D, below average, but passing. The grade of N indicates unsatisfactory work; students who earn such a grade will not receive credit for the course. The University maintains a record of all courses completed and will mail grade reports to students and/or high school officials upon request.

To earn credit in an independent study course you must pass the final examination. Examinations may be taken at the following offices or under the supervision of the following individuals:

1. Department of Independent Study, 45 Wesbrook Hall, Minneapolis campus of the University. Office hours are from 7:45 a.m. to 4:30 p.m., Monday through Friday. No appointment is necessary during regular hours. Students wishing to take their examination on the first or second Tuesday evening of the month should call 373-3256.

Students in the Twin Cities area are urged to take their exams at the offices of the Department of Independent Study.

2. Continuing Education and Extension Offices (by appointment only):
Crookston: 209 Selvig Hall, (218) 281-6510, ext. 243
Duluth: 431 Administration Building, (218) 726-8113
Morris: 226 Engineering Building, (612) 589-1464
Rochester: 2120 E. Center Street, Building 4, (507) 288-4584
Wadena: 411 Colfax Avenue Southwest, (218) 631-2413
3. The Independent Study Department of any member institution of the National University Extension Association. (A list is available upon request.)
4. A school superintendent or principal; a college instructor or administrator.
5. A commissioned officer whose rank is higher than the student's (for students in the military only).

The Department of Independent Study reserves the right to reject any supervisor. Regardless of his academic qualifications, no relative may proctor an examination. No proctor fees are authorized.

One or more Request for Examination forms are included in the study guide for each course. If you wish to take your examination in a location other than the offices of the Department of Independent Study, you must contact the individual whom you wish to proctor your examination before sending the Request for Examination form to the Department of Independent Study. Examinations are mailed directly to the supervisor at his or her business location.

College Courses Through Independent Study

With the approval of the appropriate high school authority and the Department of Independent Study, high school students may complete college level courses for credit. Acceptance of such credit is, of course, a function of the college the student enters. Consult the Independent Study Bulletin for a complete listing of college courses by the department.

College level courses especially useful to high school students are:

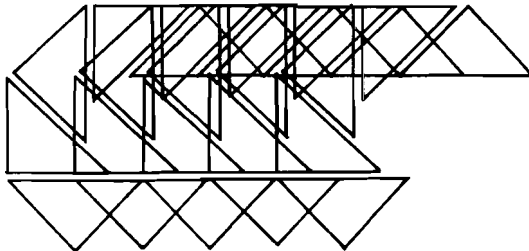
Comp 0001 Preparatory Composition
Comp 0002 Grammar Review
SSk 0012 Guided Reading
PO 1001 How to Study
Foreign Languages

GC 1404 Vocabulary Building
Rhet 1147 Efficient Reading
Math 0001 Basic Mathematics Review I
Math 0002 Basic Mathematics Review II

After Graduation Many high school graduates cannot go on to college immediately, but must seek temporary or long-term employment. For these, independent study courses at the college level may be an important way of earning credits toward a degree or certificate, or for gaining knowledge for occupational advancement. The Department of Independent Study offers a wide range of subject matter designed to meet individual needs. If you wish to continue your education through independent study courses, write for our college bulletin: Extension Independent Study, 25 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455.

The Guide To Independent Study

The Department of Independent Study is a member of the Independent Study Division of the National University Extension Association. The division publishes a GUIDE TO INDEPENDENT STUDY that lists independent study courses offered by 73 colleges. It is available from the National University Extension Association, One Dupont Circle, Suite 360, Washington, D.C. 20036. For single copies, the cost is \$1.00.



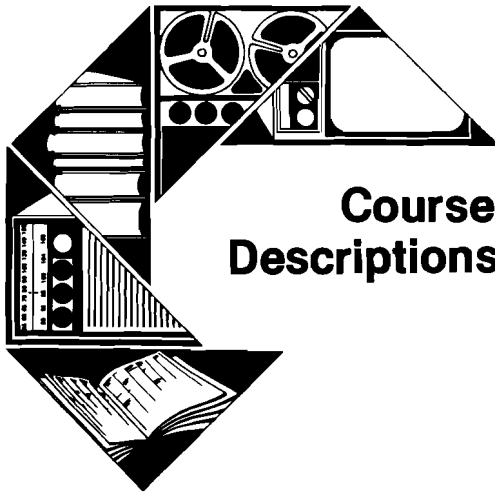
How To Enroll In Independent Study

1. If you plan to apply independent study credits toward high school graduation, obtain permission to enroll from your local school district authorities.
2. Send a completed registration blank and full tuition payment (including out-of-state fee and airmail postage, if applicable) to the Department of Independent Study, 25 Wesbrook Hall, University of Minnesota, Minneapolis, Minnesota 55455. Remittances should be by check, money order, or authorization for payment from your local school district. Checks or money orders should be made payable to the University of Minnesota.
3. Order required texts and materials from the Department of Independent Study, from your local bookstore, from the publishers, or obtain them at your library, if possible. Be sure to add \$1.50 for books ordered through the University. A book order form is included with your course materials when you register.

If you would like to know more about a course before enrolling, write to the Department of Independent Study for an introduction to the course. The introduction will give you an outline of the course content and work.



Independent Study offers you the opportunity to study wherever you are, whenever you have the time.



Course Descriptions

BUSINESS

BOOKKEEPING, PART A (9811)

1/2 unit—20 lessons—text price \$9-11—Harrigan

Includes instruction in keeping financial records for both a small service business and a merchandising firm. Emphasis is placed on making and interpreting financial statements and working the complete bookkeeping cycle using several types of journals.

BOOKKEEPING, PART B (9812)

1/2 unit—20 lessons—text price \$10-12—Harrigan

A continuation of Part A. Includes instruction in recording entries in one combination journal, and the handling of new accounts, including returns, discounts, notes, interest, fixed assets, depreciation, accruals, and bad debts. (Prerequisite: Bookkeeping, Part A)

GENERAL BUSINESS, PART A (9821)

1/2 unit—10 lessons—text price \$8-10—Seiler

General business is a course designed to acquaint students with the role of business in our economic system. Students also explore their relationships as consumers to business and our economic system. Topics include: business and our economic system; money, credit, and banks; earning and income; labor and management; taxation; economic problems; and citizenship as it relates to the free enterprise system.

GENERAL BUSINESS, PART B (9822)

1/2 unit—10 lessons—text price \$8-10—Seiler

A continuation of Part A, with emphasis on the role of the consumer in our economic system. Topics include: money management; the art of spending; consumer protection; consumer credit; making money payments; building financial security; and insurance.

SHORTHAND (9901)

1/2 unit—20 lessons—text price \$7-9—Lydell

An introduction to basic business shorthand including the alphabet, brief forms, and theory of Gregg Simplified Shorthand. Upon completion, the student should be able to take dictation at a minimum rate of 60 words per minute.

BEGINNING TYPING, PART A (9931)

1/2 unit—20 lessons—text price \$6-8—Gudahl

A beginning course in typing designed to provide the student with basic skills needed for both vocational and personal typing.

BEGINNING TYPING, PART B (9932)

1/2 unit—20 lessons—text price \$6-8—Gudahl

A continuation of Beginning Typing, Part A. (Prerequisite: Beginning Typing, Part A, or equivalent)

ENGLISH

NINTH GRADE ENGLISH, PART A (9831)

1/2 unit—12 lessons—text price \$7-9—Hoke

An introduction to language and literature emphasizing reoccurring themes and problems in language and literature. Among the readings are selections from Homer, Steinbeck, Thurber, and Rawlings. Brief written exercises assist in the critical analysis of poetry and prose.

NINTH GRADE ENGLISH, PART B (9832)

1/2 unit—12 lessons—text price \$7-9—Hoke

A continuation of Part A. Readings include selections from Owen, Cummings, Sandburg and Parks.

TENTH GRADE ENGLISH, PART A (9833)

1/2 unit—10 lessons—text price \$9-11—Hoke

An exploration of encounters with others, ourselves, and our environment. Students relate selected poetry and prose to their own lives and analyze the nature of our language and how it works in communicating experiences and ideas.

TENTH GRADE ENGLISH, PART B (9834)

1/2 unit—10 lessons—text price \$8-10—Hoke

A continuation of Part A.

ELEVENTH GRADE ENGLISH, PART A (9835)

1/2 unit—12 lessons—text price \$15-17—Hoke

An interdisciplinary approach to language and literature through a study of American literature from its earliest beginnings through the nineteenth century. Readings include selections from Jefferson, Crèvecoeur, de Toqueville, Emerson, Thoreau, Whitman, Poe, Hawthorne, Harte, Twain, James and Crane. Modern writers such as James, Baldwin, E. B. White and Arthur Schlesinger, however, are also included in order to put the ideas and dreams of early American writers in a more meaningful perspective.

ELEVENTH GRADE ENGLISH, PART B (9836)

1/2 unit—12 lessons—text price \$15-17—Hoke

A continuation of Part A, includes a discussion of American language and literature up to and including the present. Poetry, drama, short stories, and essays are analyzed. (Prerequisite: Eleventh Grade English, Part A, or equivalent)

TWELFTH GRADE ENGLISH, PART A (9837)

1/2 unit—20 lessons—text price \$15-17—Rondestedt

A sociological approach to language and literature as facets of human culture. Lesson topics include a unit on the short story with an emphasis on common themes in literature, and a critical reading of stories and poems, both ancient and modern, about the Trojan War, illustrating the continuity of art and ideas. The course is designed to further linguistic sensitivity and competence, to improve the student's ability to critically analyze literature, and to increase his ability to present his ideas in writing.

TWELFTH GRADE ENGLISH, PART B (9838)

1/2 unit—20 lessons—text price \$15-17—Hoke

A continuation of Part A with an emphasis on drama and the novel. The course includes a broad study of Shakespeare's *Henry the Fifth* and Steinbeck's *The Pearl*.

STRAIGHT THINKING (9839)

1/4 unit—6 lessons—no required text—Hoke

An examination of the important differences between clear and unclear thinking. Barriers to clear thinking, such as assumptions, opinions, and common fallacies, are identified and analyzed. Language, viewpoint, and experience, as they affect thinking, are also investigated. The use of a cassette recorder to complete the assignments and the final examination is optional. The Department of Independent Study will furnish one blank cassette tape to students who have access to a recorder.

YOUTH IN CONFLICT (9840)

1/4 unit—6 lessons—text price \$3-5—Hoke

The course examines, through two novels and a musical play, the reactions of young people to violence, war, and the conflicts associated with seeking and finding one's identity. The use of a cassette recorder to complete the assignments and the final examination is optional. The Department of Independent Study will furnish one blank cassette tape to students who have access to a recorder.

MEANING AND SELF-DISCOVERY IN LITERATURE (9841)

1/4 unit—6 lessons—text price \$3-5—Hoke

In examining the viewpoint of three authors, this course traces the actions of characters in two novels and a play as they search for, and attempt to define, the meaning of their own lives and of life in general. The use of a cassette recorder to complete the assignments and the final examination is optional. The Department of Independent Study will furnish one blank cassette tape to students who have access to a recorder.

PRACTICAL WRITING (9842)

1/4 unit—6 lessons—no required text—Hoke

A comprehensive introduction to written communication. Descriptive, narrative, analytical, comparative, critical and persuasive writing are discussed and illustrated; students are required to submit one example of each of these forms of writing.

ADVANCED COMPOSITION (9845)

1/2 unit—12 lessons—no required text—Hoke

Designed for the student who wants additional practice in expository writing, this module offers experience in composing essays of description, persuasion, comparison/contrast, criticism, interpretation and stylistic imitation. One assignment involves analyzing a newspaper article.

COMPARATIVE MYTHOLOGY (9844)

1/4 unit—6 lessons—text price \$3-5—Hoke

Sumerian, Hebrew, Greek, Norse, African, and American Indian myths are read, with emphasis given to several recurring themes. The module attempts to relate mythology to the broader context of folklore and introduces the student to the concepts of culture hero, trickster, and motif.

CONTEMPORARY LITERATURE/CONTEMPORARY PROBLEMS (9843)

1/2 unit—8 lessons—text price \$14-16—Hoke

A presentation of literature with a view to understanding contemporary problems, this course permits students to gain insights into the problems of Indians, blacks, women, ecology, and the future.

THE BLACK AMERICAN EXPERIENCE (9919)

1/2 unit

An examination of the role of the black man in the American experience. This course looks at life styles blacks have experienced, how these life styles have changed over the years, and what life is like now for blacks in America. Special emphasis is placed on the relationship between blacks and whites throughout America's history. **This course is now in preparation; please inquire before enrolling.**

THE AMERICAN DREAM IN AMERICAN DRAMA (9846)

1/2 unit—10 lessons—text price \$9-11—Hoke

Examines the notion of America as the "Promised Land," offering wealth, security, equality, and opportunity to all her citizens. The American Dream is explored in eleven modern plays (1920-1972). Among the plots and themes are the story of a successful winegrower who needed a bride, black people reaching for wealth, and contemporary alienation.

EFFECTIVE METHODS OF STUDY (9951)

1/2 unit

This course is designed to improve study skills, habits, and attitudes through experimentation with new procedures and through application of established study methods. **This course is now in preparation; please inquire before enrolling.**

LANGUAGES

College level foreign language courses are available in the following languages:

Chinese	Latin
Finnish	Norwegian
French	Russian
German	Russian
German	Spanish
Greek (Classical)	Swedish
Japanese	

For information on these courses, please ask for a copy of our college bulletin.

MATHEMATICS

ELEMENTARY ALGEBRA, PART A (9871)

1/2 unit—12 lessons—text price \$8-10—Anderson

A basic course in elementary algebra design to acquaint the student with basic algebraic notation, sets and variables, properties and operations of real numbers, equations and inequalities in one and two variables, and systems of linear equations and inequalities. Appropriate for those with either a traditional or a modern mathematics background. (Prerequisite: basic arithmetic)

ELEMENTARY ALGEBRA, PART B (9871)

1/2 unit—12 lessons—text price \$8-10—Anderson

A continuation of Elementary Algebra, Part A. (Prerequisite: Elementary Algebra, Part A, or equivalent)

PLANE GEOMETRY, PART A (9873)

1/2 unit—20 lessons—text price \$8-10—Ekstrand

A basic course in high school geometry covering such topics as mathematical proof and the use of syllogisms and inductive reasoning; lines, angles, circles, triangles, polygons, parallels and perpendiculars; and basic geometric constructions and the measurement of arcs and angles. (Prerequisite: one year high school elementary algebra or equivalent)

PLANE GEOMETRY, PART B (9874)

1/2 unit—20 lessons—text price \$8-10—Ekstrand

A continuation of Plane Geometry, Part A. Lesson topics include principles of analytic geometry, slope, distance formula, proportional line segments, areas of polygons, basic elements of trigonometry, inequalities in geometric relationships, properties of regular polygons, vector quantities, loci, conic sections, cycloids and perspective drawing and orthographic projections. (Prerequisite: Plane Geometry, Part A, or equivalent)

TRIGONOMETRY (9875)

1/2 unit—20 lessons—text price \$6-8—Walther

An introduction to basic trigonometric functions and their use in solving right and oblique triangles. Lesson topics include logarithmic computation, radian and mil measure, conditional trigonometric equations and identities, graphing, linear and angular velocity, sines, cosines and tangents, half-angle and double-angle formulas, vectors, complex numbers, and the applications of trigonometry to surveying and navigation. This course is especially useful for students planning to go into surveying, navigation, or engineering, or preparing for advanced college mathematics of any kind. (Prerequisite: One year high school plane geometry or equivalent and one year higher algebra or equivalent)

SOLID GEOMETRY (9878)

1/2 unit—20 lessons—text price \$5-7—Giese

A course designed for the student who wishes to pursue the study of geometry on a more advanced level. Lesson topics include a review of the theorems and definitions of plane geometry, fundamental theorems in solid geometry, an introduction to trigonometric functions and logarithms, and practice in the construction of proofs and solid mensurations. (Prerequisite: one year high school plane geometry or equivalent)

HIGHER ALGEBRA, PART A (9879)

1/2 unit—20 lessons—text price \$8-10—Sension

A course designed to provide both an extensive review of concepts learned in elementary algebra and the further development of topics in linear equations, factoring, fractions, exponents, complex numbers and quadratic equations. Intended for those who wish to bring their competence in mathematics to a higher level or those preparing to enter college. (Prerequisite: one year high school elementary algebra or equivalent)

HIGHER ALGEBRA, PART B (9880)

1/2 unit—20 lessons—text price \$8-10—Sension

A continuation of Higher Algebra, Part A. Lesson topics include functions, radicals, graphical methods, systems of quadratics, determinants, ratio and variation, binomial theorem, factorials, logarithms and progressions. (Prerequisite: Higher Algebra, Part A, or equivalent)

MATHEMATICS FOR THE CONSUMER, PART A: GETTING THE BASICS (9881)

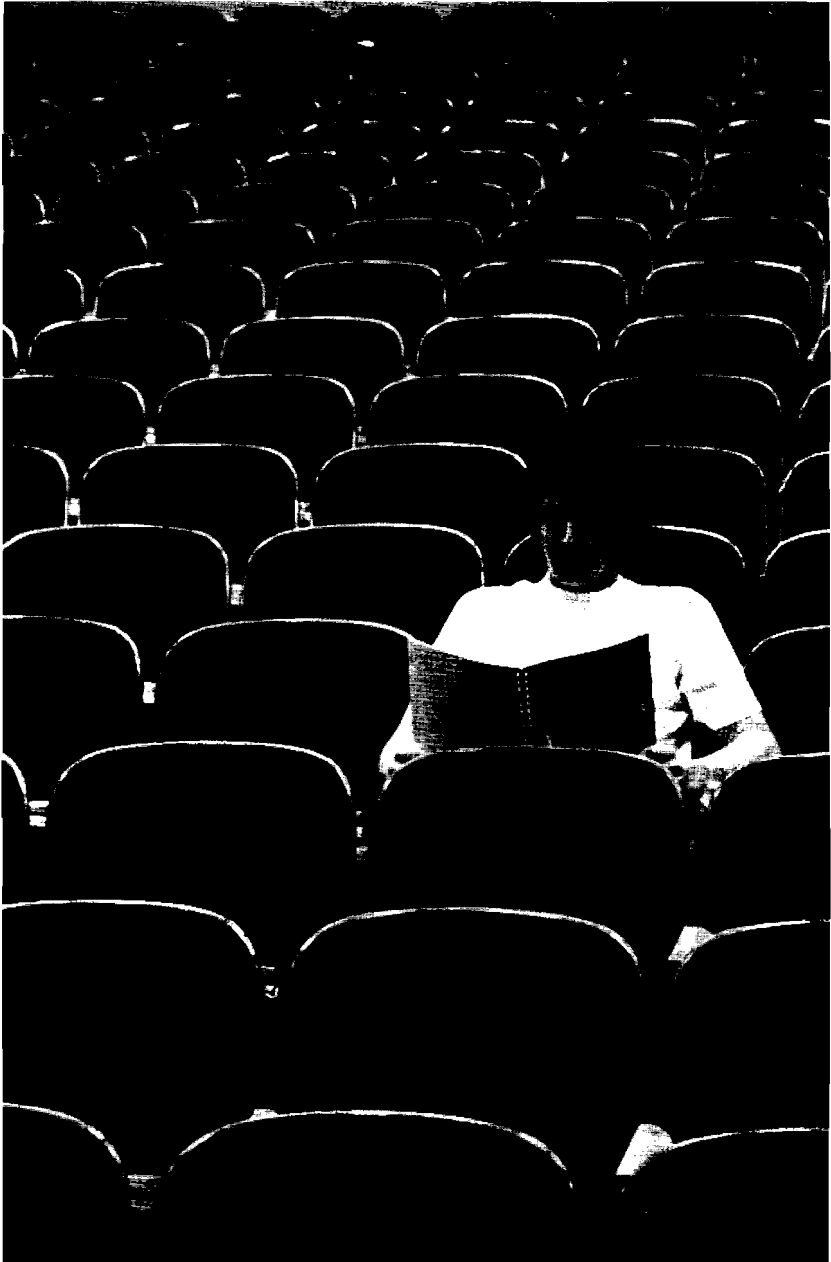
1/4 unit—6 lessons—text price \$9-11—Koch

A course designed to help students recapture and strengthen basic mathematical skills, such as the multiplication, division, addition, and subtraction of fractions and decimals. The text for the course emphasizes words and ideas used in today's business world.

MATHEMATICS FOR THE CONSUMER, PART B: BANKING AND INVESTING (9882)

1/4 unit—5 lessons—text price \$9-11—Koch

A continuation of Part A with emphasis on practical problems related to banking and investing.



Independent Study correspondence courses put you in a class by yourself.

MATHEMATICS FOR THE CONSUMER, PART C: CONSUMER SPENDING (9883)

1/4 unit—5 lessons—text price \$9-11—Koch

A continuation of Part A with emphasis on installment buying, taxes, pricing, invoicing, and discounting.

MATHEMATICS FOR THE CONSUMER, PART D: INSURANCE AND SPECIAL PROBLEMS (9884)

1/4 unit—5 lessons—text price \$9-11—Koch

A continuation of Part A with emphasis on automobile, life and home insurance; overtime earnings; budgeting; and depreciation.

SCIENCE

BIOLOGY, PART A (9801)

1/2 unit—10 lessons—text price \$9-11—Coulter

Lesson topics include the cell, basic biological processes, and comparative anatomy and physiology as they relate to evolution and human biology.

BIOLOGY, PART B (9802)

1/2 unit—10 lessons—text price \$9-11—Coulter

A continuation of Part A. General topics include human inheritance, embryology and evolution; viruses, molds, yeasts and bacteria and their importance to man; and green plants and their functions. (Prerequisite: Biology, Part A, or one semester of high school biology)

ENVIRONMENTAL SURVIVAL AND CITIZEN ACTION (9894)

1/2 or 1 unit—9 lessons—text price \$10-12—

A course that encourages student awareness and action in response to various aspects of the environmental crisis—the historical background, current problems, proposed solutions. **This course is now in preparation; please inquire before enrolling.**

PHYSICAL SCIENCE (9891)

1/2 unit—11 lessons—text price \$7-9—Coulter

Equivalent to one semester of high school science usually offered in the ninth grade. The purpose of the course is to provide the student with facts and principles necessary for understanding his physical environment. Experiments and activities are included.

SOCIAL STUDIES

PROBLEMS OF AMERICAN DEMOCRACY, PART A (9911)

1/2 unit—20 lessons—text price \$6-8—Johnson

Equivalent to twelfth grade high school social studies. A basic introduction to the theory and reality of American social problems as they affect Americans individually and the country as a whole. Lesson topics include an introduction to the theory of social problems; sources of information in modern society; culture and human nature; educational and vocational planning; the changing American family; and mental health. Problems in American labor, business, economics, education and government are also discussed.

PROBLEMS OF AMERICAN DEMOCRACY, PART B (9912)

1/2 unit—12 lessons—text price \$7-9—Johnson

A continuation of Part A. A course designed to acquaint the student with the major social, political and economic problems of America. Lesson topics include a discussion of the principles underlying American government; the political process; national, state and local governments; the economics of government; and the role of the United States in world affairs.

WORLD HISTORY, PART A (9913)

1/2 unit—20 lessons—text price \$10-12—Johnson

A chronological study of world history from its beginnings to World War I. Emphasis is placed on ancient and medieval history, the British Empire and France, and the smaller nations of Western and Southern Europe.

WORLD HISTORY, PART B (9914)

1/2 unit—20 lessons—text price \$10-12—Johnson

A continuation of World History, Part A. A survey of world events since the beginning of World War I.

AMERICAN HISTORY, PART A (9917)

1/2 unit—12 lessons—text price \$27-29—Reinke/Jasper

A general survey of American history from early colonization through the Civil War and Reconstruction. This course is also designed to acquaint students with the processes involved in gathering and interpreting historical information.

AMERICAN HISTORY, PART B (9918)

1/2 unit—12 lessons—text price \$28-30—Reinke/Jasper

A continuation of American History, Part A. A history of the period following Reconstruction up through the mid-1970s.

GENERAL PSYCHOLOGY, PART A (9941)

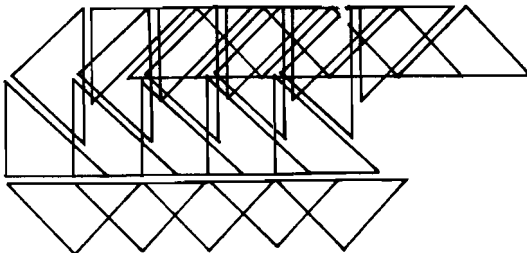
1/2 unit—14 lessons—text price \$14-16—Hoke

A general survey of psychology and psychological methods, this course is designed to acquaint students with the manner in which psychologists examine and attempt to explain human behavior. Topics that will be studied include sensation, perception, learning, motivation, and behavior.

GENERAL PSYCHOLOGY, PART B (9942)

1/2 unit—16 lessons—text price \$14-16—Hoke

A continuation of Part A. Topics to be studied include verbal behavior, cognitive processes, frustration and conflict, individual differences, personality, behavior pathology, social psychology, and foundations of behavior. (Prerequisite: General Psychology, Part A)



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