

UNIVERSITY OF MINNESOTA

SUMMER

EVENING

EXTENSION

CLASSES

1991

CONTINUING EDUCATION AND EXTENSION

1991 Summer Evening Extension Classes

First 5-week term June 11 to July 16
10-week term June 11 to August 21
Second 5-week term July 18 to August 21

Register by mail or in person

Registration Dates

For limited- and nonlimited-enrollment classes

- I. Mail Registration (call 624-2388 for registration forms)
 - Ten-week term May 6 to May 29
 - First 5-week term May 6 to May 29
 - Second 5-week term May 6 to July 3
- II. In-Person Registration (See Office Hours, page 9)
 - Ten-week term May 21 to May 29
 - First 5-week term May 21 to May 29
 - Second 5-week term May 21 to July 3

International Special Olympics

Twin Cities • July 20-26, 1991

The University of Minnesota joins in hosting the International Special Olympics this summer with many events scheduled on campus. In addition, University dormitories and other facilities will be used by participants, coaches, and officials. The festival promises to be an exciting but busy time, and Extension students are urged to plan accordingly. Significant parking and traffic problems are not expected, however.

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Bulletin Use

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

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Extension Classes Bulletin

For complete information about Extension Classes, consult the current **1990-91 Extension Classes Bulletin**. For a copy, telephone 624-2388. The **1991-92 Bulletin will be available August 1, 1991**.

Equal Opportunity

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation. In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 20000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended by 38 U.S.C. 2012; the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be addressed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455, (612) 624-9547.

Registration and General Information

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

CEE Counseling and Program Advising

314 Nolte Center
University of Minnesota
315 Pillsbury Drive S.E.
Minneapolis, MN 55455
625-2500

Extension Classes

Continuing Education and Extension
UNIVERSITY OF MINNESOTA

Steven J. Vite, Charles R. Cheesebrough, Editors

When and How to Register

Register by Mail or In Person

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

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

Registration procedures differ for limited-enrollment classes and nonlimited-enrollment classes. Limited-enrollment classes have specified limits on the number of students who will be permitted into the class. These courses are starred and the course number and title are printed in red in this bulletin. The limit is given with the course description in most cases. Early registration by mail is the best way to obtain space in limited-enrollment classes. For complete details see the instructions for **Registration by Mail**.

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

General Registration Instructions

- 1. Obtain official registration forms at an Extension Classes registration office at any time during office hours; or call 624-2388 to request that registration forms be sent to you.** Forms for recreational sports participation, the health service plan, and veterans benefits certification can be requested at this telephone number also (see the index at the end of this bulletin for page numbers where these services are explained).

Regular registration offices are at 101 Westbrook Hall on the Minneapolis campus (east bank) of the University of Minnesota and at the MacPhail Center in downtown Minneapolis at 1128 LaSalle Avenue. In-person registration is offered on the St. Paul campus, 130 Coffey Hall. See maps near the end of this bulletin.

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

- a. Each course description in this bulletin provides information necessary in completing the registration form.** Courses are listed under departmental or subject heading (alphabetically arranged). Complete the spaces on the form that request information about the course; if there have been any changes to the room, day, or time you will be notified of those changes (usually on your returned fee statement).

If you do know your University student I.D. number, include that in the space provided.

For information about grade base option, see page 18.

Nontranscript registrations are those that apply to noncredit students (other than auditors) and certain noncredit courses; they are explained on page 24.

Be sure to complete the enrollment period section giving the appropriate summer term and year. If your course is offered on a special term, fill in the start and end dates in the space provided.

Birth dates and social security numbers are required for coding purposes.

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

sure of this information is voluntary. There is no consequence to you if you fail to identify your sex or University I.D. number on the registration form.

NOTE: Failure to provide your birth date, social security number, or University I.D. number may lead to identification errors in your records.

b. Please type or use ballpoint pen and press hard so all five copies of the registration form are legible. If all copies are not legible, fee statements cannot always be returned to students who register by mail, or record of enrollment may not be properly made on University files.

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

3. You are not registered until your tuition and fees are paid. Checks must be for the full amount of the tuition and fees and made payable to the University of Minnesota. Be sure to include special fees, course fees, and late fees, when applicable.

Students are urged to pay fees by personal check or money order. Change is not always available at in-person registration locations.

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

	10-week term	First 5-week term	Second 5-week term
Registration by mail	May 6 to May 29	May 6 to May 29	May 6 to July 3
In-person registration	May 21 to May 29	May 21 to May 29	May 21 to July 3
Last day to register without a late fee	May 29, 1991	May 29, 1991	July 3, 1991
(Reserved class space will be forfeited after May 29, 1991)			
Reopening day	June 10, 1991	June 10, 1991	June 10, 1991

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

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

Sample Registration Form

Continuing Education and Extension UNIVERSITY OF MINNESOTA				Department of Extension Classes REGISTRATION FORM			
DEPARTMENT	COURSE NO	SECTION	CREDIT	GRADE BASE	GRADUATE CREDIT REQUESTED		
ArtS	5160	4	3	SP <input type="checkbox"/> BA <input type="checkbox"/> ALD <input type="checkbox"/>	(SEE BULLETIN FOR EXPLANATIONS)	<input checked="" type="checkbox"/>	
DAY	HOUR	LOCATION	COURSE TITLE AS APPEARS IN BULLETIN		PAGE NO	NON-TRANSCRIPT REGISTRATION	
TTh	6-9:45	ArtB 141	Watercolor		38	<input type="checkbox"/> PRICE <input type="checkbox"/> OVER <input type="checkbox"/> LARGER <input type="checkbox"/> HS <input type="checkbox"/> OTHER	
TUITION		COURSE FEES	SPECIAL FEES	LATE FEE	COURSE TOTAL		ENROLLMENT PERIOD 19 91
\$165.75		\$5	\$10	--	\$180.75		FALL QTR <input type="checkbox"/> (1) FALL SEM <input type="checkbox"/> (2)
NAME LAST		FIRST	MIDDLE	BIRTH DATE (MM/DD/YY)		SUMMER	
Klack		Wendy	Ann	6/28/52		TERM <input type="checkbox"/> (1) TERM <input type="checkbox"/> (2)	
LOCAL STREET ADDRESS (INCLUDES APT. NO. IF APPROPRIATE)				SOCIAL SECURITY NO		1ST SEMESTER	
56 Knollways Circle South				303-04-0101		TERM <input checked="" type="checkbox"/> (1) TERM <input type="checkbox"/> (2)	
CITY		STATE	ZIP CODE	HOME PHONE		16 WEEK SUMMER TERM <input type="checkbox"/> (2)	
Hopkins		MN	55343	829-9417		SPECIAL TERM <input type="checkbox"/> (3)	
U OF M STUDENT I.D. # (IF KNOWN)			BUSINESS PHONE AND EXT		MONTH / DAY / YEAR		
9200203					START DATE		
					MONTH / DAY / YEAR		
					END DATE		
					MONTH / DAY / YEAR		

Registration by Mail

1. Follow the steps outlined above in general registration instructions.
2. Make out a separate check to pay your tuition and fees for each limited class you register for by mail. If one check is used to pay for two or more classes and one class is closed, the registrations cannot be processed and must be returned to you. Nonlimited-

enrollment class registrations may be paid for by writing one check only. Do not send cash.

- 3. If there are classes or sections of classes that are acceptable alternatives to your first choice, list those on an alternate choice form (available by calling 624-2388).** If your first choice is closed, the registration office will select the first available choice listed and process the registration.
- 4. Mail in your registration forms, alternate choice forms (optional), and tuition check(s) made payable to the University of Minnesota.** (A separate tuition check is required for each limited-enrollment class.) The address is:

Department of Extension Classes
University of Minnesota
101 Wesbrook Hall
77 Pleasant Street S.E.
Minneapolis, MN 55455

Registrations received in the Extension registration office will be processed on a daily basis beginning with registration dates specified here and continuing through the registration period. Spaces in limited-enrollment classes will be filled daily. **Registrations received in the registration office before the first date of mail registration will be returned to the sender.**

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

Students whose tuition and fees are to be billed to a company, governmental agency (including foreign governments), institution, scholarship, or the military may register by mail. See the section on **Financial Aids and Loans**, pages 11, 12, and 15.

Students registering with **Regents' Scholarships** should read the section on page 14.

Persons registering with G.I. Bill assistance must include the G. I. Bill Information Sheet with their registration. See the section on **Veterans**, page 15, for further information and instructions.

Checks or money orders for late registrations (postmarked after midnight of the last day of the registration period) must include the late fee specified under **Late Registrations and Additions**. Checks must be for the exact amount of tuition and fees. (Refunds for overpayments will not be made until checks clear banks.)

Students who have not received fee statements three weeks after mailing in registration forms and tuition payment should call 624-4145 to check whether the registration was received and processed. Students should assume they are registered unless notified otherwise. Registrations that cannot be processed for some reason are returned immediately (except for illegible copies).

In-person Registration

- 1. Follow the steps outlined above in General Registration Instructions.**
- 2. In-person registration dates for each term are given below. Office hours are on page 9.**

10-week term	May 21—May 29
First 5-week term	May 21—May 29
Second 5-week term	May 21—July 3

- 3. Bring your completed registration form to the tally clerk at an Extension registration office during the in-person registration period.** See locations below. For limited-enrollment classes, the clerk will tell you whether there is still space in the class. Students who register at the Minneapolis campus registration office at 101 Wesbrook Hall may check the closed-class board before bringing their registration to the tally clerk. For non-limited classes, the clerk will check your registration form to make sure it is completed properly.
- 4. Pay the Extension cashier for the full amount of tuition and fees. You are not registered until your tuition and fees are paid.** Students are urged to pay tuition with a personal check or money order.

5. If you reserve space in a limited class (for any term), you must pay tuition by May 29; otherwise, you forfeit your space in class.

6. Registration Offices (see maps near the end of this bulletin)

<u>Minneapolis Campus</u>	<u>Minneapolis (downtown)</u>	<u>St. Paul Campus</u>
Extension Classes 101 Westbrook Hall Minneapolis Campus	MacPhail Center 1128 LaSalle Ave. Downtown Minneapolis	St. Paul Campus Admissions and Records 130 Coffey Hall St. Paul Campus

All registration offices are closed weekends.

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

Students are urged to register early by mail.

Alternate Choice Forms

Students who are registering by mail for limited-enrollment classes are urged to submit an alternate choice form (available by calling 624-2388). If the class the student is trying to register for is closed, the Extension registration office will select the first available choice listed on the alternate choice form and process the registration. (Include registration forms and tuition *only* for your first choice.)

Closed Classes

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

No waiting lists are kept for Extension classes. If students have unusual and compelling reasons to be admitted to a closed class, they may state their case to the instructor of the class. **Written** permission of the instructor is required for admission to any closed class (no late fee through the first week of the term for classes closed before late fees have gone into effect). Starting the second week of the term, late registrations will be assessed the appropriate late fee. Registrations mailed in are effective the date of the postmark.

Some departments, including Accounting, have a strict policy against exceeding class limits.

Early Registration Permission

Students who are nearing the completion of their degree or certificate programs at the University and are having difficulty getting registration space in a required course may obtain special permission to register early.

Submit a written request, along with transcripts of all work taken, to CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, Minnesota 55455. This request must be made at least three weeks prior to the start of mail registration for the term in which the student wishes to register. The student will be notified by mail regarding the action taken on such requests.

Reopening Day

When a class limit is reached, the class is closed and registrations received after that point are returned to students. Sometimes, space becomes available in closed classes because students cancel classes before the term begins or because they do not pay tuition or complete registration by the required date—May 29, 1991 (for all summer terms). After registration periods end and registrations are processed, classes that closed will be reopened to registration if space is available. For all summer terms, reopening day is June 10, 1991. Registration on reopening day is on a first-come, first-served basis in person at 101 Westbrook Hall only.

Late Registration and Additions

All registrations, whether initial or added, received either in person or by mail (effective the date of the postmark) after the close of the official registration period, will be considered late registrations and will be subject to a late fee: \$5 (if accepted) through the first week of classes; \$10 (if accepted) through the second week of classes. Registrations accepted during the third week of any term and thereafter will be subject to a \$20 late fee.

After the second class meeting, no registration will be accepted without the written permission of the instructor.

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

First 5-week term	July 1
10-week term	July 22
Second 5-week term	August 7

Scholastic Committee approval is only granted under unusual circumstances. College guidelines for registration will be strongly considered for student who are admitted to a degree program at the University of Minnesota. Registrations by mail are effective the date of the postmark.

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

There are no late fees for persons registering on the **Plus-62 Plan** (see page 25).

Office Hours

Campus Office (Minneapolis Campus)

101 Wesbrook Hall, University of Minnesota

77 Pleasant Street S.E.

Minneapolis, MN 55455 (telephone 625-3333)

Through June 7:	Mon. through Thurs.	8 a.m.-8 p.m.
	Fridays.	8 a.m.-4:30 p.m.
May 27 (Holiday):	All offices closed	
June 10-July 26:	Mon. through Thurs.	8 a.m.-6:30 p.m.
	Fridays.	8 a.m.-4:30 p.m.
July 4 (Holiday):	All offices closed	
July 29-Aug. 30:	Weekdays.	8 a.m.-4:30 p.m.

St. Paul Campus

130 Coffey Hall

In-person registration only (limited classes)

May 21-May 29:	Mon. through Fri.	9 a.m.-4 p.m.
May 27 (Holiday):	All offices closed	

MacPhail Center Office (Downtown Minneapolis)

1128 LaSalle Avenue

Minneapolis, MN 55403 (telephone 627-4020)

May 28-Aug. 30:	Mon. through Fri.	8 a.m.-4:30 p.m.
May 27 (Holiday):	All offices closed	
July 4 (Holiday):	All offices closed	

CEE Counseling Department (Minneapolis Campus)

314 Nolte Center (telephone 625-2500)

Monday through Friday office hours.	8 a.m.-4:30 p.m.
Evenings (Monday through Thursday)	call for an appointment

All offices are closed weekends.

Enrollment Information

Anyone with a desire to learn may register for Extension classes. There are no admission or entrance requirements; a high school diploma is not required.

Registration in specific programs or classes may require prerequisite courses or experience (see **Prerequisites** page 17). Students wishing to register for graduate credit, refer to page 21.

Day school students who wish to register in Extension classes are urged to consult first with their college office. Day school students must pay Extension classes tuition to attend Extension classes.

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

Extension students are responsible for knowing and following the University Student Conduct Code. Copies of the code are available at the information desk in 101 Wesbrook Hall.

Tuition and Fees

(Tuition and fees are subject to change without notice.)

The 1991 summer tuition for Extension Classes is as follows:

- | | |
|--------------------------------------|---|
| \$53.25 a credit: | For 1000-level courses
Certificate courses
Entrance credit courses
Noncredit courses (does not necessarily apply to reduced tuition-courses) |
| \$55.25 to \$100.25 a credit: | For 3000-level courses and 5000-level courses; per credit rate depends on tuition of the college offering the credit |
| \$121.75 a credit: | For 8000-level courses (open only to students admitted to the University of Minnesota Graduate School): see Graduate Credit , page 21. |

A student who concurrently takes summer session day classes and Extension courses during summer terms must register on separate forms and pay both summer session day and Extension fees.

The full amount of the tuition and other fees is payable at the time of registration. Additional fees may be assessed for use of a laboratory, extra materials, computer charges, 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 \$15 handling fee is charged for all checks returned by a bank. Students should contact the cashier at 138 Wesbrook (624-6354) if they have received notification from their banks that a check has been returned to Extension Classes. No arrangements for partial payment can be made. Students in need of financial assistance should see **Financial Aids and Loans** below. Students who are not residents of the state of Minnesota pay the same fees in Extension Classes as do residents of the state.

Students are not registered until their tuition and fees are paid. After fees are paid, retain the pink copy of the registration form. It serves as official identification as an Extension student and must be presented in order to obtain books from University libraries or to purchase student tickets. Present the white copy to the course instructor at the first class meeting.

Registering with an Authorization for Payment

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

1. **Proper address:** Department of Extension Classes, University of Minnesota, 101 Wesbrook Hall, 77 Pleasant St. S.E., Minneapolis, MN 55455
2. **Student's name**
3. **Correct amount of tuition and fees** for specific classes
4. **Specific authorization to bill for a late fee** (when applicable), or the student must include a check to pay late fees.
5. **Term or dates of eligibility**
6. **Authorizing signature** or stamp required
7. **Complete address of agency to be billed** for tuition

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

Registration forms and authorizations must accompany each other. If your authorization is already on file, you must include a note with your registration indicating the source of your authorization or your registration will be returned.

All materials should be sent to Extension Classes, University of Minnesota, 101 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455.

Registration forms must be properly filled out.

Financial Aid Information

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

Completion of two-thirds (66 percent) of total credits for the year (first summer session through spring quarter) with grades of A,B,C, or S. Grades of D,N,I, and F are not considered satisfactory. Grades of W,V, or X are not included in this calculation.

The formula for determining satisfactory progress is:

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

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

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

Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing. Students are encouraged to contact an academic progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Delayed Payments

If you are unable to pay your tuition and fees when registering, you may request delayed payment. Only students receiving financial aid through the University of Minnesota Office of Student Financial Aid will be considered for delayed payment of tuition.

To receive delayed payment, you must be in good academic standing, your record at the University must be free of holds, and you must show eligibility for financial aid for the 1990-91 academic year. In addition, all students except Minnesota State Grant recipients must be admitted to a degree or certificate-granting program.

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

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

Students registering by mail should:

1. Follow regular mail registration procedures outlined in this bulletin. Be sure to include your social security number and University I.D. number, if you have one, in the space provided on the registration form.
2. In lieu of payment with a check, include a note requesting a delayed payment. Your name will be checked for eligibility.
3. If you have completed all eligibility requirements, expect your delayed payment approval within two to three weeks in the mail. You will also be sent an Extension Bursar Fee Statement, which you will need to pick up your financial aid check.

Students registering in person should:

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

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

Receiving delayed payment does not guarantee receipt of financial aid. Students who do not receive their expected aid are still responsible for payment of their tuition and fees. A student who never attends class or stops going to classes (1) must officially cancel at 101 Wesbrook Hall, and (2) must pay that part of the tuition and fees that would not be refundable based on the refund policies described on page 29. Students are urged to cancel officially as soon as they decide to drop the course. In most cases, without official cancellation, students are responsible for the total course costs after the fourth class meeting regardless of whether they have been attending class or intended to cancel.

If you pay your own tuition and fees prior to picking up your financial aid check, request an Extension Bursar Fee Statement when you register. You must show it in order to pick up your aid. To qualify for aid and to receive an Extension Bursar Fee Statement, you must apply for aid through the Office of Student Financial Aid at the University of Minnesota (210 Fraser Hall), be in good academic standing, and your University of Minnesota record must be free of holds.

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

Programs

Minnesota Part-Time Student Grant Program—The MPTSGP provides funds for students enrolled for five credits or less during the summer period from June 11 to August 21.

Eligibility requirements are: U.S. citizen or permanent resident of the United States, Minnesota residency; enrollment in undergraduate course work applicable to a degree or certificate program and maintenance of satisfactory academic progress; no prior bachelor's degree; and demonstration of financial need. Tuition and fees, books and supplies, transportation and child care will be considered. Awards are contingent upon state funding and will be made until all funds for each term have been committed. Information is available at CEE Counseling, 314 Nolte Center (625-4334).

Eligibility for the first five-week term and ten-week term is based on 1989 income. Eligibility for the second five-week term is based on 1990 income. Under some circumstances, estimated 1991 income may be allowed. Applicant's total federally adjusted gross income and untaxed income must not exceed the following levels:

One-person family \$11,750
Two-person family \$15,725
Three-person family \$19,525
Four-person family \$24,200
Five-person family \$26,000

Six-person family \$27,950
Seven-person family \$30,100
Eight-person family \$32,100
Nine or more \$34,425

Awards can be used for tuition and fees, books and supplies, transportation, and child care costs incurred while students are involved in classes. The grant may supplement other aid, including Pell Grants, scholarships, and employer tuition reimbursement.

Awards will be made until all funds for each term have been committed. Information is available from CEE Counseling, 314 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455 (625-4334).

Pell Grant—You will be considered if you are an undergraduate admitted to a University of Minnesota degree or certificate program who did not attend one or more quarters of the 1990-91 school year or took fewer than 12 credits in one or more quarters in 1990-91. You must register for at least six credits during the summer to qualify for a Pell Grant. If you have not previously submitted an American College Testing Family Financial Statement (ACT FFS) for 1990-91, you must submit one to ACT by May 1, 1991. In addition, you must submit a Summer Financial Aid Application, which will be available in 210 Fraser Hall during the first week of the spring quarter through June 30. Checks are disbursed in the summer. You must turn in your Pell Grant Student Aid Report (SAR) by your last day of enrollment, or June 30, 1991, whichever is earlier. For additional information, contact the Office of Student Financial Aid, 210 Fraser Hall (625-1665), or CEE Counseling, 314 Nolte Center (625-4334).

Minnesota State Grant—You may be eligible if you are an undergraduate who did not attend one or more quarters of the 1990-91 school year or took less than 12 credits in one or more quarters in 1990-91. You must register for at least six credits during the summer to be eligible for a Minnesota State Grant. If you have not previously submitted an American College Testing Family Financial Statement (ACT FFS) for 1990-91, you must submit one to ACT by May 1, 1991. In addition, you must submit a Summer Financial Aid Application, which will be available in 210 Fraser Hall during the first week of the spring quarter through June 30. Students will be notified when checks are available. For additional information, contact the Office of Student Financial Aid, 210 Fraser Hall (625-1665), or CEE Counseling, 314 Nolte Center (625-4334).

Summer Employment Opportunities—You are eligible for summer employment if you were registered for at least six undergraduate or three graduate credits in a University of Minnesota degree or certificate program during spring quarter and are returning to school in the fall or are registered for a minimum number of credits during the summer.

After completing a Student Employment Center application, you will be screened for positions and referred to a maximum of two jobs per day. Final hiring decisions are made by employing departments. In addition to regular on-campus jobs, other special employment programs are available to you. Opportunities are available in College Work-Study (CWS), Urban Corps (funded through CWS), on- and off-campus community service (also funded through CWS), temporary, intern, and trainee programs.

To apply for College Work-Study, you must submit a 1990-91 American College Testing Family Financial Statement (ACT FFS) to ACT by May 1, 1991, if you have not already done so. In addition, you must submit a Summer Financial Aid Application, which will be available in 210 Fraser Hall during the first week of the spring quarter through June 30. There are specific requirements regarding CWS eligibility during the summer months. CWS funds are need-based and are awarded for as long as funds are available. For more information, contact the Student Employment Center, 120 Fraser Hall (624-8070).

Student Temporary Services (STS) provides a wide variety of temporary jobs if you are seeking temporary work. The Student Temporary Microcomputer Service (STMS) refers you to temporary word processing jobs if you are certified in WordPerfect or Microsoft Word. STMS also offers training for word processing jobs if you need certification. For more information, call 624-5554.

Job Location and Development (JLD) helps students find off-campus employment related to career goals and academic interests. Paid job opportunities with community agencies are available in its Community Service Programs. In addition, a large number of off-campus employers list part-time and temporary vacancies with the Student Employment Center. Call 624-4814 for more information about off-campus positions.

Summer Loan Programs—To be considered for summer 1991 loans, you must submit a 1990-91 ACT Family Financial Statement (ACT FFS) to ACT by May 1, 1991, if you have not already done so. In addition, your financial aid file must be complete by July 13, 1991. If you already received one Stafford Student Loan for 1990-91, you may be eligible for a second summer Stafford Loan. Supplemental Loan for Students (SLS), Parent Loans for Students (PLUS), Student Educational Loan Fund (SELF), Health Education Assistance Loan (HEAL), Law Access Loan, and Law Student Loan programs are also available for summer 1991. All loans require at least half-time registration and admission to a degree or certificate-granting program. Complete information on specific eligibility and other terms of these private lender loans is available in the Student Loans Brochure included with your ACT FFS packet. Forms for these loans are available for pick-up at 210 Fraser Hall and 197 Coffey Hall. For additional information, contact the Office of Student Financial Aid, 210 Fraser Hall (624-1665).

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.

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

Division of Rehabilitation Services: Some financial aid help may be available through the Minnesota Division of Rehabilitation Services. For information, contact the Office for Students with Disabilities, DRS Liaison, 16 Johnston Hall, 624-4037 (voice or TDD), or the Division of Rehabilitation Services office in your area outside the Twin Cities can also supply you with information.

Blind students may call the Extension registration office (624-5777) concerning tuition exemption for Extension classes. Counseling regarding other financial assistance is available through the Minnesota State Services for the Blind and Visually Handicapped, 1745 University Avenue, St. Paul, MN 55104 (642-0500). Tape and braille materials also are available from the Communication Center of State Services for the Blind, telephone 642-0502.

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

Veterans with Service-connected disabilities may be eligible for vocational rehabilitation services through the Veterans Administration. Write or call the Veterans Assistance Center, Room 181 Federal Building, Fort Snelling, St. Paul, MN 55111 (726-1454).

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

Regents' Scholarships—The Regents' Scholarship program provides an opportunity for eligible University of Minnesota Civil Service and union-represented employees to take University classes tuition-free (graduate student course work subject to taxation). Tuition is waived. Normally, required student services fees do not have to be paid unless you want to purchase and use the service. Regents' Scholarships do not cover retroactive tuition, late fees, course fees, lab fees, books, deposits, records fee for establishing new student files, orientation fees, CEE special fees, or Boynton Health Service fees.

A wide range of courses are approved for Regents' Scholarships, both in day school and Continuing Education and Extension, but note the exceptions listed in the guidelines on the Regents' Scholarship application form.

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

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

For registration information, see **When and How to Register**. Be sure to include the approved Regents' Scholarship form, completed registration form, and a check made payable to the University of Minnesota for special, course, or late fees (if any) when completing registration by mail.

For classes without enrollment limits, registrations with Regents' Scholarship forms will be accepted during the regular registration periods. For classes with limits on enrollment, do not submit registration materials until the second week of mail registration.

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

University employees who wish to take noncredit Compleat Scholar classes must pay one-half the regular tuition plus all course fees and special fees given with a course. You must submit a letter from your department head verifying employment when you register. For limited-enrollment classes, you may register starting the second week of mail registration. For nonlimited classes, you may register during regular registration periods.

Regents' Scholarships are not accepted for Compleat Scholar courses, MacPhail Center courses, Professional Improvement Courses and Seminars, Research Explorations, and certain other courses listed on the Regents' Scholarship application form.

University employees on at least a 75-percent appointment may take Compleat Scholar courses for half-price. See the Compleat Scholar section in the **Noncredit Course Offerings** section of this bulletin.

Graduate Assistant Tuition Fellowship Program—Graduate students and professional trainees who hold appointments as teaching assistants, research assistants, administrative fellows, and certain other professional school student positions may receive tuition fellowships for graduate credit classes in Extension. For eligibility information, contact the Graduate Assistants Office, 411 Johnston Hall, 626-1310.

Academic Staff Tuition Benefit—Faculty and professional administrative employees holding faculty appointments of 75-percent or more may register tuition-free in Extension credit classes in which space is available. Approval and employment verification from the faculty member's department head is required. Only tuition is waived; late fees, course and special fees, books, laboratory fees, and other costs must be paid by the faculty member. Graduate tuition benefits are subject to taxation. Certification forms and eligibility and registration information are available from department heads.

Other financial aids—See the Extension Classes Bulletin, 1990-91 edition, for more information, pages 35-40.

For additional information—Contact CEE Counseling, 314 Nolte Center (624-4334). Financial aid workshops for Extension students will be offered throughout the summer. Call for time, dates, and locations.

Military Information

Personnel

All military personnel are urged to familiarize themselves with the registration procedures and information section of this Bulletin. University regulations and procedures apply to all students unless stated otherwise.

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 up to 90% a quarter credit hour for approved classes. (All classes in the Extension Classes Summer Bulletin are quarter credit whether designated five weeks or ten weeks in length.) The remaining tuition and all fees must be paid by military personnel. Interested members of the armed services are urged to contact the educational officer or commanding officer of their command for proper authorization to participate in these programs. Written authorization designating classes and amount of tuition to be paid by Army, Navy, Air Force, or Marine Corps should be presented at time of registration, at which time payment of remainder of tuition must be made. Military personnel who do not have the necessary authorization at the time of registration will be required to pay in full for their registration. When the government authorization is received, a refund for the authorized amount should be requested. Registration must be made by mail or in person at 101 Westbrook Hall, Minneapolis campus.

Veterans

To satisfy Veterans Administration requirements, veterans using VA educational benefits must enroll in courses that are applicable to degrees, certificates, or other educational objectives approved by the VA. **Veterans must see an adviser at the CEE Counseling Office before registering if they have not previously reviewed educational plans and transcripts of all previous college work with a counselor and received a letter verifying the evaluation.** The letter is sent by the veteran or the counselor to the Department of Extension Classes, 101 Westbrook Hall. Call 625-2500 to arrange for a day or evening appointment.

VEAP (Chapter 32, the Post-Vietnam Era Veterans' Educational Assistance Program), provides benefits to individuals who initially entered active duty after December 31, 1976. While serving on active duty, the serviceperson may voluntarily contribute to an educational assistance fund. Maximum entitlement is 35 months. Application for training under this program may be made by requesting VA form 22-1990. That application form must be completed and submitted to 101 Westbrook Hall with a certified copy or original copy of DD-214 and information sheet when registering for Extension classes. Payments for veterans using VEAP Chapter 32 benefits is determined by the amount of participants' contributions. DOD "kicker" if any, and number of months the veteran contributed. No payments are made for dependents.

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

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

Entitlement is 36 months of full-time training or the equivalent part-time. Benefits are payable for full-time (\$140 monthly); three-fourths time (\$105 monthly); and one-half time (\$70 monthly). For less than one-half time, the benefit is \$35 monthly. No allowance for dependents is made.

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

New G.I. Bill (Chapter 30; Montgomery)—Provides benefits to individuals who initially entered active duty after July 1, 1985, and meet qualifications. Check with the Veterans Administration at 726-1454.

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

Registration—Before registering, please read **When and How to Register**, page 5. Each time a veteran registers for Extension classes and wishes certification to the Veterans Administration, a G.I. Bill information sheet must be completed. Please complete **only one** information sheet for each registration period.

In-person registration is encouraged for those veterans registering for the first time under the G.I. Bill.

If the student registers by mail for limited-enrollment classes and any of these classes have closed, the G.I. information sheet will be returned and must be revised.

Veterans who wish to add classes to their registration should return the corrected information sheet along with the additional registration forms and payment. Those who do not wish to add classes to their registration should return the corrected information sheet to 101 Westbrook Hall along with a note indicating that registration is completed and certification to the Veterans Administration should be made. **In either case, if the veteran does not return the information sheet, no certification will be made to the Veterans Administration.**

Submit all forms at the same time: a completed G.I. information sheet (just one listing all classes the student is registering for that term); registration forms (one per class); and a check for tuition plus any additional fees (write a separate check to pay tuition for each limited-enrollment class).

Cancellation and transfer—When veterans cancel or transfer classes, they must notify the Extension Veterans Office. This is especially important when it affects the total credit load. Transfers to or from day school must be noted with a form A19a, which is obtained from the unit the veteran is leaving.

Payments—For nonstandard terms (such as summer terms), payments vary according to the credits, the amount of class meeting time per week, as well as the Chapter under which the veteran is collecting benefits. Monthly benefits may differ between summer terms and regular academic quarters. Please contact either of the following for more information:

Extension Classes G.I. certification 624-3341
Veterans Administration 726-1454

Advance Pay—Veterans registering for at least one-half time benefits and who have been out of school for at least one full calendar month are eligible for advance pay. This can be requested by filling out an **Advance Payment Request Form** obtained by writing or calling the Veterans Office, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455, or by filling in person at this office. Request cannot be made later than 30 days prior to the start of classes, nor earlier than 60 days before classes begin. Students who are registering for classes by mail and are submitting a request for advance pay must send all forms in before May 3 for the first 5-week term and 10-week term and before June 11 for the second 5-week term.

Application for advance pay **will not** be accepted later than the following dates:

First 5-week term—May 10
10-week term—May 10
Second 5-week term—June 17

Except for advance pay requests, no certification can be sent to the VA earlier than the beginning of each term, regardless of when a veteran registers.

Satisfactory Academic Progress—In the past, VA regulations have changed often and without advance notice. The information in this section was correct when this *Bulletin* went to press, but is subject to change without notice.

The VA has established these guidelines:

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

If the veteran cancels the class within 30 days of the beginning of the term, the VA will adjust the award effective the first of the month following the change in the credit load.

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

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

Extension Classes G.I. Certification 624-3341
Day School G.I. Certification 625-8076
Independent Study G.I. Certification 624-0342
Program Counseling 625-2500
(*necessary course work—degree planning*)
Unsatisfactory Progress Problems 625-8076

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 a 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 should not be attempted unless the student has had the stated previous course or its equivalent.

Occasionally, students who have had the equivalent study, training, or experience related to the course desired may be exempted from the prerequisite by the instructor.

If an instructor decides that a student is not qualified once the class has begun, the student may be permitted to transfer to another course without penalty or cancel with a full refund (minus a \$5 cancellation fee) under the following conditions. The student must obtain from the instructor a written statement explaining that the student does not have the necessary background or prerequisites to complete the course. This statement must be obtained by the fourth class of the term. To transfer to another class, the student must also have written permission from the instructor of the class he or she is entering if the class has met two or more times. Transfers should only be considered very early in the term. To receive a full refund (minus a \$5 cancellation fee), the student must officially cancel by mail or in person using a cancellation form available from the Extension Classes registration office, 101 Westbrook Hall. Cancellation should be done as early in the term as possible and must be completed by the fourth class of the term. Cancellation after the midpoint of any term may encounter grade recording delays. See **Refunds in Rules, Regulations, and Policies**.

A prerequisite course may not usually be taken for credit after the advanced course has been satisfactorily completed.

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

Academic Progress

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

Completion of two-thirds (66 percent) of total credits for the year (first summer session through spring quarter) with grades of A,B,C, or S. Grades of D,N,I, and F are not considered satisfactory. Grades of W,V, or X are not included in this calculation.

The formula for determining satisfactory progress is:

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

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

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

Students determined not to be in good academic standing will have an opportunity to appeal their status if there is additional information to present which may change their academic standing. Students are encouraged to contact an academic progress adviser at 625-2500 for more information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Grades

A-F Grading System—Five grades, A (highest), B, C, and D (lowest), indicate completion of a course. The grade of F represents performance that fails to meet basic course requirements and is unworthy of credit.

S-N Grading System—The S-N system represents an alternative to the A-F system. S represents achievement that is satisfactory to the instructor for the class in which the student is registered. (The standards for S may vary from one class to another.) The symbol N, which stands for no credit, is assigned when the student does not earn an S and is not assigned an incomplete (I).

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

Choice of A-F or S-N grading system must be indicated for each course listed on the registration form at the time of registration, and **may not be changed after the first week of any 5-week summer term or second week of the 10-week term** (there is no fee for changing). For University of Minnesota graduate students, grade base may not be changed after the first week for summer terms. Changes can be made only in person or by writing the Department of Extension Classes, University of Minnesota, 101 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455. **If the student does not indicate the grading system desired on the registration form, the A-F system will apply.**

A symbol of I (incomplete) will be assigned at the discretion of the instructor when there is a reasonable expectation that the student can complete successfully the work of the course. **Do not re-register for this course in a subsequent quarter** (both registrations and grades would then be listed on your transcript). Student and instructor should arrive at a clear understanding in advance as to whether the student may receive an I and what the conditions will be. An I that is not made up by the end of the next quarter in which the student is registered becomes an F under the A-F grading system or an N under the S-N grading system. When an I is changed to a permanent grade, the I is removed from the student's record. Veterans are advised to read information under **Satisfactory Academic Progress**, page 17. Check with an adviser (625-2500) if you have questions about an I grade.

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 midpoint of any summer term, regardless of the student's standing. After that time, cancellations are permitted only in extenuating circumstances by Scholastic Committee approval. Please contact an adviser at 625-2500 for assistance.

The symbol V (visitor) indicates registration as an auditor or visitor (see **Auditors**, page 24).

Grade-Point Average—For purposes of determining grade-point average, grade points are assigned to the permanent grades as follows: for each credit of A, 4 grade points; B, 3 grade points; C, 2 grade points; D, 1 grade point; F, 0 grade points. A student's grade-point average is determined by dividing the sum of grade points by the sum of credits attempted, and passed. Please contact an adviser at 625-2500 for information about the calculation of your grade-point average. The N grade, for example, is used in determining the average in some colleges but not others.

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

Grade Reports, Transcripts

Two types of service are available to obtain *official* transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 a copy. Processing time for regular service is two to three work-days; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript requests is available for \$6 a copy (increases to \$9, July 1, 1991). Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day it is requested. You must have a picture I.D. (student identification card, driver's license, or current passport) to receive over-the-counter rush service.

Official transcripts can be requested by mail. Requests can also be dropped off at the locations below. No telephone or fax requests are accepted. Request should include your full name, social security number, date of birth, dates of enrollment, and complete address(es) for mailing the transcripts. Send your requests to the Certifications Unit, 155 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. Your request must include a check or money order payable to the University of Minnesota for \$3 or \$6 (\$9 starting July 1) a transcript.

You may pick up an unofficial copy of your record by presenting your picture I.D. at the quick-service window in 155 Williamson Hall. There is no charge for the quick-service request; however, there is a limit of one copy per day.

Grades and credits for Extension undergraduates are now automatically recorded on college (day school) transcripts and all previous Extension registrations are transferred to this record. It is no longer necessary to request that your grades be transferred to your day school record. Graduate and professional school students still must petition their school or college if they want Extension credits accepted in their degree programs. Complete a "Request for Transfer" form at the Extension Classes Registration Office, 101 Westbrook Hall, or at the Student Relations Unit, 150 Williamson Hall (625-5333).

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

Student Identification Card (I.D.)

A University identification number is assigned to your undergraduate transcript when you register for Extension classes. Extension students *admitted* to a college of the University are eligible for a University I.D. card and are encouraged to obtain one. Students not admitted to a college also may obtain an I.D. card (students who register infrequently are less likely to need the card). Always include the I.D. number when you register or complete other University forms. Students registering for the first time or those who have not registered since 1988 should allow four weeks to process their records before requesting a card. A paid fee statement and picture I.D. can be used to request student services instead of the I.D. card. The I.D. office in 248 Williamson Hall is open 8 a.m. to 4 p.m., Monday through Friday, and has extended hours the first week of every quarter. Call 625-9357 for details. For more information, contact the CEE Counseling Office, 625-2500.

Credit and No Credit Registrations

Credits

All credits listed in Course Offerings are quarter credits. 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 may be used on a degree program. A student who seeks a degree should be aware that all degree credits attempted in Extension Classes will be added to the student's college transcript.

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 usually 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 students have been formally admitted to the college from which they expect to obtain a degree, these credits are not considered to meet the residence requirements of most colleges of the University.

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. See page 625 in the 1990-91 **Extension Classes Bulletin** for further information.

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).

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. Students taking University of Minnesota credits for use at another school are advised to get written approval from their degree-granting institution in advance to ensure transfer ability.

Graduate School Credit

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

Course numbers beginning with the numeral "5" may be taken for graduate credit by qualified students only if the instructor holds a Graduate School faculty appointment and the course description includes a statement indicating that graduate credit is available.

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

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

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

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

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

The remaining 40 percent of the course work required for the master's degree may be transferred from approved sources. The Graduate School will consider for transfer courses that meet the following criteria:

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

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

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

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

CEE Graduate-Level Registration and Fees—A student who wishes to receive graduate-level credit for a CEE course which is available for graduate credit must indicate this on the CEE registration form. This notifies the instructor of the course, who indicates on the final grade report whether the work was completed at the graduate level. If the work was

completed at the graduate level, the course is entered onto the student's undergraduate transcript with an asterisk (*) printed next to the course listing.

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

In order to change a CEE registration from undergraduate to graduate credit (or the reverse), students must write or go to the Extension Classes Registration Office, 101 Westbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455 (telephone calls are not acceptable). This may be done at any time during the period of instruction. The Graduate School does not permit such changes after the last day of instruction.

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

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

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

Use of Graduate-Level Course Work Elsewhere—Students who intend to apply graduate-level CEE course work to a degree at an institution other than the University of Minnesota must indicate on their CEE registration form that they wish to take the course for graduate credit. The faculty member will indicate on the final grade sheet whether the course was taken for graduate credit. The applicability of credits earned in Extension toward a degree at another institution is determined by that institution and is not the responsibility of either CEE or the Graduate School of the University of Minnesota. Students are urged to obtain written approval in advance from that institution.

Continuing Education Unit

The continuing education unit (CEU) is a nationally recognized unit of measurement awarded to participants in a qualifying noncredit continuing education program. One CEU is ten contact hours of participation under responsible sponsorship, capable direction, and qualified instruction. CEUs can become part of your permanent University record. For a descriptive brochure, contact the Department of Professional Development and Conference Services, 131 Nolte Center, on the Minneapolis campus; telephone 625-6616.

Credits Without Class Attendance

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

Independent Study "Y"

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, di-

rect consultation with the instructor is necessary for planning the student's work. Regular fees are charged for independent study "Y" registration.

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 CEE Counseling Department, 314 Nolte Center, 625-2500.

Extra Credit "X"

Students may register in a degree credit course for one, two, or three extra credits (beyond those a course carries) provided the course instructor approves. Fees are based on the course level, number of credits, and the college in which the credit is earned. 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, 625-2500.

Directed Studies/Directed Research

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 CEE Counseling Department, 314 Nolte Center, 625-2500.

Special Examination

Students who, through independent study, experience, or study at a noncollegiate institution, have gained knowledge which is equivalent to that covered by a particular University course, may earn credit for it by passing a special examination on the subject matter covered by the course. They must obtain approval from the department offering the course. There is a \$30 fee. Contact the CEE Counseling Department, 314 Nolte Center, 625-2500.

College Level Examination Program

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

University College Independent Study

University College provides an undergraduate independent study registration (UC 3075) available to students who wish to pursue projects which go beyond the scope of any single department or college of the University. These student-initiated projects are interdisciplinary in nature and/or are done with faculty from departments that do not have an undergraduate independent study course for nonmajors. Students will be asked to select an appropriate faculty monitor and to complete the UC 3075 independent study contract prior to registering. Students may take 3 to 15 credits of UC 3075. Further information may be obtained from the Inter-College Program Office of University College, 7 Wulling Hall, 624-2004.

Department of Independent Study

The Department of Independent Study offers a wide variety of courses through correspondence and by radio and television. All requirements can be completed by mail. Courses marked in this Bulletin with **(IS)** following course titles are also taught through 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. Credits earned through the Department of Independent Study may be used to satisfy residence requirements with college approval. Interested degree students should check with their college offices for confirmation. Visa or Mastercard may be used for payment of tuition, fees, or materials. The **Independent Study Bulletin** is available from the Department of Independent Study, University of Minnesota, 45 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455; 624-0000.

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.** Non-attendance may result in an "N" grade recorded on the student's transcript. Auditor status carries no credit. One may not later take for credit a course which has been audited; exceptions to this rule may be allowed upon consultation with an adviser in the college or school concerned. Auditors pay the same tuition and fees as other students.

Requests for change from credit registration to audit registration are made in person or by writing the Department of Extension Classes, University of Minnesota, 101 Westbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455; 625-3333.

After the midpoint of a summer 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. The grade-base form (changing from credit to audit) with the instructor's signature must be received before the official start of final exam week for that term. Starting final exam week, it is up to the student to have the instructor place a "V" grade on the grade report. 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 any summer term.

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

Reduced-Tuition Plans

Regular Extension credit courses marked with a diamond (♦) symbol after the course title are open for no-credit registration at reduced tuition.

Registration dates and procedures for ♦ courses are no different than for any nonlimited-enrollment credit class.

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

◆ **One-half price plan**—Any class marked with a ◆ may be taken for no credit at one-half the regular tuition (plus any course fees, special fees, or late fees).

Students will have to pay the regular transfer fee when transferring from one-half price to full price. Students may not transfer from one-half price to full price or full price to one-half price after the first two weeks of class.

Advanced high school students who want to take Extension classes for credit should contact an adviser in the Advanced High School Student Services Office, 337 Nolte Center, 626-1666.

Continuing Education for Women

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

The Continuing Education for Women Mucke/Roff Scholarship Fund was established especially for students registering for credit or noncredit Continuing Education for Women courses. Awards are made on the basis of scholastic ability, motivation, previous achievement, financial need, and realistic plans. Information is available from the CEE Counseling Office, 625-2500.

Persons 62 and Older

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

Credit course registration—Credit courses may be taken for University credit for only \$6 a degree, certificate, or entrance credit hour plus any fees. Or these courses may be taken free for no credit (no transcript record is kept). For classes with limited enrollment (those courses with titles printed in red), registrations will be accepted starting the second week of mail registration.

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

Compleat Scholar noncredit classes—Persons 62 and older may register in certain noncredit Compleat Scholar and Practical Scholar classes and receive a \$10 discount on tuition. The tuition cost for persons 62 and older is listed in parentheses after the regular tuition in each course description. (Some courses may not be open to discounted registration.) For classes with limited enrollment, registrations will be accepted starting the second week of mail registration. For nonlimited-enrollment classes, students may register during the regular registration periods.

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

For general information, telephone 625-3333.

Also see the description of **Elderhostel**, page 127.

Bookstores

The evening schedule has been established by University bookstores. Note that bookstores are not open every night.

Pick up books before class. Textbooks may be purchased before the first class at campus bookstores. List of course offerings and required books are in the bookstores.

Book refunds: If a course is canceled or if the student drops the class, books may be returned for a full refund through the first week of classes provided the student has a sales receipt for the books and has not written in them. (Last day is June 17 for the first 5-week term and the 10-week term; July 24 for the second 5-week term.)

Resale of books: University bookstores will buy back books that will be used in courses in the fall. This sale is conducted throughout the summer.

Summer Hours First Week of Each Term

June 10-13:	8 a.m. to 6 p.m.
June 14:	8 a.m. to 4:30 p.m.
July 18, 22, 23, 24:	8 a.m. to 6 p.m.
July 19:	8 a.m. to 4:30 p.m.

Regular summer hours are 8 a.m. to 4:30 p.m., Monday-Friday.

The Minnesota Book Center, Williamson Hall (telephone 625-6000).

This bookstore (231 Pillsbury Drive S.E.) sells books for courses in the College of Liberal Arts, Education, General College, and the Institute of Technology (*except for those CLA departments listed below in the Harold Smith West Bank campus bookstore*).

Harold D. Smith Bookstore, West Bank (telephone 625-3000).

Located next to Anderson Hall, the West Bank Bookstore sells books for courses in the School of Management, as well as for these College of Liberal Arts departments: history, political science, geography, sociology, Afro-American and African studies, theatre arts, studio arts, economics, public affairs, urban studies, music, music education; and for family social science courses taught on the West Bank campus.

Other Bookstores

Books Underground (624-9200), the St. Paul campus bookstore (enter through the student center), and Health Sciences Bookstore (625-8600) at 2-554 Unit A, are also open during the summer. Telephone them for their hours and supplies.

Rules, Regulations, and Policies

Fee Statements

After registration forms are received (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 proof of enrollment and 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 at 101 Westbrook Hall in the event the first one is lost or illegible.

Changes in Courses

All changes occurring after the publication of the Bulletin are posted in the desk copy bulletin at each of the registration locations.

Class Attendance

Students (including auditors) are responsible for attending classes in which they are registered. (See also **Credits Without Class Attendance**, page 22.) A student who cannot attend a class session should arrange with the instructor—in advance, if possible—to make up the work.

Transferring Classes

Students who wish to transfer classes or class sections, after being officially registered, can do so either in person at 101 Westbrook Hall, or by mail (call 625-3333 for transfer forms) if space is available. No transfer by mail will be done for reduced-tuition classes.

Students who wish to transfer after an initial registration will be subject to the following transfer fees and conditions: 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 may not transfer from the first 5-week session or the 10-week session to the second 5-week session after June 10.

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

Transfer during the second week or after—After the second class meeting, no transfer will be accepted without **written** permission of the instructor.

Transfers after the midpoint of the term require scholastic approval.

There will be no transfer fee if: (1) University requests transfer be made; (2) transfer is required because of an unacceptable grade in a prerequisite course (see **Grades**, page 18); (3) transfer is required because of University cancellation of course in which previously registered, provided such transfer is made within one week from date of cancellation of class; or (4) transfer is between sections of a course with the same course number.

Students will have to pay the regular transfer fee when transferring from noncredit one-half price registration to full-price credit registration. Students may not transfer from noncredit to credit registration, or vice versa, after the first two weeks 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**).

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

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

Transfers from Other Colleges

A student may register for Extension classes without going through formal admissions or transfer procedures. However, if students plan to complete a degree program through Extension classes, they must apply and be admitted to a college. Consult the CEE Counseling Department, 314 Nolte Center (625-2500).

Access to Student Educational Records

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

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards, honors received, and degrees earned—is considered public or directory information. You may prevent release of public information outside the University only during your terms of enrollment. To do so, you must notify the records office on your campus.

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

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

Cancellations

How to Drop a Course

Students who wish to cancel a class or classes must do so officially, either in person or by writing to the Department of Extension Classes, University of Minnesota, 101 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455. Cancellations are **not** accepted by telephone. By so doing, they will, if eligible, receive a refund (see **Refunds**, page 29), and will insure entry of the appropriate symbol on their grade report. If students officially cancel within the first week of a 5-week term or within the first two weeks of a 10-week term, the course they cancel will not appear on a transcript.

Students who officially cancel from a class before the dates listed below will automatically receive a "W" (withdrawal) on the grade report. This symbol means official cancellation without a grade." Cancellations by mail are effective the date of the postmark (or date received if sent through campus mail).

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

First 5-week term	July 1
10-week term	July 22
Second 5-week term	August 7

Scholastic Committee approval is only granted under unusual circumstances. College guidelines for cancellation will be strongly considered for students who are admitted to a degree program at the University of Minnesota.

Students should obtain a petition form from the registration office in 101 Wesbrook Hall. Instructor verification that the student is doing passing work is required. Completed cancellation forms, the petition form, and instructor's verification must be received by the Extension Classes registration office before the course final exam for that summer term. Students will be notified by mail of the scholastic committee decision.

Cancellation forms are available at the Extension Classes registration office, 101 Westbrook Hall.

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 the Extension Classes office, regardless of the date of the student's last attendance. (Cancellations by mail are effective the date of postmark or date received through campus mail.) It is important, therefore, that whenever students stop attending a class, they should officially cancel by filling out the appropriate forms at the Extension Classes office.

Students who simply stop attending class (and do not officially cancel) may receive an "F."

Do not stop payment of a check to cancel your registration. You must cancel officially by mail or in person. A check handling fee of \$15 is charged for any stop order payment and you are responsible for any tuition due up to the point you officially cancel (based on refund schedule below). A hold will be placed on your records until these fees are paid. Contact the cashier's office in 138 Westbrook Hall (624-6354) before you stop payment of a check for any reason.

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

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

Cancellation by Extension Classes

While the Extension staff sincerely regrets to do so, it is sometimes necessary to cancel classes with insufficient enrollment. The department reserves the right to cancel, postpone, limit enrollment, split, or combine classes, and to change instructors or locations of classes.

Refunds for Summer Classes

Students who wish to cancel a class or classes must do so officially, either in person or by writing to the Department of Extension Classes. See cancellation information above. For important deadlines and procedures.

When students cancel classes, they may be eligible for: (1) a full refund under the conditions outlined in item 1 below; (2) a refund of tuition and any course or special fees less a \$5 cancellation fee (and any late fees or transfer fees), under the conditions outlined in item 2 below; or (3) a refund of part of the tuition and any course fees and special fees after the class has begun, provided that the student cancels and requests a refund within the time limits outlined in the refund percentage schedules given below in items 3 and 4.

Students who wish to cancel a class and add another class should read the section on transferring classes, page 27.

1. Full refund of all tuition and fees will be made when a class is canceled by Extension Classes or when the hour or day of the class is changed by Extension Classes after a student has registered in it.
2. A refund of all tuition and fees **minus a \$5 cancellation fee** will be made:
 - A. When a student cancels before the first class meeting in any summer or special term.
 - B. When a student is ill or hospitalized and, in the opinion of a doctor, is unable to continue for medical reasons. The doctor's signed statement on the doctor's letterhead is required and must be submitted by the end of the term.
 - C. To any student who has been recalled to or enlisted in military service upon presentation of military orders, provided the student would not be entitled to an appropriate grade at such time.
 - D. When, in the opinion of the instructor, the student does not have the necessary prerequisites, or the student has already had the equivalent material in another course. Students seeking refunds under these conditions must:

1. Ask the instructor for a note explaining that the student does not have the necessary prerequisites. Bring in the note, a fee statement, and a completed cancellation form to 101 Westbrook Hall or submit the note and a cancellation letter by mail. It is the student's responsibility to obtain the note and submit all documents at one time before the fourth class meeting.
2. Present a transcript noting equivalent course(s), along with a fee statement and completed cancellation form, in person at 101 Westbrook Hall or by mail. Documents must be submitted at the same time before the fourth class meeting.
3. For classes that meet once a week for the 10-week term or twice a week on a 5-week term, refunds of tuition and fees for cancellation of classes after the first class meeting will be made as follows:
 - a. Refund before second class 75%
 - b. Refund before third class 50%
 - c. Refund before fourth class 25%
 - d. Refund after fourth class none
4. For classes that meet twice a week for the 10-week term, refunds of tuition and fees for cancellation of classes after the first class meeting will be made as follows:
 - a. Refund before the third class 75%
 - b. Refund before the fifth class 50%
 - c. Refund before the seventh class 25%
 - d. Refund after the seventh class none

These refund schedules refer to the number of times the class has met, not the number of times the student has attended. The refund schedule differs for fall, winter, and spring classes, and is explained in the academic year bulletin.

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

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

Cancellations by mail are effective the date of postmark.

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

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

Course Numbering

All University courses carry course numbers of four-digit numerals. The first digit indicates the credit level of the course. See sample below:

0000C-0999C	Certificate course
0000-0999	No credit course
1000-1999	Degree credit course primarily for freshmen and sophomores
3000-3999	Degree credit course, primarily for juniors and seniors. Also open to other students with at least C averages overall and in all prerequisite work
5000-5999	Degree credit course primarily for juniors, seniors, and graduate-level students
8000-8999	Degree credit course open only to students who have been admitted to the University of Minnesota Graduate School

To take a course beginning with the numeral 5 (indicating a degree credit course intended primarily for juniors, seniors, and graduate students) or beginning with the numeral 8 (indicating a course intended only for students **admitted** to the University of Minnesota Graduate School) for graduate credit, see **Graduate Credit**, page 21.

Symbols

-	A hyphen between numbers indicates a sequence course, the units of which must be taken in order, unless otherwise indicated.
★	Enrollment space limited. See instructions on registration in limited-enrollment classes and sections on page 5.
†	All courses listed before this symbol must be completed before credit may be received.
§	No credit is given if credit has been received for equivalent course listed after this symbol.
¶	Concurrent registration is allowed (or required) in courses listed after this symbol.
#	Consent of instructor.
(IS)	Course also available through Department of Extension Independent Study (by correspondence).
◆	Regular credit course open for registration on a noncredit, reduced-tuition plan (see page 24).
⊙	A joint Day/Extension class
▲	Consent of unit offering course is required.
cr	Credit
CEU	Continuing Education Unit (10 contact hours of noncredit learning); see page 22.
Qtr	Quarter
Sem	Semester
Spec	Special Term
S/N	Satisfactory/No credit grading system. See page 18.
A/F	Letter grading system. See page 18.
Prereq	Prerequisite. See page 17.
Lect	Lecture
Rec	Recitation
Sec	Section

Credit Course Offerings

(Noncredit courses are listed beginning on page 94. See Buildings and Maps, pages 133-140; Course Numbering, page 31)

Accounting

(645 Management/Economics: 624-6506)

Carlson School of Management

Summer Accounting courses are offered for seven weeks, except for 5160 which is offered for 10 weeks. For registration purposes the 10-week term designator is used below. This format applies to both day and evening classes.

Acct 1024/1025 are now replaced by Acct 1050. All students must take Acct courses A-F. Students may not audit Acct courses.

★Acct 1050 **INTRODUCTION TO FINANCIAL REPORTING.** 4 credits, \$213 plus \$16 special fee. Total \$229.

Introduction to basic concepts of measurement and valuation which underlie the development of financial reports for external users. Financial statement preparation, analysis of alternative valuation approaches, and interpretation of financial statement information are the focal points of the course. (Prereq 40 cr completed. Limited to 100)

Ten wk Sec 13 MW—6-8:30, BlegH 130

★Acct 3001 **INTRODUCTION TO MANAGEMENT ACCOUNTING.** 4 credits, \$245 plus \$16 special fee. Total \$261.

A broad overview of management accounting as the main information collection and analysis technology in an organization. Topics include analysis of cost-volume-profit relationships, budgeting, and analysis of variances from budgeted performance, and issues relating to decentralized organizational design. (Prereq 1025 or 1050 and at least 90 credits completed or in progress. Limited to 40)

Ten wk Sec 5 TTh—6-8:30, BlegH 155

★Acct 3101 **INTERMEDIATE FINANCIAL REPORTING.** 4 credits, \$245 plus \$16 special fee. Total \$261.

Relationships between economic events and their representation in financial statements aimed at external users. Income determination, asset valuation, and capitalization of corporations are covered. (Prereq 1050 and at least 90 credits completed or in progress. Limited to 60)

Ten wk Sec 2 MW—6-8:30, BlegH 145

★Acct 3201 (replaces Acct 3220-3221) **INTERMEDIATE MANAGEMENT ACCOUNTING.** 4 credits, \$245 plus \$16 special fee. Total \$261.

Examines multiproduct, multiperiod decision contents emphasizing net present value including statistical and other data collection and analysis techniques, analysis of performance evaluation stemming from development in the theory of contracting; and richer development of coordination problems in decentralized organizations. (Prereq 3001. At least 90 credits completed or in progress. **Prereq will be enforced.** Limited to 40)

Ten wk Sec 2 TTh—6-8:30, BlegH 145

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

- ★Acct 5125 **AUDITING PRINCIPLES AND PROCEDURES.** 4 credits, \$245 plus \$16 special fee. Total \$261.

The auditor's role and function. Includes audit standards, ethics, procedures, and legal responsibilities. (Prereq 5102 or 3102, and at least 90 cr completed or in progress. Limited to 40. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 2 TTh—5:30-8, BlegH 220

- ★Acct 5135 **INCOME TAX ACCOUNTING.** 4 credits, \$245 plus \$16 special fee. Total \$261. (IS)

An introduction to principles of Federal income taxation of various taxpaying entities. (Prereq 1050 or 1025 and at least 90 cr completed or in progress. Limited to 40. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 3 MW—5:30-8, BlegH 110

- ★Acct 5160 **FINANCIAL STATEMENT ANALYSIS.** 4 credits, \$245 plus \$16 special fee. Total \$261.

Interpretation and analysis of financial statements and schedules for investors and other users. **May not be taken S-N.** (Prereq 1050 or MBA 8030 and at least 90 cr completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

Ten wk Sec 1 Th—5:30-9, BlegH 240

- ★Acct 5180 **ADVANCED FINANCIAL REPORTING II.** 4 credits, \$245 plus \$16 special fee. Total \$261.

Consolidated financial reporting with a particular focus on international business organizations. An introduction to reporting issues in governmental and not-for-profit entities is also presented. (Prereq 3102 or 5102. At least 90 credits completed or in progress. Limited to 40. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 3 TTh—5:30-8, BlegH 230

Afro-American and African Studies (Afro)

(808 Social Science Tower: 624-9847)

College of Liberal Arts

Arabic (Arab)

- ★Arab 3301 **MODERN ARABIC POETRY IN TRANSLATION.** 4 credits, \$MidE 3301, \$221.

The Free Verse Movement and its major trends: Post-Romantic, Social-Realist, Symbolist, Resistance, Prose Poem. Emphasis on leading poets; al-Mala'ika, al-Sayyab, al-Bayati, Adunis, Hawi, al-Khal, al-Fayturi, Darwish, Sayigh, Jabra, and al-Maghut. Theoretical and critical essays. All readings in English. (No prereq. Limited to 30)

First 5 wk Sec 2 MW—4:30-7, BlegH 210, Teirab AshShareef

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

American Indian Studies (Amln)

(102 Scott Hall: 624-1338)

College of Liberal Arts

Amln 3036 DAKOTA HISTORY AND CULTURE. 4 credits, \$221. (♦\$110.50)

- ◆ The processes of maintenance and change in Dakota culture. (No prereq)
First 5 wk Sec 1 TTh—6-8:30, FordH 40, Carrie Schommer

American Studies

(104 Scott Hall: 624-4190)

College of Liberal Arts

AmSt 1001 AMERICAN CULTURE. 4 credits, \$213 (♦\$106.50).

- ◆ *Interdisciplinary study of selected class, gender, public policy, and social issues by comparing the cultures and artistic expression of at least three of the following groups: European American, African American, American Indian, Chicano/Latino, and Asian American. To mid-19th century. (No prereq)*
Second 5 wk Sec 2 TTh—6-8:30, BlegH 205

★**AmSt 3111 CREATIVE AMERICANS AND THEIR WORLDS.** 4 credits, \$221 (♦\$110.50).

- ◆ *A study of the ways in which the works of selected American writers, painters, architects, filmmakers, and other artists can illuminate tensions and conflicts which have arisen out of a dual commitment by Americans to values located in nature and the natural landscape, on the one hand, and, on the other, to values associated with technological progress and ever-higher levels of affluence. "The myth of the garden" in literature and painting. Significance of paintings of urban-technological landscapes. The development of the skyscraper and of the "Chicago School" of modern architecture. The work and ideas of Frank Lloyd Wright. Contemporary issues relating to technology and the environment considered from the perspectives provided by the artists and writers we have studied. Readings of varying lengths from Crèvecoeur, Emerson, Thoreau, Mark Twain, Frank Norris, and Tom Wolfe. (No prereq. Limited to 40)*
First 5 wk Sec 4 TTh—6-8:30, BlegH 235, William H. Agee

★**AmSt 3920 TOPICS: FOLKLORE OF GREATER MEXICO.** 4 credits, \$Chic 3330, \$221 (♦\$110.50).

- ◆ *Introduces students to some of the central approaches to folklore studies and to Hispanic material culture in the Southwest region of the United States and the northern provinces of Mexico. (No prereq. Meets concurrently with Chic 3330. Limited to a combined total of 40)*
First 5 wk Sec 1 MW—6-8:30, BlegH 120, Mario Montaña

Ancient Studies

(230 Folwell Hall: 625-2503)

College of Liberal Arts

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Field Research into Origins of Cities (AnSt 5110) August 12-24

AnSt 5110 (4 credits) is an introduction to theory and method of interdisciplinary field research into growth of complex societies and development of cities, focusing on archaeological and archival study. Includes lectures, demonstrations, laboratory sessions, and training in data recovery. It will be taught at the site of the Late Iron Age urban center of Kelheim in Bavaria, Germany. Fieldwork will focus on archaeological excavation of the Iron Age settlement; lectures and laboratory sessions will be at the Archaeological Museum in Kelheim. The class will meet August 12-24 for 4 credits. If the University determines that unacceptable risks exist due to international conditions, this offering will be canceled. Qualified students may register for graduate credit at the University of Minnesota.

For information and registration, call the Center for Ancient Studies at 625-2503.

Anthropology

(215 Ford Hall: 625-3400)

College of Liberal Arts

Anth 1101 HUMAN ORIGINS. 5 credits, §1001, \$266.25. (♦\$133.25) (IS)

Introduction to world prehistory as investigated by archaeologists; the basic methods and concepts employed by archaeologists in the study of prehistoric human biological and cultural development. (No prereq)

◆ **First 5 wk** Sec 3 **MW**—6-9:20, FordH 155

Anth 1102 INTRODUCTION TO SOCIAL AND CULTURAL ANTHROPOLOGY. 5 credits, §1002, \$226.25. (♦\$133.25) (IS)

Varieties and range of human behavior as revealed through comparative study of cultures in all parts of the world. (No prereq)

◆ **Second 5 wk** Sec 5 **MW**—6-9:20, FordH 155

Arabic

(See Afro-American and African Studies)

Architecture

(110 Architecture: 624-7866)

College of Architecture and Landscape Architecture

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Noncredit Workshops

Arch 0013 EXPLORING ARCHITECTURE: A CAREER DISCOVERY WORKSHOP. No credit, \$159.75.

Intended for those who are interested in exploring architecture as a possible career path. The course is organized as a seminar workshop, meeting evenings, for a two-week period. Instruction will be an interactive hands-on series of experiences, within a variety of areas of vital interest to the discipline of architecture, including history, theory, skills, and practices. (No prereq)

Spec Term Sec 1 **MTWThF**—6:30-9, July 22-26, July 29-Aug. 2,
Arch 10, Peter Carlsen

No late fee through July 15.

★Arch 0014 CONSTRUCTION PROCESS: A JOB SITE VISITATION SEMINAR. No credit, \$106.50.

Intended for architectural professionals interested in acquiring a first-hand knowledge of the construction process and the what and how of the trades role in that process. There will be 10 meetings (4 hours each) during which scheduled and coordinated visits will be made to various construction sites to observe and discuss all of the major phases, processes, and techniques from beginning to end. Offered in cooperation with the Minnesota Society, American Institute of Architects, and Associated General Contractors. (No prereq. Limited to 30)

Spec Term Sec 1 **W**—8 a.m.-12, July 10-17, HHHCtr 60; July 24-Sept. 11,
HHHCtr 60, Arnold Lucke

No late fee through July 3.

★Arch 1010 INTRODUCTION TO ARCHITECTURE DRAWING. 4 credits, \$213.

Basic drawing techniques, freehand drawing and sketching, perspective, shades, and shadows. (No prereq. Limited to 25)

First 5 wk Sec 1 **TTh**—5-8:30, Arch 30, Andrzej Piotrowski

Arch 5950 TOPICS IN ARCHITECTURE: ARCHITECTURE FOR EDUCATORS. 3 credits, \$198.75 plus \$5 course fee. Total \$203.75.

Intended for classroom teachers, grades 4 through 12, and others in education. Objective: to introduce educators to how we learn, perceive, and make decisions about our built environment. "Hands-on" activities to help teachers to use the environment as an approach to education. (Prereq teaching experience or #. Qualified students may register for graduate credit at the University of Minnesota.)

Spec Term Sec 2 **W**—6-9:30, June 12, 19, 26, July 10, Arch 30
Sa—9 a.m.-4:30, June 15, 22, Arch 30, James Lammers

Sec 3 **W**—6-9:30, July 17, 24, 31, Aug. 14, Arch 30
Sa—9 a.m.-4:30, July 20, 27, Arch 30, James Lammers

No late fee through July 10.

Art History

(107 Jones Hall: 624-4500)

College of Liberal Arts

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

ArH 3008 HISTORY OF ANCIENT ART. 4 credits, §1008, §Clas 3008, \$221 plus \$4 course fee. Total \$225. (♦ \$110.50 plus \$4 course fee. Total \$114.50)

- ◆ Architecture, sculpture, and painting of selected early cultures; stress on influences contributing to the development of Western art. (No prereq. Meets concurrently with Clas 3008)

First 5 wk Sec 3 **MW**—6:20-9:05, AndH 310, Sheila McNally

ArH 3035 MYTHOLOGY IN WESTERN ART. 4 credits, §Clas 3035, \$221 plus \$4 course fee. Total \$225 (♦ \$110.50 plus \$4 course fee. Total \$114.50).

- ◆ Selected figures and events from Classical mythology as ancient artists first depicted them, and as they reappeared in later Western art. (No prereq. Meets concurrently with Clas 3035)

First 5 wk Sec 1 **TTh**—6:20-9:05, AndH 310, Sheila McNally

Arts, Studio

(208 Art Building: 625-8096)

College of Liberal Arts

For information about the Split Rock Arts Program, see page 40.

RESTRICTIONS IN STUDIO ARTS CLASSES

1. *Registration in any studio arts class after the first class meeting must be accompanied by the instructor's written permission.*
2. *Students who do not attend the first class session may lose their place in the course (at the instructor's discretion). A student who cannot attend the first class should call the instructor in advance or call 625-8096 to make arrangements to hold a place in class. A student who does not make these arrangements and has to cancel the course must obtain a written verification of non-attendance (from the instructor) to be given a 100% tuition refund. Student must turn in this verification at 101 Westbrook Hall by the end of the third week of the term.*

Most studio arts courses require the student to spend a minimum of one hour per week in the studio for each hour spent in class.

Because Extension funds its own classes, and since the subject matter of studio arts courses requires that enrollments be limited to small numbers of students, it has become necessary for Extension Classes to add a \$5 special fee to most classes in order for the classes to be held.

Some studio arts courses require additional fees which cover part of the cost of expendable materials, models, breakage, and special facilities. Sculpture and ceramics classes require the rental of a locker for the quarter. A \$15 fee is charged for this: \$6 for the rental and \$9 for a deposit, refundable after the return of the lock. In addition, some courses may also require the purchase of special tools or supplies not included in the tuition of course fees printed below with each offering.

★**ArtS 1101 BASIC DRAWING.** 3 credits, \$159.75 plus \$5 course fee and \$10 special fee. Total \$174.75.

An introduction to basic drawing methods; exploration of contemporary and traditional methods, various drawing media, work from nature and still life. (No prereq. Limited to 25)

First 5 wk Sec 21 **MW**—6-9:45, ArtB 141

Second 5 wk Sec 22 **TTh**—6-9:45, ArtB 140, Malcolm Myers

Ten wk Sec 23 **T**—6-9:45, ArtB 150

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**ArtS 1102 DRAWING.** 3 credits, \$159.75 plus \$5 course fee and \$10 special fee. Total \$174.75.

Work from life and nature. Introduction to color and pictorial structure. (Prereq 1101. See **Restrictions**, page 37. Limited to 25)

Second 5 wk Sec 7 **MW**—6-9:45, ArtB 150

★**ArtS 1301 BASIC SCULPTURE.** 3 credits, \$159.75 plus \$60 course fee and \$10 special fee. Total \$229.75.

Beginning course in metal construction; intensive study of structure with emphasis on form and space. (No prereq. See **Restrictions**, top page 37. Limited to 20)

First 5 wk Sec 4 **TTh**—6-9:45, ArtB 65, Guy Baldwin

★**ArtS 1510 PRINTMAKING: INTAGLIO.** 3 credits each term (maximum 6 cr), \$159.75 plus \$35 course fee and \$10 special fee. Total \$204.75 each term.

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 a combined total of 20)

Second 5 wk Sec 2 **MW**—6-9:45, ArtB 170, Karl Bethke

★**ArtS 1601 VIDEO ARTS PRODUCTION I.** 3 credits, \$159.75 plus \$160 course fee and \$5 special fee. Total \$324.75.

The use of video cameras, microphones, and video recorders, techniques of lighting, sound recording, and editing are explored through lecture, demonstration, and hands-on experience. Work of video artists are viewed and discussed in terms of video theory and technique. Students work in groups to plan, shoot, and edit a short tape. (No prereq. Limited to 17)

Ten wk Sec 7 **M**—6-10, Intermedia Arts, 425 Ontario, Michael Rivard

Ten wk Sec 8 **W**—6-10, Intermedia Arts, 425 Ontario, Kim Downing

★**ArtS 1602 ART AND COMPUTERS I.** 3 credits, \$159.75 plus \$160 course fee and \$5 special fee. Total \$324.75.

A combination lecture and studio course focusing on the creative use of the Amiga and various other microcomputers. This computer graphics course will introduce students to the principles and use of computers and software packages from which they generate images of their own design to be recorded and displayed on videotape. (No prereq. Limited to 17)

Ten wk Sec 7 **M**—6-10, Intermedia Arts, 425 Ontario, Jeffrey Sandeen

Ten wk Sec 8 **T**—6-10, Intermedia Arts, 425 Ontario, Alison Morse

★**ArtS 1606 INTRODUCTION TO SOUND.** 3 credits, \$159.75 plus \$120 course fee and \$5 special fee. Total \$284.75.

Covers basics of sound and audio recording from a theoretical and practical approach with an emphasis on developing an awareness of sound qualities and a facility for creative use of sound. Acoustic and electronic sound synthesis will be explored as material used in conjunction with video images and other time arts media or for its own expressive potential. No knowledge of music or sound recording is required. (No prereq. Limited to 17)

Ten wk Sec 3 **M**—6-10, Intermedia Arts, 425 Ontario, Monica Maye

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

- ★**ArtS 1701 INTRODUCTION TO PHOTO MEDIUM.** 3 credits, \$159.75 plus \$25 course fee and \$10 special fee. Total \$194.75.

A course in black and white photography for beginners with little or no experience. Lectures on contemporary and historical use of photography. The course will cover techniques in the use of the camera, film development and enlargements. Emphasis on the creative process. Student must have camera. Any 35mm camera is acceptable. If you wish to use a camera other than 35mm and are uncertain whether it will be acceptable, you may check with the Studio Arts department, 625-9532. (No prereq. Limited to 20)

First 5 wk Sec 14 TTh—6-9:45, ArtB 120

Second 5 wk Sec 15 MW—6-9:45, ArtB 120

(See also photography courses in The Compleat Scholar noncredit section)

- ★**ArtS 1811 CERAMICS.** 3 credits, \$159.75 plus \$60 course fee and \$10 special fee. Total \$229.75.

Introduction to handbuilding techniques in clay for individual creative expression. (No prereq. Limited to 25)

First 5 wk Sec 5 MW—6-9:45, ArtB 10, Curtis Hoard

- ★**ArtS 1812 CERAMICS.** 3 credits, \$159.75 plus \$60 course fee and \$10 special fee. Total \$229.75.

Introduction to wheel throwing techniques for individual creative expression. (No prereq. Limited to 25)

Second 5 wk Sec 4 MW—6-9:45, ArtB 10, Tom Lane

- ★**ArtS 3105 PAINTING.** 3 credits, \$165.75 plus \$10 special fee. Total \$175.75.

Introduction to studio work in painting explores the fundamentals of visual art making via the paint media. Emphasis is on the visual language: volume, texture, color, line, space, light, compositions. Proper attention will focus on concepts and technique and philosophies of painting. (Prereq 1101, 1401, 1404 or #. Limited to 25)

First 5 wk Sec 4 MW—6-9:45, ArtB 161

- ★**ArtS 3120 PAINTING.** 3 credits each term (maximum 12 cr), \$165.75 plus \$10 special fee. Total \$175.75 each term.

Continuation of media development and individual problems. (Prereq 1401, 3105. Limited to 25)

Second 5 wk Sec 4 MW—6-9:45, ArtB 151

- ★**ArtS 3160 WATERCOLOR.** 3 credits each term (maximum 12 cr), \$165.75 plus \$10 special fee. Total \$175.75 each term.

Introduction to transparent watercolor. Figure, still life, landscape, and individual directions. (Prereq 1101, 1404, 1401 or #. Meets concurrently with 5160. See **Restrictions**, page 37. Limited to a combined total of 25)

First 5 wk Sec 4 TTh—6-9:45, ArtB 141, Malcolm Myers

- ★**ArtS 3510 PRINTMAKING: INTAGLIO.** 3 credits each term (maximum 12 cr), \$165.75 plus \$40 course fee and \$10 special fee. Total \$215.75 each term.

A print class for students who have had experience in drawing composition. All techniques of fine printing will be taught and color printing will be demonstrated in engraving and etching. (Prereq 1401, 4 cr of 1510 or #. Meets concurrently with 1510, 5510. Limited to a combined total of 20)

Second 5 wk Sec 2 MW—6-9:45, ArtB 170, Karl Bethke

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**Arts 3615 VIDEO EDITING.** 3 credits, \$165.75 plus \$160 course fee and \$5 special fee. Total \$330.75.

This class will develop technical and artistic skills used in video editing. Work from a number of genres will be studied to familiarize students with the range of editing styles, strategies, and technology used. In addition to a number of editing exercises, students' work-in-progress will be critiqued with suggestions made for improving the work in the editing process. (Prereq 1601. Limited to 17)

Ten wk Sec 3 T—6-10, Intermedia Arts, 425 Ontario, John Fillwalk

★**Arts 5160 WATERCOLOR.** 3 credits each term (maximum 15 cr), \$165.75 plus \$10 special fee. Total \$175.75 each term.

Advanced watercolor techniques, aesthetic directions. Continued development of concepts and individual direction. (Prereq 12 cr of 3160 or #. Meets concurrently with 3160. See **Restrictions**, page 37. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 25)

First 5 wk Sec 4 TTh—6-9:45, ArtB 141, Malcolm Myers

★**Arts 5510 PRINTMAKING: ADVANCED INTAGLIO.** 3 credits each term (maximum 15 cr), \$165.75 plus \$40 course fee and \$10 special fee. Total \$215.75 each term.

An advanced course in etching, aquatint, mezzotint, 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. Qualified students may register for graduate credit at the University of Minnesota. Limited to a combined total of 20)

Second 5 wk Sec 2 MW—6-9:45, ArtB 170, Karl Bethke



SPLIT ROCK arts program

Duluth, Minnesota

Week-long workshops in the arts at the University's Duluth campus on the hilltops overlooking Lake Superior. Work with nationally recognized artists in a supportive community where you can choose from 45 workshops in a variety of arts areas. Paint with a master watercolor artist from China; handbuild pots for Raku firing; write for young adults; work with three nationally renowned basketry artists; create a visual or written journal; design quilts; write a poem, short story, novel, or nonfiction work; create original prints with master printers; explore artmaking's connections to the subconscious; photograph people; draw and paint; create contemporary beat art; illustrate children's books; make fabric art; work with outstanding ethnic artists and more.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Split Rock is a place of true recreation—refreshment and renewal through experiencing an art form intensively.

Low cost, comfortable apartments and excellent food service are available on campus. Come early or stay on to see Minnesota's favorite summer city and travel the rugged and beautiful North Shore.

Split Rock opens July 7 and new workshops begin each Sunday for six weeks. Graduate or undergraduate credit is available, or you may take any workshop for no credit or grade at reduced cost.

For complete information and your copy of the latest Split Rock Arts Program catalog, call 624-6800 or write Split Rock Arts Program, 306 Westbrook Hall, 77 Pleasant Street S.E., University of Minnesota, Minneapolis, MN 55455.

Biology

(223 Snyder Hall: 624-9717)

College of Biological Sciences

★Biol 1009 GENERAL BIOLOGY. 5 credits, \$266.25 plus \$10 course fee. Total \$276.25. (IS)

An introduction to the principles of biology. The cell, metabolism, heredity, reproduction, ecology and evolution. Students must attend lectures on both Tuesday and Thursday and laboratory sessions on both Tuesday and Thursday. (No prereq. High school algebra, chemistry recommended. Limited to 75)

Ten wk Sec 4 Lect TTh—6-7:15, MoosT 2-650, Peifer;
Lab TTh—7:30-9:15, KoltH S177

Business, Government, and Society

(835 Management/Economics: 624-5232)

Carlson School of Management

★BGS 3004 INTERNATIONAL BUSINESS. 4 credits, \$245 plus \$16 special fee. Total \$261. (IS)

World business with emphasis on the global economy, international concepts, global business structures, comparative cultures and environments, global business strategies, multi-national corporations and technology, personnel and operations in the host nations. Resource (including energy) questions in their global contexts: quantities, demands, distribution of resources. (Prereq at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 40)

Second 5 wk Sec 4 TTh—6-8:45, BlegH 205, Ian Maitland

Business Law

(645 Management/Economics: 624-6506)

Carlson School of Management

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★BLaw 3058 **INTRODUCTION TO LAW, AND THE LAW OF CONTRACTS AND SALES CONTRACTS.** 4 credits, \$8158, \$245 plus \$16 special fee. Total \$261. (IS)

Study of the origin of law, its place in and effect upon society; the history and development of law; the system of courts; and legal procedure. An extensive study of the law of contracts as the basic law affecting business transactions; and the law affecting the sales of goods contracts. (Prereq Econ 1002 or 1101 or equivalent and at least jr standing for business degree students. **May not be taken S-N.** Limited to 50)

First 5 wk Sec 8 **MW**—6-8:30, BlegH 215, Donald G. Campbell
Second 5 wk Sec 9 **MW**—6-8:30, BlegH 215, Donald G. Campbell

Chicano Studies

(102 Scott Hall: 624-6309)

College of Liberal Arts

★Chic 3330 **CHICANO TOPICS: FOLKLORE OF GREATER MEXICO.** 4 credits, §AmSt 3920, \$221 (♦\$110.50).

Introduces students to some of the central approaches to folklore studies and to Hispanic material culture in the Southwest region of the United States and the northern provinces of Mexico. (No prereq. Meets concurrently with AmSt 3920. Limited to a combined total of 40)

First 5 wk Sec 1 **MW**—6-8:30, BlegH 120, Mario Montaña

Child Psychology

(104 Child Development: 624-2396)

College of Education

Institute of Child Development

CPsy 1301 **INTRODUCTORY CHILD PSYCHOLOGY.** 4 credits, §3309, §5301, \$213. (IS)

Introduction to the science of child behavior; review of theories and research. (Prereq 5 cr introductory psychology. Meets concurrently with 3309)

Ten wk Sec 4 **T**—6-8:30, BuH 123, Nelson Soken

CPsy 3309 **INTRODUCTORY CHILD PSYCHOLOGY FOR THE SOCIAL SCIENCES.** 4 credits, §1301, §5301, \$265.

Science of child behavior; review of theory and research; designed for majors in psychology, sociology, and related disciplines; not suggested for child psychology majors. (Prereq Psy 1001. Meets concurrently with 1301)

Ten wk Sec 4 **T**—6-8:30, BuH 123, Nelson Soken

Classics

(310 Folwell Hall: 625-5353)

Classical and Near Eastern Studies

College of Liberal Arts

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Clas 1042 GREEK AND ROMAN MYTHOLOGY. 4 credits, \$213 (♦\$106.50).

- ◆ The heroes, gods and goddesses of ancient Greece and Rome. The stories of the myths and the stories behind the myths. (No prereq)

First 5 wk Sec 4 **MW**—6:20-8:50, FolH 50, Jackson Hershbell

Clas 3008 HISTORY OF ANCIENT ART. 4 credits, §ArH 3008, \$221 plus \$4 course fee. Total \$225 (♦\$110.50 plus \$4 course fee. Total \$114.50).

- ◆ Architecture, sculpture, and painting of selected early cultures; stress on influences contributing to the development of Western art. (No prereq. Meets concurrently with ArH 3008)

First 5 wk Sec 3 **MW**—6:20-9:05, AndH 310, Sheila McNally

Clas 3012 THE WORLD OF ROME. 4 credits, §5012, \$221 (♦\$110.50).

- ◆ General survey of Roman civilization from its origins to the reign of Constantine. The Roman way of life as seen in art, history, literature, and philosophy. Special attention paid to the Etruscans and to the golden age of Rome under Augustus. (No prereq. Meets concurrently with 5012)

Second 5 wk Sec 2 **MW**—6:20-8:50, FolH 104, Gerald Erickson

Clas 3035 MYTHOLOGY IN WESTERN ART. 4 credits, §ArH 3035, \$221 plus \$4 course fee. Total \$225. (♦\$110.50 plus \$4 course fee. Total \$114.50).

- ◆ Selected figures and events from Classical mythology as ancient artists first depicted them, and as they reappeared in later Western art. (No prereq. Meets concurrently with ArH 3035)

First 5 wk Sec 1 **TTh**—6:20-9:05, AndH 310, Sheila McNally

Clas 5012 THE WORLD OF ROME. 4 credits, §3012, \$221.

See description for 3012. Requires additional work for advanced undergraduate and graduate credit. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3012)

Second 5 wk Sec 1 **MW**—6:20-8:50, FolH 104, Gerald Erickson

The Compleat Scholar

(See page 94)

Composition and Communication

(209 Lind Hall: 625-2888)

College of Liberal Arts

(See also writing courses in English)

You must attend the first class meeting in order to keep your place in the class, unless you obtain approval from the instructor.

★**Comp 1011 WRITING PRACTICE I.** 5 credits, \$266.25. (IS)

Provides guided practice in solving writers' problems through recitation, in-class workshops, and individual conferences. Writing assignments focus on defining

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

purpose, organizing and developing content, analyzing audiences, drafting the whole essay and its parts, and revising and editing so as to master the fundamentals of expository structure and style. After first day of class, consent of instructor is required. (No prereq. Limited to 25)

The Writing Practice requirement is fulfilled by successful completion of Comp 1011. Students whose work does not meet an acceptable standard in 1011 will receive a continuation grade ("X"), and will take Comp 1013 to complete the requirement. Comp 1013 will be taught Fall Quarter 1991.

Ten wk Sec 27 M—6-8:50, KoltH S134
Ten wk Sec 28 T—6-8:50, KoltH S134
Ten wk Sec 29 W—6-8:50, KoltH S134

★**Comp 1027 INTERMEDIATE EXPOSITORY WRITING. 4 credits, \$213.**

Focuses on the range of choices writers make based on audience, purpose, and context. Relies on critical reading and a variety of written assignments to improve students' control over their writing and the effect it will have on their intended audiences. (Prereq completion of the Writing Practice requirement, or equivalent; soph standing is recommended. Limited to 25)

Ten wk Sec 10 M—6-8:30, HHHctr 60
Ten wk Sec 11 W—6-8:30, HHHctr 60

★**Comp 3014 WRITING IN THE SOCIAL SCIENCES. 4 credits, \$221. (IS)**

Emphasizes writing as a way to communicate knowledge about individual and collective human behavior. Multidisciplinary perspectives on common social issues, description and analysis of quantitative data. Assignments may include the literature review, research proposal, case study, and theoretical argument. (Prereq jr standing, the Writing Practice requirement, or equivalent. Limited to 20)

Ten wk Sec 6 T—6-8:30, BlegH 245
Ten wk Sec 7 T—6-8:30, BlegH 225
Ten wk Sec 8 W—6-8:30, KoltH S135
Ten wk Sec 9 W—6-8:30, BlegH 350

★**Comp 3022 CRITICAL READING AND WRITING FOR MANAGEMENT. 4 credits, \$221.**

Strategies and conventions for writing in management and related fields. Improvement of communication skills through the incorporation of narrative, descriptive, analytical and persuasive techniques into writing on current business topics, with an emphasis on critical reading, thinking, and writing. Strategies for communicating among varied audiences in business settings. **This course is the first of two courses required by the Carlson School of Management. It does not fulfill the upper-division composition requirement as defined by most majors in the College of Liberal Arts.** (Prereq the Writing Practice requirement or equivalent. Limited to 20)

Ten wk Sec 4 W—6-8:30, BlegH 245

★**Comp 3027 ADVANCED EXPOSITORY WRITING. 4 credits, \$221.**

Designed for already competent writers, this course focuses on the production of polished writing within and beyond the university setting. Teaches effective argumentation through critical reading and awareness of context and audience. (Prereq jr standing, the Writing Practice requirement or equivalent. Limited to 20)

Ten wk Sec 14 T—6-8:30, KoltH S133
Ten wk Sec 15 W—6-8:30, KoltH S133
Ten wk Sec 16 M—6-8:30, KoltH S133

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**Comp 3031 TECHNICAL WRITING FOR ENGINEERS.** 4 credits, \$221. (IS)

Presenting technical information accurately and clearly with attention to the rhetorical and organizational contexts of the writing. Analysis of writing situations, style and form of technical reports, and collaborative written and spoken presentations. (Prereq jr standing, the Writing Practice requirement, or equivalent. Limited to 20)

Ten wk	Sec 8 T—6-8:30, BlegH 135
Ten wk	Sec 9 T—6-8:30, KoltH S135
Ten wk	Sec 10 M—6-8:30, SmithH 121
Ten wk	Sec 11 W—6-8:30, SmithH 121

★**Comp 3032 PREPROFESSIONAL WRITING FOR BUSINESS.** 4 credits, \$221. (IS)

Writing for the wide variety of situations and audiences found in business. Form and style of business writing in collaborative and individual assignments. Assignments and practical examples tied as much as possible to students' major fields. **This is the second of two courses required by the Carlson School of Management.** (Prereq jr standing, the Writing Practice requirement or equivalent. Limited to 20)

Ten wk	Sec 9 T—6-8:30, BlegH 125
Ten wk	Sec 10 T—6-8:30, BlegH 255
Ten wk	Sec 11 W—6-8:30, RarigC 610

★**Comp 3033 WRITING FOR THE HEALTH SCIENCES.** 4 credits, \$221.

Addresses the writing needs of students from the diverse fields of the Health Sciences. Primary emphasis on practicing and achieving verbal clarity in a variety of situations ranging from precise description of a clinical procedure to balanced discussion of ethical contexts. (Prereq completion of the Writing Practice requirement or equivalent. Limited to 20)

Ten wk	Sec 2 M—6-8:30, BlegH 245
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Comp 3085 SPECIAL PROJECTS IN ADVANCED COMPOSITION. 4 credits, \$221 plus \$40 special fee. Total \$261.

Individual writing conferences scheduled at student's and instructor's convenience. Interested students should contact the Composition Office (209 Lind Hall, 625-2888), and submit a brief written outline of the project, before registering for the class. *This course may not fulfill the upper-division composition requirement as defined by some majors; check with your college office before registering.* (Prereq the Writing Practice requirement or equivalent and written #)

Ten wk	Sec 4 Arr
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Computer Science

(4-192 EE/CSci; 625-4002)

Institute of Technology

Computer Cards

Students will be expected to pay a user fee of \$30 a term for courses that have a formal or an informal laboratory.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★CSci 3101 **A FORTRAN INTRODUCTION TO COMPUTER PROGRAMMING.** 4 credits, \$1100-1101, \$265 plus \$6 special fee. Total \$271.

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 1111 or 1201 or equivalent or #. Limited to 40)

First 5 wk Sec 7 MW—6-8:40, EE/CSci 3115

Second 5 wk Sec 8 TTh—6-8:40, EE/CSci 3115

★CSci 3104 **INTRODUCTION TO PROGRAMMING AND PROBLEM SOLVING.** 5 credits, \$331.25 plus \$6 special fee. Total \$337.25.

Problem-solving techniques, stepwise refinement, modularization. Algorithms, introduction to evaluation criteria, representation of algorithms, flow charts, meta languages. The PASCAL language. Elements of programming style, program checking. Design of test data. Documentation. Comparison of PASCAL/FORTRAN. (Prereq Math 1211 or equivalent or #. Limited to 40)

First 5 wk Sec 7 TTh—6-8:40, EE/CSci 3115

Second 5 wk Sec 8 MW—6-8:40, EE/CSci 3115

Continuing Education for Women (CEW)

(See page 94)

Dance

(106 Norris Hall: 624-5060)

Department of Theatre Arts and Dance

College of Liberal Arts

Dance (Dnce) courses (numbered through 1499) may be taken S-N. Those numbered 1500 and above may not be taken S-N by Dance students.

★Dnce 1007 **FUNDAMENTAL JAZZ I.** 1 credit, \$53.25.

Basic skills of jazz dance. (No prereq. Limited to 20)

First 5 wk Sec 2 TTh—5:45-7:45, PeikG 65, Linda Stoen

★Dnce 1031 **BALLROOM DANCE I.** 1 credit, \$53.25 plus \$3 special fee. Total \$56.25.

Elementary steps and variations of the foxtrot, lindy, waltz, tango, cha-cha, rumba, and samba. (No prereq. Sec 5 and 6 meet concurrently. Limited to 25 each section)

First 5 wk Sec 5 MTWTh—1:25-2:15, NorrisH 153, Mary B. Lampe (men only)

Sec 6 MTWTh—1:25-2:15, NorrisH 153, Mary B. Lampe (women only)

★Dnce 1077 **TAP I.** 1 credit, \$53.25.

The basics of tap, working on fundamental syncopation and various rhythms. (No prereq. Limited to 20)

First 5 wk Sec 3 MTWTh—4:15-5:15, PeikG 65, Joe Chvala

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

- ★Dnce 1110 **DANCE TOPICS: AEROBICS FOR THE DANCER.** 1 credit, \$53.25.
Low-impact aerobic workout using techniques of modern and jazz. (No prereq. Limited to 20)
First 5 wk Sec 6 **MW**—4-5, NorrisH 67, Linda Stoen
- ★Dnce 1110 **TOPICS: FUNDAMENTAL MODERN I.** 1 credit, \$53.25 plus \$7 special fee. Total \$60.25.
Introduction to fundamentals of modern dance technique. (No prereq. Limited to 20)
First 5 wk Sec 7 **MW**—4:15-6:15, NorrisH 67, Diane Aldis
- ★Dnce 1110 **TOPICS: FUNDAMENTAL BALLET I.** 1 credit, \$53.25 plus \$7 special fee. Total \$60.25.
Introduction to the fundamentals of classical ballet techniques including barre and center work. (No prereq. Limited to 20)
First 5 wk Sec 8 **TTh**—5:30-7:30, NorrisH 67, Mary Harding
- ★Dnce 1110 **TOPICS: FUNDAMENTAL MODERN II.** 1 credit, \$53.25 plus \$7 special fee. Total \$60.25.
Introduction to the fundamentals of modern dance techniques, level two. Emphasis on exploring rhythms and dynamics underlying movement. (Prereq Fundamental Modern I. Limited to 20)
Second 5 wk Sec 9 **MW**—4:15-6:15, NorrisH 67, Diane Aldis
- ★Dnce 1110 **TOPICS: FUNDAMENTAL BALLET II.** 1 credit, \$53.25 plus \$7 special fee. Total \$60.25.
Fundamentals of Classical ballet including barre, center work, and combinations; level two. (Prereq Fundamental Ballet I. Limited to 20)
Second 5 wk Sec 10 **TTh**—5:30-7:30, NorrisH 67, Mary Harding
- Dnce 3330 DANCE TOPICS: TEACHING AEROBICS.** 2 credits, \$110.50 plus \$7 special fee. Total \$117.50.
Develop a core knowledge and practical skills for teaching dance exercise and basic knowledge of human anatomy, kinesiology, and physiology. (Prereq 1003 or 1006. Meets concurrently with PE 3330)
First 5 wk Sec 7 **TTh**—4-5:30, NorrisH 67, Linda Stoen

Design

(240 McNeal Hall: 624-9700)

College of Human Ecology

Design, Housing, and Apparel

- ★Dsgn 1201 **INTRODUCTION TO COMMERCIAL ART AND GRAPHIC DESIGN.** 4 credits, \$213.
Overview of advertising communications process, history and contemporary practices. Emphasis on role of commercial artists (in relationship to the business community and the consumer). Terminology and technology of the field are introduced. Field trips. (No prereq. Limited to 28)
First 5 wk Sec 8 **TTh**—6-8, McNH 216, StP Campus, Fred Klein

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★Dsgn 1206 **SPATIAL LOGIC FOR DESIGNERS.** 4 credits, \$213 plus \$7.50 course fee. Total \$220.50.

Drafting, orthographic projection, and scale drawing fundamentals. Emphasizes use of geometry in mechanical construction of 1, 2, 3 point perspective; methods of visually communicating technical, financial, and statistical information. (Prereq Applied Design, Costume Design, Housing, Interior Design, pre-Interior Design, Retail Merchandising, pre-Retail Merchandising, or Textiles and Clothing student. Limited to 24)

First 5 wk Sec 3 TTh—6-9:55, McNH 333, StP Campus, Harold Hussung

★Dsgn 1523 **DESIGN PROCESS: DRAWING I.** 4 credits, \$213.

Problem solving in drawing with application of design elements and principles. Assignments done both in and out of design studio. (Prereq Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

First 5 wk Sec 7 TTh—6-9:55, McNH 258, StP Campus

★Dsgn 1528 (formerly 1521) **DESIGN PROCESS: COLOR.** 4 credits, \$213 plus \$7.50 special fee. Total \$220.50.

Study of color concepts and their applications to design. Students will also be required to purchase supplies for this class which will exceed \$100. (Prereq 1501, 1523 or 1525, Applied Design, Costume Design, Housing, Interior Design, Pre-Interior Design, Retail Merchandising, Pre-Retail Merchandising, Textiles and Clothing. Limited to 24)

Second 5 wk Sec 5 MW—6-9:55, McNH 262, StP Campus

★Dsgn 1531 **SURFACE FABRIC DESIGN I.** 4 credits, \$213 plus \$35 course fee. Total \$248.

Exploration of surface pattern and composition with varied media and materials: dyeing, resist, batik, stencil, block printing, and others. (Prereq 1523, 1525, 1528 or #. Limited to 18)

First 5 wk Sec 3 MW—6-9:55 and arr, McNH B9, StP Campus, Richard Abell

Second 5 wk Sec 4 MW—6-9:55 and arr, McNH B9, StP Campus, Richard Abell

★Dsgn 1550 **INTERMEDIATE DRAFTING.** 4 credits, \$213 plus \$10 course fee. Total \$223.

Intermediate-level drafting instruction in parallel drawing, perspective drawing, and architectural dimensioning. **Students will be required to purchase supplies for this class which will probably exceed \$125.** (Prereq demonstrated proficiency in basic drafting techniques. Limited to 24)

Second 5 wk Sec 10 MTh—6-9:55 and arr, McNH 475, StP Campus

★Dsgn 3251 **GRAPHIC DESIGN I.** 4 credits, \$276 plus \$7.50 course fee. Total \$283.50.

Layout techniques, materials, structure, color theory. Applications of type style and copyfitting. (Prereq 1220 or #. Limited to 24)

First 5 wk Sec 3 MW—6-9:55, McNH 333, StP Campus

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

- ★Dsgn 3252 **GRAPHIC DESIGN II.** 4 credits, \$276 plus \$7.50 course fee. Total \$283.50.
Continued development of professional skills in areas of layout and design for advertising. Photographic techniques, color separation, and other printing/production techniques are included. (Prereq 3251 or #. Limited to 24)
Second 5 wk Sec 3 TTh—6-9:55, McNH 333, StP Campus
- ★Dsgn 3255 **TYPOGRAPHIC DESIGN.** 4 credits, \$276.
Theory and application of principles of typographic composition. Emphasis on typography history, type faces and letter forms, typesetting methods, terminology, type specification, and copyfitting. (Prereq 1220. Limited to 24)
First 5 wk Sec 2 MW—6-9:55, McNH 333, StP Campus
- ★Dsgn 3523 **DESIGN PROCESS: DRAWING II.** 4 credits, \$276.
Advanced problem solving in drawing with application of design elements and principles. Assignments done both in and out of studio. (Prereq 1523, Applied Design, Costume Design, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing student. Limited to 24)
First 5 wk Sec 3 MW—6-9:55, McNH 258, StP Campus
Second 5 wk Sec 4 TTh—6-9:55, McNH 258, StP Campus
- ★Dsgn 3527 **DESIGN PROCESS: THREE-DIMENSIONAL DESIGN.** 4 credits, \$276 plus \$10 course fee. Total \$286.
Study and application of principles of three-dimensional design. (Prereq 1523, 1525, Applied Design, Costume Design, Housing, Interior Design, pre-Interior Design, Retail Merchandising, pre-Retail Merchandising, or Textiles and Clothing student, pass portfolio review. Limited to 20)
First 5 wk Sec 4 MW—6-9:55, VoTech 120, StP Campus
- ★Dsgn 3528 **DESIGN PROCESS: COLOR II.** 4 credits, \$276 plus \$7.50 special fee. Total \$283.50.
Continued study of color concepts and their application to design. **Students will be required to purchase supplies for this class which will probably exceed \$125.** (Prereq 1528, 1523, or #. Limited to 20)
First 5 wk Sec 3 TTh—6-9:55, McNH 262, StP Campus
- ★Dsgn 3534 **COMPUTER APPLICATIONS TO DESIGN PROBLEMS.** 4 credits, \$276 plus \$7.50 course fee. Total \$283.50.
Focuses on solutions to the design process using the Macintosh computer. Students will gain experience in microcomputers, peripherals, and software. (Prereq 1523, 1525, 1528 or #. Limited to 20)
First 5 wk Sec 7 MW—6-9:55, McNH 305 (Mac Lab), StP Campus
Second 5 wk Sec 8 TTh—6-9:55, McNH 305 (Mac Lab), StP Campus
- ★Dsgn 3552 **COMPUTER-AIDED DESIGN, DRAFTING SYSTEM I.** 4 credits, \$276 plus \$7.50 course fee. Total \$283.50.
Using computer-aided design drafting system. Includes drawing capabilities and dimensioning for drafting floor plans and three-dimensional views. (Prereq 1550 or equivalent. Limited to 20)
First 5 wk Sec 4 MW—5:30-9:30, McNH 305 (IBM Lab), StP Campus, Stephen Manlove

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.
Courses and sections in red have limits on enrollment. See page 5.

★**Dsgn 3572 SPECIAL TOPICS IN DESIGN: POSTER DESIGN.** 4 credits, \$276 plus \$7.50 special fee. Total \$283.50.

Develop a series of poster designs based on design concepts and principles. (Prereq 1523. Limited to 18)

Spec Term Sec 3 **MWF**—6-9:55, June 17-July 12, McNH 316, StP Campus, Silke Wolter

★**Dsgn 3582 FIELD EXPERIENCE IN DESIGN.** 3 credits, \$207.

Supervised 60 hours "on site" exhibition installation during August, 1991. Organizational meeting Sat., Aug. 3, 10:30 a.m. at the Creative Activities Building, Minnesota State Fairgrounds, St. Paul. (Limited to 14)

Spec term Sec 1 **Aug. 3-22**, Time arr, Days arr, Richard Abell.
No late fee through July 26.

Dsgn 5570 SEMINAR: ENVIRONMENTAL LIGHTING DESIGN. 3 credits, \$207.

Includes basic lighting design information through advanced technology. The focus is on integration of technology with aesthetics and the implications of choices made by designers. Environmental lighting is examined from the interior designer's viewpoint. (No prereq. Qualified students may register for graduate credit at the University of Minnesota.)

Spec Term Sec 1 **MTWThF**—6:45-8:45, June 10-20, McNH 33, StP Campus; and
Sa—9 a.m.-2, June 15, McNH 33, StP Campus, Dee Ginthner

Dsgn 5570 SEMINAR: ENERGY CONSCIOUS INTERIOR DESIGN. 3 credits, \$207.

Examines the interior design concerns that are important considerations in designing energy conserving environments, both residential and commercial. The interior design criteria for energy conscious buildings are somewhat different than for a conventionally heated building. These differences are examined and a process is developed to facilitate the design of an interior environment that emphasizes energy optimization and thermal comfort without loss of design quality. (No prereq. Qualified students may register for graduate credit at the University of Minnesota.)

Spec Term Sec 2 **MTWThF**—7-9 a.m., July 22-Aug. 1, McNH 33, StP Campus; and
Sa—9 a.m.-2, July 27, McNH 33, StP Campus, Denise Guerin

Dsgn 5575 INTERIOR DESIGN RESEARCH. 2 credits, \$138.

Examination and development of studies related to interior design. (No prereq. Qualified students may register for graduate credit at the University of Minnesota.)

Spec Term Sec 1 **MTWTh**—7-8:40, July 22-Aug. 2, McNH 480, StP Campus; and
Sa—9 a.m.-3, July 27, McNH 480, StP Campus, Denise Guerin

Interior Design in Europe

Summer term (June 17-July 9); focuses on the design of interiors, architecture, and decorative arts in historic cities throughout England, France, Luxembourg, Italy, and Germany. Cosponsored by the University of Minnesota Department of Design, Housing, and Apparel; the Global Campus, University of Minnesota Department of Extension Classes; and Miami University. (8 credits)

For information: The Global Campus, 106 Nicholson Hall; telephone 626-2223.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Early Childhood Studies Program

(Department of Extension Classes, 201 Wesbrook Hall: 625-1088)

Department of Extension Classes

Courses related to Early Childhood Studies can be found in this bulletin listed under Child Psychology and Family Social Science. For information regarding the Early Childhood field, contact CEE Counseling at 625-2500 or the College of Education Student Affairs office at 625-6501. For Prekindergarten/Nursery School licensure, call Lynn Galle at 624-7009.

East Asian Studies

(105 Folwell Hall: 624-0007)

College of Liberal Arts

Chinese (Chn)

Chn 3162 CHINESE FICTION IN ENGLISH TRANSLATION. 4 credits, \$221.
(♦\$110.50).

- ◆ Chinese narrative prose, 1200 to 1900. Intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. (No prereq)

First 5 wk **Sec 2 TTh—6:20-8:50, FolH 148**

Japanese (Jpn)

★**Jpn 3021-3022-3023 INTERMEDIATE JAPANESE.** 5 credits each section, \$276.25 each section.

Foundation for reading knowledge of Japanese. Review and pattern drill. A concentrated program of study permitting students to earn 15 hours of credit, the equivalent of a full year's sequence in language. **Students must enroll for all three courses and may not enroll in other summer courses. Exceptions only with letter of permission from the Japanese department. Students must complete three separate registration forms—one each for 3021, 3022, and 3023.** (Prereq 1013 or 1008 or #. Limited to a combined total of 20)

Ten wk **3021** **Sec 4** **MTWThF—8-10:15 a.m., HckrH 312, ClaOff B30, StP Campus**

MTWThF—10:30 a.m.-12:05, HckrH 312, ClaOff B30, StP Campus

Ten wk **3022** **Sec 5** **MTWThF—8-10:15 a.m., HckrH 312, ClaOff B30, StP Campus**

MTWThF—10:30 a.m.-12:05, HckrH 312, ClaOff B30, StP Campus

Ten wk **3023** **Sec 6** **MTWThF—8-10:15 a.m., HckrH 312, ClaOff B30, StP Campus**

MTWThF—10:30 a.m.-12:05, HckrH 312, ClaOff B30, StP Campus

East Asian Studies (EAS)

EAS 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$Hist 1463, 3463, \$213. (♦\$106.50)

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

◆ Decline of Asian empires; European and American imperialism; Asian responses; nationalism, social revolution, reintegration, modernization in China, Japan, Vietnam, Korea; retreat of European and American empires. (No prereq. Meets concurrently with Hist 1463, 3463)

Second 5 wk Sec 2 **MW**—6-8:30, BlegH 155, Byron K. Marshall

EAS 3471 20TH-CENTURY JAPAN. 4 credits, §Hist 3471, \$221. (◆\$110.50)

◆ World War I and Japan's emergence as an industrial society and world power in the 1920s; rise of militarism, World War II in the Pacific; political reform, economic resurgence, and cultural change in the postwar era. (No prereq. Meets concurrently with Hist 3471)

Second 5 wk Sec 3 **TTh**—6-8:30, BlegH 250, Byron K. Marshall

Hmong (Hmg)

★Hmg 1011 **BEGINNING WHITE HMONG.** 5 credits, \$266.25.

Basic listening, speaking, reading, and writing skills. Stress on the development of communication competence and cultural sensitivity. (No prereq. Limited to 15)

First 5 wk Sec 1 **MTWThF**—8 a.m.-12:05, MRRC 211

★Hmg 1012 **BEGINNING WHITE HMONG.** 5 credits, \$266.25.

Development of comprehension skills in listening and reading, writing, and speaking. Communication competence and cultural sensitivity stressed. (Prereq Hmg 1011 or #. Limited to 15)

Second 5 wk Sec 1 **MTWThF**—8 a.m.-12:05, FordH 50

Economics

(1035 Management/Economics: 625-6353)

College of Liberal Arts

★Econ 1101 (formerly 1002)-1102 (formerly 1001) **PRINCIPLES OF ECONOMICS.** 4 credits each semester, if no credit received for any other beginning economics course. **No credit for new numbers is available if credit was received under old numbers.** \$213 each term. (IS)

Principles underlying economic activity and the way these principles work out through our economic institutions. **1101:** Micro-economics: demand and supply, competition and monopoly, distribution of income. **1102:** Macro-economics: national income, money and banking, economic growth. (No prereq. Econ 1102 may not be taken prior to 1101, but the two 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 unless otherwise indicated**)

Ten wk 1101 Sec 31 **MW**—6-7:20, BlegH 420

Ten wk 1101 Sec 32 **MW**—7:30-8:50, BlegH 420

Ten wk 1101 Sec 33 **TTh**—6-7:20, BlegH 150

Ten wk 1102 Sec 34 **MW**—6-7:20, BlegH 115

Ten wk 1102 Sec 35 **MW**—7:30-8:50, BlegH 115

Ten wk 1102 Sec 36 **TTh**—7:30-8:50, BlegH 150

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★Econ 3101 **MICROECONOMIC THEORY**. 4 credits, \$3105 or BGS 3001, \$221.

Behavior of households, firms and industries under competitive and monopolistic conditions. Factors influencing production, price and advertising decisions. **Must be taken A-F.** (Prereq 1101, 1102 or equivalent, 1 qtr calculus or #. Limited to 35)
Ten wk Sec 4 TTh—6-7:20, BlegH 330

English

College of Liberal Arts

English Language and Literature courses (Engl) (207 Lind Hall: 625-3363)

★Engl 1005 **INTRODUCTION TO LITERATURE**. 4 credits, \$213.

Understanding and enjoying literature. Readings of novels, short stories, poems, and plays. (No prereq. Limited to 38)

First 5 wk Sec 5 MW—6-8:30, BlegH 260, Rafael Tilton

Second 5 wk Sec 6 TTh—6-8:30, BlegH 260, Mark Olson

★Engl 1241 **INTRODUCTION TO SHAKESPEARE**. 4 credits, \$213. (◆\$106.50).



Lecture survey of Shakespeare's work, treating approximately 10 plays. For students in all colleges of the University. (No prereq. Limited to 38)

First 5 wk Sec 2 TTh—6-8:30, FolH 114, Mark Reschke

★Engl 1591 **LITERATURE OF AMERICAN MINORITIES**. 4 credits, \$213. (◆\$106.50).



Representative works by Afro-American, American Indian, Asian American, and Chicano/Chicana writers. Examination of relevant social factors. (No prereq. Limited to 38)

First 5 wk Sec 4 TTh—6-8:30, LindH 229, Margaret Hodne

Second 5 wk Sec 5 MW—6-8:30, LindH 229, Maureen Heacock

★Engl 1621 **INTRODUCTION TO WOMEN WRITERS**. 4 credits, \$213. (◆\$106.50).



Works by several major women writers from Great Britain and the United States. Novels, short stories, poetry, and drama. (No prereq. Limited to 38)

CEW

First 5 wk Sec 4 MW—9:30 a.m.-12, MacP, Shari Horner

Offered through Continuing Education for Women

★Engl 1671 **THE SHORT STORY**. 4 credits, \$213. (◆\$106.50).



Lecture introduction to short stories, with some emphasis on the history and diversity of the form. Typical authors: Poe, Chekhov, Lawrence, Joyce, Kafka, Porter, Welty, Faulkner. (No prereq. Limited to 38)

Second 5 wk Sec 2 TTh—6-8:30, LindH 305, Marjorie Allison

★Engl 3008 **TECHNIQUES OF LITERARY STUDY**. 4 credits, \$221. (◆\$110.50)



Training and practice in the analysis of various literary forms, with a special emphasis on poetry. Use of argument, evidence, and documentation in literary papers; introduction to major developments in contemporary criticism. (No prereq. Limited to 30)

Second 5 wk Sec 2 TTh—6-8:30, LindH 203, James Maertens

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

- ★Engl 3009 **MODERN LITERARY THEORY.** 4 credits, \$221. (♦\$110.50)
 ◆ Problems of interpretation and criticism. Questions of meaning, form, authority, literary history, social significance. (Prereq English major or minor. Limited to 30)
First 5 wk Sec 2 **MW**—6-8:30, LindH 302, Larry Shillock
- ★Engl 3242 **SHAKESPEARE.** 4 credits, \$3243, \$221. (♦\$110.50) (IS)
 ◆ Plays from the middle and late periods. All sections read *King Lear*, *Macbeth*, *The Tempest*, and two or three others. (No prereq. Limited to 30)
First 5 wk Sec 2 **MW**—6-8:30, LindH 203, Charles Sugnet
- ★Engl 3851 **THE ENGLISH LANGUAGE.** 4 credits, \$5851, \$221. (♦\$110.50). (IS)
 ◆ The English language: its structure (phonetics, phonology, morphology, syntax, semantics) and its use (pragmatics, dialect variation, and first language acquisition). (No prereq. Limited to 120)
Second 5 wk Sec 4 **MW**—6-8:30, BlegH 120, Christopher Anson
- ★Engl 5151 **18TH-CENTURY ENGLISH NOVEL.** 4 credits, \$221. (♦\$110.50)
 ◆ Novels by such authors as Defoe, Richardson, Fielding, Smollett, Sterne, Austen. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 38)
Second 5 wk Sec 1 **MW**—6-8:30, LindH 302, Joel Weinsheimer
- ★Engl 5940 **FIGURES IN ENGLISH AND AMERICAN LITERATURE: CONRAD.** 4 credits, \$221. (♦\$110.50)
 ◆ Readings and discussions of some of the main fiction (tales, novellas, novels) and criticism by Conrad. Students also will read some biographical texts, but stress will lie on various critical approaches—psychoanalytic, feminist, structuralist, and the like. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 38)
First 5 wk Sec 5 **TTh**—6-8:30, LindH 302, Chester Anderson

Creative and Professional Writing (EngW)

(204 Lind Hall: 625-6366)

(See also writing courses in Composition)

- ★EngW 1102 **INTRODUCTION TO FICTION WRITING.** 4 credits, \$Engl 1101, \$Comp 1101, 1113, \$213. (IS)
 Beginning instruction in the art of fiction: characterization, plot, dialogue, and style. Writing exercises to help students generate ideas. Students read and discuss published fiction as well as their own writing. (Prereq writing practice or EngW 1101. Limited to 25)
Second 5 wk Sec 5 **TTh**—6-8:30, RarigC 616
 (See also Compleat Scholar 0600, Creative Writing I)
- ★EngW 3102 **INTERMEDIATE FICTION WRITING.** 4 credits, \$Engl 3101, \$Comp 3101, \$221. (IS)
 For students with experience in writing fiction. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1101, 1102 or equivalent. Limited to 20)
Second 5 wk Sec 3 **TTh**—6-8:30, LindH 215

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**EngW 3103 INTERMEDIATE POETRY WRITING.** 4 credits, §Engl 3104, §Comp 3104, \$221. (IS)

For students with experience in writing poetry. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1101, 1103 or equivalent. Limited to 20)

Second 5 wk Sec 3 MW—6-8:30, KoltH S136

★**EngW 3110 TOPICS IN CREATIVE WRITING: INTERMEDIATE MEMOIR WRITING.** 4 credits, \$221.

Autobiographical prose writing. Students read memoirs, consider aspects of memory and imagination and the memoir genre, as well as write their own autobiographical pieces. Writing exercises. (Prereq EngW 1101, 1102, 1103 or equivalent. Limited to 20)

Second 5 wk Sec 3 MW—6-8:30, AmundH 104, Paulette Bates Alden

★**EngW 5130 TOPICS IN ADVANCED CREATIVE WRITING.** 4 credits, \$221.

Advanced workshop that may include work in more than one genre. (Prereq grad or English undergrad major or Δ. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

First 5 wk Sec 6 TTh—6-8:30, LindH 216, M. D. Browne

Family Social Science

(290 McNeal Hall: 625-1900)

College of Human Ecology

FSoS 1001 DYNAMICS OF FAMILY RELATIONSHIPS. 4 credits, \$213 plus \$1 special fee. Total \$214 (♦ \$106.50 plus \$1 special fee. Total \$107.50). (IS)

Applications of behavioral sciences to mate selection, interaction in marriage, and other committed relationships, sex roles, maintaining, and ending of relationships. (No prereq)

Second 5 wk Sec 2 TTh—6-8:30, McNH 198, StP Campus, William Allen

FSoS 1025 PARENTHOOD. 4 credits, \$213 (♦ \$106.50).

Differing concepts of family roles—father, mother, son, daughter, sister, brother. Their implications for parent-child and sibling interaction. Effects of parenthood on husband-wife relations. (No prereq)

Second 5 wk Sec 2 MW—6-8:30, McNH 197, StP Campus, Phyllis Dix

(See also Practical Scholar 0832, Managing Children's Behavior)

FSoS 5240 SPECIAL TOPICS: MEDICAL FAMILY THERAPY. 3 credits, \$207. (♦ \$103.50).

Overview of the emerging specialty of medical family therapy, which deals with families facing chronic illness, disability, and health lifestyle problems. Emphasis on both theoretical and practical issues in medical family therapy. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 4 F—8:30 a.m.-5, July 19, 26, Aug. 9, McNH 375, StP Campus, William J. Doherty

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

1991 Summer Study in Scandinavia

FSoS 5200 FAMILY RELATIONSHIPS. 5 credits, \$345 tuition (travel costs extra). An overview of the family life cycle, with emphasis on family systems theory. Special attention will be paid to comparisons between Scandinavian and American families in structure, process, and common problems. (Prereq Psy 1001 or equivalent, Soc 1001 or equivalent. Qualified students may register for graduate credit at the University of Minnesota). Instructor is William J. Doherty.

FSoS 5240 SPECIAL TOPICS: FAMILIES AND FAMILY SERVICES IN SCANDINAVIA. 5 credits, \$345 tuition (travel costs extra).

Examines current trends in programs and services for Scandinavian families. Special emphasis will be placed on comparing the design and implementation of mental health services in the context of Scandinavian social health systems and the American private health care system. (Prereq #. Qualified students may register for graduate credit at the University of Minnesota). Instructor is James W. Maddock.

These courses will be conducted in connection with a three-week tour of urban and rural areas of Denmark, Sweden, and Norway. The registration deadline was March 15, 1991. Cancellation of the offerings may occur if the University determines that unacceptable risks exist due to international conditions. Students may still call beyond the March 15 deadline to see if openings exist and to register late. There will be lectures and reading assignments required prior to departure. These sessions, dates, and times will be arranged.

For further information, costs, and registration procedures, telephone (612) 625-1900.

Alcohol and Drug Counseling Education Program (299A McNeal Hall: 625-3778)

For information about the Alcohol and Drug Counseling Education Certificate, see the 1990-91 *Extension Classes Bulletin*, page 628. To receive a formal application for the certificate program, write Alcohol and Drug Counseling Education Program, Family Social Science, University of Minnesota, 299A McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108. Or call the program office, 625-3778.

If you do not attend the entire first class session, your space in that class will be forfeited.

★**FSoS 3029 COUNSELING SKILLS PRACTICUM I.** 4 credits, \$276.

Dyadic role-playing and group exercises in the area of basic counseling skills. Topics include assessment of counselor needs and motivations, non-verbal communication, accurate empathy, self-disclosure, and questioning. Use of video tape to aid students in feedback. Certificate students must take this course A-F. (No prereq. Students interested in graduate credit should see 5029. Meets concurrently with 5029. Limited to a combined total of 20)

Spec term Sec 5 **W**—6-10, June 12-July 17, McNH 274, StP Campus, and
Sa—9 a.m.-5, June 29, McNH 274, StP Campus,
Philip Colgan

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★FSoS 3032 CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW. 4 credits, \$276.

Introduction to marriage and family counseling with particular application to the families in which alcohol or drug abuse is a problem. Certificate students must take this course A-F. (No prereq. Students interested in graduate credit should see 5032. Meets concurrently with 5032. Limited to a combined total of 40)

Spec term Sec 3 **ThFSa**—9 a.m.-5, July 11-13, McNH 274, StP Campus; and **Th**—6-10, July 18, 25, McNH 274, StP Campus, William Goodman, Philip Colgan

FSoS 3034 TOPICS IN ALCOHOL AND DRUG ABUSE. 1-5 credits, \$69 a credit. (IS)

Selected readings in alcohol and drug use and problems and evaluation of student's mastery of the assigned study. Requests for permission to register must be made to the Alcohol and Drug Counseling Education Program, 299A McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108, or call the program office, 625-3778. (Prereq written #. Students interested in graduate credit should see 5034)

Ten wk Sec 4 **Arr**—Constance Fabunmi, Philip Colgan
Ten wk Sec 5 **Arr**—William Goodman

FSoS 3035 CLINICAL INTERNSHIP IN CHEMICAL ABUSE PROBLEMS. 2-18 credits, \$69 a credit plus \$25 special fee for each placement.

Also required is a closed class permission slip, which is available by calling the program office at 625-3778. A six-month (1000-hour) rotating clinical internship experience designed to strengthen the student's competencies and skills in several areas of the alcohol and drug abuse continuum of care. Admissions requests must be made to the Internship Coordinator of the Alcohol and Drug Counseling Education Program. Must be taken S-N. (Prereq 3026, 3027, 3028, 3030, 3032, 3037 and written #)

Ten wk Sec 4 **Arr**—Constance Fabunmi

★FSoS 3037 GROUP THERAPY: THEORY AND PRACTICE. 3 credits, \$207.

Lecture, small-group experience, and role playing aimed at providing an introduction to group therapy concepts. Topics include stages of group development, stages of affective development, Hill Interaction Matrix, leadership roles and functions. Certificate students must take this course A-F. (No prereq. Students interested in graduate credit should see 5037. Meets concurrently with 5037. Limited to a combined total of 24)

Spec term Sec 4 **ThFSa**—9 a.m.-5, June 20-22, McNH 274, StP Campus, William Goodman, Philip Colgan

FSoS 5008 INTROSPECTIVE WORKSHOP AND CLINICAL SUPERVISION. 1 or 2 credits, \$69 or \$138.

Special topics, ethical issues, nonregular program or course in Family Social Science for pre-service or in-service helping professionals. (Prereq 3035 or 5035. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 4 **Arr**—Constance Fabunmi

★FSoS 5029 COUNSELING SKILLS PRACTICUM I. 4 credits, \$276.

See course description and prerequisites for 3029. Certificate students must take this course A-F. (Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3029. Limited to a combined total of 20)

Spec term Sec 5 **W**—6-10, June 12-July 17, McNH 274, StP Campus; and **Sa**—9 a.m.-5, June 29, McNH 274, StP Campus, Philip Colgan

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★FSoS 5032 **CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW.** 4 credits, \$276.

See course description and prerequisites for 3032. Certificate students must take this course A-F. (Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3032. Limited to a combined total of 40)

Spec term Sec 3 **ThFSa**—9 a.m.-5, July 11-13, McNH 274, StP Campus; *and*
Th—6-10, July 18, 25, McNH 274, StP Campus, William Goodman, Philip Colgan

FSoS 5034 TOPICS IN ALCOHOL AND DRUG ABUSE. 2-5 credits, \$69 a credit.

See course description and prerequisites for 3034. Requests for permission to register must be made to the Alcohol and Drug Counseling Education Program, 299A McNeal Hall, 1985 Buford Ave., St. Paul, MN 55108, or call the program office, 625-3778. (Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 4 **Arr**—Constance Fabunmi, Philip Colgan
Ten wk Sec 5 **Arr**—William Goodman

FSoS 5035 CLINICAL INTERNSHIP IN CHEMICAL ABUSE PROBLEMS. 2-18 credits, \$69 a credit plus \$25 special fee for each placement.

See course description and prerequisites for 3035. Must be taken S-N. (Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 4 **Arr**

★FSoS 5037 **GROUP THERAPY: THEORY AND PRACTICE.** 3 credits, \$207.

See course description and prerequisites for 3037. Certificate students must take this course A-F. (Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3037. Limited to a combined total of 24)

Spec term Sec 4 **ThFSa**—9 a.m.-5, June 20-22, McNH 274, StP Campus, William Goodman, Philip Colgan

Finance

(735 Management/Economics: 624-2888)

Carlson School of Management

★BFIn 3000 **FINANCE FUNDAMENTALS.** 4 credits, \$245 plus \$16 special fee. Total \$261. (IS)

Provides students with a comprehensive, analytical introduction to the principal concepts in finance. After considering the general business environment, the course examines valuation theory. Then financial management decisions concerning uses and sources of funds are presented, thus introducing students to capital budgeting. This course concludes by surveying the nation's financial markets. (Prereq Acct 1050 and 3001 and at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 50)

First 5 wk Sec 7 **MW**—6-9, BlegH 135
Second 5 wk Sec 8 **MW**—6-9, BlegH 150

★BFIn 3100 **FINANCIAL MANAGEMENT.** 4 credits, \$245 plus \$16 special fee. Total \$261.

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

A broad case-oriented course building on concepts introduced in 3000. The viewpoint of a corporation's principal financial officer is generally used. Case discussions, augmented by lectures and readings, enable students to apply finance principles in actual business situations. Experience in problem definition, specification of alternatives, analysis and decisions. Effective verbal and written communication stressed. *Rigorous analysis of the assigned case material prior to each class is expected as preparation for active student participation.* (Prereq 3000 and at least 90 cr completed or in progress. Limited to 35)

Second 5 wk Sec 2 TTh—5:30-8, BlegH 210

Certified Financial Planner (CFP)

The University of Minnesota no longer offers CFP courses. Classroom training, however, will be available at another Twin Cities area college. For information call (612) 647-5219.

French

(260 Folwell Hall: 624-4308)

College of Liberal Arts

(See also Practical Scholar 0882, French for Travelers)

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, \$213. (IS)

This course is designed solely to impart a basic reading knowledge of the French language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals only with the reading aspect of the language, there are no sessions for oral-aural drills and composition, and great skill can be acquired in a short time. At the end of one quarter the student is given the Graduate Reading Examination in French. The department will certify to the Graduate School a reading knowledge of French upon successful completion of this examination. (No prereq. **Must be taken S-N**)

First 5 wk Sec 3 MTh—6-8:30, BuH 123

Fren 1104 INTERMEDIATE FRENCH. 5 credits, \$266.25.

Discussion of literary and cultural readings. Grammar review and development of writing skills. (Prereq 1103 or #)

First 5 wk Sec 3 MTh—6-8:50, FolH 138

Fren 1105 INTERMEDIATE FRENCH. 5 credits, \$266.25.

Cultural and literary readings, progressively less structured discussion leading to free expression of ideas through speaking and writing. (Prereq 1104 or #)

Second 5 wk Sec 3 MTh—6-8:50, FolH 138

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

French and Italian

(260 Folwell Hall: 624-4308)

College of Liberal Arts

★Frt 3604 **CINEMAS OF THE REAL.** 4 credits, \$221.

Film work of major vanguards: surrealism; Vigo, Renoir, Wells, Visconti, Rossellini, De Sica. Course varies in structure. Knowledge of French and Italian helpful but not necessary. (No prereq. Limited to 50)

First 5 wk Sec 2 MW—6-8:30, BlegH 150

(See also Compleat Scholar 0140, The Language of Film: Film Noir/Detective Films)

General College courses

(109 Appleby Hall: 625-6663)

PREPARATORY MATHEMATICS PROGRAM

Choosing the first mathematics class in college is difficult but very important. Students want to minimize the number of preparatory mathematics classes that they must take while at the same time maximizing their opportunity for success. Experience indicates that students choose an inappropriate advanced class more often than they choose a more elementary class. Be careful in your choice. Your success depends on your choice.

Any student who has completed four years of high school mathematics, including solid geometry and trigonometry within the last two years with above-average grades, may register in Math 1211, Calculus I (see the Mathematics section of this Bulletin). However, if it has been more than two years since the last mathematics course in high school was completed, the student should register in Math 1201, Pre-calculus (see the Mathematics section of this Bulletin), or possibly GC 0631, Intermediate Algebra, Part II, which corresponds to second-year high school algebra.

The following rules usually apply: a student who has been out of high school for several years, or who did not have second-year algebra in high school, should register for GC 0625, while a more recent graduate with fair knowledge of algebra should register for GC 0631. A student who knows very little about algebra should register for GC 0643, Basic Mathematics, which covers the same material as first-year high school algebra, while a student with a good background in signed numbers and introductory algebra will want to try GC 0625, Intermediate Algebra, Part I. A student who lacks background in arithmetic or who suffers from a fear of mathematics should register for GC 0643. With the aid of an instructor, the student is able to progress through arithmetic or introductory algebra at a pace more suited to his or her learning style.

Students will find assistance in the Mathematics Learning and Assessment Center, Appleby Hall 9 (summer hours will be posted outside the room). Tutorial assistance, placement testing in mathematics, and personal help in overcoming mathematics anxiety are available to students registered in any of the General College preparatory mathematics courses.

★GC 0625 **INTERMEDIATE ALGEBRA, PART I.** No credit, \$GC 1445, \$266.25. (IS)

For students with adequate background in elementary algebra. Sets, real numbers, linear equations, linear inequalities, absolute value equations and inequalities, exponents, polynomials, systems of equations, word problems, rational

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

expressions, roots and radicals, complex numbers. (Prereq GC Math Level D or GC 0621 with grade of C or better or GC 1435. Limited to 35)

Ten wk Sec 4 **W**—5:30-7:30, ApH 9; 7:30-8:30, ApH 219,
Aparna Ganguli

(See also Practical Scholar 0932, Elementary Algebra)

★GC 0631 INTERMEDIATE ALGEBRA, PART II. No credit, §GC 1446, \$266.25. (IS)

Basic knowledge of linear and quadratic equations and inequalities, exponents, factoring, rational expressions, roots, radicals, complex numbers, and graphing assumed. Topics include quadratic equations, matrix solutions to systems of equations, general inequalities, conic sections, functions, logarithmic and exponential functions, introduction to sequences, series, and binomial theorem. (Prereq GC math level E or GC 0625 with grade of C or better or GC 1445. Limited to 35)

Ten wk Sec 8 **TTh**—5:30-8, ApH 303, David Giese

★GC 0643 BASIC MATHEMATICS: PROGRAMMED STUDY. No credit, \$266.25.

With aid of instructor, topics selected from following: whole numbers, fractions, decimals, percents, signed numbers, formulas, simple graphs, ratio and proportion, sets, properties, equations, inequalities, rectangular graphs, polynomials, factoring, rational expressions, radicals. Offered through Mathematics Learning and Assessment Center. May be repeated as needed. (Prereq GC math level B or C or 0641. Limited to 35)

Ten wk Sec 4 **M**—5-8, ApH 9, Laura Koch

★GC 1162 PHYSICAL SCIENCE: STELLAR ASTRONOMY. 4 credits, \$213.

Introductory study of large-scale structure of universe. Definition and measurement of certain properties of stars: magnitude, distance, temperature, size. Spectral classification of stars, nebulae, pulsars, black holes, galaxies, quasars; theories of relativity, cosmology, cosmogony. Opportunity to observe through University telescope. (No prereq. Limited to 40)

Ten wk Sec 1 **Th**—6-8:30, Phys 131, Ivan Policoff

★GC 1374 THE MOVIES: AN INTRODUCTORY COURSE. 4 credits, \$213 plus \$10 course fee. Total \$223.

Films as art forms and as communication media. Students view films in class, may read film scripts, and may attend film showings locally to learn how to analyze films and to recognize their unique characteristics. (No prereq. Limited to 40)

First 5 wk Sec 3 **MW**—6-8:50, ApH 302, Del Adamson

(See also Compleat Scholar 0140, The Language of Film: Film Noir/Detective Films)

★GC 1421 WRITING LABORATORY: BASIC WRITING. 4 credits, \$213.

Students write on various topics in response to reading and discussion. Personal help with individual writing problems. Emphasis on clear and effective written expression through extensive writing and revision. (No prereq. Limited to 18)

Second 5 wk Sec 3 **MW**—5-7:30, ApH 204, Terence Collins

★GC 1454 STATISTICS. 4 credits, \$213.

Introduction to modern statistics, emphasizing problem solving and hands-on experience with real data. Topics include summary statistics, sampling, probability, distributions, estimation, and hypothesis testing. (Prereq GC math level D or elementary algebra. Limited to 30)

First 5 wk Sec 4 **MW**—5-6, ApH 303; 6-7:30, ApH 219, Joan Garfield

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★GC 1461 **ORAL COMMUNICATION: SPEAKING AND CREATIVE THINKING.** 4 credits, \$213 (◆\$106.50).



In conversations, discussions, and prepared speeches, students share ideas, attitudes, and experiences with others; examine how language functions as means of communication. Modes and methods of creative thinking are explored in relation to effective oral communication. Students listen and respond to communication of others and comment on what they see, hear, and feel. (No prereq. Limited to 20)

First 5 wk Sec 2 TTh—5-7:30, ApH 102, Fred Amram

★GC 1513 **SMALL BUSINESS OPERATIONS.** 4 credits, \$213. (IS)

Students evaluate opportunities to start a small business or to purchase an existing one. Topics include financing the business; marketing products; administering key resources; organizing, controlling, and writing the business plan. Designed for people who plan to own or operate a small business in a marketing-related area. (No prereq. Limited to 35)

Second 5 wk Sec 4 TTh—5-7:30, ApH 226, Mary K. Nelson

★GC 1551 **MARKETING: INTRODUCTION.** 4 credits, \$213. (IS)

Product pricing, distribution, and promotional principles; target market and segmentation analysis; current marketing strategies and trends. (No prereq. Limited to 30)

First 5 wk Sec 3 MW—5-7:30, ApH 103, Shari Peterson

★GC 1571 **INTRODUCTION TO MICROCOMPUTER APPLICATIONS.** 5 credits, \$266.25 plus \$5 course fee. Total \$271.25

Introduction to IBM microcomputer applications including microcomputer components, operating system (DOS), word processing, spreadsheet, and database management software. Hands-on laboratory emphasizes solving problems using popular microcomputer applications software. All homework assignments done on computers. (Prereq elementary algebra. Limited to 25)

Ten wk Sec 4 T—5:30-8:30, ApH 319, Douglas Robertson

GC Baccalaureate Degrees

In January 1986, the Board of Regents of the University of Minnesota voted to terminate offering the baccalaureate degree programs of the General College. **August 21, 1991**, is the final deadline by which **all** documentation for the General College baccalaureate degrees—including the **Senior Report, approved by the Baccalaureate Graduation Committee**—must have been submitted to the General College Baccalaureate Office. Other required documentation includes official transcripts from all sources of study, showing completed study and made-up incompletes; certificates for specialized programs of study; and final balance sheets. Check with the GC Baccalaureate Office about filing the necessary documentation required for completion of the degree.

★GC 3132 **CARDIOVASCULAR ANATOMY AND PHYSIOLOGY.** 4 credits, \$221.

Human circulatory system, specifically parts, locations, structures, physiological function, and common pathological conditions. (Prereq 1132 or equivalent. Limited to 40)

First 5 wk Sec 2 MW—5-7:30, SciCB 125, Douglas Dearden

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★GC 3342 **MORAL ISSUES IN BUSINESS.** 4 credits, \$221. (♦\$110.50)

Relationship of personal moral attitudes (egoism, hedonism) and general ethical systems (formalism, utilitarianism) to common practices in business. Issues involving conflict of interest, truth in advertising, preferential hiring, and concern for environment examined in context of concept of corporate social responsibility. (No prereq. Limited 30)

First 5 wk Sec 3 **MW**—5:30-8, ApH 223, Candido Zaroni

★GC 3374 **FILM AND SOCIETY.** 4 credits, \$221 plus \$10 course fee. Total \$231.

Ways in which film and society affect each other, social issues raised in films, public attitudes toward film, effect of film on attitudes and behaviors, and how film medium provides illumination and insight into area of society it portrays, such as urban living, minority stereotyping, ethical decisions, aging, marriage and family, politics, sexual mores. (No prereq; 1374 recommended. Limited to 40)

Second 5 wk Sec 2 **MW**—6-8:50, ApH 302, Robert Yahnce

(See also Compleat Scholar 0140, The Language of Film: Film Noir/Detective Films)

★GC 3464 **COMMUNICATION IN ORGANIZATIONS.** 4 credits, \$221.

For managers, supervisors, and others who directly control quality of life of persons in organizations; focuses on processes and problems involved in working and communicating with people in organizational settings and on knowledge, attitudes, and skills that underlie effective behavior in organizational relationships. (Prereq 1461 or 1465, 5 cr in psychology. Limited to 40)

Second 5 wk Sec 2 **TTh**—5:30-8, ApH 102, F. T. Benson

★GC 3560 **PERSONNEL ADMINISTRATION.** 4 credits, \$221. (IS)

For both generalists and business students—paralegal administrators, small business entrepreneurs, and other future business employers. Covers employee selection, development, evaluation, and compensation. Provides opportunity for students to pursue new job and career openings and suggests ways to function more effectively as employers. (No prereq. Limited to 35)

First 5 wk Sec 2 **TTh**—5:30-8, ApH 226, Patrick Kroll

★GC 3720 **VIOLENCE IN THE FAMILY.** 4 credits, \$221.

Focus is the form and amount of family violence. Included are spouse abuse, child abuse, sexual abuse, and aging parent abuse. Attention directed to factors which cause and inhibit family violence and ways to reduce abuse. Course particularly relevant for those preparing to work with family problems. (No prereq. Limited to 30)

Second 5 wk Sec 2 **TTh**—6-9, ApH 103, Sander Latts

★GC 3732 **CONSUMER TRANSACTIONS AND THE LAW.** 4 credits, \$221.

Students investigate the relationship between the consumer marketplace and the law. Focus is on preventive law for the consumer seller/buyer at the pre-agreement, agreement, and post-agreement stages of consumer transactions. Legal self-sufficiency as a cost-saving, effective consumer technique is stressed in an applied skills perspective. Topics include a general introduction to consumer law, deceptive practices and legal regulation of marketing techniques, extending credit, usury regulation, product warranty issues, security agreement regulation, debtor default and creditor collection remedies, buyer/seller remedies for contractual non-performance, product liability for defective goods, and debt counseling and bankruptcy concerns. (Prereq GC 1534 or 1235. Limited to 30)

First 5 wk Sec 2 **TTh**—6-8:30, ApH 103, Peter Kahn

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

German

(231 Folwell Hall: 625-2080)

College of Liberal Arts

- ★Ger 1000 **INDIVIDUALIZED GERMAN FOR NON-DEGREE CREDIT.** 2-5 credits (maximum 5 cr), \$1101, \$53.25 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Each student earns credits at his/her own pace, working with book, computer, and tapes. Teacher available for consultation and testing. See Ger 1110 description below for registration information. The continuation course is 1110 or 1102. (No prereq. Limited to 30)

Ten wk Sec 4 W—6-8:30, WaLib 15

- ★Ger 1103 **BEGINNING GERMAN.** 5 credits, §1110, \$266.25.

Third quarter of German language. Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (speaking and writing). (Prereq 1102 or equivalent cr of 1110 or 2 years high school German. Limited to 25)

Ten wk Sec 10 MTh—6-8:30, KoltH S135

- ★Ger 1110 **INDIVIDUALIZED BEGINNING GERMAN.** 1-10 credits (maximum 10 cr), §1102-1103; \$53.25 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Students work at own pace with book, computer, audio- and videotapes, earning credit through testing as they progress through material. Teachers available for consultation and testing. Two weeks after the end of the session, students who have completed more credits during the session than they registered for should go to the 101 Wesbrook Hall Registration Office to pay for the additional credits. **No refunds will be given for uncompleted credits.** The continuation course is 1104. (Prereq 1101, 5 cr 1000, or placement. Limited to 60)

Ten wk Sec 4 W—6-8:30, WaLib 15

Reading German. Ger 0221 and 0222 are specifically designed for individuals who desire only a reading knowledge of the language. The German language requirement for an advanced degree may be satisfied by passing Ger 0222 with a grade of "B" or better (0222 must be taken on an A-F basis). Graduate students should check with their advisers for specific language requirements in their field of study.

- Ger 0221 READING GERMAN.** No credit, \$213.

This course is designed to help students acquire a reading knowledge of basic German as rapidly as possible. Ger 0221 assumes no knowledge of German on the part of the student. Grammar is reduced to an essential minimum. The course progresses from intensive reading of simple, graded material to selections of moderate difficulty. Vocabulary building and analysis of compound words are emphasized. **Must be taken S-N.** (No prereq)

First 5 wk Sec 2 MTh—6-9:20, CivMinE 212, Wolfgang Taraba

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Ger 0222 READING GERMAN. No credit, \$213.

This course is designed to give students experience in intensive reading of German scholarly texts and enable graduate students to satisfy departmental requirements for an advanced degree. Listening comprehension will be introduced to enhance reading performance. Graduate students achieving a grade of "B" or better in 0222 should bring their Graduate School language certification cards to 231 Folwell Hall for signature. **Must be taken A-F.** (Prereq 0221 or 2 quarters of beginning German or 2 years of high school German)

Second 5 wk Sec 2 **MTh**—6-9:20, FolH 234, Ray Wakefield

History

(614 Social Sciences: 624-2800)

College of Liberal Arts

Hist 1002 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, §1002H, §3002, \$213 (♦\$106.50). (IS)

- ◆ Revolution, liberalism, and nationalism from 1715 to 1870. (No prereq. Meets concurrently with 3002)

First 5 wk Sec 4 **TTh**—6-8:30, BlegH 250, William E. Wright

Hist 1003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, §1003H, §3003, \$213 (♦\$106.50). (IS)

- ◆ 1870 to recent times. (No prereq. Not open to jrs, srs. Meets concurrently with 3003)

First 5 wk Sec 5 **MW**—6-8:30, RarigC 616, Richard Rudolph

Hist 1301 AMERICAN HISTORY. 4 credits, §1301H, \$213 (♦\$106.50). (IS)

- ◆ Colonial era and early national period from the Revolution through Civil War and Reconstruction. (No prereq)

First 5 wk Sec 3 **TTh**—6-8:30, AndH 210

Hist 1302 AMERICAN HISTORY. 4 credits, §1302H, \$213 (♦\$106.50). (IS)

- ◆ Modern America from 1880 to the present. (No prereq)

Second 5 wk Sec 4 **TTh**—6-8:30, AndH 350, George Green

Hist 1401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO THE PRESENT. 4 credits, §3401, §LAS 3401, \$213. (♦\$106.50)

- ◆ Pre-Hispanic and colonial period to 1800, with emphasis on social, cultural, and economic aspects. (No prereq. Meets concurrently with 3401 and LAS 3401)

First 5 wk Sec 2 **TTh**—6-8:30, BlegH 10

Hist 1432 HISTORY OF AFRICA: 1800 TO PRESENT. 4 credits, §3432, \$213 (♦\$106.50).

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

Second 5 wk Sec 3 **MW**—6-8:30, BlegH 250

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

Courses and sections in red have limits on enrollment. See page 5.

Hist 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$3463, \$EAS 1463, \$213 (◆\$106.50).

◆ 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, EAS 1463)

Second 5 wk Sec 2 **MW**—6-8:30, BlegH 155

Hist 3002 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, \$1002, \$1002H, \$221.

See course description for Hist 1002. (No prereq. Meets concurrently with 1002)

First 5 wk Sec 4 **TTh**—6-8:30, BlegH 250, William E. Wright

Hist 3003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, \$1003, 1003H, \$221.

1870 to recent times. (No prereq. Meets concurrently with 1003)

First 5 wk Sec 5 **MW**—6-8:30, RarigC 616, Richard Rudolph

Hist 3401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO THE PRESENT. 4 credits, \$1401, \$LAS 3401, \$221.

See course description for Hist 1401. (No prereq. Meets concurrently with 1401 and LAS 3401)

First 5 wk Sec 2 **TTh**—6-8:30, BlegH 10

Hist 3422 THE WORLD AND THE WEST. 4 credits, \$221. (◆\$110.50)

◆ Modern world of Renaissance, nationalism, modernization, and countermodernization, 1850 to present. (No prereq)

First 5 wk Sec 2 **MF**—6-8:30, BlegH 10, David Kopf

Hist 3432 HISTORY OF AFRICA: 1800 TO PRESENT. 4 credits, \$1432, \$221.

See course description for Hist 1432. (No prereq. Meets concurrently with 1432)

Second 5 wk Sec 3 **MW**—6-8:30, BlegH 250

Hist 3463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$1463, \$EAS 1463, \$221.

See course description for Hist 1463. (No prereq. Meets concurrently with 1463, EAS 1463)

Second 5 wk Sec 2 **MW**—6-8:30, BlegH 155

Hist 3471 20TH-CENTURY JAPAN. 4 credits, \$EAS 3471, \$221. (◆\$110.50)

◆ World War I and Japan's emergence as an industrial society and world power in the 1920s; rise of militarism, World War II in the Pacific; political reform, economic resurgence, and cultural change in the postwar era. (No prereq. Meets concurrently with EAS 3471)

Second 5 wk Sec 3 **TTh**—6-8:30, BlegH 250, Byron K. Marshall

Hist 3723 EUROPE SINCE WORLD WAR II. 4 credits, \$221. (◆\$110.50)

◆ Reconstruction of European politics and society; emergence of Cold War in Europe; decolonization; economic cooperation and development; East-West relations. (No prereq)

First 5 wk Sec 2 **TTh**—6-8:30, AndH 350, John Kim Munholland

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Hist 3821 UNITED STATES IN THE 20TH CENTURY: 1896-1932. 4 credits, \$221 (◆\$110.50).

- ◆ The closing of the agricultural frontier and the growth of industrialism, the corporation and the city; populism and progressivism; the end of isolation and the growth of overseas empire; prohibition and women's suffrage. (No prereq)

First 5 wk Sec 3 TTh—6-8:30, BlegH 210

Horticultural Science

305 Alderman Hall: 624-4242

College of Agriculture

Hort 1021 WOODY PLANT MATERIALS. 5 credits, \$266.25. (◆\$133.25).

Taxonomy, ecology, and landscape use of trees, shrubs, and evergreens. Lectures, laboratory, and field trips. (No prereq)



Second 5 wk Sec 2 TTh—5-8, Snyder Research and Education Bldg, Minnesota Landscape Arboretum (West of Rt 41 on Hwy 5) Chaska, M. Eisel
(Books available at Arboretum Gift Shop)

Humanities

(314 Ford Hall: 624-5553)

College of Liberal Arts

Hum 1004 HUMANITIES IN THE MODERN WORLD IV. 4 credits, \$Rhét 3381, \$213 (◆\$106.50) (IS)

Europe, 1914-1940. Ideas and forms of society and culture; Leninist, fascist-Nazi, Freudian, neo-orthodox. Expressionism, dada, surrealism. Integrative study of works by creative figures such as Lenin, Freud, Kafka, Eliot, Duchamp, Klee, Kollwitz, Dali, Picasso, Stravinsky, Schönberg, Bartók, Wright, Gropius. (No prereq)

First 5 wk Sec 1 MW—6-8:30, FordH 120, George Kliger

Hum 1113 EUROPEAN HERITAGE: ROME. 4 credits, \$Rhét 3322, \$213. (◆\$106.50) (IS)

Roman civilization of the late republic and empire; rise of Christianity. Literature, religion, philosophy, art, architecture. Integrative study of selected works influential in modern Western culture; Caesar, Lucretius, Virgil, Ovid, Seneca, Petronius, Augustine, Boethius. (No prereq)



Second 5 wk Sec 2 MW—6-8:30, FordH 120, Dianne Johnson

★**Hum 1301 DISCOURSE AND SOCIETY.** 4 credits, \$213. (IS)

General Introduction to modes of expression (e.g., verbal, visual, musical) through representative works. Analysis of discourse in relation to social structures, examining its role in creating and contesting social borders, replicating cultures, and attaching differential privilege to various practices. (No prereq. Limited to 45)

Second 5 wk Sec 2 TTh—6-8:30, FordH 155, Claudia Crawford

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Hum 3176 CINEMATIC DISCOURSE AND CULTURAL POLITICS. 4 credits, \$221.
(♦\$110.50).

Examination of the way film texts and the social institutions of cinema both contribute to and resist the reproduction of social relations in modern Western countries. Particular attention to class, race, and gender as sites of sociocultural conflict. (Prereq 1301 or ArTH 1921)

First 5 wk Sec 1 TTh—6-8:30, FordH 155, John Mowitt

Industrial Engineering/ Operations Research

(125 Mechanical Engineering: 625-0705)

Institute of Technology

IEOR 3000 (formerly IEO 5000) INTRODUCTION TO INDUSTRIAL ENGINEERING ANALYSIS. 4 credits, §IEOR 5000, \$265.

Scientific management, mathematical models, methods engineering, work measurement, worker satisfaction and participation, wage payment plans, break-even analysis, incremental costs, the time value of money and 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 recommended)

Second 5 wk Sec 2 MW—6-9, Arch 40, E. Barnett

IEOR 5030 QUALITY CONTROL AND RELIABILITY. 4 credits, \$265.

History of quality control, quality policies and objectives, economics of quality, design for system effectiveness, reliability and maintainability, statistical aids to reliability, quality specifications, inspection, acceptance sampling, vendor relations, process control, motivation for quality, quality assurance, and quality control engineering. (Prereq Math 1231, ME 3900, IEO 3000 recommended. May not be taken for graduate credit by IEO graduate students)

First 5 wk Sec 2 TTh—6-9, EE/CSci 3-111, Kevin J. Dooley

Industrial Relations

(537 Management/Economics: 624-2500)

Carlson School of Management

★IR 3002 PERSONNEL AND INDUSTRIAL RELATIONS. 4 credits, §8002, \$245 plus \$16 special fee. Total \$261. (IS)

An introduction to the human resource management function in organizations. Coverage includes the labor market, recruitment, selection, training, compensation, and labor relations. Topics to be covered are the changing nature of the world of work, emerging legal issues, discrimination in pay and employment, comparable worth, work performance and its assessment, and the effects of technological change on jobs and employment. The course involves lecture presentations, discussion, case studies, and simulation exercises. (Prereq Econ 1001, Econ 1002, Psy 1001; and at least 90 cr completed or in progress. Limited to 65)

First 5 wk Sec 5 MW—6-9, BlegH 250

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

IR 3010 THE INDIVIDUAL IN THE ORGANIZATION. 4 credits, \$245 plus \$16 special fee. Total \$261.

An introduction to the human side of organizations, focusing on workers and how they enter and succeed in the work setting. Coverage includes theories and techniques of employment interviewing; training needs analysis; career planning; management development; turnover, out-placement, and retirement; understanding leadership roles and styles; work motivation, organization culture and job design; and planning for change. Course involves lecture presentations, discussion, case studies, and simulation exercises. (Prereq at least 90 cr completed or in progress)

Second 5 wk Sec 5 MW—6-9, BlegH 220

Information and Decision Sciences

(395 Humphrey Center: 624-8030)

Carlson School of Management

Courses in the IDSc area make up a program designed for students with a variety of backgrounds:

1. Undergraduates in the Carlson School or other schools who want one or more IDSc courses as electives.

2. Working students who want IDSc electives or an information technology-focused emphasis program as part of their mid-career education, but who are not necessarily working toward a degree.

3. Undergraduate Carlson School business majors who want to focus on information technology in a self-designed emphasis program as part of their Carlson School B.S.B. degree.

Starting Points

Students who have been accepted into, or who plan to apply to the Carlson School, should begin with the Core Courses of IDSc 1010, OMS 1020, and IDSc 3030. IDSc 3030 is a requirement for Carlson School students as part of the B.S.B. program.

Core Courses

This sequence of three courses (IDSc 1010, OMS 1020, IDSc 3030) is intended to help students develop the capability to acquire, analyze, and manage data as business professionals. The courses are a mix of skill development and general knowledge in information technology.

★**IDSc 1010 (formerly MSci 1010) FUNDAMENTALS OF INFORMATION DEVELOPMENT AND USE.** 4 credits, §MSci 1010, \$213 plus \$16 special fee. Total \$229. (IS)

Meeting information needs of managers. Sources of data, data collection methods, data organization and presentation. Descriptive statistical analysis methods. Lab instruction to provide skill development in word processing and spreadsheet analysis on personal computers. (Prereq 30 credits, pre-management student, Math 1111 or ¶1111. Limited to 45)

Ten wk Sec 10 T—Lect, 5:30-8:15, BlegH 130

Th—Lab, 5:30-6:30, BlegH 90

OMS 1020 DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS. See page 79.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★IDSc 3030 (formerly MSci 3030) **INFORMATION SYSTEMS AND INFORMATION MANAGEMENT.** 4 credits, §MSci 3030, §MIS 3100, 5100, 3101, 3300, 5101. \$245 plus \$16 special fee. Total \$261.

Defining information requirements. Developing information systems applications. Using information systems. Defining data structures and building and using databases. Formulating database retrievals. Building and using models and expert systems to support decision making. Obtaining external data to support model building and decision making. Evaluating information. Skill development in database software. *This course is equivalent to MIS 3100, 5100, 3101, 3300, and 5101.* (Prereq IDSc 1010 and OMS 1020. Limited to 30)

Ten wk Sec 4 **Th—Lect**, 5:30-8, BlegH 130
Th—Lab, 8-9, HHHCtr 35

NOTE: *Students taking upper division Carlson School courses through CEE should have the equivalent of 90 quarter college credits with a "B-" grade average.*

Insurance

(537 Management/Economics: 624-2500)

Carlson School of Management

(See also Finance)

No Ins courses offered summer 1991.

International Relations

(248 Social Sciences: 624-9353)

College of Liberal Arts

IntR 5900 TOPICS IN INTERNATIONAL RELATIONS: INTERNATIONAL AND MULTICULTURAL EDUCATION IN A GLOBALIZED SOCIETY. 4 credits, \$221.

The multicultural world we live in is increasingly interdependent, complex, and changing. This seminar will explore whether new paradigms are needed to understand this international society, and what attitudes, knowledge, and skills are needed to be participatory citizens in the twenty-first century. The course will be helpful for exploring common themes and shared goals between educational reform movements including global, international, peace, environmental, multicultural, and human rights. (Prereq elementary or secondary teacher. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 **MTWThF—9 a.m.-3**, June 17-28, HHHCtr 60,
Walter Enloe

Journalism

(111 Murphy Hall: 625-9824)

College of Liberal Arts

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★ Jour 1001 INTRODUCTION TO MASS COMMUNICATION. 2 credits, \$106.50 (◆\$53.25).

Nature, functions, and responsibilities of communication media and agencies examined from point of view of professional journalist. News, opinion, entertainment, and persuasion functions; current trends. Specialized communication; aspects of advertising. **May not be taken S-N.** (No prereq. Limited to 72)

First 5 wk Sec 5 TTh—6:20-8:50, MurH 308

★ Jour 3201 PRINCIPLES OF ADVERTISING. 4 credits, \$221 (◆\$110.50).

Theory, principles, and functions of advertising; its role in economic, social, and marketing structure. Newspapers, magazines, radio, television as advertising media. **May not be taken S-N.** (No prereq. Limited to 72)

First 5 wk Sec 3 MW—6:20-8:50, MurH 308

★ Jour 5159 CASE STUDIES IN PUBLIC RELATIONS. 4 credits, \$221.

Case study approach in applying public relations principles to solve problems in business, government, education, and community. Designed to enable students to sharpen their perceptions, insights, and judgments in examining practical and ethical questions. **May not be taken S-N.** (Prereq professional journalism major status or #, Jour 3159, Δ. Inquire about graduate credit at the time of registration. Limited to 25)

Second 5 wk Sec 2 MT—6-9, MurH 311

Jour 5182 SUPERVISION OF SCHOOL PUBLICATION. 4 credits, \$221.

Emphasis upon editorial content, staff organization, editing, typography, makeup, and business management for those who plan to advise high school or college newspapers, yearbooks, magazines. Students will submit final project that may be used later in their own advising capacity. *In addition to the times listed below, some evening hours will be required.* **May not be taken S-N.** (Prereq professional journalism major status or #, Δ. Inquire about graduate credit at the time of registration)

Spec Term Sec 1 Su—2-9, Aug. 4, MurH 311
MTWTh—9 a.m.-5, Aug. 5-8, MurH 311
No late fee through July 29

★ Jour 5501 COMMUNICATION AND PUBLIC OPINION I. 4 credits, \$221. (◆\$110.50) (IS)

Theories of communication process and of persuasion and attitude change. Functions of interpersonal and mediated communication in diffusion of information and in opinion formation. (Prereq 16 cr in social science departments or # for non-jour majors. Inquire about graduate credit at the time of registration. Limited to 72)

Second 5 wk Sec 2 MW—6:20-8:50, MurH 308

★ Jour 5721 MASS MEDIA IN A DYNAMIC SOCIETY. 4 credits, \$221 (◆\$110.50).

Economic, political, and social determinants of character and content of mass communication in America. Impact, structure, functioning of mass media. Problems, prospects, criticism. Professionalism, technology, reform. **May not be taken S-N.** (Prereq 16 cr in social science depts or #. Inquire about graduate credit at the time of registration. Limited to 32)

First 5 wk Sec 3 TTh—6:20-8:50, MurH 311

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★ Jour 5990 **SPECIAL TOPICS IN MASS COMMUNICATION: DOCUMENTARY PHOTOGRAPHY.** 6 credits (8 cr maximum), \$331.50 plus \$98.50 course fee. Total \$430.

Intensive professional course in documentary photography. Individual photo projects will focus on subjects based in the Twin Cities community, and lecture topics will include researching photo stories; gaining access to subjects and establishing rapport; photo editing and publication. Additional topics to be discussed will concern the marketplace for documentary photography and photojournalism; implications of new image technologies; and alternative avenues of photo distribution. **Guest lecturers: Nan Richardson**, formerly editor of *Aperture* magazine. A second guest lecturer to be announced. (Prereq 5303 or #; portfolio review required. Inquire about graduate credit at the time of registration. Limited to 16)

Spec Term Sec 2 **MTWThF**—Class meetings: 9 a.m.-4, June 11-14, 24-28, July 10-16, MurH 20; remaining days to be devoted to independent shooting; Dona Schwartz

(See also Studio Arts and Compleat Scholar photography courses)

Landscape Architecture

(205 North Hall: 625-8285)

College of Architecture and Landscape Architecture

LA 5117 PLANTING DESIGN: AESTHETIC AND FUNCTIONAL CRITERIA. 4 credits, \$265.

Lectures, presentations, field trips, reading, and projects exploring aesthetic and functional design principles related to use of plant materials in the landscape. Exploration of both historic and modern principles through design projects of various scales. (Prereq Hort 1021 or #. May not be taken for graduate credit)

First 5 wk Sec 1 **MWTh**—6:30-8:30, NorH 305, StP Campus, Peggy Sand

★ **LA 5140 INTERDISCIPLINARY STUDIES IN LANDSCAPE ARCHITECTURE: CREATING AND USING ECOLOGICAL SYSTEMS AS OUTDOOR CLASSROOMS.** 4 credits, \$221.

A course for teachers to visit and interpret the wetland, woodland, and prairie plant communities of Minnesota. Basic design and problem-solving skills will be used to create a concept for outdoor classrooms throughout the state. An aerial view and/or site plan of each teacher's school grounds will be required so that teachers may return to their own outdoor classrooms with materials to use for years to come. This course has been designed to meet the goals of the Minnesota Environmental Education Act for the K-12 pupils of Minnesota's schools. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

First 5 wk Sec 1 **MW**—5-9, NorH 207, StP Campus

Latin

(310 Folwell Hall: 625-5353)

College of Liberal Arts

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Lat 1101-1102-1103 LATIN. 5 credits each term, \$266.25 each term. (IS)

Fifteen college credits of Latin for all ages: junior high, senior high and college students, pre- and post-college adults, families—the learning community. Programmed texts and tapes for home study permit self-pacing. Knowledge is broken up into isolated bits, which students master bit by bit, returning to previous bits as necessary. 90% success rate. Weekly discussions motivate learning, provide community, and explore humanistic educational dimensions of Classical Latin traditions. Courses meet concurrently and with 1104. Students are divided into study groups, which meet two hours each week; one hour is arranged between 5 and 7 p.m. Monday, and the other between 5 and 7 p.m. Wednesday. The entire class will meet from 5 to 7 p.m. the first class of the term in FolH 303. (No prereq for 1101; 1101 or # for 1102; 1102 or # for 1103)

First 5 wk	1101	Sec 10 MW—5-7, FolH 116, 214, 234, Robert Sonkowsky
First 5 wk	1102	Sec 11 MW—5-7, FolH 116, 214, 234, Robert Sonkowsky
First 5 wk	1103	Sec 12 MW—5-7, FolH 116, 214, 234, Robert Sonkowsky

Lat 1104 LATIN READINGS: CAESAR. 5 credits, \$266.25. (IS)

Reading in Book I of Julius Caesar's masterpiece *The Gallic Wars*. One-hour study groups on Mondays and Wednesdays arranged between 5 and 7 p.m. The entire class will meet from 5 to 7 p.m. the first class of the term in FolH 303. Meets concurrently with 1101-1102-1103. (Prereq 1103 or #)

First 5 wk **Sec 4 MW—5-7, FolH 116, 214, 234, Robert Sonkowsky**

Latin American Studies

(232 Social Sciences: 624-8543)

College of Liberal Arts

LAS 3401 SURVEY OF LATIN AMERICAN HISTORY: COLONIAL PERIOD TO THE PRESENT. 4 credits, §Hist 1401, 3401, \$221. (♦\$106.50)

◆ Pre-Hispanic and colonial period to 1800, with emphasis on social, cultural, and economic aspects. (No prereq. Meets concurrently with Hist 1401 and 3401)

First 5 wk **Sec 1 TTh—6-8:30, BlegH 10**

Learning and Academic Skills

(104 Eddy Hall: 624-3323)

College of Liberal Arts

A student who does not attend the first class meeting of a LASK course will not be allowed to continue. A written verification of non-attendance must be obtained from the instructor for a student to receive a 100% tuition refund.

★LASK 1001 **BECOMING A MASTER STUDENT.** 2 credits. (Credits do not count toward a B.A. degree.) \$106.50 plus \$30 special fee. Total \$136.50.

Practical assistance to the student in developing efficient study habits, organizing

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

materials, preparing for examinations, and improving the speed and comprehension of reading. Diagnosis and practice in basic skill areas such as reading, spelling, vocabulary, and elementary composition also are provided. (No prereq. Limited to 30)

Ten wk Sec 8 **M**—6-8:30, WullH 130
Ten wk Sec 9 **W**—6-8:30, WullH 130

Linguistics

(142 Klaeber Court: 624-3528)

College of Liberal Arts

Ling 3001 INTRODUCTION TO LINGUISTICS. 5 credits, §3005, 5001, \$276.25.
(♦\$138.25).

◆ Systematic survey of phonetics, phonology, morphology, syntax, semantics, and historical-comparative linguistics; language learning and psychology of language; linguistic universals; language in society. (No prereq. Meets concurrently with 5001)

Ten wk Sec 7 **W**—6:20-9:35, BlegH 330

Ling 5001 INTRODUCTION TO LINGUISTICS. 5 credits, §3001, 3005, \$276.25.

See description for Ling 3001. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with 3001)

Ten wk Sec 4 **W**—6:20-9:35, BlegH 330

Ling 5801 INTRODUCTION TO LANGUAGE LEARNING. 4 credits, \$221.

Overview of first- and second-language learning. **Does not fulfill degree requirements for majors in linguistics or ESL.** (Prereq 3001 or 5001 or #. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 2 **T**—6:20-8:50, CivMinE 213

MBA Program

Students interested in the Master of Business Administration degree offered through the School of Management should contact the MBA Program office in room 295 of the Hubert H. Humphrey Center; telephone 624-0006 for information.

Management

(835 Management/Economics: 624-5232)

Carlson School of Management

Mgmt 3001 FUNDAMENTALS OF MANAGEMENT. 4 credits, §8001, \$245 plus \$16 special fee. Total \$261. (IS)

Leadership and management functions such as those required to establish goals, policies, procedures, and plans are studied. Motivation, planning, and control systems, and concepts of organizational structure and behavior are also reviewed. (Prereq at least 90 cr completed or in progress. **May not be taken S-N**)

First 5 wk Sec 7 **TTh**—6-8:45, AndH 230, Amy Hietapelto
Second 5 wk Sec 8 **MW**—6-8:45, AndH 350, Charles Flaherty

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★Mgmt 3002 **PSYCHOLOGY IN MANAGEMENT.** 4 credits, \$245 plus \$16 special fee. Total \$261. (IS)

Centers on development and application of behavior principles, methods, and skills which underlie managerial competence in preventing and solving problems within and between individuals and groups and aid in effective utilization of human resources. Various laboratory procedures are used to highlight concepts, methods and skills and furnish practice in applying them to management problems. (Prereq at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 36)

First 5 wk Sec 8 MW—6-8:45, BlegH 205, Stuart Albert

Second 5 wk Sec 9 TTh—6-8:45, BlegH 205, Donald Van de Walle

★Mgmt 3004 **BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION.** 5 credits, \$306.25 plus \$16 special fee. Total \$322.25. (IS)

Undergraduate-level capstone course designed to develop skill in the general management functions of identifying and analyzing strategic issues and problems, establishing corporate or divisional goals, and designing realistic programs of action. Case analysis and discussion in class. Students also meet in small groups to prepare cases and occasionally presentations to be made to the entire class. Concepts and approaches to strategic planning are taught in this course. These concepts as well as concepts, tools and theories previously presented in other courses are applied to solve goal selection and strategy implementation problems. Usually the viewpoint of the general line manager (department, division, or executive level) is taken. (Prereq sr and completion of business core courses or ¶ final core course. **May not be taken S-N.** Limited to 36)

First 5 wk Sec 7 TTh—5:30-9, HHCtr 35, W. Bruce Erickson

Marketing

(1235 Management/Economics: 624-5055)

Carlson School of Management

★Mktg 3000 **PRINCIPLES OF MARKETING.** 4 credits, \$245 plus \$16 special fee. Total \$261. (IS)

Study of the basic policy and strategy issues in marketing and the environmental factors that affect these issues. Legal, behavioral, ethical, competitive, economic, and technological factors are examined as they affect product, pricing, promotion, and marketing channel decisions. (Prereq Econ 1002 or #, and at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 250)

Second 5 wk Sec 6 MW—6-8:30, BlegH 10

★Mktg 3010 **BUYER BEHAVIOR AND MARKETING ANALYSIS.** 4 credits, \$3098, 3095, \$245 plus \$16 special fee. Total \$261.

Identifying and applying secondary and primary data to solve marketing problems. Special consideration is given to consumer and organizational buyer behavior. Topics include survey and experimental research techniques, market segmentation, data analysis, behavior concepts and processes, consumer and organizational decision-making models, and managerial applications of these models. (Prereq 3000, DSci 1050, and at least 90 cr completed or in progress. Limited to 40)

Ten wk Sec 7 T—6-8:30, BlegH 110

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Mathematics

(127 Vincent Hall: 625-8883)

Institute of Technology

Mathematics prerequisites

All mathematics classes have prerequisite courses. For students who have not had the prerequisite courses, several mathematics courses have math placement scores as one of the ways to satisfy the prerequisites. Students will be given this exam on the first night of class. Students who do not pass this exam and have not passed the prerequisite courses will be transferred to the prerequisite class.

Math 1142 is designed in cooperation with the Carlson School of Management for benefit of prebusiness students. However, it is the second course of a two-course sequence. The first course is Math 1111. Business, accounting, and MBA students usually take Math 1111 followed by either Math 1131 or Math 1142.

Calculus refresher course

Math 5090 is for students who have completed at least one year of calculus within the last 4 to 6 years. If a student finished calculus 7 or more years ago, then the best thing is to start over with Math 1211. A student may not take Math 5090 if he or she has not had one year of calculus in college. Math 5090 provides students who have been out of school for several years with the necessary background to enter more advanced courses that require a fresh knowledge of calculus.

Students interested in noncredit introductory mathematics courses should see the General College and Practical Scholar sections of this bulletin.

★ **Math 1005 INTRODUCTION TO ELEMENTARY MATHEMATICS.** 4 credits, \$213.

For pre-elementary education students. Elementary computer programming (BASIC), progressions, financial mathematics, counting problems, other selected topics. (Prereq Math 1111 or equivalent; may not be applied toward any CLA degree. Limited to 35)

Ten wk Sec 2 TTh—6-7:40, KoltH S138

★ **Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY.** 5 credits, \$1201, \$266.25. (IS)

Functions and graphs, quadratic equations, progressions, inequalities, complex numbers, theory of equations, permutations and combinations, probability, systems of equations, determinants, graphing of linear and quadratic equations, conics in standard position, logarithms. (Prereq plane geometry, 2 years high school algebra and mathematics placement score or plane geometry and GC 0631. See **Mathematics prerequisites** above. Limited to 35)

Ten wk Sec 19 MW—6-8:05, KoltH S139

Ten wk Sec 20 TTh—6-8:05, KoltH S139

Ten wk Sec 21 TTh—9:30-11:35 a.m., MacP

CEW

Offered through Continuing Education for Women

★ **Math 1142 SHORT CALCULUS.** 5 credits, \$1211, \$266.25. (IS)

(A second course of a two-quarter sequence for students in pre-business administration curriculum and for other students requiring college algebra and a minimal

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

amount of calculus. Students who plan to take several quarters of calculus should not register for this course.) Derivatives, integrals, differential equations, maxima and minima, partial differentiation, applications. (Prereq 1111 or mathematics placement score. See **Mathematics prerequisites** page 76. Limited to 35)

Ten wk Sec 8 TTh—6-8:05, KoltH S136

★**Math 1201 PRE-CALCULUS.** 5 credits, §1008, §1111, \$266.25. (IS)

Inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, and trigonometric, exponential and logarithmic functions. (Prereq GC 0631 or high school higher algebra, trigonometry, and mathematics placement score. For students in both IT and CLA who need a quick review of high school higher algebra and trigonometry before taking the calculus sequence. See **Mathematics prerequisites** page 76. Limited to 35)

Ten wk Sec 11 MW—6-8:05, KoltH S132

★**Math 1211 CALCULUS I.** 5 credits, §1142, 1311, 1611, \$266.25. (IS)

Analytic geometry and calculus of functions of one variable, applications. (Prereq 1201 with grade of C or better, or 1111 and 1008 with grade of C or better, or 4 years of high school math and math placement score. See **Mathematics prerequisites** page 76. Limited to 35)

Ten wk Sec 15 MW—6-8:05, BlegH 105

Ten wk Sec 16 TTh—6-8:05, KoltH S140

★**Math 1221 CALCULUS II.** 5 credits, §1321, 1421, \$266.25. (IS)

A continuation of the course described under 1211. (Prereq grade of C or better in 1211. Limited to 35)

Ten wk Sec 12 MW—6-8:05, KoltH S138

★**Math 5090 CALCULUS REFRESHER.** 5 credits, \$331.25.

A course designed for students who have already had calculus, but who have been away from it for a while and need a review. This course covers the topics of a standard course in calculus of one variable: differentiation of elementary functions, differentials, the definite integral, techniques of integrations, applications of integration, polar coordinates, infinite series, approximation. **May be taken S-N.** (Prereq 1 year calculus. Qualified students may register for graduate credit at the University of Minnesota, except for mathematics majors. Limited to 35)

Ten wk Sec 5 MW—6-8:05 KoltH S140

Mechanical Engineering

(125 Mechanical Engineering: 625-0705)

Institute of Technology

ME 1025 ENGINEERING GRAPHICS. 4 credits, §EG 1025, \$213. (IS)

Engineering representation in pictorial view and multiview; sketching techniques, size description, standard and simplified practices applied to graphical communication. Analysis of systems of projection; correlation of graphical, numerical, and computer solutions of space problems, intersections and development. Methods of computer-aided graphics. (Prereq ¶Math 1211 or equivalent)

First 5 wk Sec 3 TTh—6-9, Arch 40

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★ME 5254 DESIGN MORPHOLOGY WITH APPLICATIONS. 4 credits, \$265.

Detailed study of design problem formulation and the structure of the open-ended solution process based on design morphology. Case studies and student projects as instructional vehicles. (Prereq completion of sequences 3201-03-05, 3303-5342. Mechanical Engineering Upper Division. **May not be taken for graduate credit.** Limited to 30)

Ten wk Sec 1 MW—6-9, CivMinE 213

Music

(100 Ferguson Hall: 624-5740)

College of Liberal Arts

Mus 1001 FUNDAMENTALS OF MUSIC. 4 credits, \$213.

Study of basic musical symbols, vocabulary, rhythm, design, scale structures, intervals, chords. The development of basic piano skills; the playing of simple accompaniments. Recommended for students interested in a basic introduction to music; not for music majors. (No prereq)

First 5 wk Sec 10 MTh—6:15-9:25, FergH 225, David Damschroder

Second 5 wk Sec 11 MTh—6:15-9:25, FergH 225, John Anderson

★Mus 1051 PIANO CLASS FOR NON-MUSIC MAJORS. 2 credits, \$106.50.

Designed primarily for the person with no piano background. Basic keyboard skills of sight-reading, harmonization, transposition, and improvisation for non-music majors. (No prereq. Limited to 32)

Ten wk Sec 6 T—6:15-8:15, FergH 259

★Mus 1160 VOICE: CLASS LESSONS. 2 credits, \$106.50.

Fundamentals of healthy voice production in speaking and singing—posture, relaxation, breathing/breath management, tone placement, diction and vocal hygiene. Vocal performance skills learned in the study and performance of simple songs. (Prereq ability to learn and perform simple songs. Limited to 16)

First 5 wk Sec 4 MTh—6:15-7:45, FergH 90, Clifton Ware

Mus 1512 EAR-TRAINING AND SIGHT-SINGING II. 1 degree credit, \$53.25.

Melodic, harmonic, and rhythmic dictation; sight-singing; clef-reading; musicianship drill. (Prereq 1511, ¶1532)

Ten wk Sec 1 MTh—6:15-7, FergH 149

Mus 1532 THEORY II: HARMONY AND VOICE LEADING. 3 credits, \$159.75 (♦\$80).

◆ Writing and analysis of basic diatonic tonal structures. Basic harmonic and contrapuntal relationships. (Prereq 1531, ¶1512)

Ten wk Sec 1 MTh—7:15-8:50, FergH 149

Mus 5375 VOCAL PEDAGOGY I. 2-4 credits, \$55.25 a credit.

Basics of vocal production: Anatomy and physiology of the vocal mechanism. Methods and techniques for both individual and group voice instruction. There will be guest lecturers in the class. *For information as to appropriate number of credits for your needs, call the instructor at 624-5270.* (Prereq upper division voice major or #. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 1 MTWThF—7-9, June 17-28, FergH 225, Clifton Ware

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Mus 5950 SACRED CHORAL REPERTOIRE.

A week-long workshop, July 8 to 13, exploring music for chorus for two graduate credits, with Philip Burnelle, nationally known musician. For information and registration, call the University's Professional Development and Conference Services office at (612) 625-5813.

Operations and Management Science

(332 Management/Economics: 624-7010)

Carlson School of Management

School of Management degree students must take Operations and Management Science courses A-F.

- ★**OMS 1020 (formerly MSci 1020) DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS.** 4 credits, §MSci 1020, \$213 plus \$16 special fee. Total \$229.

Introduction to probabilistic and statistical techniques for decision making, including data analysis, sampling, estimation, and hypothesis testing and regression. Using computer software and computer-stored data in statistical analysis. Introduction to modeling and linear programming. (Prereq MSci 1010 or IDSc 1010, pre-management student, Math 1111; Math 1131 recommended. Limited to 45)

Ten wk Sec 6 **W**—5:30-8:50, BlegH 125

- ★**OMS 3000 (formerly OM 3000) INTRODUCTION TO OPERATIONS MANAGEMENT.** 4 credits, §OM 3000, \$245 plus \$16 special fee. Total \$261.

Concepts and principles related to the management of operations functions, including operations strategy, forecasting, process design, Just-In-Time, inventory management, principles of scheduling, and quality improvement. Taught from a managerial perspective, this course uses examples from service industries, non-profit organizations, and manufacturing, and stresses the relationships between operations and the environment. (Prereq at least 90 credits completed or in progress. **Open to nondegree students with equivalent experience.** Limited to 50)

Ten wk Sec 7 **Th**—5:30-8:50, BlegH 135, John B. Knauff

Philosophy

(355 Ford Hall: 625-6563)

College of Liberal Arts

- Phil 1001 LOGIC.** 5 credits, \$266.25 (♦\$133.25) (IS)

Application of formal techniques for evaluating arguments. (No prereq)

◆ **First 5 wk** Sec 7 **MW**—6:20-8:50, AndH 350
Second 5 wk Sec 8 **TTh**—6:20-8:50, AndH 330, John Dolan

- Phil 1002 INTRODUCTION TO PHILOSOPHY.** 5 credits, \$266.25 (♦\$133.25) (IS)

Problems, principal methods and schools of philosophy; historical and contemporary views. (No prereq)

◆ **Second 5 wk** Sec 6 **MW**—6:20-8:50, BlegH 210, Douglas Lewis

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Phil 3305 MEDICAL ETHICS. 5 credits, \$PubH 5623, \$276.25 (♦\$138.25).

Moral problems confronting physicians, patients, and others concerned with medical treatment, research, and public health policy. The management of death, genetic engineering, confinement and mental illness, abortion, informed consent and truth telling in physician-patient relationships, and distributive justice in the allocation of scarce medical resources. Relationship between individual decision making and institutional policies. (No prereq)

First 5 wk Sec 2 TTh—6:20-8:50, AndH 330, John Dolan

Physical Education

(224 Cooke Hall: 625-1007)

College of Education

PE 3330 DANCE TOPICS: TEACHING AEROBICS. 2 credits, \$132.50 plus \$7 special fee. Total \$139.50.

Develop a core knowledge and practical skills for teaching dance exercise and basic knowledge of human anatomy, kinesiology, and physiology. (Prereq 1003 or 1006. Meets concurrently with Dnce 3330, sec 7)

First 5 wk Sec 1 TTh—4-5:30, NorrisH 67, Linda Stoen

Plant Biology (PBio)

(220 Biological Sciences: 625-1234)

College of Biological Sciences

(See also Compleat Scholar courses in Natural Sciences)

★**PBio 1009 MINNESOTA PLANT LIFE.** 4 credits, \$213 plus \$5.50 special fee. Total \$218.50.

Identification of the more characteristic and conspicuous Minnesota plants including many lower forms, with discussion of basic distinctions, life cycles; habitat requirements, distribution, vegetation types, and ecological relations. Four Saturday (8 a.m.-12) field trips will replace four evening sessions. (No prereq. Limited to 45)

Ten wk Sec 1 MW—6:10-8:55, BioSci 6, StP Campus

Political Science

(1414 Social Sciences: 624-4144)

College of Liberal Arts

PoI 1001 AMERICAN GOVERNMENT AND POLITICS. 5 credits, \$266.25 (♦\$133.25). (IS)

Principles, organization, processes, functions of government, and the interplay of political forces in the United States. Attention throughout to current issues. (No prereq)

Second 5 wk Sec 6 MW—6-9:15, AndH 230, Ron Steiner

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Pol 1025 WORLD POLITICS. 4 credits, \$213 (♦\$106.50).

- ◆ Contemporary international relations; forms of state interaction; problems of conflict and cooperation. (No prereq)

First 5 wk Sec 3 **MW**—6-8:30, AndH 230, Sheila Nair

Pol 1041 CONTEMPORARY POLITICAL IDEOLOGIES. 4 credits, \$213 (♦\$106.50) (IS)

- ◆ Major modern ideologies such as liberalism, democracy, conservatism, socialism, communism, fascism, nationalism, imperialism, racism. Adequacy of alternative ideologies for analysis and solution of political and social problems. (No prereq)

First 5 wk Sec 3 **TTh**—6-8:30, BlegH 205, Edwin Fogelman

Pol 3051 INTRODUCTION TO POLITICAL ANALYSIS. 5 credits, \$1051, \$276.25 (♦\$138.25).

- ◆ Formation of political communities, political participation, policy making, compliance, legitimacy, political development, types of political systems. Empirical and normative problems. Comparisons among major countries. (No prereq)

First 5 wk Sec 2 **MW**—6-9:15, AndH 370, Rhona Leibel

Pol 3661 DEMOCRATIC THEORY. 4 credits, \$221 (♦\$110.50).

- ◆ Postulates and implications; moral foundations; democratic theory and the economic order; liberty and authority; equality; representation; participation; majority rule; critics of democracy; social science and democratic theory. (Prereq 3051 or 9 cr in social sciences or #)

Second 5 wk Sec 1 **TTh**—6-8:30, BlegH 115, Barbara Cruikshank

Pol 3810 TOPICS IN INTERNATIONAL RELATIONS: THE POLITICS AND LAW OF THE EUROPEAN ECONOMIC COMMUNITY. 4 credits, \$221. (♦\$110.50)

- ◆ Examines various topics from the perspective of the European Economic Community. These topics include the evolution of the law and institutions of the EEC, the relations between the EEC and other international actors, and the consequences of asymmetric relations among EEC member states. The course also will be concerned with the implications of the Single European Act for the movement toward a single market, for the harmonization of policies in other areas, and for security interests. (No prereq)

First 5 wk Sec 1 **TTh**—6-8:30, BlegH 120, Milda Hedblom

Pol 3835 THE INTERNATIONAL SYSTEM. 4 credits, \$221 (♦\$110.50).

- ◆ Structure of international system; balance of power, bipolar and other international systems; theories of stability. Change, conflict, and cooperation. (No prereq)

Second 5 wk Sec 2 **TTh**—6-8:30, AndH 230, Raymond Duvall

Pol 5315 STATE GOVERNMENT AND POLITICS. 4 credits, \$221. (♦\$110.50)

- ◆ Political institutions, political behavior, and public policies in American states; comparisons between states and between state and national political systems. (Prereq 1001 or equivalent or #. Qualified students may register for graduate credit at the University of Minnesota)

Second 5 wk Sec 1 **MW**—6-8:30, BlegH 135, Virginia Gray

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★Pol 5477 **MIDDLE EASTERN GOVERNMENT AND POLITICS.** 4 credits, \$221.
(♦\$110.50)

◆ Domestic policies of Turkey, Iran, selected Arab states, and Israel, with emphasis on ruling elites and linkages between regimes and societies. Other topics include secular/religious tensions, political aspects of ethnic diversity, and political effects of economic change. (Prereq 3051 or nonpolitical science grad or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60)

First 5 wk Sec 1 **MW**—6-8:30, BlegH 155, Andrew Davison

Portuguese

(See page 87)

Psychology

(N218 Elliott Hall: 625-4042)

College of Liberal Arts

Psy 1001 INTRODUCTION TO PSYCHOLOGY. 5 credits, \$266.25 (♦\$133.25). (IS)

◆ Introduction to study of human behavior. Prerequisite for all advanced courses in psychology. (No prereq)

Ten wk Sec 13 **MW**—6:20-8:30, AndH 270

Ten wk Sec 14 **TTh**—6:20-8:30, AndH 270

Psy 1003 APPLICATION OF PSYCHOLOGY TO LIVING. 4 credits, \$213 (♦\$106.50).

◆ Psychology in personal relationships and in the achievement of mental health, centering, for the most part, around our fundamental needs; and exploration of principles highly applicable in the life of every person. (No prereq. May be taken before or after Psy 1001)

First 5 wk Sec 4 **TTh**—6-8:30, BlegH 215

★**Psy 1004-1005 INTRODUCTORY LABORATORY PSYCHOLOGY.** 4 credits each term, \$213 each term.

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 #1001 for 1004; 1004 for 1005. Limited to 24)

First 5 wk **1004** Sec 6 **TTh**—6:20-8:50, EItH 150-160

Second 5 wk **1005** Sec 7 **TTh**—6:20-8:50, EItH 150-160

Psy 3101 INTRODUCTION TO PERSONALITY. 4 credits, \$5101, \$221 (♦\$110.50) (IS)

◆ 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)

Ten wk Sec 4 **Th**—6-8:30, BlegH 335

Psy 3201 INTRODUCTION TO SOCIAL PSYCHOLOGY. 4 credits, \$221 (♦\$110.50).

◆ 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)

Ten wk Sec 4 **T**—6-8:30, FordH 120

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**Psy 3604 INTRODUCTION TO ABNORMAL PSYCHOLOGY.** 4 credits, \$5604, \$221 (◆\$110.50). (IS)

- ◆ The field of abnormal psychology. Etiologies of behavior disorders; discussion of available treatments. (Prereq 1001. Limited to 55)
Ten wk Sec 8 **M**—6-8:30, BlegH 415

★**Psy 3801 INTRODUCTION TO STATISTICAL METHODS.** 4 credits, \$221 (◆\$110.50).

- ◆ Quantification in research problems in psychology. Descriptive and inferential statistics, hypothesis testing, nonparametric statistics. Examples from various areas of psychology. (Prereq 1001 or equivalent. Limited to 67)
Ten wk Sec 9 **M**—6-8:30, EltH N119
Ten wk Sec 10 **T**—6-8:30, EltH N119

Psy 5141 PSYCHOLOGY OF WOMEN. 4 credits, \$221 (◆\$110.50).

- ◆ Psychological and physical sex differences: developmental and environmental influences on dependency, aggression, achievement motivation, and achievement. Sex roles and sexuality during various life phases. (Prereq 1001. Qualified students may register for graduate credit at the University of Minnesota)
Second 5 wk Sec 3 **MW**—5:30-8, FordH 349

★**Psy 5202 ATTITUDES AND SOCIAL BEHAVIOR.** 4 credits, \$221 (◆\$110.50).

- ◆ Attitude theory, measurement, and attitude change research in social psychology. The structure, function, and formation of attitudes; the relationship between attitudes and various social behaviors; basic principles of attitude change. (Prereq 1001, 3201 or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 67)
Ten wk Sec 2 **W**—6-8:30, EltH N119

Public Health

(A302 Mayo: 624-6669)

Ninth Annual Summer Occupational Health and Safety Institute September 9-20, 1991

This intensive, interdisciplinary course of study is designed for professionals currently or soon-to-be practicing in the field of occupational health and safety. Fourteen individual, graduate-level courses will be offered over the two-week period on the Minneapolis campus. Courses include: Administrative and Legal Issues in Workers' Compensation, Environmental and Occupational Toxicology, Ergonomics in Occupational Health, Hazardous Waste Management, Industrial Hygiene Engineering, Introduction to Occupational Safety, Occupational Health Seminar, Overview of Engineering Principles Related to Injury Prevention (Advanced Engineering Problems), Principles in Occupational Epidemiology, Principles of Management in Health Services Organizations, Risk Assessment and Risk Management, Theory and Practice of Occupational Health Nursing, Topics in Occupational Medicine, Ventilation Control of Occupational Hazards. AMA Category I credit toward the Physician's Recognition Award of the American Medical Association; American Board of Industrial Hygiene for maintenance of Certification Points; Nursing contact hours. *Qualified students may register for graduate credit at the University of Minnesota.*

For further information, contact: Jeanne Ayers, Director, Program in Continuing Education, Midwest Center for Occupational Health and Safety, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; (612) 221-3992.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Research Explorations

(See page 114)

Rhetoric

(202 Haecker: 624-3445)

College of Agriculture

★Rhet 1104 **LIBRARY RESEARCH METHOD.** 1 credit, \$53.25.

On-site and interactive video instruction in information retrieval techniques to strengthen skills in using the library. Students work independently to satisfactorily complete all exercises and problem-solving assignments. Students must attend an initial orientation session. Computer-assisted instruction. **Microcomputer lab card required. Must be taken S-N.** (No prereq. Limited to 30)

Ten wk Sec 1 **W**—5-5:50, CentLib 2, StP Campus, Greg Richardson

★Rhet 1151 **WRITING IN YOUR MAJOR.** 4 credits, \$213.

Students investigate and write about subjects related to their majors. Emphasis on gathering, evaluating, synthesizing, and summarizing information; adapting it for various audiences. Assignments include literature review, abstract, fact sheet, instructions, and feature article. (Prereq 1104 [or College of Natural Resources students only: FR 1104 or ForP 1104 or FW 1104], completion of freshman communication requirement, and sophomore status. Limited to 20)

Ten wk Sec 3 **Th**—6-8:30, HckrH 111, StP Campus

★Rhet 1160 **EFFICIENT COLLEGE READING.** 3 credits, \$5160, \$159.75 plus \$3 course fee. Total \$162.75. (IS)

Factors for successful college reading; application of psycholinguistic and cognitive reading theories; opportunities for developing expertise in reading comprehension and retention, rapid reading, vocabulary power, and communication skills. Not a basic course. A suggested follow-up for LASK 1001, *Becoming a Master Student.* (No prereq. Meets concurrently with 5160. Limited to 30)

Ten wk Sec 3 **T**—6-8:30, FordH 115, Michael Bennett

★Rhet 1222 **PUBLIC SPEAKING.** 4 credits, \$213.

Practical course in fundamentals of effective speechmaking. Emphasis on researching and organizing a speech and communicating with an audience. (Prereq completion of freshman communication requirement. Limited to 18)

Ten wk Sec 5 **Th**—6-9:20, CentLib 4, StP Campus, Michael Bennett

Second 5 wk Sec 6 **TTh**—5-8:20, CentLib 6, StP Campus, Lawrence Smith

★Rhet 3380 **HUMANITIES: THE LITERATURE OF SOCIAL REFLECTION.** 2 credits, \$138.

A brief examination of contemporary social issues as reflected in cultural documents. The uses of imaginative literature as a forum where social questions are discussed, evaluated, and resolved. (No prereq. Limited to 15)

Ten wk Sec 1 **M**—6:20-7:35, HckrH 209, StP Campus,
Linnea Stenson

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★Rhet 3562 WRITING IN YOUR PROFESSION. 4 credits, \$276. (IS)

Projects in writing professional reports. Analyses of audience and situation; writing effectively to meet the needs of particular readers. Assignments include writing instructions, feasibility report, proposal, memorandum, letter of application, and résumé. Sec 4 is computer-assisted instruction; microcomputer lab card required. (Prereq freshman communication requirement, 1151, jr or sr status. Limited to 20)

Ten wk Sec 4 **M**—6-8:30, HckrH 302, StP Campus, Clara Church
(Limit 18)

Ten wk Sec 5 **W**—6-8:30, CentLib 6, StP Campus, Elin Anderson

★Rhet 5160 COLLEGE READING. 4 credits, \$1160, \$276 plus \$3 course fee. Total \$279.

Examination and application of adult reading theories and teaching practices. Observe and participate in Rhetoric 1160 class, and an additional ten hours of seminar meetings. Prepare a research paper and a teaching module for college reading. (Prereq Rhet 1160 or equivalent or #. Meets concurrently with 1160. Qualified students may register for graduate credit at the University of Minnesota. Limited to 10)

Ten wk Sec 3 **T**—6-9:20, FordH 115, Michael Bennett

★Rhet 5572 PROCEDURES AND POLICIES MANUAL. 2 credits, \$138.

Problem analysis, process management, gathering information, writing procedures, verification, constructing the finished manual. (Prereq STC or Tech Comm major, freshman communication requirement, 3562 or grad status or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

First 5 wk Sec 2 **W**—4-7:20, HckrH 209, StP Campus, Richard Ferguson

★Rhet 5573 GRANT PROPOSAL. 3 credits, \$207.

Writing the grant proposal, including establishing credibility, problem statement, program objectives, plan of action, evaluation, budget presentations, and proposal summary. Designed to serve both real and hypothetical situations. (Prereq STC/Tech Comm major, freshman communication requirement, 3562 or grad status, or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

Second 5 wk Sec 1 **TTh**—4-6:30, HckrH 302, StP Campus, Victoria Mikelonis

Scandinavian

(200 Folwell Hall: 625-9887)

College of Liberal Arts

Scan 3602 THE SCANDINAVIAN FAIRY TALE AS LITERATURE. 4 credits, \$221.
(♦\$110.50)

- ◆ Examined in context of German romanticism. Emphasis on H. C. Andersen and 20th-century authors who write in his tradition. (No prereq)

First 5 wk Sec 1 **MW**—6:20-8:50, FolH 148, William Mishler

Scan 3618 SCANDINAVIAN DRAMA, 1870-1940. 4 credits, \$221. (♦\$110.50)

- ◆ Plays viewed in context of modern theatre, with emphasis on different critical methods of interpretation. (No prereq)

First 5 wk Sec 1 **TTh**—6:20-8:50, FolH 340, Göran Stockenström

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Social Work

(400 Ford Hall: 624-5888)

College of Human Ecology

★**SW 1001 INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES.** 5 credits, \$266.25. (IS)

History of American social services; rise of professional social work in response to human need. Social, political, and economic factors influencing public policy and services. Role of social workers with individuals, families, groups, and communities; values and ethics of professional helping role. (No prereq. Limited to 30)

First 5 wk Sec 4 **MW**—6-9:30, FordH 175, David Hollister

★**SW 5010 SEMINAR: SPECIAL TOPICS—ADVANCED TRAINING IN HUMAN SERVICES MANAGEMENT (HSM II).** 3 credits, \$207.

This course will be conducted as three modular units, each focusing upon a specific area of skill development in human services management. The three units will consist of personnel management, use of computers in human services, and resource development (budgeting and grant-writing). The conceptual framework and practical application of each topic will be highlighted. Each unit will be conducted as a weekend workshop. The full course is three credits, or it can be taken in one credit units. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

First 5 wk Sec 3 **F**—6-9, June 21, 28, July 12, McNH 22,
StP Campus; *and*
Sa—9 a.m.-4, June 22, 29, July 13, McNH 22,
StP Campus, Mark Umbreit

★**SW 5010 SEMINAR: SPECIAL TOPICS—FACULTY ROLE: Scholarship, Teaching, and Service.** 3 credits, \$207.

Focuses on issues and skills in faculty roles including teaching, scholarship, and service with emphasis on social work but relevant for other professional educators. The course includes feminist and adult learner perspectives. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Second 5 wk Sec 4 **TTh**—4:15-7, HHCtr 60, Ron Rooney

Sociology

(909 Social Sciences: 624-4300)

College of Liberal Arts

Soc 1001 INTRODUCTION TO SOCIOLOGY. 4 credits, \$213 (♦ \$106.50). (IS)

Introduction to the scientific study of social behavior. Overview of the major theories, methods, concepts, and research findings. Examination of the characteristics of the basic social units (social relations, groups, organizations, institutions, society), their patterns of interrelation, and processes of change. (No prereq)

First 5 wk Sec 10 **TTh**—6-8:30, BlegH 115, David Knoke
Second 5 wk Sec 11 **TTh**—6-8:30, BlegH 215, William Brustein

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Soc 1004 AMERICAN RACE RELATIONS. 4 credits, \$213. (◆\$106.50).

Sociological overview of relations between American racial minorities (Afro-American, Chicano, Native American, Asian) and the dominant majority. Consideration of migration and settlement patterns; community and family life; gender roles; education and labor force participation; inequalities in wealth, status, health, and welfare; discrimination and institutional racism; public policy responses. (No prereq)

First 5 wk Sec 2 **MW**—6-8:30, BlegH 225, Rose Brewer

Soc 3101 (formerly CJS 3101) INTRODUCTION TO AMERICAN CRIMINAL JUSTICE. 4 credits, \$221 (◆\$110.50). (IS)

Philosophical and policy underpinnings of criminal justice in America. (No prereq)

First 5 wk Sec 3 **TTh**—6-8:30, HHHctr 20, Joel Samaha

Soc 3102 INTRODUCTION TO CRIMINAL BEHAVIOR AND SOCIAL CONTROL. 4 credits, \$221. (◆\$110.50)

Basic issues in criminology and the sociology of law and social control organizations. (Prereq 3101 or equivalent)

Second 5 wk Sec 2 **MW**—6-8:30, BlegH 240, David Ward

Soc 3214 UNDERSTANDING EVERYDAY LIFE. 4 credits, \$221 (◆\$110.50).

Behaviors (activities, personal associations), orientations (values, attitudes, beliefs), and personal interpretations of "typical" individuals; their relationship to social characteristics; the effects of transitions—anticipated (e.g., educational/occupational choice, marriage) and unexpected (e.g., unemployment, illness). (Prereq soph, jr, or sr)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 420, Robert Fulton

★Soc 3401 PRINCIPLES OF SOCIAL ORGANIZATION. 5 credits, \$3505, \$276.25.

How and why social organization is possible. Major concepts and theories of social structure; primary forms of social organization (groups, communities, networks, formal organizations), basic social processes (integration, differentiation, regulation, change), and how social organization evolves from individual decision making. Course content varies. (Prereq 1001, 3801 or equivalent. Limited to 40)

Second 5 wk Sec 2 **MW—Lect, Lab**, 6-9, HHHctr 30,
Joseph Galaskiewicz

Soc 3405 INEQUALITY: INTRODUCTION TO STRATIFICATION. 4 credits, \$221. (◆\$110.50).

Inequality—causes, dimensions, and consequences. Inequality in American society—class, gender, and race; cross-national patterns of inequality; relationship between economic and political inequality; role of schools in transmission of inequality; public policies affecting inequality. (Prereq 1001)

First 5 wk Sec 1 **MW**—6-8:30, BlegH 220, William Brustein

Spanish and Portuguese

(34 Folwell Hall: 625-5858)

College of Liberal Arts

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 satis-

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

fied 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, \$213. (IS)

This course is designed solely to impart a basic reading knowledge of the Spanish language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals with only one aspect of the language—reading—great skill can be acquired in a short time. At the end of the one quarter the student may take the equivalent of the Spanish Graduate Reading Examination. The department will certify to the Graduate School a reading knowledge of Spanish upon successful completion of this examination. **Must be taken S-N.** (No prereq)

Second 5 wk Sec 2 MW—6-8:30, FolH 148, Ruth E. Jones

★**Span 1103 BEGINNING SPANISH.** 5 credits, \$266.25. (IS)

Basic listening, speaking, reading and writing skills. Stress on the development of communicative competence. Some cultural readings. (Prereq 1102. Limited to 25)

First 5 wk Sec 20 MW—6-8:50, FolH 104, Hernán Vidal

★**Span 1104 INTERMEDIATE SPANISH.** 5 credits, \$266.25. (IS)

Speaking and comprehension; development of reading and writing skills based on materials from Spain and Spanish America. Grammar review; compositions and oral presentation. (Prereq 1103 or 1205. Limited to 25)

First 5 wk Sec 4 MW—6-8:50, FolH 340, Roberto Reis

Second 5 wk Sec 5 TTh—6-8:50, FolH 214

★**Span 1105 INTERMEDIATE SPANISH.** 5 credits, \$266.25. (IS)

For description, see 1104. (Prereq 1104 or #. Limited to 25)

First 5 wk Sec 4 TTh—6-8:50, FolH 214, Luis Ramos-Garcia

★**Span 1106 INTERMEDIATE SPANISH.** 5 credits, \$266.25.

For description, see Span 1104. (Prereq 1105 or #. Limited to 25)

Second 5 wk Sec 4 MW—6-8:50, FolH 340, Francisco Ocampo

★**Span 3602 THE PICARESQUE WAY OF LIFE IN SPAIN AND EUROPE: LITERATURE AND THE DELINQUENT.** 4 credits, \$221.

Introduces the picaresque novel, concentrates on its Spanish origins (16th century), its zenith (17th century), and its subsequent receptions in Europe and Spanish America. Literary and sociological examinations of picaresque narratives. Explores the direction of the genre in modern times. Taught in English. (No prereq. **May not be used for Spanish or Portuguese major credit.** Limited to 50)

First 5 wk Sec 1 TTh—6-8:30, FolH 104, Anthony N. Zahareas

★**Span 3614 DON QUIJOTE: A STUDY OF LOST ILLUSIONS.** 4 credits, \$221.

An analysis of Cervantes's *Don Quijote* and an examination of its reception from the early 1600s to modern times. A component of the course is *Don Quijote's* reception in Spanish America. Taught in English. (No prereq. **May not be used for Spanish or Portuguese major credit.** Limited to 50)

First 5 wk Sec 2 TTh—6-8:30, FolH 50, Nicholas Spadaccini

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

Quincentennial Summer Program for Teachers of Spanish and King Juan Carlos Fellowships

Summer term (July 2-August 4); graduate-level program designed for U.S. teachers of Spanish. Courses in Spanish culture and society, language development, and the development of materials for classroom use are combined with cultural excursions, providing participants with first-hand experience with modern Spain. Partial fellowships available. Cosponsored by the Global Campus, Department of Extension Classes, Ortega y Gasset Foundation, and Sociedad del Quinto Centenario. (9 semester credits.)
For information: The Global Campus, 106 Nicholson Hall; telephone 626-7138

International Program in Toledo, Spain

Summer term (June 14-July 26, 1991); integrates Spanish language study, liberal arts courses, and field trips with an option of family-stay experience or dormitory living. The program may be used to fulfill language credit requirements at the University of Minnesota. Cosponsored by the Global Campus Department of Extension Classes and Ortega y Gasset Foundation. (9-14 credits.) **For information:** The Global Campus, 106 Nicholson Hall; telephone 625-3379.

Speech-Communication

(317 Folwell Hall: 624-5800)

College of Liberal Arts

★Spch 1101 FUNDAMENTALS OF SPEECH COMMUNICATION: ORAL COMMUNICATION. 4 credits, \$213.

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 22)

First 5 wk Sec 7 MW—6-8:30, FolH 419

First 5 wk Sec 8 TTh—6-8:30, FolH 419

Second 5 wk Sec 9 MW—6-8:30, FolH 419

★Spch 3411 SMALL GROUP COMMUNICATION PROCESSES. 4 credits, \$221.

Cooperative thinking in task-oriented groups. Planning, preparing for, and participating in small groups in private and public contexts. *May require group meetings outside regularly scheduled class hours listed below.* (Prereq 1101 or #. Limited to 22)

Second 5 wk Sec 4 TTh—6-8:30, FolH 419

★Spch 3451 INTERCULTURAL COMMUNICATION: THEORY AND PRACTICE. 4 credits, \$UC 3701, \$221.

Theories of and factors influencing intercultural communication. Development of effective intercultural communication skills. (Prereq planning an intercultural experience. Limited to 20)

First 5 wk Sec 3 MW—6-8:30, FolH 426

★Spch 3452 COMMUNICATION AND THE INTERCULTURAL REENTRY. 4 credits, \$221.

Communication processes during return to home culture after intercultural experience
(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

ence. Focus on communication and understanding impact of intercultural experience as the basis for social change. (Prereq return from an intercultural experience. Limited to 20)

Second 5 wk Sec 1 **MW**—6-8:30, FoIH 426

Statistics

(270a Vincent Hall: 625-8046)

College of Liberal Arts

Stat 3091 INTRODUCTION TO PROBABILITY AND STATISTICS. 4 credits, \$5121, \$5131, \$221.

Elementary probability and probability distributions, sampling and elements of statistical inference. (Prereq differential and integral calculus)

Ten wk Sec 4 **T**—6:15-8:45, AmundH 240

Study Skills

See **Learning and Academic Skills**, page 73. See also page 111.

Textiles and Clothing

(240 McNeal Hall: 624-9700)

College of Human Ecology

Design, Housing, and Apparel

TexC 1643 APPAREL INDUSTRY. 4 credits, \$213.

Structure, operation, and problems of domestic and foreign apparel industries including ready-to-wear, couture, and auxiliary fashion sector. Interrelationships with the textile industry and distributors. (Prereq Econ 1101 or 1002, or AgEc 1030)

First 5 wk Sec 2 **TTh**—6:15-8:45, McNH 316, StP Campus

★**TexC 3604 FLAT PATTERN DESIGN.** 3 credits, \$207.

Principles of flat pattern design; drafting and advance pattern development. (Pre-req soph, 1603, 3662 or Dsgn 1525 or Δ . Limited to 20)

First 5 wk Sec 1 **MW**—6-8:30, McNH 205-216, StP Campus

★**TexC 3643 RETAIL MERCHANDISING.** 5 credits, \$345.

Merchandise selection and controls, sales analysis, model stocks and buying plans. (Prereq 1541, Mktg 3065. Limited to 36)

First 5 wk Sec 1 **MTWThF**—4-6, McNH 180, StP Campus, John Nash

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

TexC 3661 CULTURAL PERSPECTIVES ON DRESS. 3 credits, \$207.

The influence of cultural ideals and standards on dress. How dress evolves in response to society's needs, values, and technology. (Prereq Anth 1102 or Soc 1001)

First 5 wk Sec 1 TTh—6:30-8:45, McNH 316, StP Campus

Vocational Education

(210 Vocational/Technical Building: 624-1221)

College of Education

Vocational and Technical Education

★**VoEd 5770 TRAINING AND DEVELOPMENT: TEAM BUILDING IN BUSINESS AND INDUSTRY.** 1-4 credits. 3 credits this offering, \$198.75.

Developments related to problems; practices; programs, methodologies in training and development. *Focus this offering:* Introduction to the theories and techniques of building effective work teams. Skills development in facilitating team building activities. **Must be taken A-F.** (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

First 5 wk Sec 13 TTh—5:30-8, VoTech R285, StP Campus, Susan Damme

★**VoEd 5770 TRAINING AND DEVELOPMENT: CONSULTING IN BUSINESS AND INDUSTRY.** 1-4 credits. 2 credits this offering, \$132.50.

Developments related to problems; practices; programs; methodologies in training and development. Content will vary with each offering. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

First 5 wk Sec 14 W—5:30-9:30, VoTech R285, StP Campus

★**VoEd 5770 TRAINING AND DEVELOPMENT: QUALITY AND PRODUCTIVITY THEORIES AND PRACTICES.** 1-4 credits. 4 credits this offering, \$265.

Developments related to problems; practices; programs; methodologies in training and development. Content will vary with each offering. **Note:** First night of class is Thursday, July 18. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Second 5 wk Sec 15 WTh—5:30-9:30, VoTech R285, StP Campus,
Gary N. McLean

Women's Studies

(492 Ford Hall: 624-6006)

College of Liberal Arts

(See also Compleat Scholar 0225, Animated Women: Female Characters in Comics, Cartoons, and Animation)

★**WoSt 1102 WOMEN IN WORLD CULTURES.** 4 credits, \$213.

The lives of women in non-Western societies including their economic, political, and social contributions, familial roles, and status in society. (No prereq. Limited to 40)

First 5 wk Sec 2 MW—6:20-8:50, FordH 55, Obioma Nnaemeka

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★**WoSt 3200 WOMEN'S PSYCHOLOGIES.** 4 credits, \$221.

An exploration of feminist and multicultural views, concepts, philosophies, and theories about women's "psychologies." (No prereq. Limited to 40)

Second 5 wk Sec 2 TTh—5:30-8, FordH 285, Patricia Faunce

★**WoSt 3205 (formerly 3301) WOMAN: A SENSE OF IDENTITY.** 4 credits, \$5205, \$221.

Exploration of social and psychological factors which inhibit or enhance a woman's continuously developing sense of identity. Learning who you are, what you want, and how to take appropriate action. Exercises in power, body image, goal setting, and assertion skills in difficult situations. Journal writing, small-group work, and a project are part of the class requirements. (No prereq. No auditors. Students are expected to attend all class sessions. Meets concurrently with 5205. Limited to a combined total of 40)

CEW

Ten wk Sec 7 T-6:20-9:20, AmundH 116, Dorothy Loeffler
Offered through Continuing Education for Women

★**WoSt 5205 WOMAN: A SENSE OF IDENTITY.** 4 credits, \$3205, \$221.

See description for 3205. (No prereq. No auditors. Students are expected to attend all class sessions. Qualified students may register for graduate credit at the University of Minnesota. Meets concurrently with WoSt 3205. Limited to a combined total of 40)

CEW

Ten wk Sec 7 T—6:20-9:20, AmundH 116, Dorothy Loeffler
Offered through Continuing Education for Women

Youth Development and Research (YoSt)

(386 McNeal Hall: 624-3700)

College of Human Ecology (School of Social Work)

★**YoSt 5201 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits, \$276.

Two-hour seminar and 30 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Pre-req Soc 1001, Psy 1001, CPsy 3303, YoSt 3100 and #. **May not be taken for graduate credit.** Limited to 15)

First 5 wk Sec 1 T—10 a.m.-12, McNH 386A, StP Campus,
Mary K. Burnison

★**YoSt 5202 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits, \$276.

Two-hour seminar and 30 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Pre-req #. **May not be taken for graduate credit.** Limited to 15)

First 5 wk Sec 1 T—12-2, McNH 386A, StP Campus,
Mary K. Burnison

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★YoSt 5203 **YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR.** 4 credits,
\$276.

Two-hour seminar and 30 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Pre-req YoSt 5201, YoSt 5202 and #. **May not be taken for graduate credit.** Limited to 15)

Second 5 wk Sec 1 T—10 a.m.-12, McNH 386A, StP Campus,
Mary K. Burnison

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.
Courses and sections in red have limits on enrollment. See page 5.

Noncredit Courses

Credit courses are listed beginning on page 32.

I. The Compleat Scholar (CSch) and Practical Scholar (PSch)

Telephone 624-8880 for information.

The Compleat Scholar and Practical Scholar programs make up a comprehensive curriculum of courses offering University learning without credit. The programs are a combination of introductory-level and advanced courses which introduce participants to topics and disciplines not studied before, and help them investigate in greater depth areas with which they are already familiar.

The Compleat Scholar (CSch) program is a noncredit liberal arts program based on the University curriculum. Its purpose is to give adults an opportunity to continue the pursuit of knowledge beyond their formal education. It is organized into five subject areas: *The Arts; Mind, Self, and Society; Literature; Natural and Physical Sciences; and Writing*. The term "The Compleat Scholar" is borrowed from Isaak Walton, the 17th-century gentleman author of "The Compleat Angler." Here the word is used to mean the educated person of eclectic taste, not an authority, but having a curiosity of mind.

The Practical Scholar (PSch) program uses University resources and expertise to help participants solve problems and learn skills in their personal, academic, and work life. The four subject areas are: *Business and Professional Development; Human Development; Interests and Insights; and University Access*.

CSch and PSch courses are scheduled for one to eleven meetings and offer stimulating and challenging learning in lecture and discussion formats which do not include grades or exams. Anyone may register for a course. There are no admission or entrance requirements; students need only a desire to learn. Registration in specific classes, however, may require prerequisite courses.

See page 96 for CSch offerings and page 104 for PSch offerings.

Continuing Education for Women

Telephone 624-5267 for information.

The University of Minnesota has a long history of involvement in women's education. Continuing Education for Women continues this tradition by offering quality, innovative, and timely programs using University resources. As part of the Compleat Scholar and Practical Scholar curriculum, CEW offers women noncredit courses to meet their needs and interests in an ever-changing society. Noncredit CSch and PSch classes designed around women's needs and interests are identified by a CEW symbol in the left margin next to the course description or section. *Courses begin on page 96.*

Continuing Education for Women also offers credit classes in times, formats, and locations designed to accommodate student needs. Most credit classes meet once a week during the day at off-campus locations. Many credit classes may be taken for no credit. They are indicated in the credit courses section of this Bulletin by a diamond symbol (◆) and price next to the tuition cost. **For information on Continuing Education for Women credit and non-**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

credit classes, call CEW at 624-5267. The following credit courses are being offered through CEW this summer:

Math 1111

Engl 1621

WoSt 3205/5205

College Algebra and Analytic Geometry

Introduction to Women Writers

Woman: A Sense of Identity

See page 96 for CSch offerings and page 104 for PSch offerings.

II. Compleat Scholar Weekends (CSW)

Telephone 624-8880 for information.

Spend uninterrupted time reading a book, discussing a challenging idea, or studying with an expert. **Compleat Scholar Weekends (CSW)** combine the pleasures of learning with a weekend away from it all. Each weekend is led by a University of Minnesota faculty member or expert, is limited in size to allow for small group conversations, and is held at a comfortable retreat center or lodge with recreational facilities to enjoy during your free time.

See page 114 for Compleat Scholar Weekends offerings.

III. University Research Explorations (REX)

Telephone 625-9001 for information.

The Research Explorations program facilitates the participation of volunteers from the general public in field research with University of Minnesota faculty to support important research projects and share in a spirit of discovery.

See page 114 for complete REX information.

THE
COMPLEAT
SCHOLAR



THE
PRACTICAL
SCHOLAR

The Compleat Scholar and Practical Scholar Registration

Unless otherwise noted, registration procedures, dates, and locations are the same as for credit registration. See the When and How to Register section of this Bulletin for details. Late registrations for noncredit classes must be accompanied by a late fee. See page 9. Late registration dates are listed with course descriptions for each noncredit class that does not begin the first week of the term.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Many University credit Extension classes also may be taken for no credit. They are indicated in the Credit Courses section of this Bulletin by a diamond symbol (♦). Credit classes begin on page 32.

Books for The Compleat Scholar and Practical Scholar Courses

In some cases students will be expected to purchase texts for classes. When the purchase of books is advised, those books will usually be available at the Minnesota Book Center in Williamson Hall on the East Bank campus of the University. See bookstore hours on page 26.

Tuition for The Compleat Scholar and Practical Scholar Courses

See course descriptions below for tuition charges.

University employees who wish to take noncredit classes must pay one-half the regular tuition plus fees (if any). Eligible employees are those working at least 75 percent time in an ongoing or temporary appointment; working 100 percent time during the period for which the course is held if on a 9-month or 11-month appointment; and those on maternity or other leaves without pay. Employees on student appointments, family members of University employees, and laid-off employees are not eligible for this reduced tuition plan. When registering, employees must submit a letter from the head of their department verifying employment. For limited enrollment classes, registrations will be accepted starting the second week of mail registration. For nonlimited classes, students may register during the regular registration periods.

Persons 62 and older receive a \$10 discount on all noncredit classes that have a minimum tuition of \$30 (see individual course descriptions for tuition). Participants pay course fees and special fees, if any.

Refunds

The Compleat Scholar/Practical Scholar refund policy follows the Extension Classes policy described on page 29 of this bulletin, except for one- or two-day classes or seminars. Refund requests for one- or two-day classes or seminars must be received in writing or in person at The Compleat Scholar/Practical Scholar office (206 Westbrook Hall) three (3) working days in advance of the class. Registrants who fail to attend or to cancel properly are liable for the entire fee.

Compleat Scholar Summer Course Offerings **The Arts**

★CSch 0117 **WATERCOLOR AT WILDER: PAINT-OUT IN THE WOODS.** No credit, \$40 (age 62, \$30). *Tuition does not include lunch.*

new Draw inspiration from the sights and sounds of Wilder Forest, a meeting and retreat center on 980 acres of forest and lakes about an hour's drive from the Twin Cities. Includes a demonstration of watercolor techniques and individual attention. Bring

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

paint, paper, brushes, and other supplies necessary to paint outdoors. Bring a lunch. (Limited to 20)

Spec Term Sec 1 **Sa**—9 a.m.-4, July 20 (1 meeting),
Wilder Forest, Sun Lodge, 14189 Ostlund Trail North,
Marine on St. Croix, Netz
No late fee through July 12

(Marija Skutans Netz is an award-winning watercolorist whose paintings are in private and corporate collections. She has taught at the University of Minnesota and is a popular workshop leader and guest speaker)

★CSch 0118 **WATERCOLOR: LANDSCAPE PAINTING WORKSHOP.** No credit, \$40 (age 62, \$30). *Tuition does not include lunch.*

Explore traditional and nontraditional watercolor landscape painting techniques on the banks of the Mississippi River. Bring paper, paint, brushes, and other supplies necessary to paint outdoors. Meet at the picnic pavilion in Manomin Park, 6666 East River Road, Fridley. In case of rain meet at Banfill-Locke Center for the Arts adjacent to the park. Bring a lunch. (Limited to 20)

new

Spec Term Sec 1 **W**—9 a.m.-4, June 19 (1 meeting),
Manomin Park, 6666 East River Road, Fridley, Netz
No late fee through June 12

(Marija Skutans Netz is an award-winning watercolorist whose paintings are in private and corporate collections. She has taught at the University of Minnesota and is a popular workshop leader and guest speaker)

★CSch 0127 **USING DRAWING IN EVERYDAY LIFE.** No credit, \$57 (age 62, \$47).

Artists aren't different people—rather, each person is a different artist. Learn simple drawing skills to help develop your artistic ability and awareness. Explore basic shapes to build an appreciation for the natural art all around you, such as the exquisite shape of an eggbeater or the unique effect of sunlight on the desert and the mountains. Learn to use visual expression as a communication tool and to "picture" concepts so that you can better understand and retain information. Intended for beginners. Simple drawing materials (pencil, felt tip pen, newsprint paper) are required purchases. The last class session will be held outdoors. Details will be announced at the first meeting. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 20)

Spec Term Sec 1 **W**—10 a.m.-12, June 12-July 10 (5 meetings),
Woman's Club of Mpls, 410 Oak Grove, Kirkeby
No late fee through June 5

(Kris Kirkeby is a free-lance scientific illustrator. She also teaches natural science drawing to adults and children)

★CSch 0140 **THE LANGUAGE OF FILM: FILM NOIR/DETECTIVE FILMS.** No credit, \$70 (age 62, \$60).

Examine films from the film noir (shadow film) genre. Discuss the political, historical, and artistic significance of grouping certain modes of filmmaking within this category, and also examine the relations between various film noir works. There will be a particular focus on gender representation in the film samplings, assessing its importance in distinguishing differences between noir mystery, melodrama, and biography. Well known films in this genre are: *The Maltese Falcon*, *Smash-up: The Story of a Woman*, and *Strangers on a Train*. (Limited to 25)

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Spec Term Sec 1 T—6-9, June 11-July 2 (4 meetings),
Mpls campus, Lekas
No late fee through June 4

(Michelle Lekas is a doctoral student in Comparative Studies in Discourse and Society at the University of Minnesota. She has done extensive research on cinema history)

★CSch 0141 **PHOTOGRAPHY WORKSHOP I.** No credit, \$38 (age 62, \$28).

new

A beginning-level workshop in landscape and nature photography held in the beautiful Minnesota River Valley. Workshop includes an orientation session for equipment and film review; a half-day field trip on June 15 featuring a five-mile hike to native prairies, oak savannas, wildlife-rich swamps and creeks, and two 1860s stone-built homesteads; and a final session for post-field trip critiques. Covers 35mm camera usage, depth of field, lighting, filters, and exposure. Ample time devoted to individual interests and concerns. (No prerequisite. Limited to 16)

Spec Term Sec 1 T—6:30-8:30, June 11, July 2 (2 meetings plus one field trip), Minnesota Valley National Wildlife Refuge, 4101 E. 80 St., Bloomington, Husom
No late fee through June 4

(David Husom, lecturer in studio arts at the University, has had over 60 fine art photography exhibits throughout the U.S. and Japan. He is also a successful commercial photographer with both local and national clients)

★CSch 0142 **PHOTOGRAPHY WORKSHOP II.** No credit, \$38 (age 62, \$28).

new

An intermediate-to-advanced-level workshop in landscape photography held in the beautiful Minnesota River Valley. Workshop includes an orientation session for equipment and film review; a half-day field trip on June 29 featuring a five-mile hike to native prairies, oak savannas, wildlife-rich swamps and creeks, and two 1860s stone-built homesteads; and a final session for post-field trip critiques. Covers medium and large format photography as well as 35mm camera usage, the black and white zone system, color transparency film exposure, color metering and filters, and fill flash. Ample time will be devoted to individual interests and concerns. (Prerequisite previous experience or coursework in photography. Limited to 16)

Spec Term Sec 1 T—6:30-8:30, June 11, July 16 (2 meetings plus one field trip), Minnesota Valley National Wildlife Refuge, 4101 E. 80 St., Bloomington, Husom
No late fee through June 4

(David Husom, lecturer in studio arts at the University, has had over 60 fine art photography exhibits throughout the U.S. and Japan. He is also a successful commercial photographer with both local and national clients)

★CSch 0148 **RECENT SCULPTURE: MOVING AND OTHERWISE.** No credit, \$53 (age 62 and WAC members, \$43).

new

Sculpture, broadly defined as shapes in space, is the subject of this course held in conjunction with the installation of Walker Art Center's permanent collection and the expansion of the Minneapolis Sculpture Garden. View sculpture fabricated and acquired by Walker during the 1980s. In addition, focus on those urban sculptures which are part of the Minneapolis Sculpture Garden, examining the sort of participation they enlist and the reactions they evoke. (Offered in cooperation with Walker Art Center. Limited to 40)

Spec Term Sec 1 Th—6-8, June 13-July 11 (4 meetings—no class July 4), Walker Art Center, Lecture Room, Vineland Pl., Mpls, Furtak
No late fee through June 6

(Rosemary Furtak, former assistant professor of art history at St. Mary's College, is librarian and gallery lecturer at Walker Art Center)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★CSch 0157 ART COLLECTIONS OF THE GILDED AGE: EUROPEAN ART COMES TO AMERICA. No credit, \$54 (age 62 and MHS members, \$44).

new

Late 19th-century America experienced a booming interest in art. Riding the crest of this wave were wealthy Americans who collected European art in such unprecedented quantity and with such a concern for quality that European experts became alarmed at the loss of their cultural heritage. Acquaint yourself with some of the outstanding collectors, including William T. Walters, Isabella Stewart Gardner, J.P. Morgan, Louisine E. Havermeyer, and Minnesota's James J. Hill. Probe their motivations, their preferences, and their lasting imprint upon the art museums of the United States. Scheduled to coincide with the special loan exhibition "Homecoming: The James J. Hill Art Collection" at the James J. Hill House. (Offered in cooperation with the Minnesota Historical Society. Limited to 25)

Spec Term Sec 1 **M**—10 a.m.-12, June 10-July 1 (4 meetings),
James J. Hill House, 240 Summit Ave., StP, Hancock
No late fee through June 3

(Jane H. Hancock is an independent art historian and guest curator of the exhibit "Homecoming: The James J. Hill Art Collection." She has a Ph.D. in art history from Harvard and is currently a program director in the Department of Independent Study at the University of Minnesota)

★CSch 0158 NORWEGIAN FOLK ART IN THE MIDWEST. No credit, \$40 (age 62, \$30). \$35 for MIA members.

new

A one-day course devoted to immigrant Norwegian folk art of the Upper Midwest. Emphasis is on similarities and differences between this folk art and the material (largely from eastern states) that will be shown in the special exhibition "Treasures of American Folk Art From The Abby Aldrich Rockefeller Folk Art Center" at the Minneapolis Institute of Arts. The morning will include a lecture/discussion on the imported Norwegian folk art tradition in the Midwest plus a tour of the exhibition. Following lunch on your own (12:15-1 p.m.; cafeteria available), there will be two presentations, one on the continued tradition of folk art and the other on the revived tradition. Participants are encouraged to bring their own folk art appropriate to the course. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Complete Scholar will accept registrations. Limited to a combined total of 30)

Spec Term Sec 1 **Sa**—9:30 a.m.-4, June 15 (1 meeting),
Mpls Institute of Arts, Room 305,
2400 3 Ave. S., Nelson
No late fee through June 7

(Marion Nelson is a professor of art history at the University of Minnesota and the director of the Norwegian-American Museum in Decorah, Iowa)

Mind, Self, Society

★CSch 0215 GENDER: DOES IT MAKE A DIFFERENCE? No credit, \$82 (age 62, \$72).

new

Is it possible to talk about gender difference without falling into the stereotypes that perpetuate gender inequality? Explore gender difference through contemporary social commentary, social theory, and several works of literature. Emphasis is on class discussion and critical reflection about personal experiences. Authors include Toni Morrison, Susan Okin, Linda Gordon, and Felice Schwartz (author of the "mommy track" article). (Limited to 25)

Spec Term Sec 1 **T**—6-8, June 11-July 16 (6 meetings),
Mpls campus, Disch
No late fee through June 4
(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

(Lisa Disch is an assistant professor of political science at the University of Minnesota. Her research interests are contemporary democratic theory and feminist politics. She is currently writing a book on the political theory of Hannah Arendt)

★CSch 0225 ANIMATED WOMEN: FEMALE CHARACTERS IN COMICS, CARTOONS, AND ANIMATION. No credit, \$48 (age 62, \$38).

"Some day my prince will come" sings many a female character in animated films, cartoons, and comic strips. But who is this Prince Charming, and do women still await his arrival? If animation reflects cultural ideologies, have women yet escaped the "tower" or "dungeon," the role of princess or lady in waiting? And what of those women whose feet (or faces, races, classes, sexualities) do not fit the "glass slipper"? Discuss these questions through a study of female roles/images in animation. One class meeting each will be devoted to a consideration of nursery rhymes and fairy tales, comic strips, animated cartoons, and feature-length animated film. (Limited to 25)

new

Spec Term Sec 1 T—6-8, June 18-July 9 (4 meetings),
Mpls campus, Olano
No late fee through June 11

(Pamela Olano is a doctoral scholar in English and the Center for Advanced Feminist Studies. She is a student of popular culture and society. Her work investigates the impact of visual images on consumers, the "archaeology" of knowledge related to gender roles, and the cultural unconscious which affects us all)

★CSch 0243 LIBERATION THEOLOGIES AND SOCIAL CHANGE IN NORTH AMERICA. No credit, \$48 (age 62, \$38).

In recent years, many U.S. Christians have embraced a new paradigm for thinking about the meaning and social role of religion. In a number of distinct yet related forms, "liberation theologies" stress the socio-political dimensions of Christian texts, traditions, and institutional practices, and they give a high priority to religious-political practices which seek to transform specific structures of social injustice. Much of the U.S. debate about liberation theologies (especially among middle class Christians) has centered on Latin American liberation theology: the major political concerns have been Latin American poverty and militarism, and the major stress has been on theological issues. After an orientation to these debates, the focus will move to liberation theologies which address issues within North America, especially hierarchies based on race and gender. The class will approach these theologies in cultural and historical terms more than specialized theological ones, trying to understand and evaluate them as a cultural resource within broader movements seeking to transform racism, sexism, and economic injustice in the North American context. (Limited to 30)

new

Spec Term Sec 1 M—6-8, June 10-July 1 (4 meetings),
Mpls campus, Hulsether
No late fee through June 3

(Mark Hulsether is a Ph.D. candidate in American studies at the University of Minnesota, specializing in religion and society in 20th-century America. He holds graduate degrees in theology from Yale and Luther Northwestern Seminary, and has taught courses on those topics at the University and Yale Divinity School)

Literature

★CSch 0403 THE ENDURING POWER OF THE ELECTRA MYTH. No credit, \$72 (age 62, \$62).

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

The powerful story of an unfaithful wife, a tyrannical stepfather, the murder of the first husband by the reckless pair, and the reaction of the children, Orestes and Electra, constitute the plot used in 400 B.C. by the three greatest Greek playwrights: Aeschylus, Sophocles, and Euripides. The psychological and ethical implications of this plot have been recognized ever since, most notably in the 20th century. Hofmanstahl, Giraudoux, T.S. Eliot, O'Neill, and Sartre all wrote plays on this theme. The recent performance of one of these in Romania, full of ancient and modern implications of righting wrongs, committing dastardly deeds in the process, and suffering from the consequences, moved audiences to cheers, jeers, tears, and demonstrations. Read and discuss several of these plays (both ancient and modern) to discover the different treatment authors have given this myth over the centuries. (Limited to 50)

Spec Term Sec 1 **W**—10:15 a.m.-12:15, June 12-July 17 (6 meetings),
Walker Library, 2880 Hennepin Ave. South, Mpls,
Kheim
No late fee through June 5

(Johanna Kheim has taught French and humanities at the University of Minnesota. Her doctoral studies at the University were in comparative literature, with a focus on the 19th- and early 20th-century novel)

★CSch 0406 JAMES JOYCE. No credit, \$86 (age 62, \$76).

The prominent writers of English literature in the 20th century have been Irish—W.B. Yeats in poetry, George Bernard Shaw in drama, and James Joyce in fiction. Focus on the work of Joyce by reading *Dubliners*, *A Portrait of the Artist as a Young Man*, *Ulysses*, and *Finnegans Wake*. Discuss them from a variety of special angles—Christian, symbolist, psychoanalytic, feminist, post-structuralist, and semiotic. (Limited to 30)

Spec Term Sec 1 **M**—10 a.m.-12, June 10-July 15 (6 meetings),
MacP, Anderson
No late fee through June 3

(Chester Anderson is a professor of English at the University of Minnesota. He is the author of James Joyce and His World, and has also written on Yeats, Moore, and other Irish "moderns")

★CSch 0415 WALDEN AT WILDER: THE COMPLETE THOREAU. No credit, \$86 (age 62, \$76). *Tuition does not include lunch.*

An unconventionally organized course devoted to the work of an unconventional writer. This introduction to Henry David Thoreau is appropriately held at Wilder Forest, a retreat center located on 980 acres of rolling hills, native woods, and lakes about an hour's drive from the Twin Cities. The course consists of two day-long sessions in the woodland setting separated by a three-week period during which students have an opportunity to read, reflect, and write, pursuing lines of exploration suggested at the first class meeting. The sessions at Wilder consist of informal lectures and discussions, readings from Thoreau's writings, slide shows, and time for strolls in the surrounding fields and woodlands. Bring a lunch. (Limited to 20)

Spec Term Sec 1 **Sa**—9 a.m.-4, July 6, 27 (2 meetings),
Wilder Forest, Meeting House, 14189 Ostlund Trail North,
Marine on St. Croix, Glick, Dolan
No late fee through June 28

(Wendell Glick, professor emeritus of English, and John M. Dolan, associate professor of philosophy, are Thoreau scholars and coeditors of the Thoreau Quarterly)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Natural and Physical Sciences

- ★CSch 0506 **SUMMER WILDFLOWERS, FERNS, AND SHRUBS OF MINNESOTA.**
No credit, \$96 (age 62, \$86). \$86 for Bell Museum members.

BELL
MUSEUM
COURSE



Minnesota's forests, prairies, savannas, and wetlands bloom throughout the summer with many little-known treasures. Learn to identify the unique and colorful wildflowers, ferns, and shrubs found in these varied habitats of central Minnesota. Evening sessions incorporate lectures and slides with use of in-depth field guides to acquaint participants with the plants seen on three Saturday field trips: **June 15** (half day), **July 20** (half day), and **August 3** (full day); locations of field trips dependent on where plants are in bloom. (**Class tuition does not include any field trip transportation costs; carpooling is encouraged**) (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

Spec Term Sec 1 **Th**—6:30-8:30, June 13, 20, 27, July 11, 18
(5 meetings plus 3 field trips), BellMus 175
(use Auditorium entrance facing Church Street), Burrell
No late fee through June 6

(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has an M.S. in horticulture and is currently a graduate student in landscape architecture)

- ★CSch 0508 **FROM MARSH TO BOG: THE VALUE AND BEAUTY OF WETLANDS.**
No credit, \$86 (age 62, \$76). \$77 for Bell Museum members.

BELL
MUSEUM
COURSE



Wetlands are not wastelands, but places with many important functions and teeming with a life and beauty all their own. Lectures cover wetland classification, typical flora and fauna, hydrology, and values and laws. Visit a cattail marsh, alkaline fen, sphagnum bog, and cedar swamp during two full-day field trips: **July 13** to Wood Lake Nature Center and the Minnesota River Valley, and **July 20** to Cedar Creek Natural History Area. (**Class tuition does not include any field trip transportation costs; carpooling is encouraged**) (Offered in cooperation with the Bell Museum of Natural History. Limited to 20)

Spec Term Sec 1 **M**—7-9, July 1-22 (4 meetings plus 2 field trips),
BellMus 175 (use Auditorium entrance facing Church
Street) (July 22 class held at Minnesota Valley National
Wildlife Refuge, 4101 E. 80 St., Bloomington),
Phillips
No late fee through June 24

(Martha Phillips is a doctoral candidate in ecology, evolution, and behavior at the University of Minnesota. Her research interests are wetland plant community structure and dynamics, and plant adaptations to wetland environments)

- ★CSch 0528 **EXTINCTION OF THE DINOSAURS.** No credit, \$30 (age 62, \$20).

About 70 million years ago, dinosaurs, which had been a dominant presence on the earth for millions of years, suddenly became extinct. How rapidly did this happen? Over a few years? Over a few thousand years? And what caused this mass extinction? Climate change? Volcanic eruptions? Meteor impact? Examine the proposed biotic, terrestrial, and extraterrestrial causes for the extinction of dinosaurs. (Limited to 25)

Spec Term Sec 1 **T**—6:30-8:30, June 18, 25 (2 meetings), PillsH 121, Sloan
No late fee through June 11

(Robert E. Sloan is a professor in the Department of Geology and Geophysics at the University of Minnesota. A member of the department for 36 years, his research interests include the rocks and fossils of southeastern Minnesota and the extinction of dinosaurs in Montana and China)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★CSch 0529 **GRIZZLIES, GEYSERS, AND GURUS: ISSUES OF NATIONAL PARK MANAGEMENT IN YELLOWSTONE.** No credit, \$56 (age 62, \$46). \$49 for Bell Museum members.

new

BELL
MUSEUM
COURSE



Managing a national park is the business of juggling conflicting interests. As the world's original national park, Yellowstone has been the first to deal with these conflicts. Solutions in Yellowstone have set a precedent for park and wilderness area management throughout the world, from the Boundary Waters Canoe Area in Minnesota to the Serengeti National Park in Africa. Examine the issues that park managers, conservationists, and scientists have been wrestling with, including the role of fire, the destinies of bears and wolves, and geothermal development in national parks. Course draws heavily on the history of Yellowstone National Park for examples, but considers each issue on a worldwide scale. (Offered in cooperation with the Bell Museum of Natural History. Limited to 20)

Spec Term Sec 1 **TTh**—6:30-8:30, July 16, 18, 30, August 1, 6
(5 meetings—no class week of July 22), BellMus 175
(use Auditorium entrance facing Church Street), Scheel
No late fee through July 9

(David Scheel is a doctoral student in animal behavior at the University of Minnesota. He spent four summers living in Yellowstone National Park and nearly two years as a research scientist in Serengeti National Park in Tanzania. His research interests include evolutionary game theory and the foraging behavior of social animals such as lions and wolves)

★CSch 0530 **SHARKS: REALITIES AND MYTHS.** No credit, \$44 (age 62, \$34). \$39 for Minnesota Zoo members.

Sharks are perhaps the least understood member of the animal kingdom. For countless years they have inspired fear, fascination, and a daunting array of misconceptions. Dispel the myths and learn the truth about this fascinating marine creature while focusing on the latest research. Examine shark behavior, biology, commercial uses, and looming threats to their survival. Observe closely several species of reef sharks during a behind-the-scenes tour of the Minnesota Zoo's new coral reef exhibit. (Offered in cooperation with the Minnesota Zoo. Limited to 20)

Spec Term Sec 1 **Sa**—9 a.m.-12:30, July 20, 27 (2 meetings),
Minnesota Zoo, 13000 Zoo Blvd., Apple Valley,
Ellis-Joseph
No late fee through July 12

(Dr. Sue Ellis-Joseph is an education specialist at the Minnesota Zoo, with broad experience in marine biology and a special interest in shark and coral reef conservation)

Writing

★CSch 0600 **CREATIVE WRITING I.** No credit, \$79 (age 62, \$69).

Designed to help you find stories, shape them, and make them work on the page. Explore all kinds of narratives, including "true" stories (memoir) and "not so true" stories (fiction). Learn how the boundaries between narratives become, as Alice says, "curiouser and curiouser" by looking at the creative process and techniques of craft. Share writing exercises in a structured, supportive, and relaxed atmosphere. (Limited to 20)

Spec Term Sec 3 **T**—9:30-11:30 a.m., June 11-July 23 (7 meetings),
MacP, Lewis
No late fee through June 4

(Chuck Lewis teaches fiction writing, composition, and literature at the University of Minnesota. He is currently in the Ph.D. program in English. His fiction has appeared in Mpls./St. Paul magazine and City Pages)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

★CSch 0606 REFRESHING YOUR WRITING. No credit, \$69 (age 62, \$59).

For those who want to brush up on their writing skills. Work on your own writing projects while reviewing the following topics: overcoming writer's block, organizing for unity and coherence, and creating focus out of raw material. Individual projects might range from analytical business reports or academic papers to a short story or autobiography. Examine your own writing process to see if modifying it might not make it more enjoyable, more efficient, and more orderly (or less orderly!). (Limited to 20)

Spec Term Sec 1 **M**—6-8, June 10-July 15 (6 meetings),
NCCE 140, Moses
No late fee through June 3

(Joseph Moses has taught courses in basic writing, advanced expository writing, fiction writing, and preprofessional writing for business at the University of Minnesota. He has also worked as a consulting writer of newsletters and procedures in the business community)

★CSch 0639 MAGAZINE WRITING. No credit, \$94 (age 62, \$84).

The rapidly growing world of magazines provides many opportunities for the freelance writer. This practical course helps you get started by treating topics such as how to get article ideas; types of articles; information search strategies; interviewing skills; writing techniques; how to query an editor; writing ethics and etiquette; and manuscript submission. Class format consists of lecture, discussion, and critiques of students' work. (Limited to 30)

Spec Term Sec 2 **Th**—6:30-8:30, June 20-Aug. 15 (8 meetings—no class
July 4), StP Campus, Saetre, Thornton
No late fee through June 13

(Sara Saetre is an M.A. student in journalism and mass communication at the University of Minnesota. She has had feature articles published in Mpls./St. Paul magazine, Minnesota magazine, Wisconsin Trails magazine, and other regional publications. James Thornton has an M.F.A. in English and creative writing and has been a contributing writer for Minnesota Monthly, the Twin Cities Reader, and other regional publications)

★CSch 0642 NONFICTION WRITING FOR PUBLICATION. No credit, \$71 (age 62, \$61).

Develop your writing skills and learn the procedures for selling your work in magazine, newspaper, book, and corporate markets. Designed to meet the specific needs of individual writers. Guest speakers include editors and professional writers of a variety of publications. Receive critiques of your writing in a supportive atmosphere. (Limited to 15)

Spec Term Sec 1 **Th**—3-5, June 13-July 25 (6 meetings—no class
July 4), Walker Library, 2880 Hennepin Ave. South,
Mpls, Vick
No late fee through June 6

(Judith Vick has a master's degree in journalism from the University of Minnesota. She is a market consultant and a published author and editor of newspaper and magazine articles and several books)

Practical Scholar Summer Course Offerings

Business and Professional Development

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★PSch 0702 **CAREER DECISIONS: STRATEGIES FOR CHANGE.** No credit, \$84 plus \$9 special fee. Total \$93 (age 62, \$74 plus \$9 special fee. Total \$83).

Take the first step toward assessing your job, your goals, and yourself in relation to your career. Consider values, job satisfaction, job stress, and person-environment fit as key elements of the decision to stay where you are or to make a change. Explore educational training opportunities by learning ways to explore career alternatives. An opportunity to take the Strong Interest Inventory and the Myers-Briggs Type Indicator, two vocational assessment inventories. (Limited to 30)

Spec Term Sec 6 **M**—6-8, June 24-July 29 (6 meetings),
Walker Library, 2880 Hennepin Ave. South, Mpls, Huck
No late fee through June 17

Spec Term Sec 7 **T**—6-8, July 2-Aug. 13 (6 meetings—no class July 16),
Mpls campus, Krantz
No late fee through June 25

(Barb Krantz is a licensed psychologist and career counselor for CEE Counseling. She specializes in career, personal, and academic counseling for current and prospective students. Christina Huck is a doctoral student in the Counseling and Student Personnel Psychology Program at the University. She has career counseling experience working with University students and other adults, and has taught career planning, educational and career decision-making classes, and job search workshops)

★PSch 0708 **SMALL BUSINESS: WRITING A BUSINESS PLAN.** No credit, \$22 (no discount for persons 62 and older).

Prepare and write a comprehensive business plan for your small business. Focus on defining the goals and unique nature of your business in order to develop and describe its market niche. Tie together the marketing, financial, and other functional area plans so that they relate to and enhance the purpose and unique character of the business. (Limited to 25)

Spec Term Sec 1 **W**—6:15-8:15, June 12 (1 meeting),
NCEE 125, Weber
No late fee through June 5

(Mark Weber is a Ph.D. candidate in the Carlson School of Management at the University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

★PSch 0709 **SMALL BUSINESS: MANAGERIAL CONTROL AND TRACKING PERFORMANCE I.** No credit, \$45 (age 62, \$35).

Designed for small business owners and managers who want to start with the basics and learn to read financial statements. Learn how to work with financial statements using ratio analysis to track performance. Examine the rudiments of cash budgeting, financial forecasting, and basic analytical tools such as depreciation methods, time value of money, measuring return on investment, capital budgeting, costs of capital and capital structure, and decision trees. (Limited to 25)

Spec Term Sec 1 **W**—6:15-8:15, June 19, 26 (2 meetings),
NCEE 125, Weber
No late fee through June 12

(Mark Weber is a Ph.D. candidate in the Carlson School of Management at the University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

★PSch 0710 SMALL BUSINESS: MANAGERIAL CONTROL AND TRACKING PERFORMANCE II. No credit, \$45 (age 62, \$35).

new

For small business owners and managers who want to learn to apply analytical tools to track small business performance and to spot and rectify problems. Topics include working capital policy, cash management, inventory management (including the Economic Order Quantity model), lease vs. buy decisions, markups, the costs of financing current assets, evaluation of alternatives, break even analysis, design of the control process, review of different types of control methods, and problems in establishing effective control systems. (Limited to 25)

Spec Term Sec 1 **M**—6:15-8:15, July 1, 8 (2 meetings),
NCCE 125, Weber
No late fee through June 24

(Mark Weber is a Ph.D. candidate in the Carlson School of Management at the University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

★PSch 0711 SMALL BUSINESS: MOTIVATING AND MANAGING EMPLOYEES. No credit, \$45 (age 62, \$35).

new

Designed for small business owners and managers who want to learn about motivating employees. Focus on alternative approaches to motivation; content, process, and reinforcement theories of motivation; and Maslow's hierarchy of needs. A hands-on exercise in providing feedback to employees is provided. Explore management by objective technique, practice goal setting using the Tapemaster Company example, and discuss the basics of work groups and the group process model as well as key managerial contingencies. An example of group think, the NASA Challenger incident, is included. (Limited to 25)

Spec Term Sec 1 **W**—6:15-8:15, July 17, 24 (2 meetings),
NCCE 125, Weber
No late fee through July 10

(Mark Weber is a Ph.D. candidate in the Carlson School of Management at the University of Minnesota. He teaches courses in introductory management, business policy, and small business management)

★PSch 0713 STARTING A SUCCESSFUL CONSULTING BUSINESS. No credit, \$75 plus \$6 special fee. Total \$81 (age 62, \$65 plus \$6 special fee. Total \$71). Includes lunch.

A practical seminar for people who want to be consultants either part-time or full-time. This program provides an overview of the consulting field, and evaluation of the risks and rewards, and resources to help you get started. Specific topics focus on identifying a market, starting with minimal expense, pricing your services, building a professional image, and avoiding costly mistakes. Resource materials provided. (Limited to 28. Limit is absolute—no instructor permission)

Spec Term Sec 3 **Sa**—9 a.m.-4, June 15 (1 meeting),
EBCEC 156, StP Campus, Moen
No late fee through June 7

(Marilyn Moen, a consultant for 19 years, is owner and director of Moen Training, Minneapolis. She has a network of more than 100 consultants and trainers in the Midwest)

★PSch 0717 CONSULTING: SALES AND MARKETING SKILLS. No credit, \$75 plus \$6 special fee. Total \$81 (age 62, \$65 plus \$6 special fee. Total \$71). Includes lunch.

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

New consultants soon realize that sales and marketing skills make an essential contribution to a successful career. This workshop helps the new or prospective consultant develop key promotional materials, explore free and low cost marketing methods, identify prospects, plan the sales interview, handle questions and concerns, improve sales/persuasion skills, increase the size of contracts, keep current clients, and expand profits. Resource materials provided. Participants are encouraged, although not required, to have participated in Starting a Successful Consulting Business (PSch 0713). (Limited to 28. Limit is absolute—no instructor permission)

Spec Term Sec 3 Sa—9 a.m.-4, July 13 (1 meeting),
EBCEC 156, StP Campus, Moen
No late fee through July 25

(Marilyn Moen, a consultant for 19 years, is owner and director of Moen Training, Minneapolis. She has a network of more than 100 consultants and trainers in the Midwest)

★PSch 0728 **PROFESSIONAL SELLING: BASIC TECHNIQUES.** No credit, \$86 (age 62, \$76).

Designed as an introduction to basic selling skills, this course provides sales people with techniques in presenting themselves, identifying buyers' needs, developing effective questioning and listening skills, performing openings and closings, and handling buyer resistance. The role of the professional in selling is presented as a problem solver who provides a service to the buyer. Class format includes lecture, discussion, and practice of techniques through small groups and role playing. (Limited to 30)

Spec Term Sec 2 W—6-8, July 10-Aug. 7 (5 meetings), Walker Library,
2880 Hennepin Ave. South, Mpls, Mader
No late fee through July 3

(Lynda Galligan Mader is a professional sales consultant specializing in sales training workshops and seminars. She worked for Random House, Inc. for many years as Midwest Sales Manager and Training Director and has been author and co-author of major training manuals for that firm)

★PSch 0734 **SPEAKING AND LISTENING SKILLS FOR THE WORKPLACE.** No credit, \$110 (age 62, \$100).

Efficient and effective communication skills have never been more instrumental to success in business and the professions than they are today. This short course assists you in mastering the fundamentals of persuasive speaking and accurate listening. Brief, substantive lectures are followed by specific-skill practice sessions. Students should purchase *The Four Powers of Communication* (McGraw Hill, \$14.95) at the first class meeting. (Limited to 25)

Spec Term Sec 2 W—6-9, June 19-July 10 (4 meetings),
ClaOff 4, StP Campus, Bennett
No late fee through June 12

(J. Michael Bennett coordinates the College Reading and Public Speaking programs in the Department of Rhetoric at the University of Minnesota. He frequently lectures and conducts seminars across the country in the areas of reading, writing, speaking, and listening)

★PSch 0748 **ASSERTION SKILLS: WOMEN IN THE WORKPLACE.** No credit, \$58 (age 62, \$48).

(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

cew

Relationships in the work setting, such as those with clients, superiors, and subordinates, may complicate the use of assertive behavior. Examine the special considerations in deciding how, when, and where to be assertive in work situations, and how to increase personal effectiveness through verbal and nonverbal behavior. Includes an overview of assertion, methods of identifying the dynamics of a situation, rights and responsibilities of assertive behavior, choices and consequences of behaving assertively, and ways to build an assertive belief system. An opportunity to discuss and role-play situations involving assertion in the workplace. (Limited to 25)

Spec Term Sec 2 **M**—6:15-8:15, June 17-July 8 (4 meetings),
NCCE 229, Flower
No late fee through June 10

(Jill Flower is a counselor with University Counseling Services and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. Her research interests include sex-role stereotyping)

Human Development

★**PSch 0802 ENHANCING SELF-ESTEEM.** No credit, \$51 (age 62, \$41).

Self-esteem is a feeling or image that we have of ourselves that fluctuates over time and across situations. Identify the thoughts, feelings, and behaviors that affect your sense of self and your relationships with others. Learn specific steps for increasing self-acceptance, developing confidence, setting and achieving goals, and overcoming barriers to change through lectures, discussions, and group activities. This course provides tools for building and maintaining a positive self-image, and is designed as an educational experience, not a therapy group. (Limited to 20)

Spec Term Sec 3 **Th**—9:15-11:15 a.m., June 13-July 11 (4 meetings—
no class July 4), MacP, Flower
No late fee through June 6

(Jill Flower is a counselor with University Counseling Services and a doctoral student in the Counseling and Student Personnel Psychology Program at the University of Minnesota. Her research interests include sex-role stereotyping)

PSch 0805 RACEWALKING: AN INTRODUCTION TO WELLNESS. No credit, \$34 (age 62, \$24).

Racewalking, a low-impact aerobic sport suitable for people of all ages, serves as an introduction to the concept of wellness. Learn the importance of physical activity by learning the skill of racewalking. Includes a variety of activities, such as stretching, specific racewalking exercises, interval training on the track, and discussions about shoes and clothing. Designed for people of all levels of expertise, from those who wish to learn this new activity to those who may want to train for competition.

Spec Term Sec 1 **T**—6-8, June 11, 25, July 2 (3 meetings), BFAB 285,
Howell
No late fee through June 4

(Mary Howell, former staff member of the Melpomene Institute for Women's Health Research, is an experienced kinesiology teacher as well as a member of the U.S. National Racewalking Team)

PSch 0808 BUILDING A LEISURE IDENTITY: PERSONAL GROWTH THROUGH PLAY. No credit, \$14 (no discount for persons 62 and older).

new Building a "career identity" is given a high priority by today's society. Developing a
(continued next page)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

"leisure identity" is often ignored or given only minimal attention and energy. The irony is that leisure can provide many of the benefits and the fulfillment that we look for from our jobs. In this workshop, examine both societal and individual outlooks on leisure, find out what prevents you from fully enjoying your leisure, and explore appropriate activities which may provide opportunities for your emotional, physical, intellectual, spiritual, and social growth.

Spec Term Sec 1 **Th**—6-8, June 20 (1 meeting), Mpls campus, Krantz
No late fee through June 13

(Barb Krantz is a licensed psychologist specializing in career counseling for adults at the University of Minnesota. She has special interests and expertise in "leisure counseling," an outgrowth of career/personal counseling emphasizing the role of leisure in promoting life balance and enhancing personal growth)

★**PSch 0810 MANAGING PERSONAL STRESS.** No credit, \$26 (no discount for persons 62 and older).

Look at a simple model that illustrates how individuals process stress in different ways and how a negative cycle can be reversed. Characteristic responses to stress and the underpinnings of self-defeating responses are examined. Several stress management techniques are presented and experienced. (Limited to 30)

Spec Term Sec 2 **W**—6-8, June 12, 19 (2 meetings),
 NCCE 229, Emerson
No late fee through June 5

(Nadine Emerson, licensed psychologist, is a consultant and counselor in private practice specializing in relationship issues, addiction, and personal growth. As a doctoral student at the University of Minnesota, she focused her research on the areas of control and anxiety)

★**PSch 0826 BEING YOURSELF/BEING TOGETHER: SELF-ESTEEM AND INTIMACY.** No credit, \$43 (age 62, \$33).

It is frequently difficult to preserve a healthy sense of self when involved in an intimate relationship. Focus on developing intimacy skills while maintaining a clear sense of identity. These skills include understanding how our internal dialogue affects intimate behavior, and communication skills such as expressing emotions and resolving conflicts. Change strategies, such as learning to set boundaries and developing more positive self-talk, also are explored. Designed as an educational experience, not a therapy group. (Limited to 26)

Spec Term Sec 2 **T**—6-9, June 11, 18 (2 meetings),
 NCCE 125, Colgan
No late fee through June 4

(Philip Colgan is an instructor in the Department of Family Practice and Community Health at the University of Minnesota. He is also a psychotherapist in private practice in Minneapolis)

★**PSch 0832 MANAGING CHILDREN'S BEHAVIOR.** No credit, \$51 (age 62, \$41).

Examine the management and direction of children's daily behavior as well as ways to help children become people who like and value themselves and who can ultimately control themselves in socially acceptable ways. Successful techniques and strategies are presented and demonstrated which can be individualized for your child and situation. (Limited to 25)

Spec Term Sec 1 **T**—6-8, June 18-July 9 (4 meetings), Mpls campus,
 Mooney-McLoone
No late fee through June 11

(continued next page).

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

(Ann Mooney-McLoone is an instructor in early childhood education and child development, and head teacher in the University of Minnesota Laboratory Preschool. She has given presentations at national conferences and parent education workshops, and is involved in ongoing research with the Institute of Child Development)

Interests and Insights

- ★PSch 0851 **INVESTMENTS AND PERSONAL FINANCIAL PLANNING.** No credit, \$52 (age 62, \$42).

Examine fundamental issues of sound financial management planning. Intended for both the novice and experienced investor, this series emphasizes concepts to help you better manage and control your financial future. *First session: Basic Financial Management Process.* Analyze your financial inventory, including personal budgeting and planning, determining goals and objectives for investment, retirement, future expenditures, and cash control procedures. Review basic needs for savings, insurance, and wills. *Second session: Basics of Investments.* Basic features and considerations of investing in money market funds, bonds, preferred stocks, municipal bonds, bond funds, and stocks. *Third session: Putting It All Together.* Integrating your objectives with investment alternatives, basic tax considerations, and structuring an investment portfolio. (Limited to 40)

Spec Term Sec 2 T—6-8:30, June 4-25 (3 meetings—no class June 11), Walker Library, 2880 Hennepin Ave. South, Mpls. Whittlinger
No late fee through May 28

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

- ★PSch 0882 **FRENCH FOR TRAVELERS.** No credit, \$74 (age 62, \$64).

A survival course for those with no previous knowledge of French. It will provide you with the basic French vocabulary necessary for coping with these everyday travel situations: changing money, obtaining train tickets and information, renting hotel rooms, shopping, ordering meals, asking directions, and understanding telephones, post offices, and public transportation systems. Increased knowledge of French and French culture will help you travel more adventurously and more economically. (Limited to 25)

Spec Term Sec 2 T—2-4, June 18-July 23 (6 meetings), Linden Hills Library, 2900 W. 43 St., Mpls, Guderyon
No late fee through June 11

(Susan Guderyon is an advanced graduate student in the Department of French and Italian)

- ★PSch 0888 **THE EXOTIC WORLD OF THE JAPANESE GARDEN.** No credit, \$34 (age 62, \$24). \$31 for Arboretum members.

The intriguing and mysterious air of Japanese gardens is due to their complex nature. Learn about the strong influence of history and philosophy in the development of Japanese gardens plus the natural and man-made materials used to make the various types. Further understanding is cultivated through a slide show and by visiting several of these special gardens in the Twin Cities. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 25)

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Spec Term Sec 1 **T**—9 a.m.-12, June 18, 25 (2 meetings),
Minnesota Landscape Arboretum, Classroom 2,
3675 Arboretum Drive, Chanhassen, Kooyman
No late fee through June 11

(Shirley Mah Kooyman, Director of Volunteers at the Minnesota Landscape Arboretum, is a botanist and master gardener)

★**PSch 0889 ANALYSIS OF FLOWER GARDEN DESIGN.** No credit, \$40 (age 62, \$30).
\$34 for Arboretum members.

Have you ever looked at your home's landscape and thought, "There's something missing?" Learn how to critically view and analyze a garden, with a particular emphasis on the use of flowers to add color. Create an analysis of your own property and get ideas for future improvements. Each session includes lecture and outdoor activities. No previous design experienced required. Bring sketch paper and colored pencils. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 25)

Spec Term Sec 1 **M**—6-9, July 29, Aug. 5 (2 meetings),
Minnesota Landscape Arboretum Learning Center,
3675 Arboretum Drive, Chanhassen, Hanchek
No late fee through July 22

(Anne Hanchek is an assistant professor of horticultural science at the University of Minnesota and an environmental horticulturist for the Minnesota Extension Service. She is responsible for the development and coordination of statewide educational programs in environmental horticulture, specifically the Master Gardener Program)

★**PSch 0897 HERBACEOUS PERENNIAL PLANTS: IDENTIFICATION AND USE IN THE GARDEN.** No credit, \$89 (age 62, \$79).

Herbaceous perennials are a beautiful and versatile group of garden plants. Focus is on identification, cultural requirements, and landscape use of hardy, summer-blooming perennials. Learn about plants and design in the field; each lecture is held at a local public or private garden or nursery, enabling participants to see the many ways that perennials can be used to enhance the home landscape. Class meets twice monthly throughout the summer in order to view the largest possible selection of plants. (Limited to 20)

Spec Term Sec 1 **T**—6-8:30, June 11, 25, July 16, 30, August 13, 20
(6 meetings—first session will meet in NCCE 229), Burrell
No late fee through June 4

(C. Colston Burrell is a landscape designer, consultant, writer, and photographer. He has an M.S. in horticulture and is currently a graduate student in landscape architecture)

University Access

★**PSch 0901 HOW TO PREPARE FOR THE GRADUATE RECORD EXAMINATION (GRE).** No credit, \$61 (age 62, \$51).

Review general test-taking skills and survey the various types of verbal, quantitative, and analytical questions presented on the GRE General Test. In addition to learning test-taking strategies, participants complete test simulation exercises and formulate an individualized study plan. Students need to purchase packet of materials at Kinko's, 306 S.E. 15 Ave., Mpls, prior to the first class meeting. (Limited to 40. Limit is absolute—no instructor permission)

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Spec Term Sec 5 T—6-8:30, Aug. 13-27 (3 meetings),
Mpls campus, Schmit
No late fee through Aug. 6

(David Schmit is an instructor in the Learning and Academic Skills Center at the University of Minnesota. He is a Ph.D. candidate in child psychology)

★PSch 0902 HOW TO PREPARE FOR THE GRADUATE MANAGEMENT ADMISSIONS TEST (GMAT). No credit, \$54 (age 62, \$44).

A demonstration of test-taking strategies for the GMAT. Discussions focus on the directions, materials, and questions presented in the quantitative and verbal sections of the test. Participants use test simulation exercises to develop an individualized study plan. Students need to purchase packet of materials at Kinko's, 306 S.E. 15 Ave., Mpls, prior to the first class meeting. (Limited to 40. Limit is absolute—no instructor permission)

Spec Term Sec 5 TTh—6-8:30, May 28, 30, June 4 (3 meetings),
Mpls campus, Reini-Grandell
No late fee through May 21

(Lynette Reini-Grandell is an instructor in the Learning and Academic Skills Center at the University of Minnesota. She is a Ph.D. candidate in English)

★PSch 0903 HOW TO PREPARE FOR THE PRE-PROFESSIONAL SKILLS TEST (PPST). No credit, \$30 plus \$4 special fee. Total \$34 (age 62, \$20 plus \$4 special fee. Total \$24).

Review the format and content of the PPST's proficiency tests in reading, mathematics, and writing. Workshop sessions provide a description of the content measured in a particular skill area and discuss test-taking strategies for each type of question on the exam. Practice with sample test items provides the basis for developing an individualized study plan. (Limited to 40. Limit is absolute—no instructor permission)

Spec Term Sec 4 TTh—6-7:30, July 9, 11, 16 (3 meetings),
Mpls campus, Reini-Grandell
No late fee through July 2

(Lynette Reini-Grandell is an instructor in the Learning and Academic Skills Center at the University of Minnesota. She is a Ph.D. candidate in English)

★PSch 0915 GRAMMAR REFRESHER. No credit, \$63 (age 62, \$53).

Has it been too many years since you studied subjects, verbs, and all those other forgotten terms? Do you labor over sentences and agonize over paragraphs? This class is designed for people who had a strong background in grammar (however many years ago), but who would now like to review basic skills. It is intended for those considering returning to the classroom, those already in school and having problems with writing, and those who would like a refresher for personal correspondence. Review grammar, punctuation, sentence structure, and common problem areas. Class format includes lecture, exercises, and student participation. Students should plan to spend a few hours each week completing homework assignments. (Limited to 20)

Spec Term Sec 4 F—9-11 a.m., June 7-July 12 (5 meetings—
no class July 5), MacP, DeNoble
No late fee through May 31

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

★PSch 0932 **ELEMENTARY ALGEBRA.** No credit, \$161 (age 62, \$151).

Individualized instruction and group lecture in elementary algebra including signed numbers, solving equations, graphing, factoring, rational expressions, and roots and radicals. Option of taking self-graded quizzes to monitor progress during class. Prepares students for Intermediate Algebra. (Limited to 30)

Spec Term Sec 2 **M**—6-8, June 10-Aug. 19 (11 meetings)
 RarigC 610, Robertson
No late fee through June 3

(Douglas Robertson, a General College associate professor, has worked in the Math Preparation Program since 1977. His research interests are in developmental mathematics education)

Thinking About Going Back to School?

Come to Our FREE Workshop

If you have been thinking about going back to school and don't know where to begin, this informal workshop is for you. Whether you have had some college or none at all, or if you are thinking about exploring a career change, you will find answers to questions about courses, degrees, certificates, financial aid, and other student services. Find out how vocational testing can help you get started.

If you are not confident about how to study, find out what kind of help you need. You'll learn about free tutoring in note taking, outlining, theme writing, reading, grammar, or whatever help you need to complete a course.

The workshop is informal with plenty of time for questions and answers.

The workshop will be held Thursday, August 8, from 6 to 9 p.m. in room 140 of the Nolte Center on the Minneapolis campus of the University. Limited to 50 participants. To add your name to the registration list for this free workshop, just give us a call at:

624-2388

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140. Courses and sections in red have limits on enrollment. See page 5.

noncredit courses

Compleat Scholar Weekends

Spend uninterrupted time reading a book, discussing a challenging idea, or studying with an expert. **Compleat Scholar Weekends (CSW)** combine the pleasures of learning with a weekend away from it all. Each weekend is led by a University of Minnesota faculty member or expert, is limited in size to allow for small group conversations, and is held at a comfortable retreat center or lodge with recreational facilities to enjoy during your free time.

There are no CSW offerings this summer. Tentatively scheduled for 1991-92 are the following:

Current Blessings, Current Grievs: A Weekend of Short Stories

Spring Wildflowers

An Anthropological Approach to Women and Power

And more. Call 624-8880 to request a complete listing.

Research Explorations (REX)

What is the Research Explorations Program?

Research Explorations (REX) offers the opportunity for public participation in field and laboratory projects of University faculty research.

Research projects for 1991 have been scheduled throughout Minnesota, as well as at other U.S. and international sites. Local research projects deal with the environment, natural resources, wildlife and resource management, social and health issues, and other topics. Several REX projects take place overseas: an archaeological dig is scheduled in Germany, a glaciological study is planned in Sweden, and an ecological project is set in England.

REX participants share in the workload of the research team's day. Under the guidance of the project leader and staff, REX volunteers may be asked to hike, boat, climb, dig, or engage in other physical activities. Volunteers also may assist in data collection, observation, photography, sampling, questionnaires, interviews, and coding.

Volunteers enjoy experiential learning while advancing important research and expanding intellectual horizons.

Application Process

Volunteers apply for a project of choice. Applications are screened, and the project leader has final approval. **Persons interested in participating in the REX program should call (612) 625-9001 for registration materials and complete information, as well as for the application form.**

Many REX projects can accommodate only a limited enrollment.

Qualifications for REX Participation

The most important qualifications required of REX participants are commitment, common sense, and adaptability to different situations and cultures.

Many projects require general skills, such as observing, interviewing, and record keeping. Especially for field projects, camping or wilderness experience is also beneficial. Some projects do need more specific skills, such as training in electronics, computers, and photography.

The Contribution

REX volunteers contribute their share of the cost of participating in the project and are responsible for travel expenses. **Because REX participants are contributing money and time to research sponsored by the University of Minnesota, a tax-exempt organization, the amount of your contribution may qualify as a tax-deductible contribution.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

The contribution covers such costs as field and laboratory expenses, compilation of research findings, and program planning, implementation, and administration. Projects have different arrangements regarding accommodations, meals, ground transportation, and clothing and equipment needs, so cost coverage varies.

Volunteer contributions do not cover airfare, costs to and from the assembly site, visas, passports, inoculations, medical or other emergencies, or other personal expenses.

Cancellation and Refunds

Payment of the required initial \$150 deposit is nonrefundable unless the University REX program cancels the research project or the applicant is not accepted as a project participant. The balance of the participant contribution will not be returned if the volunteer withdraws within 30 days prior to the project starting date (unless a replacement can be found). The research project depends on the financial contribution of the participant for advance costs. No returns or replacements can be made once the laboratory or field project has begun.

Orientation

Prior to participation, volunteers receive necessary information regarding project objectives, site conditions, laboratory and field activities and techniques, clothing and equipment needs, and health and entry requirements (for international projects). Direction and learning continue at the research site.

Project Expectations

The project leader is responsible for the involvement of the volunteer in the laboratory/field work of the research project. The project leader and REX staff reserve the right to end participation of any volunteer and require that the person leave the research site if he or she is unwilling to do the work, is unadaptable to the field conditions or to the research team, or does not adhere to University of Minnesota regulations and policies.

In some countries, the research team's presence requires governmental approval. Thus, it is crucial to respect the customs and laws of the host country. Though advance planning is always conducted, sometimes unforeseen situations do arise. Understanding, adaptability, and cooperation are therefore essential for all research participants.

Academic Credit

Academic credit is available for participating in some REX projects. Those interested in earning credit should contact the REX director and the specific project leader regarding requirements. The amount paid toward receiving academic credits may not be deducted as a charitable donation.

REX 0105 THE IMPACT OF SOIL FERTILITY ON CROP PRODUCTIVITY. *Dates:* To be arranged. *Contribution:* \$150.

Vegetable growing is gaining importance in Minnesota, and soil fertility research to expand vegetable and small fruit production is part of this University of Minnesota Extension Service research project. Volunteers should enjoy outdoor and horticultural activities. Project leader is Carl Rosen, associate professor, Department of Soil Science. Location: Soil Science S223, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0106 GEOMORPHIC RELATIONSHIP OF SOILS WITH LAMELLAE ON THE ANOKA SAND PLAIN. *Dates:* To be arranged. *Contribution:* \$150.

The goal of this project is to determine the relationship of soils with lamellae to re-

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

noncredit courses

gional geomorphology and current land use. Soils will be sampled at numerous locations using soil pits and bore hole transects preparatory to laboratory analysis. REX volunteers will assist in this analysis plus describe and take inventory of specific sites. Volunteers must be willing to perform manual labor outdoors and able to take precise measurements. Project leader is Terence H. Cooper, associate professor, Department of Soil Science. Location: Isanti, Anoka, and Sherburne Counties, and the St. Paul campus, University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0112 ON-FARM MANAGEMENT. *Dates:* October 1991. *Contribution:* \$150.

On-farm research experiences at the University or in southeastern Minnesota will concentrate on farm management of calving operations. Pre-calving procedures require close observation of the cows; proper nutrition and adequate housing are essential. Management practices are exceedingly important as profit margins decrease in the cattle industry. Researchers from the University of Minnesota's Department of Animal Science are conducting experiments on controlling time of calving by phase feeding, and they are developing identification record systems for economical beef production. Volunteers will assist in the barn during calving, learning how to handle the new calves and seeing that the mother "owns" her offspring. They will help with identification records on each newborn calf and handle tattooing, dehorning, and other tasks. Project leader is Charles Christians, professor, Department of Animal Science. Location: University of Minnesota Beef Barn, St. Paul campus. Call 625-9001 for registration information and an application form.

REX 0114 EVALUATION OF THE SENSITIVITY OF RICE TO LOW PHOSPHOROUS AND ZINC. *Dates:* Summer 1991; days and hours to be arranged. *Contribution:* \$150.

The goal of this project is to develop new evaluation methods for the Philippines' International Rice Research Institute. Successful results will assist in the development of new rice varieties that can grow on poor soils without fertilizer. REX volunteers will assist faculty and graduate students in plant growth experiments using hydroponics. Volunteers must have some college-level laboratory experience. Project leader is Paul R. Bloom, professor, Department of Soil Sciences. Location: St. Paul campus of the University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0116 EVALUATION OF WILD RICE MINERAL NUTRITION. *Dates:* To be arranged between June 30 and Sept. 15; minimum of two hours per day. *Contribution:* \$150.

Although "wild" rice is now grown by farmers in paddies, little is known about the requirements of the plant for healthy growth. This project's goal is to develop hydroponic methods to evaluate the response of the plant to low amounts of copper, zinc, or phosphorus. REX volunteers will set up and supervise a growth experiment using hydroponic techniques. Volunteers must have college-level credits in biology and chemistry, including laboratory work. Project leader is Paul R. Bloom, professor, Department of Soil Science. Location: St. Paul campus of the University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0121 IMPACT OF AGRICULTURAL CHEMICALS ON GROUNDWATER. *Dates:* Daily work for two to three weeks; weeks to be arranged. *Contribution:* \$150.

REX participants in this project will study the movement of herbicides through soil

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Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

to the groundwater. Working with the project's leader and associate scientist, REX volunteers will take water and soil samples in the field and assist in the analysis of collected samples. Basic laboratory techniques will be taught. Project leader is J. L. Anderson, associate professor, Department of Soil Science. Location: Pesticide Analytical Lab, Soil Sciences Building, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0128 THE ROLE OF LIGHT IN PLANT SHOOT WEIGHT/DENSITY RELATIONSHIP. *Dates:* Two weeks in August to be arranged. *Contribution:* \$150.

Despite differences in the tissues of various plants, there is a simple relationship between the number of plants growing in a specific area and their combined weight. This relationship exists among plants as different from one another as mosses and trees. Eville Gorham is exploring the role of light on this relationship. REX volunteers will harvest, count, measure height, and weigh shoots sampled in pure stands of native plants and weeds. Volunteers will also take light measurements and plot relationships graphically. All techniques will be taught on site. Project leader is Eville Gorham, regents' professor, Department of Ecology, Evolution, and Behavior. Location: Twin Cities area. **Call 625-9001 for registration information and an application form.**

REX 0129 ISOLATION AND PURIFICATION OF CHICKEN ANTIBODIES. *Dates:* Project leader seeking minimum four-week commitment, part-time hours; to be arranged. *Contribution:* \$150.

The goal of this project is to isolate and purify tubulin antibodies from chicken eggs so that they can be used in studies of how plants use different forms of tubulin during development. The object is to get the chicken antibodies into a form that is useful for microscopy and biochemical assays. REX volunteers will precipitate and affinity-purify antibody proteins from egg yolks using standard lab procedures. Volunteers must have knowledge of elementary chemistry. Project leader is Sue Wick, associate professor, Department of Plant Biology. Location: St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0130 STRESS EFFECTS ON LIVING PLANT CELLS. *Dates:* To be arranged. *Contribution:* \$150.

A study of varietal differences in plant cell membrane qualities based on resistance to water and salt stress. Seedlings exposed to these stresses will be evaluated through the light microscope. Volunteers should have laboratory and microscopy experience. Project leader is Eduard Stadelmann, professor, Department of Horticultural Science. Location: Alderman Hall, 228, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0131 CLINICAL VETERINARY MICROBIOLOGY. *Dates:* To be arranged. *Contribution:* \$150.

This study seeks the assistance of active or retired professional veterinarians in the use of clinical microbiology to define the etiology and select the therapy of animal diseases. Selected veterinarians participate in a one- to two-week training period, then conduct studies in their own clinics for three to twelve months. Participants will gain improved diagnostic and therapeutic skills, and many will have the opportunity to publish or present results. Project leader is Gilbert Ward, professor, Department of Veterinary Pathobiology. Location: Veterinary Science Building 3000-C, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

noncredit courses

REX 0133 QUANTITATIVE GENETICS OF THE FRUIT FLY. *Dates:* Approximately eight hours per week—day or evening hours—for one academic quarter; to be arranged. *Contribution:* \$150.

Quantitative genetics studies evolutionary changes in organisms. Typical research involves selecting extreme individuals from each generation as parents of the next, and studying how various conditions affect evolution of different characteristics. Because generation time is two weeks or less, the ideal organism of study is the fruit fly. Extremely fast, accurate, state-of-the-art equipment has been invented to measure many subjects. One system projects live flies onto a screen so that many points can be recorded directly into a computer for analysis. Another system measures the flying speed of many thousands of flies in a wind tunnel. Still other equipment measures resistance to gases such as ethanol vapor or carbon dioxide. (Flies recover well from these various processes.) Volunteers with an interest in biology or entomology who possess reasonable dexterity may enjoy this interesting research project. Project leader is Kenneth Weber, post-doctoral assistant, Department of Ecology, Evolution, and Behavior. Location: Zoology 18, Minneapolis campus, University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0134 GLACIOLOGICAL STUDIES IN SWEDEN. *Dates:* Summer 1991; to be arranged. **If the University or the project leader determines that unacceptable risks exist due to international conditions, this project will be canceled.** *Contribution:* Costs will not be determined until dates are set, but participant may have to pay part of accommodations and meals, and will have to pay total airfare to and from Sweden.

Glaciological studies in northern Sweden will continue to focus on subglacial water drainage which is resulting in diurnal variations in water pressure. Water tracing experiments and measurements of surface tilt, strain, velocity, and internal deformation will help scientists understand the response of glaciers to variations in water pressure, and the effect of these variations on glacial erosion. A volunteer may be needed to operate and maintain the hot water drill used in this research. In addition, there may be a need for a volunteer with computer and electronic abilities to assist with data collection and monitoring. Project leader is Roger Hooke, professor, Department of Geology and Geophysics. Location: Stockholm, Sweden, or field station in northern Sweden. Call 625-9001 for registration information and an application form.

REX 0140 PHYSIOLOGY AND ECOLOGY OF FIELD CROPS. *Dates:* Part-time hours for four to six weeks; to be arranged. *Contribution:* \$150.

REX volunteers will assist in research design of crops for more efficient growth strategies. Specific studies consider the role of light in modifying tillering habits in small grains and the factors that influence crop competitiveness with weeds. Volunteers will assist project personnel and develop case studies or other exercises. Volunteers should possess an interest in plant and/or agricultural biology, and in case study pedagogy. Project leader is Steve R. Simmons, professor, Department of Agronomy and Plant Genetics. Location: Borlaug Hall, St. Paul campus, University of Minnesota, and various field sites. Call 625-9001 for registration information and an application form.

REX 0141 ECOLOGICAL STUDIES OF BIODIVERSITY IN ENGLAND. *Dates:* May 27-June 7, 1991. **If the University or the project leader determines that unacceptable risks exist due to international conditions, this project will be canceled.** *Contribution:* To be determined. Participants must pay airfare.

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The Park Grass Plots in Rothamsted, England, were begun in 1856 and are the oldest ecological experiment in the world. These experiments, which have not been sampled in two decades, may hold significant clues to the forces that allow numerous species to coexist in nature. Conservation of the rapidly dwindling biological diversity of the earth requires major increases in our knowledge of the causes of biodiversity. This work can help provide this information. REX volunteers will assist with sampling and identifying plants and insects, and with sampling soils. Volunteers must be detail oriented, patient, and willing to learn; specific training will be provided. Project leader is G. David Tilman, professor, Department of Ecology, Evolution, and Behavior. Location: Rothamsted Experimental Station, Harpenden, England. **Call 625-9001 for registration information and an application form.**

REX 0150 INSECT POLLINATION IN PRAIRIES. *Dates:* Five days a week for two or more weeks; to be arranged. *Contribution:* \$150.

REX volunteers will compare insect populations in two types of prairies, virgin prairies and planted restoration prairies. The purpose of this study will be to determine if plants in the restored prairie areas are being adequately pollinated. REX volunteers will observe and, in some cases, collect insects as they pollinate flowers; volunteers will also record numbers of plants and their insect visitors. Volunteers must be comfortable working with insects and able to tolerate normal summer weather. Project leader is Catherine Reed, research associate, Department of Entomology. Location: Nature preserves in the Twin Cities area. **Call 625-9001 for registration information and an application form.**

REX 0160 SEARCH FOR A NONLETHAL CONTROL FOR AVIAN PESTS IN GRAIN CROPS. *Dates:* Part-time hours for one week to two months; to be arranged. *Contribution:* \$150.

In an attempt to reduce or eliminate grain damage from house sparrows, lab and field experiments are being conducted to determine the comparative effectiveness of both chemical and mechanical repellents. REX volunteers will collect and analyze data from field and/or lab experiments and write reports on results. Volunteers may be asked to assist in designing additional experiments. Volunteers must have a keen interest in animal damage control, the ability to work with wild animals, good hand-eye coordination, and sensitivity to public inquiry. Project leader is James R. Kitts, associate professor, Department of Fisheries and Wildlife. Location: St. Paul campus, University of Minnesota; possibly other out-state research stations. **Call 625-9001 for registration information and an application form.**

REX 0209 KELHEIM—ORIGINS OF A CELTIC IRON AGE CITY. *Dates:* July 22-August 10, 1991; volunteers may participate for one, two, or three weeks. **If the University or the project leader determines that unacceptable risks exist due to international conditions, this project will be canceled.** *Contribution:* To be determined. Participants pay airfare and modest room and board.

In late July and early August 1991, a team of students and volunteers will work with Professor Peter S. Wells at the Late Iron Age urban site of Kelheim in Bavaria, Germany. Volunteers will assist in mapping areas to be excavated, excavating portions of the prehistoric settlement, and processing the archaeological finds in the field laboratory at the local museum. Previous excavations unearthed house floors and storage pits yielding large quantities of Iron Age pottery, wall plaster from buildings, iron tools, bronze ornaments, glass jewelry, and Celtic coins, all dating between 150 and 50 B.C. Project leader is Peter S. Wells, director, Center for Ancient Studies, and professor, Department of Anthropology. Location: Kelheim, Bavaria, Germany. **Call 625-9001 for registration information and an application form.**

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- REX 0210 TEL DOR: A JOURNEY TO ISRAEL'S ANCIENT PAST.** *Dates:* July 1-12, 1991. **If the University or the project leader determines that unacceptable risks exist due to international conditions, this project will be canceled.** *Contribution:* To be determined. Participants pay airfare and modest room and board.

Continuing the work begun in cooperation with the Art History Department at the University of California, Berkeley, REX volunteers will travel to Tel Dor, Israel, to work on an excavation project. During the 1990s, Minnesota plans to open a new square of several sections. Universities from all over the world, led by Hebrew University of Jerusalem, are exploring this tel on the Carmel coast of Israel. Excavations, begun in 1908, have already revealed a complete sequence of structures from the Iron Age, Persian, and Hellenistic periods. REX volunteers will aid in site excavation and the recovering and processing of artifacts. Volunteers must have the capacity to do physical labor and tolerate intense heat. Project leader is Philip Sellow, assistant professor, Department of Classical and Near Eastern Studies. Location: Tel Dor, Israel. **Call 625-9001 for registration information and an application form.**

- REX 0229 PREHISTORIC CERAMICS IN MINNESOTA.** *Dates:* To be arranged. *Contribution:* \$150.

This study focuses on prehistoric artifacts recovered in Minnesota. REX volunteers are needed to assist in identification, sorting, and recording information regarding these prehistoric ceramics. Project leader is Guy E. Gibbon, associate professor, Department of Anthropology. Location: Archaeology lab, Ford Hall, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

- REX 0232 UNIVERSITY DISPUTES AND THEIR POLITICAL IMPLICATIONS.** *Dates:* To be arranged. *Contribution:* \$150.

This project will chronicle recent university controversies covered by the press. The study will concentrate specifically on identifying those disputes which involve politicians taking public positions on the issues. A comprehensive evaluation of the controversies will be made to assess any effect the disputes have on public opinion and institutional autonomy. Generalized conclusions could also suggest important lessons learned by college administrators. The REX volunteer will research major metropolitan newspaper indexes, identify relevant articles, contact university archivists for relevant documents and materials, and organize the material for study and evaluation. Volunteers will meet weekly with project leader Robert Hanle, director of development, University of Minnesota Foundation. Location: Morrill Hall 120, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

- REX 0234 MISSIONARIES AND THE CONQUEST OF HONDURAN INDIANS.** *Dates:* To be arranged. *Contribution:* \$150.

Permanent mission stations, intended to "civilize" the Indians, were established in Honduras as early as 1545. Local and regional archives have produced a large collection of copies of 16th- and 17th-century documents relating to these Central American missions. Assistance is needed to translate and transcribe these Spanish documents about early colonial life of the Honduran Indians and the Mercedarian Order mission system. Volunteers must be fluent in Spanish. Academic credit may be available through directed study. Project leader is John Weeks, professor, Humanities and Social Sciences Libraries, and adjunct faculty, departments of anthropology and Latin American studies. Location: Wilson Library 5, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

- REX 0238 WOMEN AND CHILDREN AT RISK: A STUDY OF PARENTAL LEAVE POLICY.** *Dates:* 120 hours over three months; some evening and weekend work may be required; to be arranged. *Contribution:* \$150.

The purpose of this study is to predict the factors that determine the time off work a woman takes in association with childbirth, highlighting the experience for vulnerable families (e.g., low income, single parent status, health problems of the mother or infants). The theoretical model relates the dependent variable—women's time off work—to the independent variables, including: her parental leave policies; the woman and infant's health, personal, and family characteristics; family income; maternal social support; and characteristics of the woman's job. REX volunteers will screen prospective study subjects, conduct structured phone interviews, code subjects' responses, and represent the research project in the community. Volunteers must have good communication skills and be comfortable on the telephone. Project leader is Pat McGovern, instructor, Division of Environmental and Occupational Health, School of Public Health. Location: Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

- REX 0239 ECONOMIC CONSEQUENCES OF DIVORCE IN MINNESOTA.** *Dates:* To be arranged. *Contribution:* \$150.

This longitudinal study gathers information on financial settlements at divorce and the resulting social and economic consequences for men, women, and children two and four years later. Findings will be provided to the Minnesota Supreme Court Gender Fairness Task Force and the Minnesota Department of Human Services for use in revising child support guidelines. Volunteers will learn about divorce, the role of research in public policy development, and the educational needs of lay persons. REX volunteers will listen to audio tapes of telephone interviews, keyboard data into a computer, and meet weekly with project leader, Kathryn Rettig, associate professor, Department of Family Social Science. Location: McNeal Hall 186, St. Paul campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

- REX 0240 MALLARD: THE ANTHROPOLOGY OF A LOGGING BOOM TOWN.** *Dates:* July 18-Aug. 14, 1991. *Contribution:* \$150 plus modest room and board.

Reconstruct the ghost town of Mallard, an early 20th-century logging boom town north of Itasca State Park, using anthropological field techniques. The period to be studied is 1900-1910, although the larger period of 1880-1920 will be studied more generally to establish a framework for analysis. REX volunteers will examine standing structures (such as houses and barns) as well as old photographs; public records (census, birth, death, property, police, etc.); period artifacts (ceramics, nails, bottles); tombstones (for evidence of ethnicity, style changes); and cultural landscapes. Volunteers will also interview older people in the area. Project leader is Guy E. Gibbon, associate professor, Department of Anthropology. Location: Mallard, Minnesota, and the University of Minnesota Biological Research Center at Itasca State Park. **Call 625-9001 for registration information and an application form.**

- REX 0241 CULTURAL DIVERSITY IN THE WORKPLACE.** *Dates:* To be arranged. *Contribution:* \$150.

How are local and national organizations assessing their future needs in relation to cultural diversity? REX volunteers will assist in gathering pertinent information. Good communication and library research skills are required. Project leader is Rosita Albert, associate professor, Department of Speech-Communication. Location: various sites. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

noncredit courses

REX 0301 NUTRITION AND ORAL HEALTH OF THE ELDERLY. *Dates:* To be arranged. *Contribution:* \$150.

Although nutrition in older adults is a known factor in overall health care, little attention has been given to oral health of the elderly. By interviewing nursing home residents and working with nurses, nutritionists, medical records, and other sources, researchers gather data to understand the connection between good nutrition and good oral health. This understanding will lead to educational programs and materials. Volunteers will assist in collecting, recording, and synthesizing data from interviews and lab tests. Project leader is Dr. Nelson Rhodus, research professor, Division of Oral Diagnosis and Radiology. Location: Moos Tower 7-536, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0302 SENIOR TREATMENT AND REHABILITATION. *Dates:* Four hours a week for 18 or more weeks; to be arranged. *Contribution:* \$150.

Many of the medical conditions that drive elderly people into medical institutions are reversible. This study hopes to find out how such reversals can be accomplished. An elderly population will be screened for serious yet reversible problems; half of those selected for this study will be treated, with their outcomes then compared to those of a control group. REX volunteers interview patients about their abilities, organize clinical information about the subjects, make entries in a computer data base, and/or assist in the routines of the office. Volunteers must be comfortable working with elderly people, in medical offices, and on computers. Project leader is Chad Boulk, M.D., assistant professor, Department of Family Practice and Community Health. Location: University of Minnesota and/or various medical offices. **Call 625-9001 for registration information and an application form.**

REX 0323 PREDICTING DIABETES. *Dates:* To be arranged. *Contribution:* \$150.

Juvenile, or Type I, diabetes is a disease afflicting children with multiple life-threatening problems for the rest of their lives. This project attempts to uncover latent damage in children which later would lead to overt and irreversible diabetes. Once prediabetic children have been identified, researchers hope to reverse or stop this latent, ongoing damage, and prevent the onset of diabetes through new treatments becoming available. Volunteers will contact and interview families with diabetic and prediabetic children; they also will help tabulate and input data into the project's computer data base. A medical, nursing, or public health background is preferred, but not required; volunteers should possess effective communication skills. Project leader is Dr. Jose Barbosa, professor, Department of Internal Medicine. Location: Phillips-Wangensteen Building 6-150, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0324 ALCOHOL AND DEGENERATIVE DISEASES. *Dates:* To be arranged. *Contribution:* \$150.

Alcohol consumption may have a role in the etiology and/or prognosis of various degenerative diseases such as coronary heart disease. The purpose of this study is to develop lab tests for quantification of long-term alcohol consumption. Research volunteers may be involved in lab work using computer software of protein analysis; they may also input crucial data into a computer data bank. Volunteers should have some familiarity with basic laboratory equipment and procedures. Project leader is Dr. Myron Gross, research associate, Division of Epidemiology. Location: 1-144 Health Sciences Unit A, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

REX 0327 EVALUATING THE EFFECTIVENESS OF OB/GYN INSTRUCTIONAL SITES. *Dates:* To be arranged. *Contribution:* \$150.

Project leaders are seeking the assistance of a research volunteer to evaluate the teaching behavior of residents and physicians, and to analyze the effectiveness of various obstetrics and gynecological instructional sites. Activities will include observing medical students and physicians in their work, and the reading and coding of evaluation and assessment instruments. Volunteers should exhibit attention to detail and the ability to synthesize information from written texts. Some experience in program evaluation is preferred, whether from a business or educational perspective, and basic computer knowledge also is recommended. Medical background is unnecessary. Project leaders are Benjamin Bornsztein, director of Medical Education, Department of Obstetrics and Gynecology; and Dr. Virginia Lupo, assistant professor, Department of Obstetrics and Gynecology. Location: Moos Tower 12-182, Minneapolis campus, University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0328 TREATMENT INFORMATION FOR MENTAL HEALTH AND BEHAVIOR PROBLEMS IN PERSONS WITH MENTAL RETARDATION. *Dates:* One to two days or evenings per week for ten weeks; weeks to be arranged. *Contribution:* \$150.

This project will survey published research about treatment of both behavior and mental health problems in persons with mental retardation. The goal is to produce a data base that will serve as a model for a nationally accessible information service. Volunteers will locate and abstract pertinent information from all published research between 1985 and 1991 and enter it into the data base. Volunteers must be able to read English-language research reports and to keep accurate records. Computer skills and knowledge about mental retardation and psychological and medical interventions are desirable, but not required. Project leader is Bruce Bakke, research fellow, Institute for Disabilities Studies. Location: Institute for Disabilities Studies, 2221 University Ave. S.E., #145, Minneapolis. University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0329 CHRONOBIOLOGICAL BLOOD PRESSURE MONITORING. *Dates:* To be arranged. *Contribution:* \$150.

REX participants will recruit volunteers to obtain reference standards on blood pressure variation during a 48-hour span, and teach them how to use the measurement instrumentation. REX participants could also analyze their own chronobiological data. Project leaders are Germaine Cornelissen, research associate, and Dr. Franz Halberg, professor, Department of Laboratory Medicine and Pathology. Location: Lyon Laboratory 5-183, Minneapolis campus, University of Minnesota. Call 625-9001 for registration information and an application form.

REX 0330 DIAGNOSIS AND TREATMENT OF GENETIC DISEASES. *Dates:* Two to four hours a day, one or two days a week; weeks to be arranged. *Contribution:* \$150.

By being involved in laboratory research and/or database analysis, REX volunteers will learn about human genetic diseases, current treatments, and newborn screening. In addition to attending weekly laboratory meetings, the REX participant will be active in one of several ongoing projects, including: a newborn screening program to diagnose affected infants; preparation and analysis of an interactive research newsletter; and biochemical and/or molecular genetic tests of diseases being studied for experimental gene therapy treatment. Project leader is Dr. Chester B. Whitley, assistant professor, Department of Pediatrics and the Institute of Human Genetics. Location: Moos Tower 4-140 and Phillips-Wangensteen Building 13-123, Minneapolis campus, University of Minnesota. Call 625-9001 for registration information and an application form.

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

noncredit courses

REX 0332 MOLECULAR BASIS OF STREPTOCOCCAL VIRULENCE. *Dates:* Approximately 15 hours per week for three or more weeks; weeks to be arranged. *Contribution:* \$150.

This project studies the biochemical determinants of streptococcal pathogenesis: what genes and their products assist these bacteria in their capacity to infect the human throat? REX volunteers can be involved in activities that correspond to their level of skill. Possible work includes measuring human immunological response to streptococcal infection, and comparing the capacity of genetic variants of streptococci to colonize mice. Applicants must know sterile techniques as well as how to make chemical solutions; some training will be provided. Project leader is P. Patrick Cleary, professor, Department of Microbiology. Location: Mayo Memorial Hospital 935, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0333 POST-CORONARY ARTERY BYPASS GRAFT STUDIES. *Dates:* Minimum of two weeks; to be arranged. *Contribution:* \$150.

This large five-site, National Institutes of Health-funded study evaluates factors contributing to recovery after coronary artery bypass graft (CABG) surgery. Patients are interviewed before surgery and after surgery, first at six weeks, then six months, and annually for five years. From this study, knowledge and understanding of the process of recovery from CABG will increase so that the care and quality of life of future patients may be improved. REX volunteers will do such things as conduct telephone interviews and record medical events and returned questionnaires. In-person subject contact is optional. Volunteers must possess good communication skills. Project leader is Ruth Lindquist, assistant professor, School of Nursing. Location: Minneapolis Heart Institute and the University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0334 THE INFLUENCE OF ALUMINUM UPON EMBRYONIC BONE DEVELOPMENT. *Dates:* Project leader seeking minimum of two-month commitment (eight hours per week); to be arranged. *Contribution:* \$150.

Elevated levels of aluminum have been associated with osteomalacia, a serious bone disorder. The mode of action of aluminum toxicity in the expression of osteomalacia is not well understood. This project will examine the influence of aluminum salts on local versus systemic factors which are known to be important in embryonic bone development, using the chick embryo as the experimental model. REX volunteers will do animal culture and dissection, solution preparation, histochemical preparation of skeletal tissue for microscopic study, light photomicroscopy, basic statistical analysis of data, and possibly simple biochemical determinations. Volunteers must have two years of biological sciences course work completed plus basic knowledge of organic and inorganic chemistry. Project leader is Conrad E. Firling, professor, Department of Biology, University of Minnesota, Duluth. Location: University of Minnesota, Duluth. **Call 625-9001 for registration information and an application form.**

REX 0335 QUALITY ASSURANCE/PATIENT SAFETY MONITORING. *Dates:* To be arranged. *Contribution:* \$150.

This study seeks to assess and follow-up on a variety of surgical patient parameters (e.g., pulse oximetry, vitals, complications intra- and post-operatively) in order to improve quality of care and patient safety. Because REX volunteers will collect data and perform statistical analysis of quality assurance parameters, experience using statistics is required. Project leader is Shep Cohen, M.D., assistant professor, Department of Anesthesiology. Location: Minneapolis V.A. Medical Center. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

REX 0336 ROLE OF MODIFIED LOW DENSITY LIPOPROTEIN CHOLESTEROL IN CORONARY ARTERY DISEASE. *Dates:* To be arranged; project leader seeking a six-month commitment. *Contribution:* \$150.

Improved detection and prevention of coronary artery disease (CAD) among the general population is the goal of this project. The research seeks to develop specific methods to measure modified forms of LDL cholesterol in the blood and to compare levels of modified LDL cholesterol in individuals who have different degrees of CAD. REX volunteers will perform hands-on laboratory analyses under the direction of the project leader; they will develop and test specific methods for measuring modified forms of LDL cholesterol. REX volunteers must have some course work completed in the biological sciences, including laboratory experience. Project leader is John D. Belcher, assistant professor, Division of Epidemiology. Location: Moos Tower 1-133, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0337 DETERMINATION OF INCOMPETENCY. *Dates:* Project leader seeking a six-month commitment; to be arranged. *Contribution:* \$150.

This project seeks to determine the criteria and events surrounding decision making when an elderly person can no longer care for his or her person and possessions. Depending on the phase of the study and the skills of the volunteers, REX participants may extract data from court records, telephone guardians to explain the study, recruit volunteers from care-giver groups, enter data, write reports, or perform statistical analysis. Project leader is Mary Weinensee, assistant professor, School of Nursing. Location: 6-101 Health Sciences Unit F, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0340 ISOLATION OF THE ANTIVIRAL AGENT IN WALDSTEINIA FRAGARIOIDES. *Dates:* Project leader seeking a minimum six-week commitment; to be arranged. *Contribution:* \$150.

Waldsteinia fragarioides (the barren strawberry plant from northern Wisconsin) has been shown to contain a substance(s) with potent antiviral (anti-HIV) activity *in vitro*. The goal of this project is to isolate sufficient amounts of the agent in pure form to determine the chemical structure, using activity against herpes simplex I to guide purification. REX volunteers will collect the plant in northern Wisconsin and interview local Native American medicine men to learn how they use the plant. Volunteers will also assist in extracting and purifying the antiviral agent in the laboratory, guided by assaying anti-herpes activity in cultured Vero monkey cells. Volunteers must have basic laboratory skills; other specific techniques will be taught. Project leader is W. T. Shier, professor, Department of Medicinal Chemistry. Location: Minneapolis campus, University of Minnesota, and northern Wisconsin. **Call 625-9001 for registration information and an application form.**

REX 0341 EXTRACTION OF SINGLE CELL PROTEIN FROM WASTE MATERIALS. *Dates:* Project leader seeking a minimum six-week commitment; to be arranged. *Contribution:* \$150.

Protein-deficient malnutrition underlies the major causes of death in developing countries. This project seeks to develop alternative sources of protein for human or animal feed by developing methods for the efficient extraction of single cell (microbial) protein produced by fermentation of waste materials. REX volunteers will use biochemical and microbiological techniques to isolate and study proteins. Various types of instrumental analysis will be used. Volunteers must possess basic biochemistry/microbiology laboratory skills. Project leader is W. T. Shier, professor, Department of Medicinal Chemistry. Location: Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

noncredit courses

REX 0342 IMPROVING PHYSICAL PERFORMANCE OF THE ELDERLY. *Dates:* Minimum of four weeks, four to eight hours a day, three to five days a week; to be arranged. *Contribution:* \$150.

Promote the reality that one can live in control of one's life and daily activities as one advances in age. This University project assesses balance, physical performance, and cardiovascular stability of persons over age 65. REX volunteers will telephone contacts, conduct interviews, and assist with subject recruitment, maintenance, and laboratory assessment. Good communication skills are required; some background in physiology or physics would be helpful. Project leader is Ruth Lindquist, assistant professor, School of Nursing. Location: Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0406 EVALUATING HISTORIC PRESERVATION IN MINNEAPOLIS AND ST. PAUL. *Dates:* To be arranged in July and August 1991. *Contribution:* \$150.

In 1980 comprehensive surveys were done to identify potential historic structures in both Minneapolis and St. Paul. Ten years later, these surveys need to be reviewed, with particular attention paid to recommendations regarding future historical preservation. REX volunteers will visit these sites to analyze what the impact of preservation efforts has been and/or to document what's been lost since 1980. Volunteers will take both notes and photographs to update files. Volunteers must be able to get around in the Twin Cities and have the ability to distinguish landmarks in photographs. Project leader is Judith A. Martin, associate professor, Department of Urban Studies. Location: Primarily in the field in the Twin Cities; sometimes at the University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0603 DISABLED PERSONS AS TEACHERS. *Dates:* Once a week for a minimum of five weeks; five-week period arranged between June 1, 1991, and May 31, 1992. *Contribution:* \$150.

The purpose of this project is to examine the lives of disabled persons who are, or are training to become, teachers. Volunteers will interview disabled preservice and licensed teachers to learn about their career choice, the factors that have helped or hindered their training and employment, and adaptations they have used to function as teachers. Volunteers will also prepare interview transcripts and analyze interview data. Volunteers need strong interpersonal skills and adequate typing skills. Experience with the disabled and familiarity with Macintosh computers helpful, but not necessary. Project leaders are Clayton Keller, assistant professor, College of Education and Human Service Professions; and Vern Simula, professor, Department of Child and Family Development. Location: Montague Hall 120, University of Minnesota, Duluth. **Call 625-9001 for registration information and an application form.**

REX 0604 EXPLORING DRIVING USING SIMULATION. *Dates:* Approximately four hours a week for about ten weeks; weeks to be arranged. *Contribution:* \$150.

The goal of this project is to set up a laboratory-based driving simulator and to compare experimental results from this facility with those from field testing. REX volunteers will be involved in every phase of the project—set-up, performance, and data analysis. Project leader is P. A. Hancock, associate professor, Department of Kinesiology, College of Education. Location: Norris Gym, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 31; abbreviations, page 133; and maps, pages 134-140.

REX 0802 ARTISTIC DISCOVERY IN 17TH-CENTURY NAPLES. *Dates:* One academic quarter to be arranged. *Contribution:* \$150.

Although Caravaggio, an Italian Baroque painter, has become familiar to many today, Caracciolo, another artist greatly influenced by him, remains relatively unknown and enigmatic. Professor Michael Stoughton, art historian, has been working on what will be the first book-length study of Caracciolo. He seeks the assistance of a research volunteer to translate and transcribe Latin documents about the artist's life. The project also involves library research on iconography of the Carmelite and Carthusian religious orders. Volunteers must be fluent in Latin. Project leader is Michael Stoughton, professor, Department of Art History. Location: Jones Hall 107, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0902 THE ORIGIN OF ENGLISH WORDS. *Dates:* Schedule to be arranged; flexible hours. *Contribution:* \$150.

Did you know that you can trace the history of how we know what we know by studying the etymology of words? For example, by studying the origins of the word *imagination*, you can glimpse the historical tension between rational and intuitive knowledge. If you enjoy puzzles like this, consider participating in this project. Volunteers will undertake the extremely detail-oriented work of copying and comparing etymologies from different sources. Project leader is Anatoly Liberman, professor, Department of German. Location: Wilson Library, Minneapolis campus, University of Minnesota. **Call 625-9001 for registration information and an application form.**

Elderhostel (for those over 60)

The University of Minnesota, along with several other Minnesota colleges, offers persons 60 and older a sampling of college life through a program called Elderhostel. The colleges will offer week-long programs of residential continuing education for anyone 60 and over who has a desire to explore new ideas and meet new people, young and old. In its 14th year in Minnesota, Elderhostel is part of a national network that began 17 years ago.

Hostelers live in college dormitories, interact with peers, and experience the role of student in specially designed academic but noncredit courses. There are no exams, no grades, and no previous educational requirements. Courses are taught by regular college faculty. The cost for a one-week program is \$270 for food, lodging, and class instruction.

May 26-June 1, Itasca State Park: **Deep in the Virgin Forest—Spring in the Mississippi Headwaters Country.**

July 15-21 and July 18-24, Minneapolis Campus: **Sommerfest '91—A Viennese Music Festival.**

Sept. 22-28, Itasca State Park: **Deep in the Virgin Forest—Autumn in the Mississippi Headwaters Country.**

Call 624-7004 for details and registration instructions.

General Information

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 Extension Classes

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 Services

Recreational Sports Facilities

An Extension student may use the sports facilities of the University, during scheduled recreation hours, through either of the following methods.

1. Students registered for three or more credits may pay a sports facilities fee (\$8 per 5-week summer term, subject to change) that entitles them to use University facilities and participate in Recreational Sports programs. The sports facilities fee should be paid at the time of registration in the Extension registration office in Wesbrook Hall. The sports facilities fee is entered on a receipt separate from the course fee statement. Students must present the receipt when they wish to use sports facilities.

If students cancel classes, they must surrender the facilities fee receipt at the time of cancellation. The University reserves the right to cancel sports facility permits of students who cancel classes and do not surrender the permit.

The sports facilities permit fee will not be refunded after the second week of classes. **No tuition refund will be made without surrender of the facilities fee receipt.**

2. Students registered for fewer than three credits, or who are registered in noncredit courses, must purchase a Recreational Sports Participation Permit if they wish to use sports facilities. Call 625-6800 after June 1 to find out participation permit costs; identify yourself as an Extension student.

Recreational Sports Participation Permits may be purchased at Cooke Hall. Proof of enrollment (the student's receipted copy of the registration form) is required.

Recreational sports facilities include swimming pools, tennis courts, gymnasiums, racquet courts, fields, and other areas on both the Minneapolis and St. Paul campuses. Separate towel and locker rental is also available.

Since facilities are heavily used, often to capacity, their use may be restricted occasionally.

Services for Students with Disabilities

The University provides services to ensure access for students with physical, sensory, learning, and psychological disabilities. The Office for Students with Disabilities (OSD) provides direct assistance such as information, referral, advocacy, support, and academic accommodations (e.g., interpreters, readers, etc.), for enrolled and prospective students, as well as consultation and education with faculty and staff to promote access to programs and

facilities. The OSD will also assist disabled students in obtaining services from other University and community resources. University policy calls for accommodations to be made on an individualized and flexible basis, therefore it is the responsibility of students to seek assistance and to make their needs known. For more information, contact the Office for Students with Disabilities, 16 Johnston Hall, 624-4037 (voice/TDD).

Health Service (624-8400)

Students registered for at least one Extension class and spouses of students may use Boynton Health service on a fee-for-service basis. Students who are admitted to a University of Minnesota degree or certificate program and who are registered for at least one Extension class have the additional option of enrolling in Boynton's Extended Coverage Plan. This prepaid plan entitles students to receive certain outpatient services at no charge and to receive others at reduced cost.

The cost of the Extended Coverage Plan is: 10-week term plus 4-week interim, \$105; first 5-week term, \$35; second 5-week term plus 4-week interim, \$70; interim only, \$35. Extended coverage may be purchased at the cashier's window, second floor, Boynton Health Service between 8 a.m. and 5 p.m. Be sure to bring your Extension fee statement and proof that you are in a certificate or degree program (your day-school transcript or a letter from your advisor). Coverage must be purchased by June 17 for first summer term or July 24 for second summer term.

Students who pay the extended coverage fee receive general medical care and laboratory tests at Boynton at no charge. Partial charges are made for routine physical examinations and some specialty care. Prescription drugs, eye glasses, and dental care are available at Boynton's normal low prices. Mental health services, x-rays, and minor surgical procedures are charged to students for collection from their insurance. Any balance after insurance is covered by the extended coverage fee with no out-of-pocket expense to the student. Students who do not have insurance must pay full charges for these services.

The Extended Coverage Plan does not cover hospitalization or surgery. Extension students who have paid for extended coverage may purchase the University-sponsored hospitalization insurance offered to day-school students.

To obtain brochures describing both of these plans in greater detail, stop by 101 Westbrook Hall or call 625-3333 and ask that the Boynton Health Service literature be sent to you. For specific questions concerning the Extended Coverage Plan, call 624-1471. For insurance questions, call 624-0627.

Boynton Health Service is located on the East Bank at 410 Church St. S.E. Hours are 8 a.m. to 5 p.m., Monday through Friday; closed holidays.

When the Health Service is closed, emergency care is available at the Emergency Department of University Hospital. If you belong to the Extended Coverage Plan, one-half of the eligible charges that are not collectible from your hospitalization insurance (excluding take-home drugs and supplies) will be paid by Boynton. Students who do not have both extended coverage and hospitalization insurance and students who use emergency rooms other than the University Hospital emergency room are responsible for the entire emergency room bill. Follow-up care after an emergency must be obtained at Boynton to be covered.

Libraries

The University of Minnesota—Twin Cities Libraries contain more than 4 million catalogued volumes. In addition to books and periodicals, the libraries have substantial holdings of government documents, manuscripts, archives, phonograph records, audiovisual tapes, and other materials.

Humanities and social science collections: The main humanities and social sciences collections are in Wilson Library on the West Bank and include American studies, anthropology, art, business, film, geography, history, language, literature, philosophy, political science, religion, sociology, and women's studies. The collections for education, library science, and psychology are found in Walter Library on the East Bank. The collections in design, vocational education, family social science, rural sociology, and textiles are found in the St. Paul Central Library on the St. Paul campus.

Science collections: The main science and technology collection, including chemistry, engineering, geology, and physics is housed in the Science and Engineering Library in Walter Library. The health science collections, including allied health, dentistry, medicine, mortuary science, nursing, pharmacy, and public health are in the Bio-Medical Library in Diehl Hall on the East Bank. The agricultural and biological sciences collections are found in the St. Paul Central Library on the St. Paul campus.

Many **subject collections** are located in other buildings, as well. Call for locations on materials in horticulture, architecture, entomology, mathematics, forestry, plant pathology, law, journalism, maps, music, public affairs, government publications, biochemistry, natural history, East Asia, South Asia, and the Middle East. Special collections exist for children's literature, social welfare history, and other areas.

Reference and research service points are located in major library buildings: for humanities and social sciences, Wilson Library, first floor; for education and psychology, Walter Library, first floor; for business, Wilson Library, second floor; for government publications, Wilson Library, fourth floor; for bio-medical subjects, Diehl Hall, third floor; for science and technology, Walter Library, second floor; and on the ground floor of the St. Paul Campus Central library.

Terminals to access LUMINA, the University Libraries' on-line catalog, are available in all of the libraries. It is also possible to dial in to LUMINA using a personal computer and modem. To connect to LUMINA, dial 626-2206. For hardware or software problems, call 626-2272.

Specialized services of University Libraries include in-depth reference service, library instruction, computer-literature searching, inter-library borrowing, and photocopying.

Continuing Education and Extension students are encouraged to use library services. A current fee statement (the student's receipted copy of the registration form) is needed to borrow materials. For library hours, call 624-4552.

Locker Rental Service and Lost and Found

Lockers are available for \$2.50 for a half locker and \$4.25 for a full locker per quarter. Deposit cards must be purchased (cost is \$20) on the campus you are renting a locker: Coffman Union Service Center, East Bank; West Bank Cashier Section, Burs (W); and St. Paul Cashier Office, 107 Coffey Hall.

Locker rental offices are at the Service Center in Coffman Union for the East Bank, the Periodical Shop, 48 SocSci, for West Bank, and on the St. Paul campus at 213 Agricultural Engineering and 32 McNeal Hall. For more information, call the East Bank main office at 625-0981.

For lost and found assistance, check the lost and found office in the building where you may have lost items. For additional help and information, contact one of the main lost and found offices: Coffman Union Information Desk, 625-4177 or 625-0457 for East Bank; 100 West Bank Union Skyway, 624-5200, for West Bank; and the Coffey Hall Post Office, 625-8284, for the St. Paul campus.

The Coffman Union Service Center, on the ground level of Coffman Union, in addition to locker rental, offers several other services: postal services; MTC monthly pass and commuter ticket sales; parking coupons; discount movie passes; and campus bus (Route 13) punch cards.

Parking Facilities

Parking is available for Extension students at various facilities on campus. Parking fees vary depending on the facility location. For more parking information, including handicapped parking, call 625-2862 or 625-6566. Call 624-2388 to request a parking map.

Police Services

The University Police Department is your full-service law enforcement agency for the campus community, available to Extension students as to others, for responsive crime control, emergency, and other related public service and assisting roles.

Strategic priorities of prevention, interception, and investigation are implemented by almost one hundred employees, including over forty security monitors who are University students providing building security, crime reporting, and rules enforcement. Regular officers are extensively trained, certified according to state standards, and completely authorized agents of the criminal justice system. You are urged to help them help you—report crimes, take advantage of informational and prevention programs by the department, and by all the means that can be achieved together—protect yourself. Contact University Police from any campus phone by dialing the appropriate telephone numbers listed below:

Police-Fire-Emergency (only)	911
Escort	624-WALK
Non-urgent contacts (dispatcher)	624-7828
Director of Safety and Security	624-2575
Chief of Police	624-2575
All other (including program requests)	624-3550

Arts and Entertainment

Educational and cultural events are offered regularly on the University campuses. Some are open to the public and student body without charge.

The Department of Concerts and Lectures presents the Northrop Dance Season and a wide array of other arts and entertainment events. For information about performances, call the Northrop Ticket Office, 624-2345. For information about University Theatre productions, call the ticket office (625-4001).

Also check student and local newspapers' entertainment sections for events.

Degrees and Certificates

Below are listed degrees and certificates which can be completed entirely or almost entirely through Extension Classes. For complete information, call the CEE Counseling Office, telephone 625-2500, to arrange day or evening advising. For complete information, see page 603 in the 1990-91 Extension Classes Bulletin.

Degrees

General College

Associate in Arts (A.A.); all requirements must be completed by Sept. 15, 1991.

Bachelor of Applied Studies (B.A.S.); only for previously admitted students. No new admissions.

Bachelor of General Studies (B.G.S.); only for previously admitted students. No new admissions.

College of Liberal Arts

Bachelor of Arts (B.A.)

Bachelor of Science (B.S.)

Bachelor of Individualized Studies (B.I.S.)

Carlson School of Management

Bachelor of Science in Business (B.S.B.)

Institute of Technology

Bachelor of Civil Engineering (B.C.E.)

Bachelor of Computer Science (B. Comp. Sci.)

University College

(B.A. and B.S.)

The Inter-College Program

Program For Individualized Learning

(formerly University Without Walls)

College of Agriculture

Bachelor of Science in Food Science (B.S.)

College of Human Ecology

Bachelor of Science in Food Science (B.S.)

Graduate Degrees

Master of Arts in English (Graduate School)

Master of Agriculture in Food Technology (College of Agriculture)

Master of Business Taxation (M.B.T.)

Graduate Minor Program in Gerontology

Certificates

Check the list in the 1990-91 Extension Classes Bulletin, page 628.

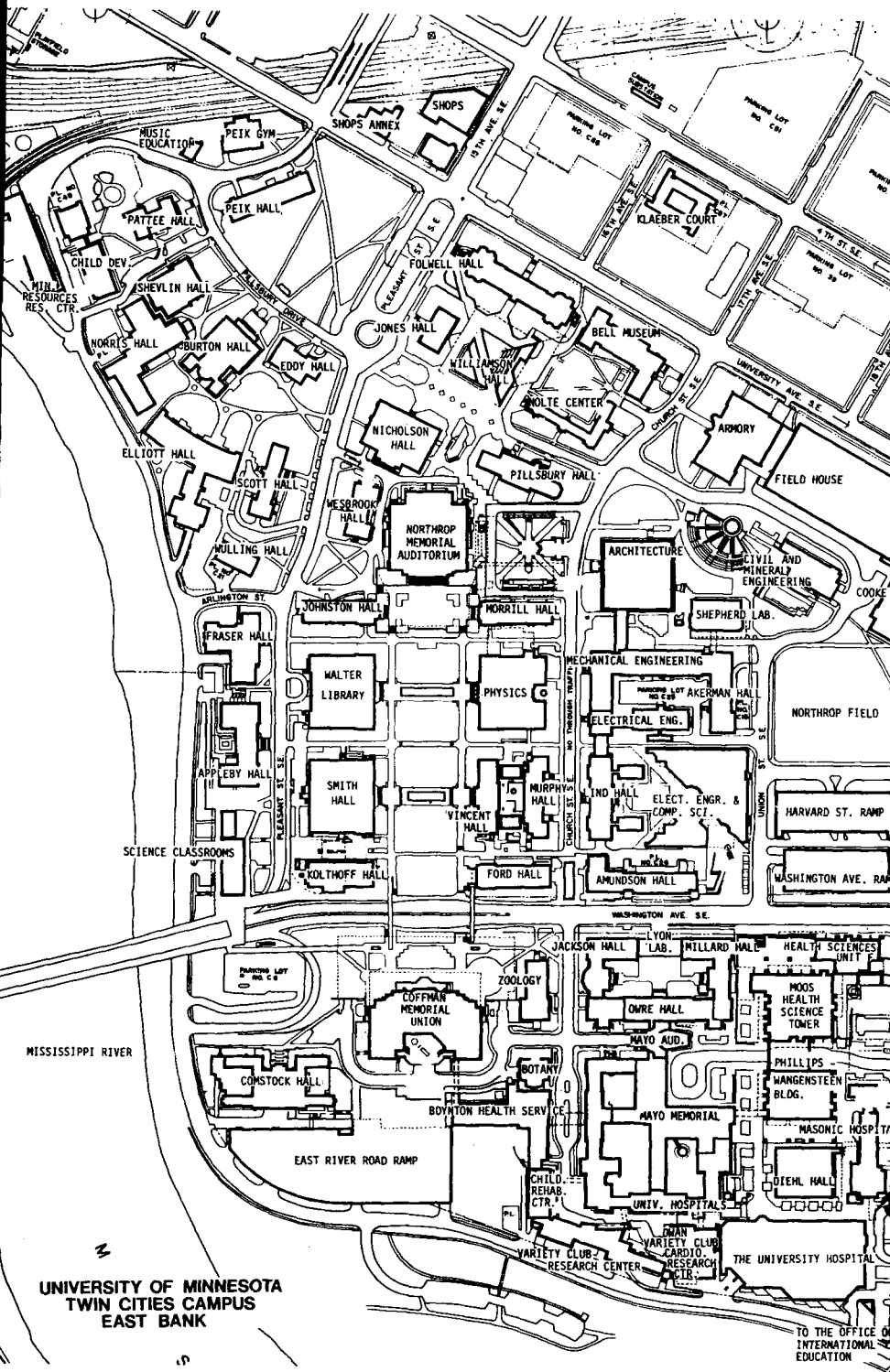
For free academic advising, telephone 625-2500

Campus Buildings

AmundH, Amundson Hall
AndH, Anderson Hall (West Bank)
ApH, Appleby Hall
Arch, Architecture
ArtB, Art Building (West Bank)
BellMus, Bell Museum of Natural History
BFAB, Bierman Field Athletic Building
BioSci, Biological Sciences Center
(St. Paul)
BlegH, Blegen Hall (West Bank)
BuH, Burton Hall
CentLib, Central Library (St. Paul)
ChDev, Child Development
CivMinE, Civil and Mineral Engineering
ClaOff, Classroom Office Building (St. Paul)
CookeH, Cooke Hall
EBCEC, Earle Brown Continuing
Education Center (St. Paul)
EE/CSci, Electrical Engineering/
Computer Science Building
EltH, Elliott Hall
FergH, Ferguson Hall (West Bank)
FolH, Folwell Hall
FordH, Ford Hall
HckrH, Haecker Hall (St. Paul)
HHHCtr, Humphrey Center (West Bank)
Intermedia Arts, Intermedia Arts of
Minnesota (425 Ontario S.E.)
JonesH, Jones Hall
Kolth, Kolthoff Hall
Law, Law Building (West Bank)
LindH, Lind Hall
MacP, MacPhail Center, 1128 LaSalle
Avenue, downtown Minneapolis
MechE, Mechanical Engineering
McNH, McNeal Hall (St. Paul)
MoosT, Moos Tower
MRRRC, Mineral Resources Research Center
MurH, Murphy Hall
NCCE, Nolte Center for Continuing
Education
NorrisH, Norris Hall
North, North Hall (St. Paul)
PeikH, Peik Hall
PeikG, Peik Gymnasium
Phys, Physics
PillsH, Pillsbury Hall
RarigC, Rarig Center (West Bank)
SciCB, Science Classroom Building
SmithH, Smith Hall
VinH, Vincent Hall
VoTech, Vocational-Technical Education
(St. Paul)
WaLib, Walter Library

Departments, Course Designators

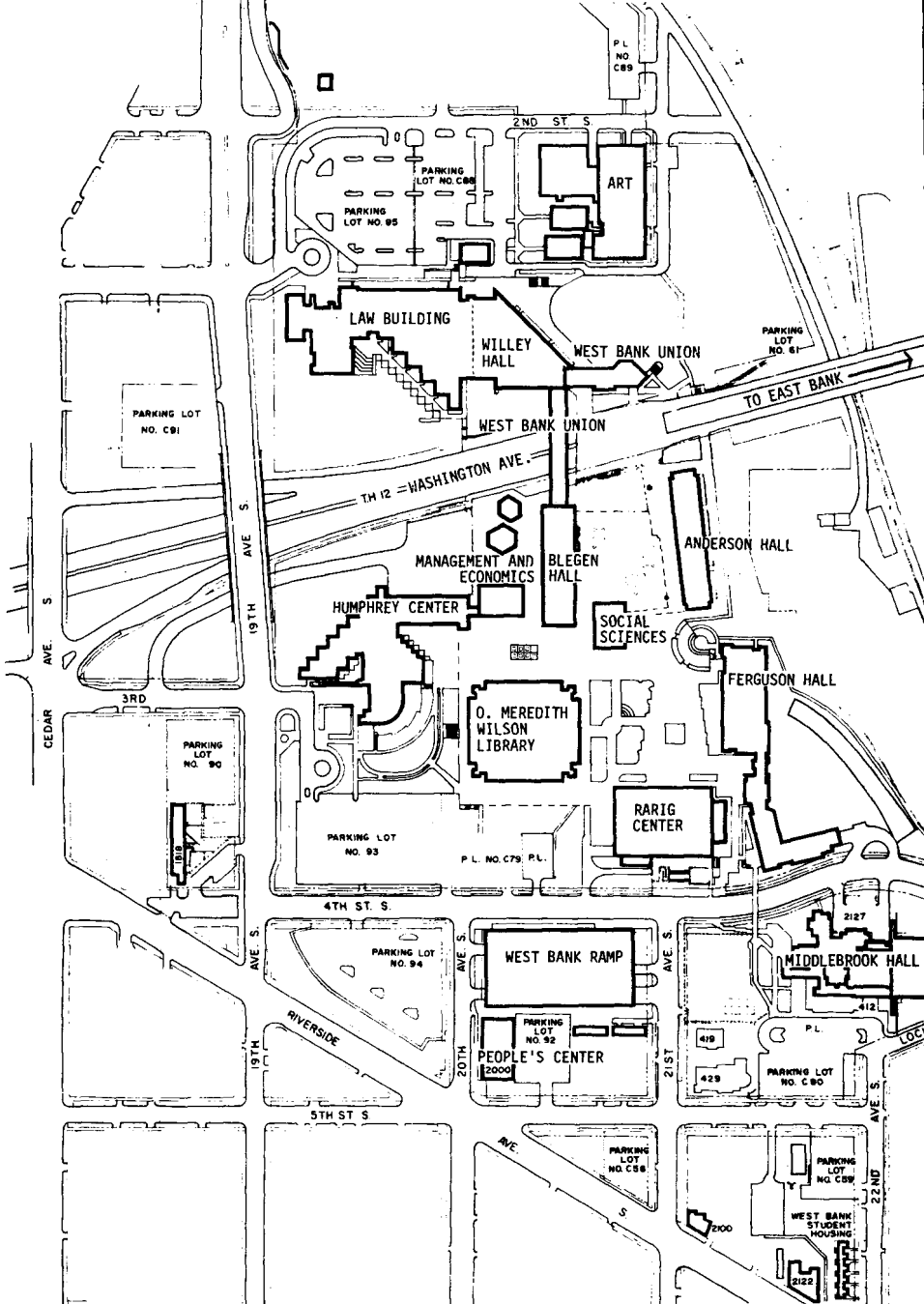
Acct, Accounting
Afro, Afro-American and African Studies
Amln, American Indian Studies
AmSt, American Studies
AnSt, Ancient Studies
Anth, Anthropology
Arab, Arabic
Arch, Architecture
ArH, Art History
ArtS, Studio Arts
Biol, Biology
BGS, Business, Government, and Society
BFin, Business Finance
Blaw, Business Law
Chic, Chicano Studies
CPsy, Child Psychology
Chn, Chinese
Clas, Classics
CSch, Complete Scholar
Comp, English Composition
CSci, Computer Science
Dnce, Dance
Dsgn, Design
EAS, East Asian Studies
Econ, Economics
Engl, English (language and literature)
EngW, English (creative and professional
writing)
FSoS, Family Social Science
Fren, French
Frit, French and Italian
GC, General College
Ger, German
Hist, History
Hmg, Hmong
Hort, Horticulture
Hum, Humanities
IEOR, Industrial Engineering/Operations
Research
IR, Industrial Relations
IDSc, Information and Decision Sciences
INTR, International Relations
Jpn, Japanese
Jour, Journalism and Mass
Communication
LA, Landscape Architecture
Lat, Latin
LAS, Latin American Studies
LASK, Learning and Academic Skills
Ling, Linguistics
Mgmt, Management
Mktg, Marketing
Math, Mathematics
ME, Mechanical Engineering
Mus, Music
OMS, Operations and Management
Science
Phil, Philosophy
PE, Physical Education
PBio, Plant Biology
Pol, Political Science
Port, Portuguese (see Spanish)
PSch, Practical Scholar
Psy, Psychology
PubH, Public Health
REX, Research Explorations
Rhet, Rhetoric
Scan, Scandinavian
SW, Social Work
Soc, Sociology
Span, Spanish
Spch, Speech-Communication
Stat, Statistics
TexC, Textiles and Clothing
VoEd, Vocational Education
WoSt, Women's Studies
YoSt, Youth Development and Research

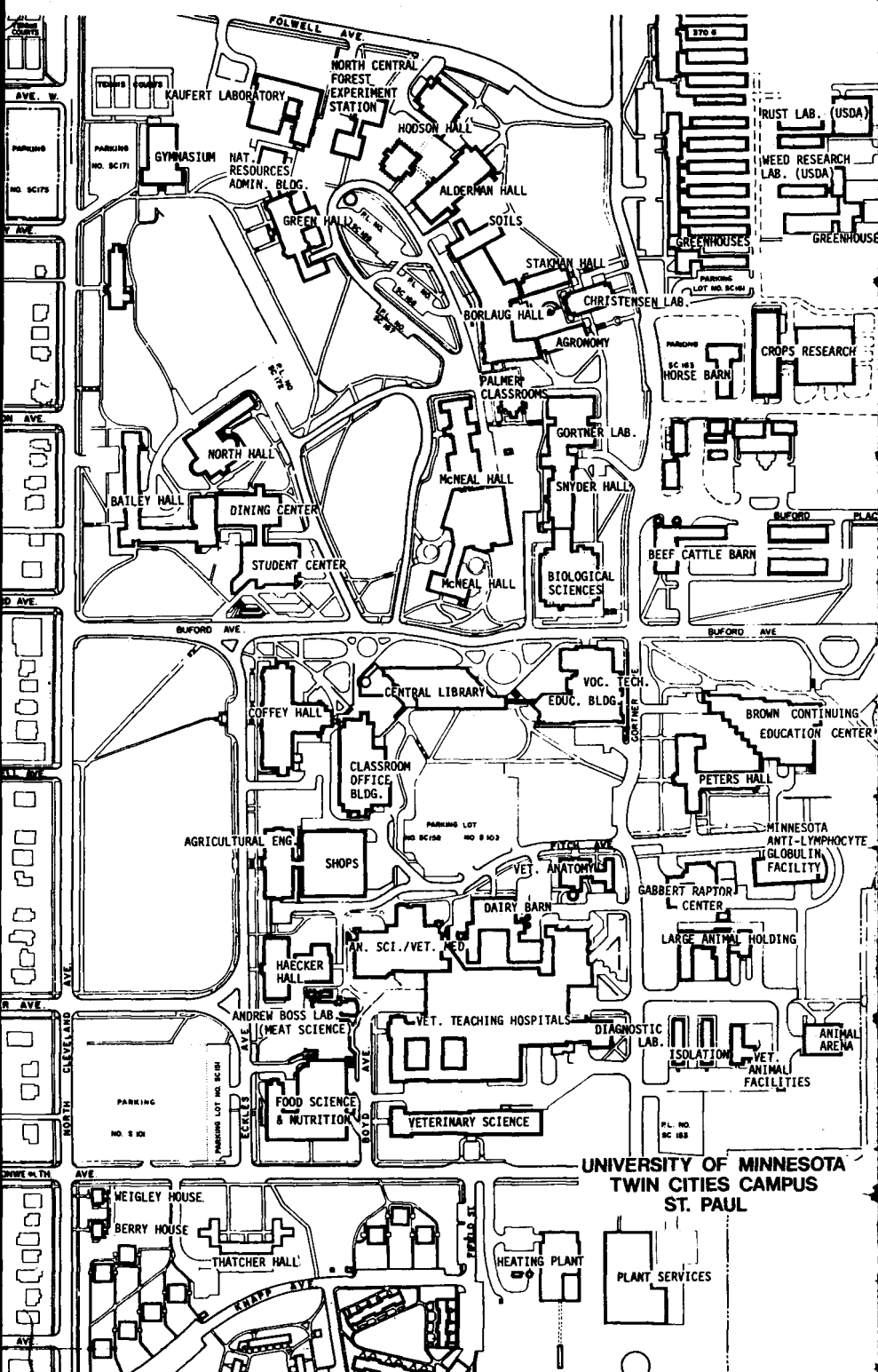


**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK**

TO THE OFFICE OF
INTERNATIONAL
EDUCATION

UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS WEST BANK

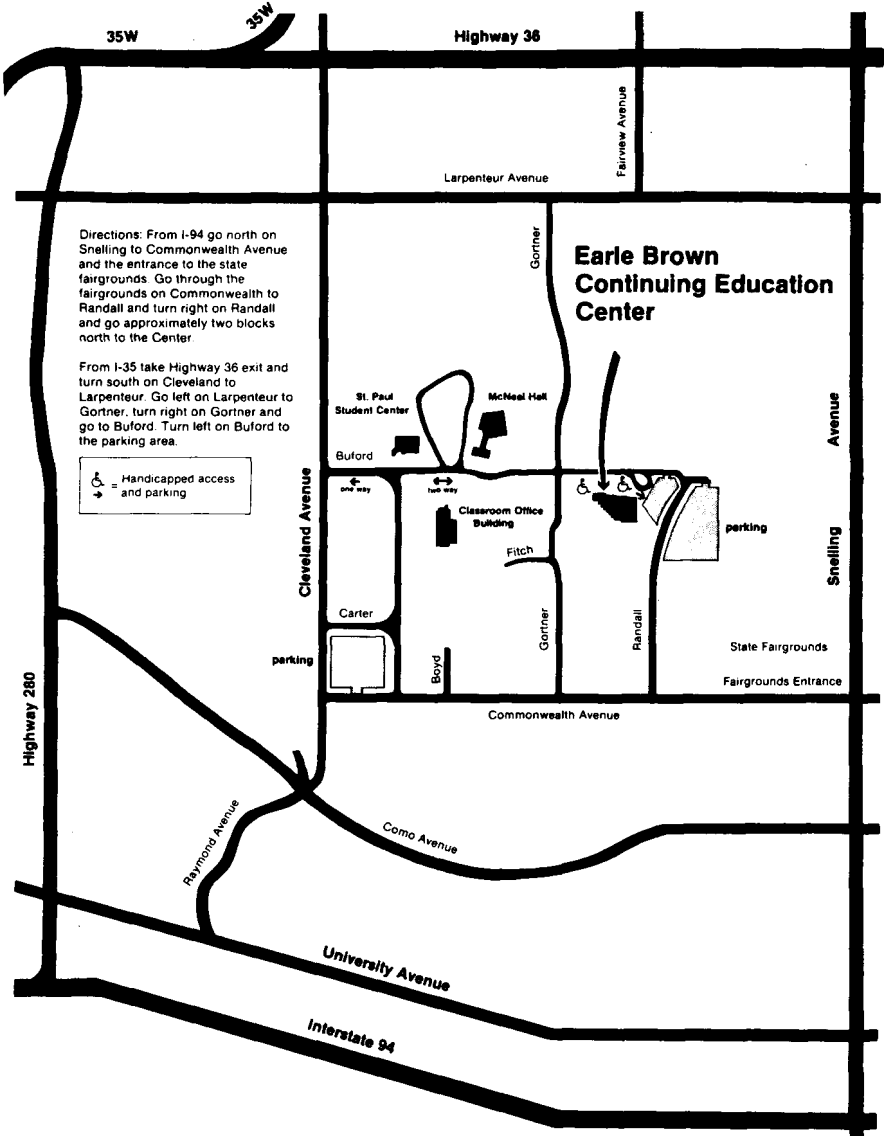


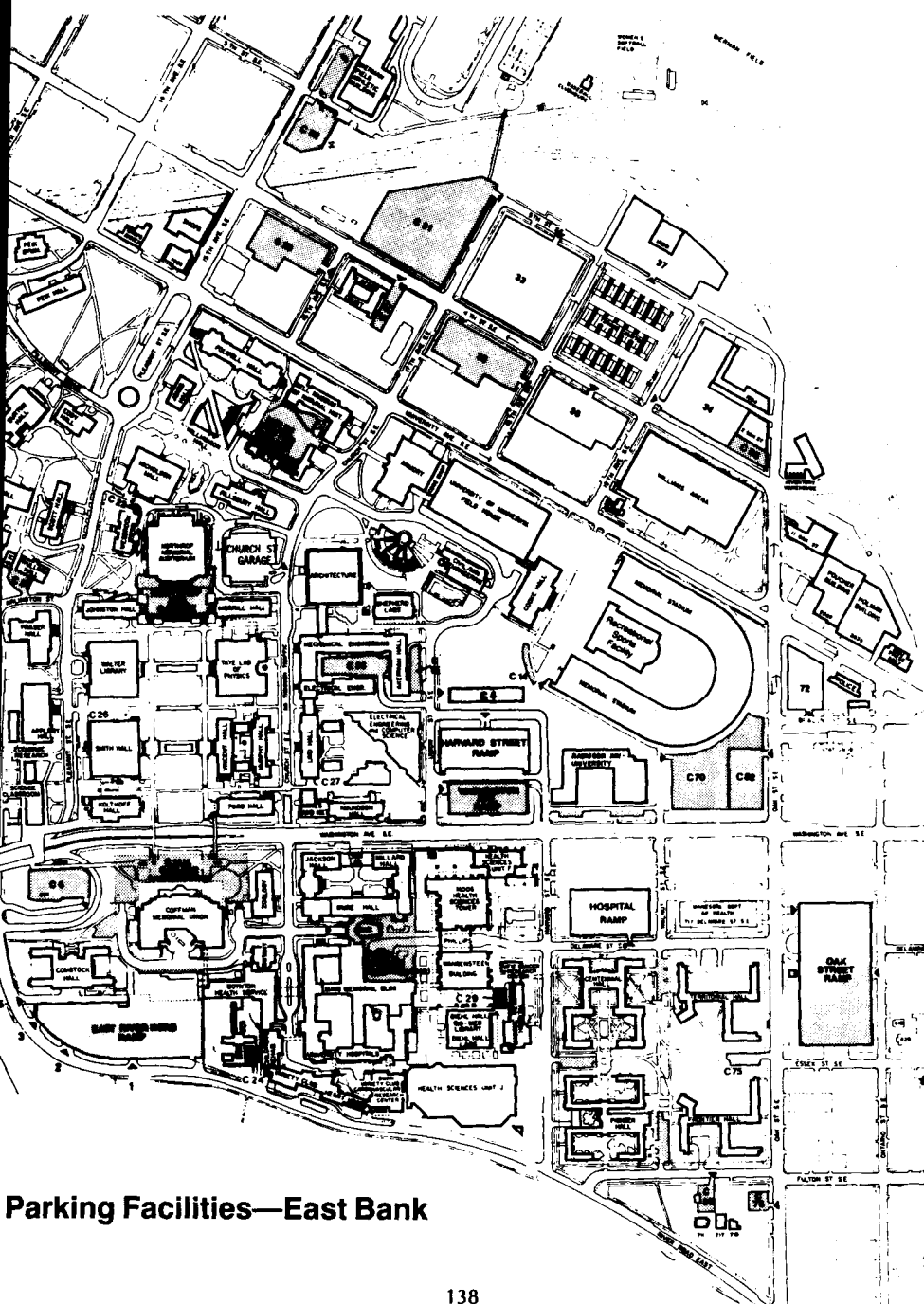


**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
ST. PAUL**

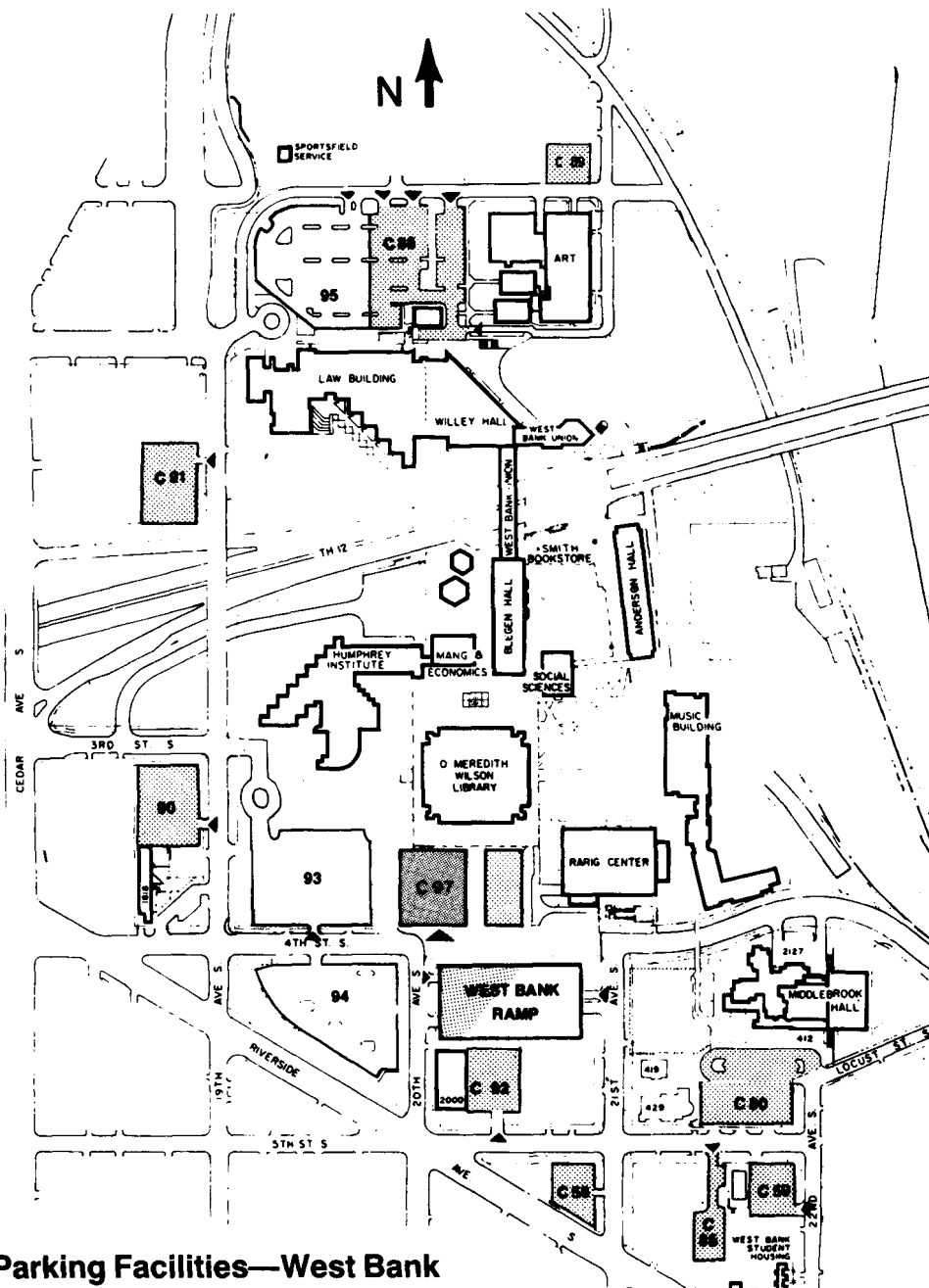
ACCESS ROUTES TO EARLE BROWN CONTINUING EDUCATION CENTER—ST. PAUL CAMPUS

Parking Map





Parking Facilities—East Bank



Parking Facilities—West Bank

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NOTES

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1991

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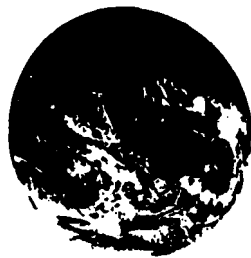
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29	30					



The Global Campus A World-Class Learning Experience

Study abroad opportunities through the Global Campus provide exciting academic experiences that are surprisingly affordable. For about the same cost as tuition, room, and board studying full time here at the University, you can spend a quarter studying abroad (not including travel costs). Most of these cross-cultural programs include group activities and excursions, and you can easily arrange for more travel on your own (at student discounts). Programs are offered in collaboration with academic departments, and most credits can be applied to distribution requirements, second language requirements, or major requirements for University degree programs.

Here's what past participants have to say:

"Before I went, India was just this two-dimensional thing—it was a map. Going over there was like jumping into a map, making it three dimensional." *Meg Klawiter, Minnesota Studies in International Development, India*

"In the Cuernavaca program, I could take the intermediate Spanish courses and finish my language requirement in one quarter. I thought that living with a Mexican family would be a real advantage since I would be studying language and culture at the same time." *Lora Lederman, Spanish in Cuernavaca.*

"I saw the United States through European eyes instead of American eyes or through the eyes of the media. It made me aware of other cultures and other views on issues. Try as we might here, you are always exposed to the same viewpoint." *Mike Rollin, French in Montpellier*

Second Language Programs

- French in Montpellier, France
- German and Austrian Studies in Graz, Austria
- Spanish in Cuernavaca, Mexico
- International Program in Toledo, Spain
- Quincentennial Summer Program for Teachers of Spanish

Theme Programs

- Literature and Theatre in London
- Interior Design in Europe
- Architecture in China or Europe

Internship Programs

- Minnesota Studies in International Development (MSID) in Ecuador, India, Jamaica, Kenya, Morocco, or Senegal

For more information, contact the Global Campus at (612) 625-3379; The Global Campus, University of Minnesota, 106 Nicholson Hall, 216 Pillsbury Drive S.E., Minneapolis, MN 55455.

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CW04307

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University of Minnesota
10 Walter Library

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Ten-Week Term:

June 11 to August 21

Second Five-Week Term:

July 18 to August 21

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University of Minnesota

To correct your name or
address on our lists, send
the mailing label above to
Extension Classes,
University of Minnesota,
180 Wesbrook Hall,
77 Pleasant Street S.E.,
Minneapolis, MN 55455.

UNIVERSITY OF MINNESOTA



CONTINUING EDUCATION AND EXTENSION

About the Cover

This year's cover was created by Minneapolis illustrator Mike Reed. Reed spent four years as a film animator for television commercials, Sesame Street, Nova, and public service films before switching to illustration full time. Since then he has established his own illustration studio (doing work for national magazines, ad agencies, design firms, and corporations), wrote and illustrated a weekly column of social satire for the *Minneapolis Star Tribune Sunday Magazine*, became the co-owner of a graphic design studio, and has taught at the Minneapolis College of Art and Design and the Rhode Island School of Design. His work has won numerous awards, including ones from Women in Design (1984), Patty Awards (1987), *Communication Arts* (1987), and *Print Regional Design Annual* (1985). The cover he created for this bulletin won a 1991 "Award of Excellence" from *Communication Arts* and was featured in its July issue.

Volume 94, Number 9

July 18, 1991

UNIVERSITY OF MINNESOTA

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Bulletin Use The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes. It is possible for degree and certificate programs to change or be discontinued. The University will make every reasonable effort to assist admitted students in completing a program.

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Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, 100 Church St. SE, University of Minnesota, Minneapolis, MN 55455, (612) 624-9547.

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If you have questions about registering, courses, texts, etc., please call the Department of Independent Study:

612/624-0000

For degree and certificate program advising, please call the Extension Counseling Office:

612/625-2500

A Message from the President

The University of Minnesota offers hundreds of academic programs. Unique among them is that provided by the Department of Independent Study. The program affords special opportunities to students of all ages and backgrounds, of all interests and geographic locations, to participate in the design and determination of their educational pursuits. It is self-directed and self-paced study. At the same time, it retains the academic rigor and quality that have long characterized educational activities at the University of Minnesota. I encourage anyone who is interested in a different but nevertheless challenging approach to lifelong learning to consider the Independent Study program



Nils Hasselmo
President
University of Minnesota

A Message from the Dean

It's more than a matter of course. Although this bulletin lists almost 400 University of Minnesota courses that can be taken for credit, it should be said that these courses can be applied toward degree programs in several University undergraduate majors and minors or to fulfill general education requirements for graduation. So, whether you are taking an Independent Study course to fulfill degree requirements or to deepen your understanding of a particular field, successful completion of any of the courses in this bulletin is a good investment.



Harold A. Miller
Dean
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General Information

Admission

There are no entrance requirements for admission to Independent Study, although registration in specific programs or courses may require prerequisite study or experience. Prerequisites are noted with the course descriptions in this bulletin. Most Independent Study courses may be started at any time and must be completed within one year from the date of registration.

Academic Progress

See Financial Aid

Audiocassette Courses

Also see Tapes

After a course is broadcast over the radio, it becomes available as an audiocassette course. Many correspondence courses, such as language courses, also require audiocassettes. Most audiocassettes can be purchased only from the Department of Independent Study. Descriptions of these courses and the cost of the required cassettes are given in the Course Descriptions section of this bulletin.

If you order the cassettes at the time you register, fill in the appropriate space on the registration form. Audiocassettes are not returnable for a refund. Minnesota residents must pay sales tax on audiocassettes (see Taxable Items).

If you do not want to buy the audiocassettes required for a course, you can listen to them at the Learning Resources Center, 15 Walter Library, Minneapolis campus. Please call 612/624-1584 to check on the availability of audiocassettes and on the Learning Resources Center's open hours.

Cancel/Add

You may cancel out of one Independent Study course and add another Independent Study course following the policies given under Cancellations and Refunds. Before you cancel/add:

General Information

- indicate that you want any tuition refund you are entitled to applied to the tuition for the new course, and
- make all remaining payments if you enrolled under the partial payment plan.

Cancellations

If you ask to cancel your course registration within six weeks of the date you registered, that course will not appear on your transcript. Students have six months from the date of registration to officially cancel registration in a course with a grade of W (official cancellation without grade) on their transcript. Use the cancellation form included with your study guide. Cancellations are effective the date of the postmark.

Cancellations requested more than six months from the date of registration require approval from the Continuing Education and Extension (CEE) Scholastic Committee. The CEE Scholastic Committee strives to assure the integrity of student grade records by maintaining fair and consistent registration, withdrawal, and grading policies for all students. Approval from the CEE Scholastic Committee is granted only under extenuating circumstances. College guidelines for cancellation will be strongly considered for students who are admitted to a degree program at the University of Minnesota. Students may request a petition form by contacting Independent Study or CEE Counseling by phone or mail.

If you cancel out of a course, you may be eligible for a partial refund of your tuition. For more information see Refunds.

Cassette Tapes

See Audiocassette Courses, Tapes, Videocassette Courses

Counseling and Advising Services

The CEE Counseling office offers counseling, academic advising, and financial aid advising services to all students registered or planning to register in courses offered by Continuing Education and Extension. Academic advising can help you determine prerequisites and academic standing, evaluate transcripts, choose courses, and evaluate the applicability of Independent Study credits to specific degree and certificate programs.

Professional counseling services are available, for a fee, to assist individuals with exploration, choice, planning, and implementation of career and educational goals. Counselors can help students learn more about their interests, values, abilities, and personal characteristics related to students' goals; identify career options and major fields of study; develop educational and career plans; and assess problems related to academic performance. Students may call 612/625-2500 to arrange for day or evening appointments or to consult with an adviser by phone. Advisers also can be contacted by mail at the following address:

CEE Counseling
University of Minnesota
314 Nolte Center
315 Pillsbury Drive SE
Minneapolis, MN 55455

CEE Certificates

See CEE Certificate Programs section

Course Completion

Also see Textbooks and Supplies; Cancellations; Lesson Service; Reinstatements

The course study guide tells you how to proceed in a course. Read the study guide introduction carefully to understand the course format and study procedures. It is **important to buy the required texts/supplies immediately** because text editions can be updated by publishers and you may not be able to obtain the required texts/supplies at a later date. In this situation, you will not be able to complete the course or reinstate in it. You also may have difficulty canceling your registration, in which case an F or N will be placed on your transcript, and you would have to reenroll if you want to earn credits for the course.

It is also important to submit the first lesson assignment soon after registration (see Lesson Service). Students may submit a **maximum of two assignments per week**. An exam is counted as an assignment under this policy. This means that if you submit two lesson assignments in one week (seven calendar days), you cannot also take an exam for the same course during that same week. **A minimum of six weeks** is required to **complete** an Independent Study course. The six weeks begin the date the first assignment is submitted, **not** the date of registration. However, you should expect to spend a minimum of three months to complete an Independent Study course. No course grade will be submitted to the Registrar if fewer than six weeks have elapsed from the date assignment one was submitted.

Students have one year to complete most Independent Study courses. However, if you cannot complete the course in one year, you may reinstate (see Reinstatements). **If you do not reinstate in the course and/or complete it, a grade of F or N will be placed on your transcript.** You must take full responsibility for obtaining the current course texts/supplies, completing the course, and meeting graduation or certification deadlines. Allow at least three weeks from the date you complete a course for the course grade to be recorded on your transcript in the Office of the Registrar. Students with special time limitations should check with Independent Study--before enrolling--about the feasibility of meeting their particular credit deadline.

General Information

Credit by Examination

Credit by examination is an alternative method of earning credits for some courses. Under this method, you prepare on your own for course exams for authorized courses listed in this bulletin that have exams. When you pass the final exam, you receive credit for the course. You will not be allowed to submit any work for your instructor's evaluation except the exams. This method is primarily recommended for students who want to earn credit for their extensive knowledge in a specific subject area.

To enroll under credit by exam, first call or write Independent Study to see if credit by exam is authorized for the course you want. If it is authorized, then you must send the Department of Independent Study (1) a letter describing your background and reason for choosing this method, (2) a transcript of all college-level work, and (3) a completed Independent Study registration form. In consultation with an appropriate instructor, Independent Study will decide either to approve your registration under the credit by exam method or recommend the correspondence lesson method. As with other Independent Study courses, you will receive a study guide on acceptance of your registration, even though you will not be required to complete the lesson assignments in it.

The tuition for credit by exam is \$50 (payment in full). You may take your exams either at the offices of Independent Study or under the supervision of an approved proctor (see Examinations). If you want to cancel your registration under this method, see Cancellations; Refunds.

Credit Card Payment Plan

If you want to, you can use your Visa or MasterCard to pay for the tuition, fees, and texts/supplies for an Independent Study course. Credit card payment can be used only with the Full Payment Plan; **it cannot** be used with the Partial Payment Plan. To determine what your total credit card payment should be, fill out a registration form, listing the tuition of the course or courses you want to enroll in, the cost of texts/supplies (if you want to purchase them at the time you register), postage/handling (see Postage), and tax. Be sure to fill in the box labeled Full Payment Plan and the box labeled Credit Card Payment on the registration form. When you fill in the Credit Card Payment box, check whether you're using Visa or MasterCard and have the credit card holder sign on the appropriate line.

Credits

The University of Minnesota uses the quarter hour as the basis of credit evaluation. A quarter hour equals approximately $\frac{2}{3}$ of a semester hour. All credits listed in this bulletin are quarter-hour credits.

The following credit designations are used in the course descriptions.

Degree credits may be used in a degree program. Officials at colleges or universities determine which Independent Study courses will be accepted to fulfill degree requirements at their institutions. To receive degree credit for Independent Study courses, you should obtain approval from that institution before enrolling. University of Minnesota students should consult an adviser in their major department. (See the University Degree Programs section.)

Certificate credit may be used in appropriate Continuing Education and Extension (CEE) certificate programs. Certificate credit courses are college level, but do not carry degree credit and have no counterpart in day classes at the University. (For more information, see the CEE Certificate Programs section.)

No credit is given for some courses, although grades may be assigned. (Also see Enroll in a Credit Course on a Noncredit Basis, below.)

Resident Credit is given for degree-credit courses described in this bulletin. They parallel or are equivalent to courses with the same title and course number offered in day classes at the University. Through action of the University Senate, Independent Study credits are considered resident credits. Some colleges, however, have restrictions on how many Independent Study credits can be used in degree programs or toward college residency requirements.

Graduate Credit is explained in the University Degree Programs section, Graduate School.

You may **Enroll in a Credit Course on a Noncredit Basis** by simply writing NC (noncredit) in the Credits column of the registration form. Usually, instructors will expect the same quality of work and will grade both credit and noncredit students on the same basis. To change from a noncredit to a credit registration, follow the Cancel/Add procedures. Enrollment in a credit course on a noncredit basis requires the payment of full tuition. Noncredit registration cannot be used toward degrees or certificates.

DANTES

The Defense Activity for Non-Traditional Educational Support (DANTES) was established in June 1974 to provide educational support for voluntary education programs for military organizations. Military personnel on active duty should contact their Education Officer for additional information concerning enrollment through this program.

Degree Candidates

See the University Degree Programs section

General Information

Discontinued Courses

Because supplies, books, or an instructor may not be available for a specific course, sometimes it is necessary for Independent Study to stop accepting enrollments in that course. If you mail in a registration form for a course that has been discontinued, your tuition will be returned or, if requested, applied to another course with the same tuition.

Dropping a Course

See Cancel/Add, Cancellations, Refunds

Duluth Credit

Independent Study currently offers two courses (Engr 3016 and WS 1990) that carry University of Minnesota Duluth credit only. If you enroll in one of these courses, it will appear on your day school transcript.

Examinations

Most Independent Study courses include a final examination and one or more midcourse examinations. You must present a photo ID (U of M student ID, driver's license, etc.) in order to take an exam. Be sure to bring the correct computerized submission form (marked with a number and the word *exam* for midcourse exams and a number and the word *final* for final exams) and attach it to the exam when you submit it for grading.

Exams 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 Westbrook Hall, Minneapolis campus of the University. No appointment is necessary during regular office hours (7:45 a.m. to 4:30 p.m., Monday through Friday). If you want to take an examination on Tuesday or Thursday evening (from 4:30 to 8 p.m.), you should call 624-0000. You must call at least one day in advance and make an appointment to take an exam in the evening. You must be finished with an exam by 8 p.m.

Students in the Twin Cities area are urged to take their examinations at the offices of Independent Study.

2. Continuing Education and Extension Offices (by appointment only):

Crookston: Academic Affairs, 302 Selvig Hall, 218/281-6510, ext. 439
Arts and Sciences, 153 Dowell Annex, 218/281-6510, ext. 377
Duluth: 104 Darland Administration Building, 218/726-8809
Morris: Morris Learning Center, 232 Community Services Building,
612/589-2211, ext. 6456
Rochester: Friedell Building, 1200 South Broadway, 507/288-4584 and
612/224-3106

3. The Independent Study department of any member institution of the National University Continuing Education Association.
4. A school superintendent, principal, or counselor; a faculty member or administrator of an accredited university or college; a head librarian.
5. A commissioned officer whose rank is higher than your own (for students in the military only).
6. A corporate education director.

Independent Study reserves the right to reject any supervisor. Regardless of academic qualifications, no relative, work supervisor, or immediate employer may proctor an examination. No proctor fees are authorized.

A Request for Examination form for each exam (and a computerized submission form) is included in the course study guide. To take your examinations at locations other than the offices 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 proctor at his or her business location.



General Information

Faculty

The authors and instructors for all Independent Study courses are approved by the University academic departments through which the courses are offered. In most cases, Independent Study authors/instructors are faculty members at the University, although faculty from other colleges and universities, or specialists in professional and business fields, also teach Independent Study courses. The authors/instructors are listed after each department or subject area in the Course Descriptions section of this bulletin.

Fees

See Tuition, Postage, Credit Card Payment Plan

Financial Aid

Independent Study students may be eligible for the financial aid programs listed below. Most programs limit enrollment to part-time study. Students **cannot** use Pell Grant, Stafford Loan, and other educational loans, or campus-based aid (College Work-Study, Supplemental Educational Opportunity Grant, Perkins Loan, University grants, loans, and scholarships administered by the Office of Student Financial Aid) for Independent Study.

Minnesota Part-Time Student Grant Program--The MPTSGP provides funds primarily for students enrolled for five credits or less per quarter. (Students registered for 6-11 credits will be considered for MPTSGP for one quarter only if they have not been enrolled in post-secondary education for three years prior to applying and have not received Minnesota State Grant funds. Eligibility requirements are: U.S. citizen or permanent resident of the United States, Minnesota resident; enrollment in undergraduate coursework applicable to a degree or certificate program and maintenance of satisfactory academic progress; no prior bachelor's degree; and demonstration of financial need.

Financial need criteria are based on the previous year's income (1990 income for the 1991-92 academic year or, under some circumstances, on the present year's estimated income). An applicant's total federally-adjusted gross income and untaxed income must not exceed the following levels: one-person family, \$12,225; two-person family, \$16,350; three-person family, \$20,300; four-person family, \$25,175; five-person family, \$27,050; six-person family, \$29,075; seven-person family, \$31,300; eight-person family, \$33,375; nine-person family, \$35,800.

Awards can be used for tuition and fees, books and supplies, transportation and child-care costs incurred while students are attending classes. The grant may supplement other aid, including scholarships and employer tuition reimbursement. Awards are contingent on state funding. Awards will be made until all funds for each quarter have been committed. Information is available at CEE Counseling, 314 Nolte Center, 612/625-4334.

Business Firms--Many business firms help subsidize the education of their employees. Before enrolling, you are urged to talk with your company's personnel or education officer about possible tuition assistance for Independent Study.

Minnesota State Grant--The MSG is administered by the Minnesota Higher Education Coordinating Board. It provides funds for part-time enrollment through Independent Study. Eligibility requirements are: U.S. citizen or permanent resident of the United States, Minnesota resident; enrollment in coursework applicable to a degree or certificate program and maintenance of satisfactory academic progress; registration **exclusively** through Independent Study for 6-11 credits per quarter (no additional registration through Extension Classes, day school, or at another institution); and demonstration of financial need. In addition, applicants must not have already earned a bachelor's degree and must not have completed four years of education on a full-time basis beyond high school. MSG checks must be picked up on campus unless geographical distance or extenuating circumstances make it difficult to travel to campus. Students who live more than 50 miles from campus or have other barriers should contact CEE Counseling. Applicants use the ACT application, which is available at Financial Aid, 210 Fraser Hall, or at CEE Counseling, 314 Nolte Center. Call CEE Counseling (612/625-4334) for a set of procedures outlining the steps that must be followed.

Aid for Students With Disabilities--Funds are available through most State Departments of Education. Minnesota residents can obtain information about the Minnesota Department of Rehabilitation Services (DRS) from the DRS Liaison, Room 12, Johnston Hall (612/624-4037), or from local Department of Rehabilitation Services offices.

Tuition Assistance Program/Project HELP--Part-time adult students enrolled in Independent Study courses who do not qualify for any other grant or scholarship aid may be eligible for a TAP or Project HELP grant for one course each quarter. Applicants must reside in Minnesota and be U.S. citizens or permanent residents. In addition to financial need, students must fit into one additional category--minority, high ability, or educationally disadvantaged. Applications will be accepted until all funds for each quarter have been committed. Information is available from CEE Counseling, 314 Nolte Center, 612/625-4334.

The Remington Scholarship--The Gilford W. and Esther F. Remington Scholarship Fund was established by Mrs. Remington to provide financial assistance each year to one or two students enrolled through Continuing Education and Extension (CEE) on the Twin Cities campus and through the Duluth Extension Center on the UMD campus. For an application form, write to CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive SE, Minneapolis, MN 55455. Preference will be given to students in the fields of history, education, art, and audio-visual education. Applications are considered each July for the academic year.

General Information

Military Veterans—To satisfy Veterans Administration requirements, veterans registering under the G.I. Bill must enroll in courses that are applicable to a degree, certificate, or other educational objectives approved by the Veterans Administration. Eligible students may apply under: **New G.I. Bill (Chapter 30) Montgomery; VEAP (Chapter 32) Post-Vietnam Era; and Reserve and National Guard Educational Program (Chapter 106)**. Educational plans and transcripts of all college work must be reviewed with a CEE adviser before Independent Study can certify registration to the Veterans Administration. Veterans who are not yet admitted to a degree program will be held to the CEE academic progress standards as described below. Advisers can be reached at **612/625-2500** or by writing Veterans Adviser, CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive SE, Minneapolis, MN 55455.

Academic Progress—For students not held to other college, department, or program academic standards, Continuing Education and Extension will determine scholastic standing by evaluating satisfactory progress with the following criteria.

Completion of two-thirds (66 percent) of total credits for the year (summer session I through spring quarter) with grades of A, B, C, or S. Grades of D, N, I, and F are not considered satisfactory. Grades of W are not considered in this evaluation.

The formula for determining this is:

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

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

Students who do not meet the criteria for good academic standing will not be eligible to receive financial aid, veterans benefits, and specially-funded programs. Additional information is available at CEE Counseling, 314 Nolte Center, 612/625-4334.

Students who are not in good academic standing will have an opportunity to appeal their status if there is additional information to present that may change their academic standing. Students are encouraged to contact an academic progress adviser at 612/625-2500 for further information and assistance in reviewing options, study skills, and steps that might improve academic standing.

Registration With Delayed Payment (MSG)—If your Minnesota State Grant (MSG) check will not be available to you in time to pay tuition and fees, contact a financial aid adviser in CEE Counseling for information about delayed payment. Requests for delayed payment will be accepted from the first day of the quarter to the end of the second week of classes. Example: fall quarter 1991 requests will be taken from August 22 through October 4.

To be considered for delayed payment, your record at the University of Minnesota must indicate that you are eligible for aid and that you have no holds on your record. You will also need to submit a copy of your award letter from the Minnesota Higher Education Coordinating Board that shows eligibility for MSG at the University of Minnesota, Twin Cities.

Repayment of Educational Loans (Enrollment Verification)--In most cases, you may defer repayment of a Stafford Loan (formerly Guaranteed Student Loan) or other educational loan awarded in a previous year, provided that you enroll for at least six credits per quarter and you have not exceeded the six-month grace period. (Example: if you enroll for six credits fall quarter, you must register for six additional credits winter quarter and six more credits for spring quarter.) If you have exceeded the grace period and have begun repayment of an educational loan, you can regain deferment eligibility by enrolling full-time (12 credits minimum) each quarter. For additional information, contact your lender or loan-servicing agency.

The following dates define quarter of registration:

6/10/91 through 8/21/91--summer

8/22/91 through 12/11/91--fall

12/12/91 through 3/21/92--winter

3/23/92 through 6/13/92--spring

Financial Aid Advising--Independent Study students who have questions or problems about financial aid are encouraged to write or call CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive SE, Minneapolis, MN 55455; 612/625-4334. Financial aid workshops for CEE students are available from CEE Counseling.

Grades

Also see Course Completion

The University uses the A-F and S-N grading systems. On your registration form, indicate on which system you want to be graded. You may change to another system at any time before submitting assignment three. If there is a grading system restriction for a course, it is indicated in the course description. Your course grade is sent to you when you complete each Independent Study course.

Grading procedures 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 a specific course are usually outlined in the study guide for that course. Questions and problems concerning grades earned in Independent Study should be sent to the Administrative Director, Department of Independent Study.

General Information

A-F Grading System

There are four passing grades in the A-F system: A, B, C, and D. In almost all cases, major coursework must be completed on the A-F system. A grade of F 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 satisfactory academic progress. (See Financial Aid, Academic Progress, for more information.)

S-N Grading System

The S-N system is an alternative to the A-F 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 a student does not earn an S. Each college has limitations on which courses or what proportion of courses may be taken on the S-N system. Students who intend to apply Independent Study credits taken on the S-N system toward a degree or certificate at the University should contact their college office or CEE Counseling before enrolling.

Students not working on a degree or certificate program, and not intending to apply credits toward such a program later, may use the S-N system for any number of credits.

Grade Point Average

To determine grade point average, grade points are assigned to course grades as follows: for each credit of A, four grade points; B, three grade points; C, two grade points; D, one grade point; F, zero grade points. Your grade point average is determined by dividing the sum of grade points by the sum of credits successfully completed (with grades of D or better). Credits earned in classes taken on the S-N grading system are not usually included in determining grade point average. CEE Counseling has written instructions on how to compute your grade point average; to request a copy of these instructions, call 612/625-2500.

Health Care Courses and Programs

Independent Study administers a number of special programs in the health care field. These programs offer combined independent and on-campus study that leads to a master's degree (MPH or MHA). Qualified individuals are those currently working in executive positions in health care institutions. For more information, call or write the Program Associate at the telephone number or address below:

ISP Executive Study Programs for Health Care Administrators, Program Associate, 420 Delaware St. SE, D305, Box 97 Mayo, Minneapolis, MN 55455; telephone 612/624-1411; FAX 612/626-1186.

- Programs:** Ambulatory Care Administration
Hospital Administration
Patient Care Administration
Nutrition Administration
- Special Interest** Long Term Care
- Groups:** Mental Health/Chemical Dependency

High School Courses

See the High School Program section.

High School Students--PSEO College Enrollment

See the High School Program section.

Home Video Courses

See Videocassette Courses.

ID Number

If you have a University identification (ID) number, put that number on the Independent Study registration form. Your Social Security number is also helpful in ensuring accurate access to your records.

Immunization

As of July 1, 1990, students born after 1956 who take more than one University class are required under Minnesota law to submit an Immunization Record form. The form, which is sent along with the official University admission letter, must be filled out and returned to Boynton Health Service within 45 days of the first term of enrollment in order for students to continue registering for classes at the University. Complete instructions accompany the form.

If you are taking Independent Study courses and are an admitted University student, this policy applies.

Improved Access to Wesbrook Hall

Last year the access to Wesbrook Hall--and Independent Study--was improved. In the summer of 1990 an access ramp was added on the west side of the building (facing Pleasant Street) to make it easier for handicapped students to enter Wesbrook. After the outside work was completed, an elevator was installed inside the building and the drinking fountains, public telephones, and restrooms were remodeled to make them more accessible.

Incompletes

See University Reinstatements

General Information

Inter-College Program

See University Degree Programs, University College

Lesson Service

When you enroll in an Independent Study course, you receive a study guide that lists the required texts and supplies, contains the lesson assignments, describes the exams you have to complete, and includes computerized submission forms for each assignment and exam. It is important to purchase the required texts/supplies when you register because text editions can be updated by publishers and you may not be able to obtain the required edition at a later date (see Textbooks and Supplies). Each lesson usually has a reading assignment in the required text or texts, study notes that contain additional information about the lesson topic, examples (especially in math and science courses), and a lesson assignment.

The average time required to complete a lesson is between six and ten hours. It is best to set a study schedule and submit lesson assignments on a regular basis (see Course Completion for the maximum number of assignments you can submit each week). You send lesson assignments--along with the correct computerized submission form--to Independent Study, which forwards them to the instructor. The instructor evaluates them and returns them to Independent Study with a letter grade and comments. Then the assignments are returned to you.

You should allow approximately two weeks between the time a lesson assignment is received by Independent Study and the time it is placed in the return mail. Insufficient postage, lack of zip code, or failure to include the correct computerized submission form may delay the processing of lesson assignments beyond the two-week period. Also, you should **make a copy of each lesson assignment** before you submit it so that if it is lost in the mail you can easily resubmit it to Independent Study. Do **not** send a lesson assignment directly to your instructor.

You are urged to contact Independent Study regarding any lesson assignment not returned within three weeks from the date it was submitted. You should wait until one lesson assignment has been returned before submitting the next one. By doing so, you may consider any comments from your instructor and recognize your mistakes and strengths. (See Course Completion for minimum course completion time.)

Library and Audio-Visual Facilities

In addition to the required textbooks you may purchase for your Independent Study course, you are urged to use the University libraries and your local public, school, or college library for supplemental and required reading.

University of Minnesota Libraries--Independent Study students can borrow books from University libraries. These include libraries on the St. Paul campus and Walter Library (east bank) and Wilson Library (west bank) on the Minneapolis campus.

General Information

Independent Study students are subject to all library regulations including loan periods, fines, book recalls, and course reserves. Students borrowing books in person must present a current fee statement/course confirmation form. Students who reinstate in a course must present proof of reinstatement at the library to withdraw books.

University Film and Video--This department provides audio-visual materials as learning resources for students to use on a fee basis. Limited preview facilities and equipment are available on the departmental premises. For information and a catalog of available resources, contact University Film and Video, 1313 5th St. SE, Suite 108, Minneapolis, MN 55414; telephone 612/627-4270.

Learning Resources Center--The University of Minnesota Learning Resources Center, Minneapolis campus, has copies of the audiocassettes and videocassettes that are required for Independent Study courses. Any interested person can use its listening and viewing facilities. Please call ahead to check on the availability of course cassettes and open hours.

Learning Resources Center
15 Walter Library
Minneapolis campus
612/624-1584

Minnesota College Libraries--Many Minnesota colleges and universities will extend library privileges to Independent Study students who show a fee statement/confirmation of registration form. Students must abide by the regulations of these libraries. Course grades will not be issued or transferred for students who ignore library regulations.

MINITEX--Most Minnesota libraries are participants of MINITEX (Minnesota Interlibrary Telecommunications Exchange), a legislatively funded program that shares library resources. If your local library does not have a needed resource, it can generally be secured from another library. Students who need assistance in identifying or locating library resources may call 612/624-4002.

National University Continuing Education Association (N.U.C.E.A.)

The Department of Independent Study is a member of the Independent Study Division of the National University Continuing Education Association. The division publishes an *Independent Study Catalog* that lists Independent Study courses offered by 71 colleges. It is available from Peterson's Guides, N.U.C.E.A. Book Order Department, Box 2123, Princeton, NJ 08543-2123. Write to Peterson's Guides for the cost of the Catalog. You can look at a copy of the Catalog at the Department of Independent Study, 45 Wesbrook Hall, if you wish.

General Information

Office Hours

The Department of Independent Study office is open Monday through Friday, 7:45 a.m. to 4:30 p.m., throughout the calendar year. On Tuesdays and Thursdays, office hours are extended in the registration office in room 45 Westbrook Hall until 8 p.m., with minimal service after 4:30 p.m. During the extended hours staff members will accept registrations, lesson submissions, cancellations, reinstatements, and other transactions for processing the next day, will provide general information, and will proctor exams for students who have made an appointment to take an evening exam (see Examinations).

The department does not observe regular academic holidays except for the following:

July 4, 1991	Independence Day
September 2, 1991	Labor Day
November 28, 1991	Thanksgiving Day
November 29, 1991	Friday After Thanksgiving
December 23, 1991	Christmas holiday
December 24, 1991	Christmas holiday
December 25, 1991	Christmas
January 1, 1992	New Year's Day
January 20, 1992	Martin Luther King holiday
May 25, 1992	Memorial Day

Overseas and Foreign Students

Independent Study accepts registrations from students living or traveling in foreign countries. Since courses are available only in English, students must have sufficient knowledge of English to be able to read and write lesson assignments and exams.

The Department of Independent Study does not employ commercial agents abroad. You must pay all fees in American currency. Mail your registration form--along with payment for tuition, texts/supplies, tapes, postage--directly to Independent Study. Library materials, records, and certain other supplementary materials cannot be sent overseas. For complete information regarding overseas lesson service, see Postage.

Partial Payment Plan

See Tuition

Plagiarism

If you submit as your own work any other person's work without proper acknowledgment, you are guilty of plagiarism. Plagiarism includes borrowing any concepts, words, sentences, paragraphs, or entire articles or chapters from books, periodicals, or speeches. In these cases, quotation marks and citations must be used. If you have any questions about proper acknowledgment, look in any English handbook.

Plagiarism also refers to copying another student's lesson assignment and submitting it for grading as if it were your own work. A student who allows another student to copy his or her lesson assignment is equally guilty of academic dishonesty. Plagiarism is a violation of the University's student conduct code and will be dealt with by the Independent Study faculty or the Special Counseling Office.

Postage

Students pay postage on all mail sent to Independent Study. The department pays for delivery of the study guide (for students who enroll by mail) by fourth-class mail and the return of corrected lesson assignments by first-class mail. If your address does not have a U.S. zip code or an APO/FPO, you must pay for airmail delivery of texts/supplies and airmail return of assignments and exams*.

Overseas students must pay for lesson assignments, texts/supplies, tapes to be sent airmail by enclosing special fees* with their registration. Students must assume financial responsibility for the loss of shipments of texts and materials sent overseas.

Fill in the appropriate space on the registration form and include the postage fee. Independent Study charges the following postage/handling fees **per course**:

- Fourth-class postage/handling for texts/supplies \$ 8.00
- First-class postage/handling for texts/supplies \$12.00
- Airmail postage/handling of texts/supplies \$34.00*
- Airmail postage/handling to return lesson assignments/exams \$12.00*
- Express Mail, UPS, and other carriers **cannot** be used by Independent Study.

Program for Individual Learning

See University Degree Programs, University College

Radio Courses

Radio courses will be broadcast on KUOM, 770 AM, during fall, winter, and spring quarters. For a complete schedule of radio courses, see the red pages.

Reenrollment

If you did not complete an Independent Study course (e.g., canceled out of it, enrollment expired), if a reinstatement is not possible in that course, or if you received a grade of F and would like to take the same course again, you must reenroll in the course. To reenroll you have to fill out a registration form, pay 1991-92 tuition rates, buy the current required texts/supplies, and complete all the assignments and exams in the newest version of the course study guide.

General Information

Refunds

Part of your tuition can be refunded if you cancel within 90 days of the date of registration and if you have not submitted more than half of the lesson assignments in the course. Study guides, tapes, lab kits, and special equipment are not refundable. The refund schedule is given below. For students who use the partial payment plan, the \$8 service fee is not refundable. The refund process takes approximately five weeks.

100% tuition refund less \$20 cancellation fee--registration day through day 30 (no lesson assignments submitted)

75% tuition refund--registration day through day 30 (from one lesson assignment submitted through half of the lesson assignments submitted)

50% tuition refund--day 31 through day 60 (from no lesson assignments submitted through half of the lesson assignments submitted)

25% tuition refund--day 61 through day 90 (from no lesson assignments submitted through half of the lesson assignments submitted)

No refund--day 91+

Reinstatements

You have one year from the date of registration to complete most Independent Study courses. In most cases, if you purchased the course texts/supplies but did not complete the course in that one year, you may extend your enrollment for one additional year (but **only one** year) by paying a reinstatement fee of \$30. Sometimes, however, reinstatements are not possible because of a change of instructor, changes in course content/requirements, etc.

If you did not purchase the course texts/supplies and the course has been updated to a new edition of the required texts/supplies, you must reenroll (see Reenrollment, above).

Reinstatements must be **requested in writing**. Use the reinstatement request form included in your study guide. Reinstatements should be requested before enrollment expires. If you do not reinstate before the expiration date, you will have 30 days from the date of expiration to reinstate. The reinstatement fee must be paid before additional lesson assignments can be submitted. If you do not reinstate within 30 days from the expiration date, a grade of F or N will be placed on your transcript. If you want to earn credits for that course, you must reenroll in it (see Reenrollment).

If you do reinstate, a grade of I (incomplete) will be placed on your transcript. If you complete your course within the one year reinstatement period, the I will be removed and a permanent grade (A-F or S-N) entered on your transcript. If you do not complete your course by the end of the reinstatement period, the I on your transcript will be changed to an F (fail) or N (no credit).

Sales Tax

See Taxable Items

Senior Citizens in Minnesota

Minnesota residents, 62 years of age or older, may register for Independent Study noncredit courses at no cost, and in credit courses for a tuition fee of \$6 per credit. Senior citizens who enroll in credit courses for no credit (see Enroll in a Credit Course on a Noncredit Basis) must also pay the \$6 per credit fee. Registrants are required to pay for the study guide, texts and supplies, and other required materials. For further information, telephone 612/624-0000 or write to the Department of Independent Study.

Social Security Number

Also see ID Number

Independent Study uses a student's Social Security number as an identification number. However, supplying this number is voluntary. If you do not furnish your Social Security number and do not have a University ID number, Independent Study will see that you are assigned a University ID number.

Student Services

Many student services are available to Independent Study students. Participation in some of these activities is dependent on credit load per academic quarter. A list of services is given below. For more information about participating in any of these programs, call the phone number given below. Students who are also enrolled in Extension Classes may count Independent Study credits as part of their total credit load. You **cannot** use your credit card to pay for student services.

Athletic tickets	(624-8080)
CEE student board	(625-1078)
Health service	(625-8400)
Intercampus bus service	(625-9000)
Library	(624-4552) (Also see Library and Audio-Visual Facilities)
Parking facilities	(625-6566)
Recreational facilities	(625-6800)
University Senate	(626-0214)

Study Guides

You are required to purchase the study guide for media-assisted courses; the cost is given with the course description. If you're enrolling in a media-assisted course, fill in the Study Guide line on the registration form. You are not required to pay for the study guide for other Independent Study courses.

If you are not enrolling in a course but would like to purchase a study guide, contact the Accounts Specialist, Department of Independent Study, for price and availability.

General Information

Tapes

Also see *Audiocassette Courses*, *Videocassette Courses*

Many Independent Study courses (e.g., language courses, music courses) use audiocassettes. If cassettes are required for a course, they are listed in the course study guide and/or with the course description in this bulletin. A student must have access to a cassette recorder in order to enroll in these courses or must be able to listen to the audiocassettes in the Learning Resources Center, Walter Library, Minneapolis campus. Audiocassettes are not returnable for a refund. Minnesota residents must pay sales tax on audiocassettes.



Taxable Items

Minnesota residents are required to pay sales tax on some supplies used in Independent Study courses. Minneapolis residents (or those who purchase supplies at Independent Study's offices) have to pay the Minneapolis sales tax rate. If you are ordering taxable supplies, fill in the appropriate space on the registration form. Some of the taxable supplies include:

- audiocassettes
- lab kits
- special materials

You are **not** required to pay tax on textbooks or videocassettes. You are encouraged to order your texts/supplies at the time you register; if you want to know whether or not to include tax on a specific item, call Independent Study.

Tax-Deductible Educational Expenses

An income tax deduction may be allowed for the expenses of University Continuing Education and Extension programs undertaken to maintain and improve professional skills. For more information about tax-deductible educational expenses, persons in the Twin Cities can call the Internal Revenue Service at 612/291-1422. Persons living outside the Twin Cities area can call (toll free) 1-800-424-1040.

Teacher Certification

See University Degree Programs section, College of Education

Television Courses

Television courses will be broadcast in the Twin Cities (KTCI, Channel 17), Appleton (KWCM, Channel 10), Austin (KSMQ, Channel 15), and Duluth (WDSE, Channel 8) during fall, winter, and spring quarters. For a complete broadcast schedule and list of television courses, see the red section.

Textbooks and Supplies

Also see Postage

Textbooks and supplies needed for a course are listed in the course study guide; the procedure for ordering them is explained in *Learning Outside the Classroom*, a booklet in the front cover of the study guide. Tuition does not cover the cost of texts and supplies. The price of texts/supplies is given in the Course Descriptions section of this bulletin.

It is important to **purchase the required texts/supplies used in a course when you register** and to begin submitting assignments soon after you register. Because text editions can be updated by publishers, you may not be able to obtain the required texts/supplies at a later date. In this situation, you will not be able to complete the

General Information

course, will not be allowed to reinstate your registration, an F or N will be placed on your transcript, and therefore you will have to reenroll if you want to earn credits for the course.

You can buy your texts in person at the Information counter in the Minnesota Book Center (Williamson Hall, Minneapolis campus) or by mail through Independent Study. To order books by mail, mark the appropriate spaces on the registration form and add the amount for the texts (given in the course description) plus the appropriate postage/handling fee (see Postage) to your tuition check. Allow two or three weeks for delivery of texts and supplies. Study guides, lab kits, tapes, and special equipment are **not** returnable for refunds.

Students who want to **sell their books after completing a course** should contact the Minnesota Book Center, University of Minnesota, Williamson Hall, 231 Pillsbury Dr. SE, Minneapolis, MN 55455; telephone 612/625-6000. Only books in current use will be purchased.

Students who want to **return their books after canceling a course** should complete the Textbook Return Form (included in the study guide). Full refunds for books will be given only if you cancel your course registration within **three months** of the date of registration, have **not** submitted any lesson assignments, and have not written in your texts. A textbook is considered used or a buy back if there is any writing in it. If a student cancels a course after three months, his or her books will be considered buy backs.

Procedures for returning books after canceling registration in a course are given below.

- If you purchased books in person at the Minnesota Book Center, bring the Textbook Return Form to Independent Study for verification of cancellation. Then bring the verification and your texts to the Minnesota Book Center, where your refund will be processed.
- If you ordered your books by mail, bring or send the Textbook Return Form and your texts to Independent Study, where your cancellation will be verified and your refund processed. The refund process takes approximately five weeks.

Toll-Free Information Number

Independent Study now has a toll-free 800 number for students who live outside the Twin Cities area. Students who **live within** the Twin Cities should call the Independent Study general number (624-0000) for all information.

Students **outside** the Twin Cities area who want information on registration and course availability may call: 1-800-234-6564. For information on partial payment, texts, lesson assignments, grades, etc., these students must call the Independent Study general number: 612/624-0000.

Transcripts and Educational Records

Two types of services are available to obtain official transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 per transcript copy. Processing time for regular service is two to three working days; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript is available for \$9 per transcript copy. Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day the request is received. You must have a picture ID (student identification card or driver's license) to receive over-the-counter rush service.

Official transcripts can be requested by mail or in person. No telephone requests are accepted. Requests should include your full name, Social Security number, date of birth, dates of enrollment, and complete address(es) where the transcripts should be mailed. Send your requests to (or drop them off at) the Certifications Unit, University of Minnesota, 155 Williamson Hall, 231 Pillsbury Drive SE, Minneapolis, MN 55455. Your request must include a check or money order payable to the University of Minnesota for \$3 or \$9 a transcript.

You may pick up an unofficial copy of your record by presenting your request (picture ID required) at the quick-service window in 155 Williamson Hall. There is no charge for the quick-service request, but there is a limit of one copy per day.

Independent Study grades are automatically recorded for undergraduates on their University of Minnesota transcript. It is no longer necessary to request that your grades be transferred to your day school record. Graduate and professional school students still must petition for transfer of Independent Study credits to graduate or professional school records. Complete a Request for Transfer form at Independent Study, 45 Wesbrook Hall, or at the Student Relations Unit, 150 Williamson Hall (625-5333).

A grade slip is sent to you on completion of each Independent Study course. If you want a transcript that includes your Independent Study grade, do not request a transcript until you have received your Independent Study grade slip.

Access to Student Educational Records

In accordance with regents' policy on access to student records, information about a student generally may not be released to a third party without the student's permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information--name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors received, and degrees earned--is considered public or directory information. Students may prevent the release of public information only during their terms of enrollment. To do so, students must notify the records office on their campus.

General Information

Students have the right to review their educational records. The regents' policy, including a directory of student records, is available for review at the Williamson Hall Information Center, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall, 612/625-5333.

Transfers

See Cancel/Add

Tuition

Tuition for Independent Study courses is \$60.75 per credit for 0000- and 1000- level courses. The tuition for 3000- and 5000-level courses varies by school. The tuition for each course is listed with the course description. Texts and supplies are not included in the tuition and must be purchased separately (see Textbooks and Supplies; Postage). You must register for Independent Study courses directly with the Department of Independent Study; Independent Study has no commercial agents in this country or abroad. You must pay all fees in American currency.

Students registering for graduate credit (see University Degree Programs section, Graduate School) pay Independent Study tuition rates. However, when credits are transferred to a student's Graduate School record, that student will be charged the difference--if any--between Independent Study and Graduate School tuition for credits accepted on his or her program. The tuition difference charged will be the difference between the tuition rates in effect at the time the course is transferred to the student's Graduate School record.

Returned Check—If your tuition check is returned because of insufficient funds or a stop payment request:

1. your registration in the course will be canceled, and
2. a hold will be placed on your University record until you pay all of the following:
 - a. a \$15 check handling fee
 - b. a \$20 course cancellation fee or 25% to 100% of tuition (depending on registration date and the number of assignments submitted)
 - c. the \$8 partial payment fee (if applicable)
 - d. the cost of the course study guide, supplies, and texts (if applicable)

Tuition and fees are subject to change without notice, and also subject to approval by the Board of Regents.

Partial Payment Plan

Independent Study offers a partial payment plan for those who cannot pay full tuition at the time of registration. This plan does **not** apply to tuition paid by credit card. Texts and supplies ordered through Independent Study must be paid in full at the time of purchase.

General Information

Under this plan, one-third of the total tuition, plus a service charge of \$8 per course, is paid at the time of registration. The remaining two-thirds is payable in two equal monthly payments due 30 and 60 days after the date of registration.

A sample payment schedule (including the \$8 service charge) for 1000-level courses is given below.

Tuition	1st pmt (at regist.)	2nd pmt (30 days)	3rd pmt (60 days)
\$182.25 (3 cr @ \$60.75/cr)	\$ 68.75	\$ 60.75	\$ 60.75
\$243.00 (4 cr @ \$60.75/cr)	\$ 89.00	\$ 81.00	\$ 81.00
\$303.75 (5 cr @ \$60.75/cr)	\$109.25	\$101.25	\$101.25

Lesson assignments will be accepted only through that third of the course for which tuition has been paid. For example, a student enrolled in a 12-lesson course will not receive instruction beyond lesson 4 if he or she has only made the first payment. A course grade will not be issued until all payments are received and processed.

Registration will be canceled if total tuition has not been paid within 90 days of the original registration date unless special permission has been obtained from the Administrative Director of Independent Study. Once registration has been canceled, you may continue in a course only after reenrolling (see Reenrollment).

Students who want to use the partial payment plan should fill in the appropriate space on the registration form and send it, along with the service charge, the first payment, and any other special fees, to Independent Study.

Videocassette Courses

After a course is broadcast for the first time over television, it becomes available as a videocassette course. Several correspondence courses also include videocassettes. Descriptions of these courses are given in the Course Descriptions section of this bulletin. A list of videocassette courses is given in the red section.

Most videocassette courses are available on VHS cassettes for home use. To rent videocassettes from Independent Study, fill in the appropriate space on the registration form and include a \$50 fee (\$25 rental plus \$25 deposit). The \$25 deposit will be refunded when you return the course videocassettes to Independent Study in good condition. You can use the videocassettes for six months, although you have one year from the time you registered to complete the course. If you do not return the course videocassettes, a hold will be placed on your University record. If you lose or damage a videocassette, you will be required to pay the cost of replacing it (up to \$100). Home Video courses are available only within the continental United States.

General Information

If you do not want to rent videocassettes from Independent Study, you can go to the following University of Minnesota locations to view the video programs. The Twin Cities center has all the programs for all videocassette courses; the other centers have some of the programs. Please call the center you want to visit to check on cassette availability and its open hours. If the programs you need are not available at the specific center, call 612/624-4393 to ask about the programs; special arrangements can sometimes be made to send them to a center.

- Twin Cities: Learning Resources Center
 15 Walter Library
 Minneapolis campus
 612/624-1584
- Duluth: Media Services Center
 248 Library
 Duluth campus
 218/726-6121
- Morris: Morris Learning Center
 232 Community Services Building
 Morris campus
 612/589-2211, ext. 6456
- Rochester: Rochester Center
 1200 South Broadway
 Rochester, Minnesota
 507/288-4584

Withdrawals

See Cancellations

How to Register

Selecting a Course

You must assume full responsibility for enrolling in courses appropriate to your needs and educational level, and completing them. See the General Information section for information on Course Completion, Cancel/Add, Cancellations, Reinstatements, Refunds.

In order to choose a course appropriate to your educational needs, wants, and abilities, it is important that you understand the course description format used in this bulletin.

- Courses are listed under **departmental or subject headings**, alphabetically arranged. Where other classifications are possible, cross references are given. Also refer to the index.
- The description below indicates the information that is found in all college course descriptions in this bulletin.

1	2	3							
Engl 3111 SURVEY OF ENGLISH LITERATURE I (3567)									
12 assignments--1 exam--\$248--4 degree credits--text price \$35--1 audiocassette \$3.50--McNaron									
4	5	6	7	8	9	10			

A historical survey of the major figures, movements, and trends in English literature. This course will consider the works of Chaucer, Marvell, Spenser, Shakespeare, and Donne.

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1. Department designation and course number
2. Course title
3. Department of Independent Study (DIS) reference number
4. Number of assignments (if a course lists a small number of assignments, they are usually longer papers)
5. Number of exams
6. Tuition
7. Number and kind of credits offered (i.e., degree or certificate)
8. Price of texts
9. Price of audiocassettes, lab kits, or other special materials

How to Register

10. Author/instructor's last name (faculty are listed after each department or subject heading)
11. Course content and prerequisites, if any

- Some colleges and universities set restrictions governing the acceptance of Independent Study credits. Contact your college or department office before enrolling in a course if you plan to apply it to a specific program. If you have any questions about the applicability of credits, contact:

CEE Counseling
University of Minnesota
314 Nolte Center
315 Pillsbury Drive SE
Minneapolis, MN 55455
612/625-2500

- Additional information about a course can be obtained by writing to the Department of Independent Study for an introduction to the course study guide. Use the form at the end of this bulletin. Study guides are also available for inspection at the Independent Study office.
- The University uses the following college course numbering system.

0001 to 0998	Noncredit or certificate courses; certificate credit course numbers are followed by a "C"
1000 to 1998	Introductory courses primarily for freshmen and sophomores
3000 to 3998	Intermediate courses primarily for juniors and seniors; also open to other students with at least a C average and the necessary prerequisites
5000 to 5998	Advanced courses for juniors, seniors, and graduate students (credits earned through Independent Study, except for specific broadcast television and other courses, are not accepted as graduate credit in the University of Minnesota Graduate School)
- Generally, 3000- and 5000-level courses are more difficult than 1000-level courses. However, you may register in any course you believe you can successfully complete and for which you meet the prerequisites. If you have any questions about course difficulty, contact the instructor (in care of the Department of Independent Study) or the CEE Counseling Office.
- If you need or want a course not listed in this bulletin, it may be available from one of the other member institutions of the National University Continuing Education Association (N.U.C.E.A.). See the General Information section, N.U.C.E.A., for more information.

To Register

- You can register for most Independent Study courses at any time.
- Complete the registration form in the center of this bulletin (a partial sample is shown below). Some of the information on the back is required for federal reporting purposes; the rest will help us learn more about our students and what types of courses they want and need.

DISNO.	DEPT.	COURSENO.	COURSE TITLE	CREDITS	A-FOR S-N	TUITION
A371	Engl	5363	James Joyce	4	A-F	\$ 248
						\$
						\$

TYPE OF PAYMENT	AMOUNT DUE	CREDIT CARD INFORMATION (Full Payment Only)
Full Payment <input checked="" type="checkbox"/>	Tuition \$ 248.00	Visa <input checked="" type="checkbox"/> MasterCard <input type="checkbox"/>
	Textbooks \$ 72.00	
Partial Payment <input type="checkbox"/> (1/3 tuition + \$8 service charge)	Partial Pay Serv Chg \$ _____	Card# 0000000000000000
	Study Guide \$ 10.00	Exp. Date 6/93
	Tapes, Audio* \$ 24.75	MasterCard Bank# _____
	VCR \$ _____	Name on Card Jay Green
	Other, Supplies* \$ _____	Signature <i>Jay Green</i>
	Postage \$ _____	
	Tax* \$ 1.48	
	TOTAL \$ 356.23	

* Taxable items at 6%.
Mpls. residents pay 6.5%

- Mail or bring your completed registration form with full or partial-payment tuition to Independent Study at the address below. It is important to obtain the required texts/supplies immediately after you register. You can send one check for tuition, texts and supplies (prices are given with the course description), shipping/handling (see Postage), and tax. Make your check or money order payable to the University of Minnesota, or fill out the Credit Card Payment box on the registration form.

Department of Independent Study
 University of Minnesota
 45 Wesbrook Hall
 77 Pleasant St. SE
 Minneapolis, MN 55455

How to Register

- If you are registering for a Home Video course, indicate this on the registration form and include the \$50 rental fee (\$25 refundable).
- If you are registering under the G.I. Bill, please indicate this when you register.
- After you register, you will receive a comprehensive study guide, computerized submission forms, and mailing labels.
- Students who have not received a fee statement/course confirmation form three weeks after mailing in their registration and tuition should call 612/624-0000.

Course Descriptions

Accounting (Management)

Also see Business Studies

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

Gordon Heslop, D.B.A., Professor of Accounting, Mankato State University

Dennis R. Lassila, Ph.D., C.P.A., Graduate Tax Faculty, Texas A & M University

Acct 1024 PRINCIPLES OF FINANCIAL ACCOUNTING I (1531)

16 assignments--2 exams--\$182.25--3 degree credits--text price \$67--Heslop
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. Must be taken A-F.

Acct 1025 PRINCIPLES OF FINANCIAL ACCOUNTING II (1525)

16 assignments--2 exams--\$182.25--3 degree credits--text price \$67--Heslop
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. Must be taken A-F. (Prerequisite: Acct 1024 or introductory college accounting course)

Acct 1051 MANAGERIAL ACCOUNTING (1530)

16 assignments--2 exams--\$243--4 degree credits--text price \$51--Heslop
Accounting analysis and reports for managerial decisions. Information for planning and controlling of operations. Must be taken A-F. (Prerequisites: Acct 1025 and at least 90 credits completed or in progress) **Available until Jan. 1, 1992 (will be replaced by Acct 3001, below).**

Acct 3001 INTRODUCTION TO MANAGEMENT ACCOUNTING (1540)

\$275 (plus texts)--4 degree credits--Heslop
A broad overview of management accounting as the main information collection and analysis technology of an organization. Topics include analysis of cost-volume-profit relationships, budgeting and analysis of variances from budgeted performance, and issues relating to decentralized organizational design. Must be taken A-F. (Prerequisite: Acct 1025 or Acct 1050) **Available Jan. 1, 1992.**

Course Descriptions

Acct 5135 INCOME TAX ACCOUNTING (1584)

16 assignments--1 exam--\$275--4 degree credits--text price \$55--Lassila
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. Covers recent tax laws, including those enacted in 1989 and 1990. Must be taken A-F. (Prerequisite: Acct 1025 or Acct 1050 or equivalent and at least 90 credits taken or in progress)

Adolescent Psychology

See Child Psychology

Afro-American and African Studies (CLA)

Charles Pike, Ph.D., Assistant Professor, Afro-American and African Studies

Afro 3601 INTRODUCTION TO AFRICAN LITERATURE (A376)

Audiocassette course--11 assignments--2 exams--\$248--4 degree credits--text price \$54--study guide and supplement \$20--11 audiocassettes \$27--Pike
A survey of 19th and 20th century African literature, including oral narratives, written poetry, short stories, novels, and plays. All readings in English.

Afro 3601 INTRODUCTION TO AFRICAN LITERATURE (K376)

Radio course--11 assignments--2 exams--\$248--4 degree credits--text price \$54--study guide and supplement \$20--Pike
See above. **Broadcast: winter 1992 on KUOM radio, 770 AM (see the red section).**

Agricultural and Applied Economics (Agriculture)

Charles C. Lyon, Ph.D., Research Assistant, Agricultural & Applied Economics

AgEc 1400 AGRICULTURAL MARKETS AND PRICES (1082)

14 assignments--2 exams--\$243--4 degree credits--text price \$46--Lyon
Agricultural markets and marketing systems; food consumption and demand; agricultural production and supply; market prices; marketing margins; markets over space and time; quality differences and grades for farm products; market information; market structure analysis; marketing and pricing institutions; market and price policy; and marketing pricing and economic development. (Prerequisite: Econ 1002 or equivalent)

Agriculture

See Animal Science; Entomology; Food Science and Nutrition; Horticultural Science

American Studies (CLA)

Roger Clemence, MLA and M. Arch., Professor, School of Architecture and Landscape Architecture

Randolph Cox, M.A., Associate Professor and Reference Librarian, St. Olaf College

Judith Martin, Ph.D., Associate Professor, Center for Urban and Regional Affairs

Nancy L. Roberts, Ph.D., Associate Professor of Journalism and Mass Communication, and adjunct faculty member, Program in American Studies

AmSt 1920 TOPICS IN AMERICAN STUDIES: ELLERY QUEEN AND THE AMERICAN DETECTIVE STORY (A141)

Audiocassette course--7 assignments--no exams--\$243--4 degree credits--text price \$23--study guide \$10--10 audiocassettes \$24.75--Cox

Examines some of the reasons for the popularity of Ellery Queen--author, detective-hero, scholar, editor, and critic. This versatile gentleman represents much of the history and style of the American detective story. Novels and stories from the four "periods" of the Queen canon, as well as other representative American writers, are assigned for reading and discussion.

AmSt 3920/5920 TOPICS IN AMERICAN STUDIES: THE MEANINGS OF PLACE (V143/V143.1)

Videocassette course--6 assignments--no exams--\$248--4 degree credits--text price \$56--study guide \$20--video rental \$50 (\$25 refund)--Clemence and Martin

This course provides direct experiences in analyzing the cultural and psychological messages of our surroundings. With guidance from a cultural historian and a landscape architect, students will observe and explore various settings to discover what present day environments can reveal about the past and to gain a better understanding of the connections between sense of place and feelings of well-being. Places picked for analysis include the Minneapolis and St. Paul central districts, selected Twin Cities neighborhoods, village and small town settings inside and outside Minnesota, and various landscapes of the open countryside. Students may receive credit for only one of the following: AmSt 3920, AmSt 5920, or Arch 5956. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Learning Center, or on their Home VCR (see General Information, Videocassette Courses).**

AmSt 3970 DIRECTED STUDY: AMERICAN ARCHITECTURE TO 1860 (1408.1)

11 assignments--no exams--\$248--4 degree credits--text price \$58--Roberts

Selective examination of building forms and patterns in America, with attention to Old World antecedents and their vernacular expressions during the pre-Revolutionary period. The scope of this course extends into the mid-19th century, covering the birth of a national style (architecture as politics). Also available as Arch 3970.

Animal Science (Agriculture)

Robert M. Jordan, Ph.D., Professor of Animal Science

AnSc 1600 HORSE PRODUCTION (1041)

13 assignments--1 exam--\$243--4 degree credits--text price \$37--Jordan

Breeds and selection, inheritance and reproduction, nutrition and management of the weanling, mare, and stallion; farriery, tack and equipment, diseases and health; and stable management.

Course Descriptions

Anthropology (CLA)

Fay Cohen, Ph.D. Professor and Academic Program Coordinator, School for Resource and Environmental Studies, Dalhousie University

Luther P. Gerlach, Ph.D., Professor of Anthropology

John Ingham, Ph.D., Associate Professor of Anthropology

Janet Spector, Ph.D., Associate Professor of Anthropology

Anth 1101 HUMAN ORIGINS (1103)

4 assignments--no exams--\$303.75--5 degree credits--text price \$64--Spector

World prehistory as investigated by archaeologists is the major topic of this course. The methods and concepts employed by archaeologists in the study of human origins and prehistoric biological and cultural development are also considered.

Anth 1102 INTRODUCTION TO SOCIAL AND CULTURAL ANTHROPOLOGY (1102)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$66--Cohen

Study of cultures in all parts of the world, directed toward a broad understanding of how people view their world, cope with their environments, and organize their lives.

Anth 1102 INTRODUCTION TO SOCIAL AND CULTURAL ANTHROPOLOGY (V112)

Videocassette course--2 assignments--1 exam--\$303.75--5 degree credits--text price \$53--study guide \$20--video rental \$50 (\$25 refund)--Gerlach

An introduction to the ways in which the cross-cultural, comparative, and holistic study of contemporary societies and cultures across the world and of their social, political, economic, technological, and religious institutions can provide an understanding of human diversity, adaptation, and condition. **Students view the cassettes at Walter Library, Morris Learning Center, or on their Home VCR (see General Information, Videocassette Courses).**

Anth 5141 CULTURE AND PERSONALITY (1197)

1 assignment--2 exams--\$248--4 degree credits--text price \$46--Ingham

Examines the relation between culture and personality, with emphasis on recent work in psychoanalytic anthropology. Topics include human nature, child development, personality, mental illness, group psychodynamics, religious ritual and symbolism, and war.

Architecture (Architecture and Landscape Architecture)

Roger Clemence, MLA and M. Arch., Professor, School of Architecture and Landscape Architecture

Judith Martin, Ph.D., Associate Professor, Center for Urban and Regional Affairs

Nancy L. Roberts, Ph.D., Associate Professor of Journalism and Mass Communication, and adjunct faculty member, Program in American Studies

Arch 3970 DIRECTED STUDY: AMERICAN ARCHITECTURE TO 1860 (1408)

11 assignments--no exams--\$292--4 degree credits--text price \$58--Roberts

See AmSt 3970. You cannot take this course if you have already received credit for AmSt 3970. This course can only be used as an elective for architecture degrees.

Arch 5956 THE MEANINGS AND MESSAGES OF PLACE: CITY, TOWN, AND COUNTRYSIDE (V143.2)

Videocassette course--6 assignments--no exams--\$292--4 degree credits--text price \$56--study guide \$20--video rental \$50 (\$25 refund)--Clemence and Martin
See AmSt 3920/5920. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Art (CLA)

Sheila McNally, Ph.D., Professor of Art History

ArH 1001 INTRODUCTION TO THE VISUAL ARTS (V121)

Videocassette course--2 assignments--2 exams--\$243--4 degree credits--text price \$40--study guide \$10--video rental \$50 (\$25 refund)--McNally
Basic problems of art. Examples of painting and sculpture analyzed to illustrate the roles of art in society, problems of design, materials and techniques, presented topically rather than chronologically. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Astronomy (GC)

Ivan M. Policoff, M.A., M.S., Associate Professor, Science, Business, and Mathematics Division, General College

GC 1161 PHYSICAL SCIENCE: SOLAR SYSTEM ASTRONOMY (1314)

15 assignments--3 exams--\$303.75--5 degree credits--text price \$42--Policoff
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 and their satellites in the solar system, and instruments used by astronomers. Observations of the night sky. Elementary algebra suggested.

GC 1162 PHYSICAL SCIENCE: STELLAR ASTRONOMY (1315)

16 lessons--\$303.75 (plus texts)--5 degree credits--Policoff
An introductory survey of the large scale structures of the universe, including the definition of certain properties of stars (magnitude, luminosity, brightness). Topics: the sun, the spectral classification of stars, white dwarfs, neutron stars, black holes, clusters, nebulae, galaxies, quasars, cosmology, and cosmogony. Observation of the night sky included. Knowledge of elementary algebra helpful. **This course is now in preparation; please inquire before enrolling.**

Beekeeping

See Entomology

Course Descriptions

Biology (Biological Sciences)

Robert Brooker, Ph.D., Assistant Professor, Genetics and Cell Biology

Biol 1009 GENERAL BIOLOGY (1601)

15 assignments--2 exams--\$303.75--5 degree credits--text price \$60--lab kit \$30--Brooker
An introduction to the general principles of biology. Topics include the cell, metabolism, heredity, reproduction, ecology, and evolution. Simple laboratory exercises are performed.

Biol 5004 CELL BIOLOGY (1603)

11 lessons--\$219 (plus texts)--3 degree credits--Brooker
Structures and functions of membranes, organelles, and other macromolecular aggregates found in plant, animal, and bacterial cells. Cell form and movement, intercellular communication, transport, and secretion. (Prerequisite: Biol 5001) **This course is now in preparation; please inquire before enrolling.**

Business

See the following departmental listings for course offerings:

Accounting

Business, Government and Society

Business Law

Business Studies

Educational Policy and Administration ("Personal Time Management")

Industrial Relations

Information and Decision Sciences

Management

Marketing

Operations and Management Science

Statistics

Textiles and Clothing

Business, Government and Society (Management)

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

Robert Holloway, Ph.D., Professor Emeritus, Strategic Management and Organization, Carlson School of Management

Mark Weber, M.B.A., J.D., Teaching Assistant, Strategic Management and Organization, Carlson School of Management

BGS 3002 BUSINESS AND SOCIETY: ETHICS AND STOCKHOLDER MANAGEMENT (1594)

12 assignments--2 exams--\$275--4 degree credits--text price \$45--Weber
Basic economic and social goals, and various attempts to meet them. Emphasis on American

society. Business as an institution; its relationships to other institutions and society. Ethical and practical conflicts in the role of the firm and the manager examined in the context of the public policy process. Current social issues and their impact on business.

BGS 3004 INTERNATIONAL BUSINESS (1591)

2 assignments--2 exams--\$275--4 degree credits--text price \$55--Holloway

World business, with emphasis on the global economy, international concepts, global business structures, comparative cultures and environments, global business strategies, multinational corporations and technology, personnel and operations in host nations. Must be taken A-F. (Prerequisite: at least 90 credits completed or in progress)

Business Law (Management)

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

Dennis Hower, J.D., Professor, Science, Business, and Mathematics Division, General College

BLaw 3058 INTRODUCTION TO LAW, AND THE LAW OF CONTRACTS AND SALES CONTRACTS (1859)

13 assignments--2 exams--\$275--4 degree credits--text price \$72--Hower

Study of the origin of law, its place in and affect 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; and law affecting the sale of goods contracts. Must be taken A-F. (Prerequisites: Econ 1101 or equivalent and at least 90 credits completed or in progress) Students may not receive credit for both BLaw 3058 and GC 1534.

BLaw 3078 AGENCY, PARTNERSHIPS, CORPORATIONS, AND COMMERCIAL PAPER (1860)

11 assignments--2 exams--\$275--4 degree credits--text price \$72--Hower

A study of law affecting the relationship between principal and agent, master and servant, and employer and employee. Topics: partnership and corporate forms of business entities (including the methods of creating the relationships), the law developed to regulate and control these organizations and their members, and contracts referred to as commercial papers (negotiable instruments), with emphasis on effect of the Uniform Commercial Code. (Prerequisite: BLaw 3058 or GC 1534 and at least 90 credits completed or in progress)

BLaw 3088 LAW OF PERSONAL PROPERTY, REAL PROPERTY, WILLS AND ESTATES (1861)

14 assignments--2 exams--\$275--4 degree credits--text price \$72--Hower

Study of the basic concepts of personal property, including rights of possessors, bailee, finders and holders of security interests. Also includes study of the basic concepts and principles of real property law; transfers of ownership, control of and encumbering such interests. Concludes with a brief study of the law of wills and estates in passing rights to property in event of death. (Prerequisite: BLaw 3058 and at least 90 credits completed or in progress)

Course Descriptions

Business Studies (GC)

Dennis Hower, J.D., Professor, Science, Business, and Mathematics Division, General College

Patrick Kroll, Education Specialist, Associate Professor, Science, Business, and Mathematics Division, General College

Roger Larson, Ph.D., Professor, Science, Business, and Mathematics Division, General College

Shari Peterson, M. Ed., Assistant Professor, Science, Business, and Mathematics Division, General College

GC 1235 UNITED STATES: LAW IN SOCIETY (1615)

14 assignments--2 exams--\$243--4 degree credits--text price \$56--Hower

In order to give students an appreciation of the role of law in our changing society, the legal aspects of current topics are discussed. Topics include: court and court systems; grand and petit juries; corrections; welfare and domestic problems; consumer issues including insurance (no-fault auto and life); wills and probate procedures. A civil law suit, from beginning to end, is explained. Each student is required to complete a project paper.

GC 1511 INTRODUCTION TO MODERN BUSINESS (1625)

18 assignments--1 exam--\$303.75--5 degree credits--text price \$42--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 only want to survey the field.

GC 1513 PRINCIPLES OF SMALL BUSINESS OPERATIONS (1628)

14 assignments--2 exams--\$303.75--5 degree credits--text price \$63--Kroll

The importance of small business in the United States, and the challenges, pitfalls, and procedures related to starting and operating a small business. Emphasis on strategic planning, internal analysis of potential firm's strengths and weaknesses versus the competition, and writing a business plan. Functional components include accounting and finance, marketing and management. Distinct assignments for students who only want to learn about small business and for those who plan to actually start their own small business.

GC 1534 PRACTICAL LAW (1620)

15 assignments--1 exam--\$243--4 degree credits--text price \$84--Hower

Designed to acquaint students with common legal problems. Topics include: definition and sources of law; formation and discharge of contracts; torts (personal injury and property damage suits); criminal law; bailments; nature and classification of real and personal property; joint ownership and tenancy. Students may not receive credit for both GC 1534 and BLaw 3058.

GC 1540 ACCOUNTING FUNDAMENTALS I (1527)

13 assignments--2 exams--\$243--4 degree credits--text price \$72--Larson

The first of a two-part introductory course in college accounting, which is designed for both business and nonbusiness students. Starts with a study of balance sheet and income statement methodology, continues through the accounting cycle for both service and merchandising businesses, and concludes with an examination of special journals, inventories, receivables, and accounting for plant assets.

GC 1542 ACCOUNTING FUNDAMENTALS II (1528)

13 assignments--2 exams--\$243--4 degree credits--text price \$90--Larson
Continues GC 1540 accounting sequence. Topics include handling dividends, retained earnings and treasury stock, debt, investments, financial reporting, and sources and uses of working capital. Also examines financial statements, accounting for manufacturing operations, and cost analysis problems. (Prerequisite: GC 1540)

GC 1551 MARKETING: INTRODUCTION (1622)

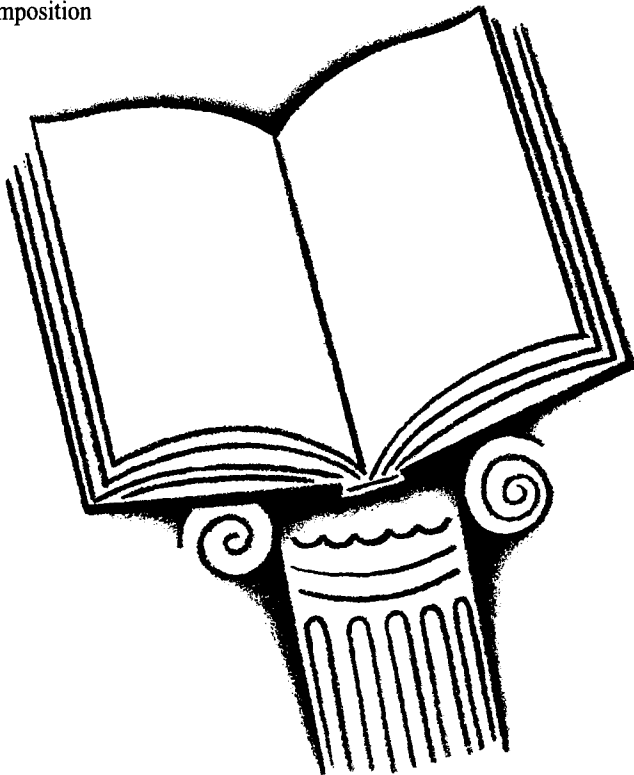
13 assignments--2 exams--\$303.75--5 degree credits--text price \$34--Peterson
Emphasis on application of the fundamentals of marketing. Topics include target markets, segmentation analysis, marketing mix, and strategic marketing.

GC 1553 MARKETING: PRINCIPLES OF MANAGEMENT (1623)

13 assignments--3 exams--\$303.75--5 degree credits--text price \$43--Peterson
Emphasis on application of the principles of management. Specific topics include planning, organizing, directing, controlling, decision-making, leadership, and group dynamics.

Business Writing

See Composition



Course Descriptions

Chemistry (GC)

Richard E. Uthe, Ph.D., Associate Professor, Science, Business, and Mathematics Division, General College

GC 1166 PHYSICAL SCIENCE: PRINCIPLES OF CHEMISTRY (7725)

14 assignments--5 exams--\$303.75--5 degree credits--text price \$35--Uthe
Fundamental principles and laws of chemistry, stressing the development and application of theories and their roots in experience. Problem-solving techniques applied to chemistry. Topics include classification of matter, elements, atomic and molecular structure, compounds and chemical bonding, mole calculations, percent composition and empirical formulas, chemical equations and reactions, stoichiometry, solutions and solution concentrations, acids and bases, gases and gas laws, organic chemistry, and others. Students gain general understanding of both the content and process of the science of chemistry. (Prerequisite: basic background in elementary algebra)

Child Psychology (Education and GC)

Also see Psychology

W. Andrew Collins, Ph.D., Professor, Child Psychology

Ann Ellis, M.A., Ph.D. candidate, Teaching Specialist, Child Development

Sander Latts, Ph.D., Associate Professor, Social and Behavioral Sciences Division, General College

Nancy Leffert, Ph.D., Teaching Assistant, Institute of Child Development

Catherine Sullivan, M.A., Teaching Assistant, Institute for Child Development

CPsy 1301 INTRODUCTORY CHILD PSYCHOLOGY (8283)

13 assignments--2 exams--\$243--4 degree credits--text price \$54--Leffert
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 3302 INFANCY (8285)

13 assignments--2 exams--\$292--4 degree credits--text price \$61--Ellis
Perceptual, motor, emotional, social, and cognitive development during the first two years of life; the developing infant in his or her social and physical environment. (Prerequisite: CPsy 1301 or consent of instructor)

CPsy 3304 INTRODUCTION TO MATURITY AND AGING (8284)

12 assignments--1 exam--\$292--4 degree credits--text price \$49--Sullivan
Exploration of practical and theoretical issues in the psychology of maturity and aging. Also, a review of developmental changes in perceptual-motor, cognitive, and social behavior from young adulthood to old age. (Prerequisite: CPsy 1301)

CPsy 5303 ADOLESCENT PSYCHOLOGY (8282)

14 assignments--1 exam--\$292--4 degree credits--text price \$59--Leffert
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)

CPsy 5331 PROCESSES OF SOCIAL DEVELOPMENT (8287)

16 assignments--1 exam--\$292--4 degree credits--text price \$53--Collins
Processes of individual change from infancy through adolescence and development of capacities for and influences of social relations; research, methodology, and theoretical perspectives. (Prerequisite: CPsy 1301 or equivalent)

GC 1284 BEHAVIOR PROBLEMS OF CHILDREN (8288)

13 assignments--2 exams--\$243--4 degree credits--text price \$55--Latts
This course deals with the identification of maladaptive behavior in children, and suggests ways of coping with children demonstrating such behavior. The focus is the child at home, at school, and in social relationships. The course examines the effects of heredity, family experience, peer pressure, and socioeconomic class on the development of behavior problems in children.

Chinese

See East Asian Studies

Civil Engineering (IT)

Eugene L. Skok, Ph.D., Adjunct Professor of Civil Engineering

CE 0302 CONCRETE AND CONCRETE MATERIALS (2896)

16 assignments--2 exams--\$182.25--3 certificate credits--text price \$74--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 related topics. (Prerequisite: Basic knowledge of algebra, physics, and chemistry)

Classics (CLA)

Lane Smith, B.A., Ph.D. candidate and Teaching Assistant, Classical and Near Eastern Studies

Gerald Erickson, Ph.D., Professor of Classical Studies

Clas 1019 MAGIC, WITCHCRAFT, AND THE OCCULT IN GREECE AND ROME (A524)

Audiocassette course--3 assignments--1 exam--\$243--4 degree credits--text price \$19--study guide \$10--10 audiocassettes \$24.75--Erickson
Magic and witchcraft in classical literature and mythology, the practice of magic as observed from

Course Descriptions

papyri, epigraphical and literary evidence, and beliefs and practices concerning prophecy and the interpretation of dreams are considered. The course also explores the changing role of witchcraft and divine possession from early to later antiquity, and the relation of these phenomena to changes in economic and social conditions.

Clas 1048 GREEK AND LATIN TERMINOLOGY IN THE MEDICAL AND BIOLOGICAL SCIENCES, AND THE HUMANITIES (5248)

16 assignments--1 exam--\$121.50--2 degree credits--no required texts--Smith
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. (Prerequisite: Clas 1045 or 3045 or concurrent registration in Clas 1045 or 3045)

Clas 3970 DIRECTED STUDIES: ROMAN REALITIES: LIFE AND THOUGHT IN THE ROMAN EMPIRE (A523)

Audiocassette course--11 assignments--no exams--\$248--4 degree credits--text price \$64--study guide \$10--10 audiocassettes \$24.75--Erickson
The eruption of Vesuvius buried and preserved the Italian cities of Pompeii and Herculaneum so quickly and completely that excavations now enable us to construct a vivid picture of life at that time. Using this evidence and other research, this course focuses on social history through the study of art, archeology, literature, dream interpretation, medical writing, and magic.

Clas 5004 EROTICISM AND FAMILY LIFE IN THE GRAECO-ROMAN WORLD (A526)

Audiocassette course--10 assignments--no exams--\$248--4 degree credits--text price \$67--study guide and supplement \$20--10 audiocassettes \$24.75--Erickson
Analysis of Greek and Roman family life in the shaping of personality; diachronic change in modes of erotic expression; Narcissism and homosexuality; the status and roles of women; evolving views of sexual morality in the ancient world compared to present trends. Representative views taken for analysis and discussion from art and literature. Development of early Christian attitudes toward sexuality.

Clas 5005 MADNESS AND DEVIANT BEHAVIOR IN ANCIENT GREECE AND ROME (A522)

Audiocassette course--15 assignments--no exams--\$248--4 degree credits--text price \$26--study guide \$20--15 audiocassettes \$36--Erickson
Definitions of madness in Greece and Rome and theories of its etiology; assessment of predisposing factors in Greece and Rome; examples of madness from mythology, legend, and history; cross-cultural comparison with contemporary United States.

Comparative Literature

See English

Composition and Communication (CLA)

Also see English, Creative and Professional Writing

Elin Anderson, M.A., Teaching Associate, English/Program in Composition and Communication

Richard Carr, M.A., Ph.D. candidate, Department of English

Martha Edwards, B.A., Teaching Assistant, History

Janet Drake Hamilton, M.A., Instructor, Composition and Geography
Scott Kassner, M.A., Ph.D. candidate, American Studies; Teaching Assistant, Composition
Justin J. O'Connell, B.A., English, Continuing Education and Extension
Lela Porter, Lecturer, English/Program in Composition and Communication
Donald Ross, Jr., Ph.D., Professor of English
Colette Wanless-Sobel, Ph.D., Lecturer in Composition and Communication

GC 0402 GRAMMAR AND USAGE REVIEW (3505)

11 assignments--1 exam--\$182.25--no credit--text price \$16--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 assignments indicate the student should do extra work. No theme or letter writing required in this course.

Comp 0011 PREPARATION FOR WRITING PRACTICE (3517)

12 assignments--no exams--\$182.25--no credit--no required text--Carr
This course is for students who need to build confidence in their writing ability. Exercises emphasize writing as a process--from generating and developing ideas, to writing clearly, to revising. S-N grading only.

Comp 1011 WRITING PRACTICE I (3543)

12 assignments--no exams--\$303.75--5 degree credits--text price \$30--Edwards
Journal-based practice in solving writers' problems: developing and organizing content, analyzing audience, drafting the whole essay and its parts, and revising and editing to master the fundamentals of expository structure and style.

Comp 1031 INTRODUCTION TO TECHNICAL AND BUSINESS COMMUNICATION (V351)

Videocassette course--8 assignments--no exams--\$121.50--2 degree credits --text price \$30--study guide \$10--video rental \$50 (\$25 refund)--Ross
Introduction to the processes used to define a topic, draft, and edit texts for business, government, and technical fields. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Comp 3011 WRITING ABOUT LITERATURE (3535)

9 assignments--1 exam--\$248--4 degree credits--text price \$62--Carr
Developing a critical argument about literary texts (novels, poems, plays, short stories) with attention to use of secondary sources. Examination and use of different modes of explication and criticism. (Prerequisite: Writing Practice requirement)

Comp 3012 WRITING IN THE HUMANITIES (3536)

12 assignments--no exams--\$248--4 degree credits--text price \$60--Carr
The major emphasis will be writing about the kind of texts ordinarily encountered in philosophy, history, cultural anthropology, social work, and inter-disciplinary fields. Initial work will concern ways to abstract and represent complicated discussions, including those of "primary" texts and "secondary" scholarship and commentary. Topics: effective analysis and argument, including the proper use and presentation of textual evidence, with attention paid to the evaluation of sources.

Course Descriptions

Intended for majors in anthropology, art history, geography, history, humanities, international relations, philosophy, political science, and social work. (Prerequisite: Writing Practice requirement)

Comp 3013 WRITING FOR THE ARTS (3537)

11 assignments--no exams--\$248--4 degree credits--text price \$32--Porter
Descriptions of painting, film, music, architecture, and other types of art (other than literature) as the basis for analysis. Initial emphasis will be on developing concise and unambiguous descriptions of art objects or performances. The chief emphasis will be on how descriptions serve as the basis for more complicated writing assignments, such as formal analyses and reviews. (Prerequisite: Writing Practice requirement)

Comp 3014 WRITING IN THE SOCIAL SCIENCES (3538)

10 assignments--no exams--\$248--4 degree credits--text price \$23--Wanless-Sobel
The initial concern will be to develop strategies for expressing quantitative or statistical information in clear prose. Attention will be given to how statistical tables and summaries interact with the written text and how to develop narrative and descriptive techniques for producing case studies and histories. The course will emphasize the proper use of qualitative information and case histories in the analysis of complex situations, and how the texture of writing should change for different audiences. Intended for social science majors. (Prerequisites: the Writing Practice requirement or equivalent)

Comp 3015 WRITING ABOUT SCIENCE (3539)

12 assignments--no exams--\$248--4 degree credits--text price \$23--Hamilton
This course is designed to improve the writing ability of students interested in science, and it focuses on two kinds of writing: writing about science and writing for science (the former is general; the latter, special). The various tasks science writing involves will be discussed and practiced, as will the various forms science writing can assume. This course will also consider the writing process and what makes for rhetorical effectiveness: organization, support, clarity, cleanliness, and appropriateness for the audience. As much as possible, the course will respond to individual student needs, interests, and abilities. (Prerequisites: the Writing Practice requirement or equivalent)

Comp 3031 TECHNICAL WRITING FOR ENGINEERS (3541)

12 assignments--no exams--\$248--4 degree credits--text price \$56--Anderson
The course deals with the problem of writing for a multiple audience (expert, executive, and lay), the writing process itself, and ways to master apprehension about writing. It also provides information about the appropriate format for technical writing, whether instruction manual, memo, or formal report. (Prerequisites: the Writing Practice requirement or equivalent)

Comp 3031 TECHNICAL WRITING FOR ENGINEERS (3544)

\$248 (plus texts and computer software)--4 degree credits--Ross
See above. Students must have access to an Apple computer (not Apple II) to use Hypercard computer software for this course. **This course is now in preparation; please inquire before enrolling.**

Comp 3032 PREPROFESSIONAL WRITING FOR BUSINESS (3542)

12 assignments--no exams--\$248--4 degree credits--text price \$67--Kassner
Focus on rhetoric, form, and style of business writing in reports, case studies, and correspondence. Practical examples. (Prerequisites: the Writing Practice requirement or equivalent)

Computers (IT and GC)

Douglas Robertson, Ph.D., Associate Professor, Science, Business, and Mathematics Division, General College

James Slagle, Ph.D., Professor, Computer Science

CSci 3001 PERSPECTIVES ON COMPUTERS AND SOCIETY (1902)

11 assignments--1 exam--\$292--4 degree credits--text price \$63--Slagle

The impact of computers on society--partnership or confrontation? History of development, potential for use, computer utility, benefits and potential problems, chip technology and computer-aided design, software development and maintenance, networks, use and misuse, graphics, artificial intelligence, computer-based education, applications in the office, business, and industry. Study guide available in print, in braille, and on audiocassette.

GC 1571 INTRODUCTION TO MICROCOMPUTER APPLICATIONS (1978)

9 assignments--1 exam--\$303.75 (plus texts)--5 degree credits--Robertson

Introduction to IBM microcomputer applications, including microcomputer components, operating system (DOS), word processing, spreadsheet, and database management software. This hands on laboratory course emphasizes solving problems using popular microcomputer applications software. All assignments done on computers. Software (i.e., the word processor, spreadsheet, and database management programs) is provided with the course materials, but students must have access to an IBM PC or compatible microcomputer or be able to use the microcomputers in one of the University computer labs. (Prerequisite: elementary algebra) **This course is now in preparation; please inquire before enrolling.**

Design, Housing, and Apparel (Human Ecology)

Timothy Blade, Ph.D., Associate Professor, Design, Housing, and Apparel

Dsgn 3572 SPECIAL TOPICS: PRINCIPLES OF ANTIQUE COLLECTING (A711)

Audiocassette course--5 assignments--no exams--\$292--4 degree credits--text price \$21--study guide \$10--10 audiocassettes \$24.75--Blade

This course is designed to increase a student's visual literacy and ability to assess quality, condition, and authenticity of antiques and collectibles. Students gain insight into the importance and meaning of objects in the material culture and the significance of collecting as a human endeavor. Also contains useful information on differentiating the various practices and procedures of the business of antique buying and selling.

East Asian Studies (CLA)

Chun-Jo Liu, Ph.D., Professor, East Asian Studies

Heidi Swanson, B.A., Graduate Student and Teaching Assistant, East Asian Studies

Wenyng Zhang, M.A., Graduate Student, Teaching Assistant, East Asian Studies

EAS 1032 RELIGIONS OF EAST ASIA (5521)

13 assignments--1 exam--\$243--4 degree credits--text price \$56--Swanson

See ReIS 1032. Students may not receive credit for both EAS 1032 and ReIS 1032.

Course Descriptions

Chn 3165 INTRODUCTION TO CHINESE LITERATURE (5507)

14 assignments--no exams--\$248--4 degree credits--text price \$27--Liu and Zhang
Survey of major Chinese literary movements from the emergence of the early Confucian canon to the 13th century.

Ecology, Evolution, and Behavior (Biological Sciences)

Also see Forestry

Catherine Zabinski, B.A., Ph.D. candidate, Ecology, Evolution, and Behavior

EEB 3001 INTRODUCTION TO ECOLOGY (2011)

10 assignments--2 exams--\$292--4 degree credits--text price \$52--Zabinski
This course is an introduction to the science of ecology, including the study of evolution, ecosystems, communities, populations, and individuals. Through readings and written assignments, students will use their knowledge and the tools of science to explore the functioning of the natural world and the impact of humanity on natural systems.

Economics (CLA)

Also see Agricultural and Applied Economics

Shamlall Gupta, M.S., M.A., Associate Professor, College of St. Catherine
Harlan Smith, Ph.D., Professor Emeritus of Economics

Econ 1101 PRINCIPLES OF MICROECONOMICS (2103)

13 assignments--2 exams--\$243--4 degree credits--text price \$65--Gupta
Formerly Econ 1002. A study of the basic economic principles of pricing and resource allocation. Includes demand and supply, consumer choice, costs of production; competition, monopoly, oligopoly; determination of wages, rent, interest, profits; income distribution; farm and urban problems. Students who have taken Econ 1002 cannot receive credit for course.

Econ 1102 PRINCIPLES OF MACROECONOMICS (2104)

14 assignments--2 exams--\$243--4 degree credits--text price \$65--Gupta
Formerly Econ 1001. Determinants of national income, national income accounting, unemployment and inflation, classical and Keynesian theories, money and banking, monetary and fiscal policy, international economic relations, and less-developed nations. Students who have taken Econ 1001 cannot receive credit for this course.

Econ 3102 MACROECONOMIC THEORY (2164)

16 assignments--2 exams--\$248--4 degree credits--text price \$65--Gupta
Factors determining price level, amount of employment and unemployment, total spending by consumers, business investments, total savings, national income, and the effects of government spending, taxes, and monetary policy on price level, employment, output, and national income. (Prerequisite: Econ 3101 or equivalent, Math 1111 or 1131 or 1201 or equivalent)

Econ 3701/5721 MONEY AND BANKING (2168/2169)

15 assignments--2 exams--\$248--4 degree credits--text price \$54--Smith

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 for 3701: Econ 1001 or 1102, Principles of Macroeconomics, or equivalent. Prerequisite for 5721: Econ 3102 or equivalent; economics majors must register for 5721 and will not receive credit for 3701)

Education (Education)

Educational Policy and Administration

Arthur M. Harkins, Ph.D., Associate Professor, Educational Policy and Administration
John Hoyt, Professor Emeritus of Agricultural and Applied Economics

EdPA 5099 DIRECTED STUDY: INVENTING THE FUTURE—LIVING, LEARNING, AND WORKING IN THE 1990s (V265)

Videocassette course--3 assignments--no exams--\$292--4 degree credits--study guide \$20--video rental \$50 (\$25 refund)--Harkins

This field-based course is for managers, human services and health services workers, counselors, teachers, and upper-division or graduate students in many different fields. The lessons will guide you in preparing for the 1990s as you bring your own and your organization's values and goals to the course work. Topics include trends in work, leisure, education, technology, health, spirituality, homelife, and more. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

EdPA 5099 DIRECTED STUDY: INVENTING THE FUTURE—LIVING, LEARNING, AND WORKING IN THE 1990s (T265)

Television course--3 assignments--no exams--\$292--4 degree credits--study guide \$20--Harkins

See above. **Broadcast: fall 1991 on KTCI (Channel 17) and KWCM (Channel 10) (see the red section).**

EdPA 5110 PERSONAL TIME MANAGEMENT AND EFFECTIVE ADMINISTRATION (2681.1)

10 assignments--no exams--\$146--2 degree credits--text and tapes \$90--Hoyt

This course is designed for any individual who "doesn't have enough time." It teaches practical, pragmatic approaches—using examples and samples of proven techniques—to the problems of scheduling, organizing work, delegating, setting priorities, handling interruptions and meetings, doing the distasteful and the difficult, setting up filing systems that work, and finding the time to do those things that you really want to do, but don't have the time for.

Course Descriptions

Elementary Education

Helen L. Jorstad, Ph.D., Associate Professor, Curriculum and Instruction

Elem 5321 SECOND LANGUAGE PROGRAMS FOR YOUNG CHILDREN: LIKE CHILD'S PLAY (V266)

Videocassette course--7 assignments--no exams--\$292--4 degree credits--text price \$31--study guide and supplement \$20--video rental \$50 (\$25 refund)--Jorstad

Examines current approaches to teaching second languages to young children, with emphasis on innovative curricular models. Provides information about the way young children acquire language and the effects of bilingualism on child development, and presents rationales, advantages, and pedagogical theories of various program models, from full immersion to programs that emphasize cultural understanding. The programs show visits to actual classrooms in action, bilingual and immigrant families, and interviews with a variety of outstanding specialists in the field. **Students view the cassettes at Walter Library, Morris Center, Duluth Media Library, Rochester Center, or on their Home VCR (see General Information, Videocassette Courses).**

Elem 5321 SECOND LANGUAGE PROGRAMS FOR YOUNG CHILDREN: LIKE CHILD'S PLAY (T266)

Television course--7 assignments--no exams--\$292--4 degree credits--text price \$31--study guide and supplement \$20--Jorstad

See above. **Broadcasts: winter 1992 on KTCI (Channel 17), KWCM (Channel 10), KSMQ (Channel 15), and WDSE (Channel 8); spring 1992 on KTCI (Channel 17) and KWCM (Channel 10) (see the red section).**

Educational Psychology

L. Sunny Hansen, Ph.D., Professor, Educational Psychology

Karen Rogers, Ph.D., Assistant Professor, University of St. Thomas

EPsy 5400 WORKSHOP: COUNSELING PSYCHOLOGY: CAREER DEVELOPMENT AND PLANNING (V263)

Videocassette course--1 assignment--1 exam--\$292--4 degree credits--text price \$14--study guide \$20--video rental \$50 (\$25 refund)--Hansen

This course is designed primarily for counselors, teachers, and human resource personnel who want to update their knowledge and skills in the field of career development and the career planning process. It is also appropriate for adults who want to independently study their own career development. Topics include life-span career development, the career planning process, labor market data and trends, sex-role socialization and stereotyping, career decision making, dual careers, and career change and transitions. **Students view the cassettes at Walter Library, Duluth Media Library, or on their Home VCR (see General Information, Videocassette Courses).**

EPsy 5690 EDUCATION OF THE GIFTED AND TALENTED (V264)

Videocassette course--3 assignments--1 exam--\$219--3 degree credits--text price \$47--study guide \$10--video rental \$50 (\$25 refund)--Rogers

Origin and development of terms such as giftedness, creativity, genius, talent, and intelligence;

implications for educational practice; current issues and trends. **Students view the cassettes at Walter Library, Duluth Media Library, Rochester Center, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

EPsy 5690 EDUCATION OF THE GIFTED AND TALENTED (T264)

Television course--3 assignments--1 exam--\$219--3 degree credits--text price \$47--study guide \$10--Rogers

See above. **Broadcast: fall 1991 on KTCI (Channel 17), KWCM (Channel 10), WDSE (Channel 8), and KSMQ (Channel 15) (see the red section).**

Electrical Engineering (IT)

Larry Kinny, Ph.D., Professor of Electrical Design

EE 3351 INTRODUCTION TO LOGIC DESIGN (2903)

10 assignments--2 exams--\$219--3 degree credits--text price \$59--Kinney
Boolean algebra and logic gates. Combinational logic and design examples. Design with MSI logic devices. Sequential logic and design of sequential logic systems. (Prerequisite: IT sophomore standing)

EE 3352 INTRODUCTION TO MICROPROCESSORS (2904)

10 assignments--2 exams--\$292 (plus equipment)--4 degree credits--text price \$54--Kinney
Basic computer organization and assembly language programming. Instruction types and addressing modes. Binary and BCD arithmetic. Subroutines. Program assembly. Integral laboratory using Z80-based educational system. Independent Study has the microprocessor equipment for sale. (Prerequisite: IT sophomore standing or consent of instructor)

Engineering

Also see the following departmental listings for course offerings:

Electrical Engineering
Mechanical Engineering
Civil Engineering

Michael McDonald, Ph.D., Assistant Professor, Chemical Engineering, University of Minnesota Duluth

Engr 3016 DEFORMABLE BODY MECHANICS (3238.1) (U of M Duluth)

8 assignments--3 exams--\$258--4 degree credits--text price \$62--McDonald
Introductory treatment of stress and strain at a point. Stress-strain relation in two dimensions. Linear theory of torsion. Bending stresses. Deflection of determinate and indeterminate beams. Instability. (Prerequisites: Engr 3015, Statics, and concurrent registration in Math 3380, Differential Equations I, or Math 3381, Introduction to Differential Equations) See General Information

Course Descriptions

section, Duluth Credits.

English (CLA and GC)

Note: Only two Independent Study lower division English courses and one upper division course may be applied toward requirements for an English major. This does not include GC courses.

Chester G. Anderson, Ph.D., Professor of English

Elin Anderson, M.A., Teaching Associate, English/Program in Composition and Communication

Philip Furia, Ph.D., Professor of English

Jill Gidmark, Ph.D., Professor, Arts, Communication, and Philosophy Division, General College

Patricia Hodgell, Ph.D., English, Continuing Education and Extension

Alex Kurak, Ph.D., Professor, Arts, Communication and Philosophy Division, General College

Archibald Leyasmeyer, Ph.D., Associate Professor of English

Anatoly Liberman, Ph.D., Professor of German

Peter Lock, Ph.D., Professor Emeritus of French and Italian

Toni McNaron, Ph.D., Professor of English and Women's Studies

Carol A. Miller, Ph.D., Associate Professor, Arts, Communication, and Philosophy Division, General College

William E. Mishler, Ph.D., Associate Professor of Scandinavian

Victoria Poulakis, Ph.D., Professor of English, Northern Virginia Community College

Peter Reed, Ph.D., Professor of English

Richard Shaw, M.A., Professor, Division of Liberal Arts, Minneapolis College of Art and Design

Robert Solotaroff, Ph.D., Professor of English

Frederick Suppe, Ph.D., Assistant Professor, History Department, Ball State University

Rafael Tilton, M.A., Teaching Assistant, English--Language and Literature

Engl 1016 INTRODUCTION TO AMERICAN LITERATURE: SOME MAJOR FIGURES AND THEMES (A366)

Audiocassette course--9 assignments--1 exam--\$243--4 degree credits--text price \$59--study guide \$10--10 audiocassettes \$24.75--Tilton

Introduction to some major themes and writers in American literature. Readings from Faulkner, Malamud, Melville, Fitzgerald, Chopin, Ellison, Henry James, and Dickey are complemented by audiocassette programs by Professor Edward Griffin. Emphasizes the American experience, myths of the American wilderness, dreams of innocence and freedom, and social responsibility for relations among the varied peoples of the "New World."

Engl 1017 INTRODUCTION TO MODERN POETRY (3676)

13 assignments--no exams--\$243--4 degree credits--text price \$35--Furia

A study of modern British and American poetry organized around themes (war, the city, nature, death, love, etc.) and including such writers as Yeats, Thomas, Auden, Eliot, Frost, Cummings, and Stevens.

Engl 1019 INTRODUCTION TO MODERN DRAMA (3677)

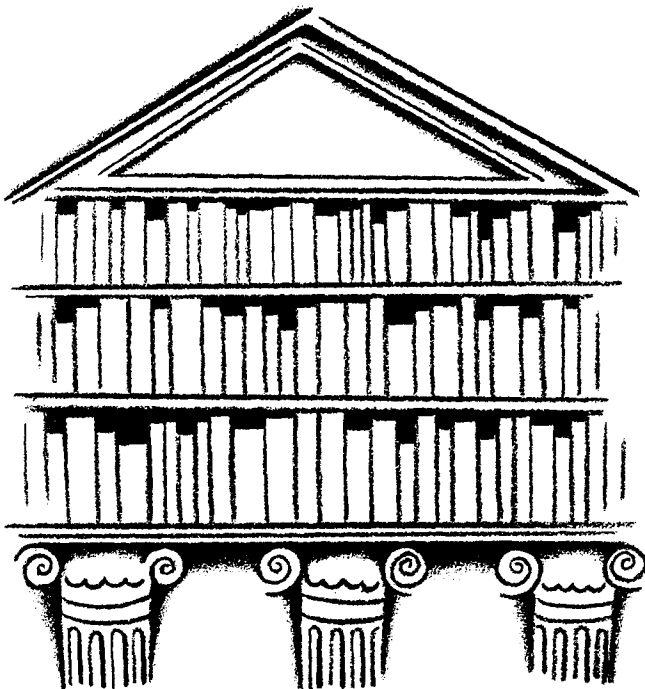
11 assignments--2 exams--\$243--4 degree credits--text price \$41--E. Anderson
A study of modern drama, including plays by Ibsen, Strindberg, Chekhov, Synge, Shaw, O'Neill, Pirandello, Brecht, Williams, Miller, Ionesco, and Beckett. (Prerequisite: Comp 1011 or equivalent)

Engl 1020 INTRODUCTION TO LITERATURE: TOPICS—MODERN SCIENCE FICTION AND FANTASY (A364)

Audiocassette course--no assignments--2 exams--\$243--4 degree credits--text price \$50--study guide \$10--10 audiocassettes \$24.75--Hodgell
Deals with the evolution of modern science fiction and fantasy from their 19th century roots to the popular literature of today. Considers such major themes as the future of technology, religion, and sexuality in the works of Le Guin, Huxley, and Sturgeon, among others, and also the contributions of such eminent fantasists as Tolkien, CS Lewis, and Richard Adams.

Engl 3111 SURVEY OF ENGLISH LITERATURE I (3657)

12 assignments--1 exam--\$248--4 degree credits--text price \$35--1 audio cassette \$3.50--McNaron
A historical survey of the major figures, movements, and trends in English literature. This course will consider the works of Chaucer, Spenser, Shakespeare, Marvell, and Donne.



Course Descriptions

Engl 3112 SURVEY OF ENGLISH LITERATURE II (3658)

12 assignments--1 exam--\$248--4 degree credits--text price \$41--McNaron
A continuation of Engl 3111. Deals with Milton, Johnson, Dryden, Swift, Austen, and Pope.

Engl 3113 SURVEY OF ENGLISH LITERATURE III (3659)

15 assignments--no exams--\$248--4 degree credits--text price \$42--McNaron
A continuation of Engl 3112, this course considers the works of Blake, Wordsworth, Coleridge, Keats, Tennyson, the Brownings, the Shelleys, Byron, Carlyle, Dickens, Eliot, Yeats.

Engl 3241 SHAKESPEARE I (3650)

12 assignments--2 exams--\$248--4 degree credits--text price \$37--Shaw
Study of Shakespeare's early and middle plays, with attention to history, literary values, and theatrical performance. Students will read *A Midsummer Night's Dream*, *Romeo and Juliet*, *Henry IV, Part I*, *Henry V*, *Much Ado About Nothing*, *Julius Caesar*, *Comedy of Errors*, *Othello*, and *Hamlet*.

Engl 3242 SHAKESPEARE II (3651)

12 assignments--2 exams--\$248--4 degree credits--text price \$25--Shaw
Study of Shakespeare's middle and late periods. Students will read *As You Like It*, *Macbeth*, *King Lear*, *Antony and Cleopatra*, *Coriolanus*, *The Winter's Tale*, and *The Tempest*. Special attention is given to imagining theatrical performance. Engl 3241 is not a prerequisite for this course; both courses contain introductory materials.

Engl 3242 SHAKESPEARE II (K377)

Radio course--12 assignments--2 exams--\$248--4 degree credits--text price \$25--study guide \$10--Shaw
See above. **Broadcast: winter 1992 on KUOM radio, 770 AM (see the red section).**

Engl 3410 MAJOR AMERICAN WRITERS: FITZGERALD AND HEMINGWAY (A365)

Audiocassette course--2 assignments--2 exams--\$248--4 degree credits--text price \$70--study guide \$10--10 audiocassettes \$24.75--Furia
An examination of the writings of two contemporary early 20th century writers—F. Scott Fitzgerald and Ernest Hemingway.

Engl 3410 MAJOR AMERICAN WRITERS: VOICES AND VISIONS IN AMERICAN POETRY (V361)

Videocassette course--3 assignments--1 exam--\$248--4 degree credits--text price \$27--video rental \$50 (\$25 refund)--Furia
A study of major American poets, such as Whitman, Dickinson, Frost, Pound, Hughes, and Plath, through an analysis of representative works and video programs on the life, times, and poems of each poet. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Engl 3411 SURVEY OF AMERICAN LITERATURE TO 1850 (3672)

13 assignments--1 exam--\$248--4 degree credits--text price \$39--McNaron
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, and Hawthorne.

Engl 3412 SURVEY OF AMERICAN LITERATURE, 1850-1900 (3682)

11 assignments--no exams--\$248--4 degree credits--text price \$71--McNaron
American literature from the American Renaissance to the end of the 19th century. Among the authors studied are Whitman, Dickinson, Twain, Crane, and Chopin.

Engl 3413 SURVEY OF AMERICAN LITERATURE, 1900-1960 (A375)

Audiocassette course--15 assignments--no exams--\$248--4 degree credits--text price \$54--study guide \$10--10 audio cassettes \$24.75--McNaron
American literature from the end of the 19th century to the 1960s. Authors studied include Frost, Eliot, Fitzgerald, Hurston, Wright, Olsen, and Rich, as well as a selection of contemporary poets.

Engl 3413 SURVEY OF AMERICAN LITERATURE, 1900-1960 (K375)

Radio course--15 assignments--no exams--\$248--4 degree credits--text price \$54--study guide \$10--McNaron
See above. **Broadcast: fall 1991 on KUOM radio, 770 AM (see the red section).**

Engl 3455 AMERICAN SHORT STORY (3684)

14 assignments--1 exam--\$248--4 degree credits--text price \$24--Furia
Students will study the works of Irving, Poe, Melville, Crane, Cather, Hemingway, Updike, Cheever, and other authors.

Engl 3851 THE ENGLISH LANGUAGE (V360)

Videocassette course--10 assignments--no exams--\$248--4 degree credits--text price \$32--study guide \$10--video rental \$50 (\$25 refund)--Tilton
An introduction to the English language, including historical changes, syntax, phonetics and phonology, semantics, pragmatics, British and American dialects, and the acquisition of English as a first language. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Engl 3910 TOPICS IN ENGLISH AND AMERICAN LITERATURE: THE CELTIC WORLD (A360)

Audiocassette course--no assignments--2 exams--\$248--4 degree credits--text price \$47--study guide \$10--10 audiocassettes \$24.75--Suppe
A wide-ranging introductory survey of the history, music, folk ways, and traditional oral culture of the six Celtic countries (Brittany, Cornwall, Ireland, Isle of Man, Scotland, and Wales). Topics considered are ancient culture; tribal society; saints, druids, bards, poets; the age of King Arthur; languages; and the future of Celtic culture.

Engl 3910 TOPICS IN ENGLISH AND AMERICAN LITERATURE: D. H. LAWRENCE AND FREUD (A374)

Audiocassette course--6 assignments--1 exam--\$248--4 degree credits--text price \$63--study guide \$10--10 audiocassettes \$24.75--Lock and Mishler
An intensive reading of the prose fiction and poetry of D. H. Lawrence alongside key texts by Freud. The course will examine modern culture and its discontents as interpreted by these two writers.

Course Descriptions

Engl 3920 TOPICS IN ENGLISH AND AMERICAN LITERATURE: MODERN WOMEN WRITERS (3685)

12 assignments--2 exams--\$248--4 degree credits--text price \$45--Poulakis
Readings in fiction and poetry by British and American women writers from 1900 to the present. Kate Chopin, Edith Wharton, Virginia Woolf, Doris Lessing, Eudora Welty, Sylvia Plath, Anne Sexton, Toni Morrison, Audre Lorde, and Adrienne Rich are among the writers included. Emphasis is on how these writers perceived themselves as women and as artists, their analyses of the roles of women in modern society, and the formal literary qualities of their works.

Engl 3940 FIGURES IN ENGLISH AND AMERICAN LITERATURE: THE WOMAN WRITER: 19TH CENTURY FICTION (3686)

12 assignments--2 exams--\$248--4 degree credits--text price \$34--Poulakis
Short stories and novels by 19th century women writers—Jane Austen, Elizabeth Gaskell, Charlotte Bronte, Harriet Beecher Stowe, George Eliot, Sarah Orne Jewett, Mary E. Wilkins Freeman, and Charlotte Perkins Gilman. Emphasizes the ways women writers' professional roles evolved during the 19th century, the conflicts they faced as their careers developed, the extent to which their writing satisfied the requirements of their audiences, and the formal literary qualities of their works.

Engl 3940 FIGURES IN ENGLISH AND AMERICAN LITERATURE: HEMINGWAY (3689)

2 assignments--2 exams--\$248--4 degree credits--text price \$23--study guide \$10--Solotaroff
The course will cover what most critics feel to be the most impressive segment of Hemingway's career, the period between 1922 and 1929. Students will read two novels from this period—*The Sun Also Rises* and *A Farewell to Arms*—and two collections of stories: *In Our Time* and *Men without Women*.

Engl 5153 20TH CENTURY ENGLISH NOVEL (3660)

no assignments--2 exams--\$248--4 degree credits--text price \$66--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, such as Forster, Joyce, Lawrence, Woolf, Waugh, Caryl Phillips, Amis, Sillitoe, and Murdoch. (Prerequisite: Comp 1011 or equivalent and 5 additional credits in either English or Humanities)

Engl 5175 MODERN DRAMA SINCE 1920: PIRANDELLO TO PINTER (3661)

3 assignments--4 exams--\$248--4 degree credits--text price \$68--Leyasmeyer
Introduction to the themes and techniques of modern drama since the 1920s. Course includes discussions of the nature of the theatrical play, the "modernism" in modern drama, and 13 important plays written from 1920 to 1960 by 10 major playwrights—Pirandello, Anouilh, Giraudoux, O'Neill, Miller, Lorca, Williams, Brecht, Beckett, and Pinter.

Engl 5363 JAMES JOYCE (A371)

Audiocassette course--3 assignments--1 exam--\$248--4 degree credits--text price \$72--study guide \$10--10 audiocassettes \$24.75—C. Anderson
An introduction to the life and works of Joyce, including the epiphanies, the poems, the play *Dubliners*, *A Portrait of the Artist as a Young Man*, *Ulysses*, and bits of *Finnegans Wake*.

Engl 5432 AMERICAN POETRY (3687)

15 assignments--no exams--\$248--4 degree credits--text price \$78--Furia
An examination of American poetry from 1890 to 1956. Includes historical and intellectual background, and poetic theory. Poets discussed include Frost, Stevens, Pound, Eliot, Moore, and Williams.

GC 1365 LITERATURES OF THE UNITED STATES (3611)

14 assignments--1 exam--\$243--4 degree credits--text price \$24--Gidmark
A historic survey and analysis of nearly 30 giants of American fiction. Students will examine the development of the form of the short story in America to enhance their understanding and appreciation of a wide range of writers, from Irving's early sketches to Barthelme's and Coover's present-day experiments.

GC 1371 LITERATURE: READING SHORT STORIES (3610)

11 assignments--2 exams--\$243--4 degree credits--text price \$24--Kurak
Representative short stories by American, British, and Continental writers. This course considers how individual writers have used the short story to express their ideas about human experience.

GC 1816 AFRO-AMERICAN LITERATURE (3612)

12 assignments--1 exam--\$243--4 degree credits--text price \$58--Miller
Students read and evaluate the poetry, drama, folklore, short stories, and longer fiction of black authors. Through literature, students assess the artists' own perceptions and interpretations of black culture in America from colonial times to the present.

CLit 5414 EUROPEAN FOLK TALES (A362)

Audiocassette course--1 assignment--2 exams--\$248--4 degree credits--text price \$51--study guide \$10--10 audiocassettes \$24.75--Lieberman
This course is devoted to the folk tales of Germany, Scandinavia, France, Russia, and England. It discusses the structure, message for adults and children, origins of folk tales as a genre, and compares the tales of different nations and states the differences and similarities among them. Folk tales will be analyzed within the broader context of oral literature and folklore.

Creative and Professional Writing

Judith Daniel, Graduate Student, Creative Writing

Beth Kilde Fischer, M.A., Teaching Assistant, Creative Writing

Margot Fortunato Galt, Ph.D., English, Continuing Education and Extension

EngW 3102 INTERMEDIATE FICTION WRITING (A353)

Audiocassette course--5 assignments--no exams--\$248--4 degree credits--text price \$18--study guide \$10--10 audiocassettes \$24.75--Daniel
An examination of the essential elements in creative writing. Discussion of the creative process in writing fiction and intensive practice in the genre. Readings, discussion, and practice will include such topics as diction, structure, plotting, and dialogue. Course author is Alan Burns.

Course Descriptions

EngW 3103 INTERMEDIATE POETRY WRITING (A350)

Audiocassette course--5 assignments--no exams--\$248--4 degree credits--text price \$41--study guide \$10--10 audiocassettes \$24.75--Fischer

This course is intended to help students develop new ways of using language to explore the world around them and in them. There will be numerous writing assignments, readings in contemporary poetry, and consideration of such topics as rhythm, image, structure, diction, voice and tone.

EngW 3110 TOPICS IN CREATIVE WRITING: JOURNALING INTO FICTION (A357)

Audiocassette course--7 assignments--no exams--\$248--4 degree credits--text price \$16--study guide \$10--10 audiocassettes \$24.75--Daniel

An exploration of the links between private and public writing. Students will build on the strengths and skills already present in their private writing as they move more fully into the world of the imagination to create fiction, poems, or song. The writing assignments illustrate the ways private journaling may be turned into fiction, using techniques such as dreams, prose poems, stream of consciousness, found art, and many others.

EngW 5201 JOURNAL AND MEMOIR WRITING (A358)

Audiocassette course--3 assignments--no exams--\$248--4 degree credits--text price \$41--study guide \$10--10 audiocassettes \$24.75--Galt

Students will read selected journals and memoirs, as well as completing exercises based on the readings. The journal writing process--informal and fragmentary--will be the basis of all writing suggestions; students will be encouraged to work from memory and personal experience. The student course project will be to write a memoir or autobiographical work. Students are encouraged to submit more polished memoir or autobiography and not the originating journal exercises.

Entomology (Agriculture)

Basil Furgala, Ph.D., Professor of Entomology

Ent 3020 PRINCIPLES OF BEEKEEPING (1004)

16 assignments--1 exam--\$292--4 degree credits--text price \$20--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 (Human Ecology and GC)

Linda Budd, Ph.D., Family Social Science, Continuing Education and Extension

Linda Burkett, Ph.D., Licensed Consulting Psychologist, St. Paul

William Doherty, Ph.D., Associate Professor, Family Social Science

John Engel, Ph.D., Professor of Family Resources, University of Hawaii

Tamara Kaiser, M.S.W., Ph.D. candidate, Family Social Science

Sander Latts, Ph.D., Associate Professor, Social and Behavioral Sciences Division, General College

Marilyn M. Rossmann, Ph.D., Associate Professor of Home Economics
Gail Thoen, Ph.D., Assistant Professor, Social and Behavioral Sciences Division,
General College

FSoS 5001 HUMAN SEXUAL BEHAVIOR (4103)

16 assignments--2 exams--\$365--5 degree credits--text price \$42--Engel
Examination of biological, psychological, and social aspects of human sexuality. Topics include: anatomy and physiology; reproduction; birth control and abortion; sexual response, arousal, and communication; love; sex research; sexual development over the life span; gender roles and sex differences; homosexuality and bisexuality; sexual variations and economics; sexual coercion and abuse; dysfunction and therapy; sexually transmitted diseases; ethics, religion, and law; and sex education.

FSoS 5200 FAMILY RELATIONSHIPS (4107)

2 assignments--2 exams--\$365--5 degree credits--text price \$63--Budd
This course provides an analysis of the family as an institution and its system of relationships. It also surveys current developments in the study of the family and analyzes changes in American society and their influence on family life. (Prerequisite: Soc 1001 and Psy 1001 or equivalents)

FSoS 5200 FAMILY RELATIONSHIPS (V417)

Videocassette course--1 assignment--2 exams--\$365--5 degree credits--text price \$71--study guide \$10--video rental \$50 (\$25 refund)--Doherty and Kaiser
This course will examine the family as an institution and system of relationships. It surveys current developments in the study of family, changes in American society and their influence on family life. Course will be offered in an innovative format including lectures, simulated family interaction, and participation of a studio audience. This course is applicable toward the M.Ed. degree and the Licensure in Parenting Education. (Prerequisites: Soc 1001 and Psy 1001 or equivalents) **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

FSoS 5200 FAMILY RELATIONSHIPS (T417)

Television course--1 assignment--2 exams--\$365--5 degree credits--text price \$71--study guide \$10--Doherty and Kaiser
See above. Credits count toward the M.Ed. program. **Broadcast: winter 1992 on KTCI (Channel 17) and KWCM (Channel 10) (see the red section).**

FSoS 5240 SPECIAL TOPICS: AMERICAN FAMILIES IN TRANSITION (A416)

Audiocassette course--no assignments--2 exams--\$292--4 degree credits--text price \$47--study guide \$10--10 audiocassettes \$24.75--Rossmann
The family, our most basic institution, provides us with our first anchor in society and earliest sense of identity. This course will present a comprehensive view of family life and examine historical and contemporary family issues. Focus will be on helpful information related to adjustment to rapid changes in family. Credits count toward the M.Ed. program.

Course Descriptions

FSoS 5240 SPECIAL TOPICS: VIOLENCE IN THE FAMILY (4113)

10 assignments--2 exams--\$292--4 degree credits--text price \$40--Latts
This course focuses on the various forms of abuse (physical, psycho-emotional, sexual) found among family members--spouses, parents and children, siblings. Attention is given to the factors that bring about or inhibit family violence, and to prevention and treatment strategies.

FSoS 5500 RACIAL AND ETHNIC MINORITY FAMILIES (4115)

8 assignments--no exams--\$292 (plus text)--4 degree credits--Burkett
Sociological overview of family structures and family values of various American racial and ethnic groups, including African-Americans, Native Americans, Mexican-Americans, Jews, and Asian-Americans. This course combines a study of research and case studies with individual projects to develop and enrich understanding of cultural diversity. You cannot receive credit for this course if you have already taken FSoS 3240, Minority Families in the United States.

GC 1722 HOME LIFE: PARENT-CHILD RELATIONSHIPS (4109)

10 assignments--2 exams--\$243--4 degree credits--text price \$65--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.

GC 1733 CONTEMPORARY SEX ROLES (4110)

14 assignments--2 exams--\$243--4 degree credits--text price \$30--Thoen
An examination of the roles of men and women. Social roles and related concepts of expectations, informal and formal roles, role modification, and role reversal are explored. The goal of this course is to overcome sexual stereotyping. Focus is on analyzing the openness and rigidity of sex roles in childhood socialization; education; mate selection; marital, parental, and homemaking roles; and social trends.

Finance (Management)

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

John Reik, M.B.A., J.D., Finance, Continuing Education and Extension

BFin 3000 FINANCE FUNDAMENTALS (1797)

no assignments--2 exams--\$275--4 degree credits--text price \$50--Reik
A comprehensive, analytical introduction to the principal concepts of finance. The general business environment, valuation theory, financial management decisions concerning uses and sources of funds, and a survey of the nation's financial markets. Must be taken A-F. (Prerequisite: Acct 1024-1025 and Acct 1051 or Acct 3001 and at least 90 credits completed or in progress)

Food Science and Nutrition (Agriculture and Human Ecology)

Edmund Zottola, Ph.D., Professor of Food Science and Nutrition

FScN 1102 TECHNOLOGY OF FOOD PROCESSING (4304)

14 assignments--3 exams--\$243--4 degree credits--text price \$50--Zottola

An introduction to the technology of processing and distribution of foods, with reference to the prevention of biological, physical, and chemical deterioration. Changes in food composition, microbiological safety, food laws and regulations, technologies of the major food processes (canning, freezing, drying), cereal and oilseed processing are considered. (Prerequisite: high school chemistry and biology)

Forest Resources (Natural Resources)

Harold Scholten, Ph.D., Professor of Forest Resource

FR 1201 CONSERVATION OF NATURAL RESOURCES (4203)

11 assignments--2 exams--\$182.25--3 degree credits--text price \$49--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 (CLA)

F.R.P. Akehurst, Ph.D., Professor of French

Cheryl Alcaya, M.A., Ph.D. candidate, French and Italian

Peter Lock, Ph.D., Professor Emeritus of French and Italian

Fren 0001 READING FRENCH (5718)

17 assignments--1 exam--\$243--no credit--text price \$28--Akehurst

Fundamentals of grammar; reading of appropriate prose. Prepares for graduate reading examination in French. Must be taken S-N.

Fren 1101 BEGINNING FRENCH I (5711)

10 assignments--1 exam--\$303.75--5 degree credits--text price \$64--8 audiocassettes \$20.25 --Alcaya

An audio-lingual approach to elementary French, adapted for home use.

Fren 1102 BEGINNING FRENCH II (5712)

7 assignments--1 exam--\$303.75--5 degree credits--text price \$64--5 audiocassettes \$13.75 --Alcaya

Continuation of French 1101. (Prerequisite: Fren 1101 or 1 year high school French)

Course Descriptions

Fren 1103 BEGINNING FRENCH III (5713)

7 assignments--1 exam--\$303.75--5 degree credits--text price \$64--5 audiocassettes \$13.75 --Alcaya

Continuation of French 1102. (Prerequisite: Fren 1102 or 2 years high school French)

Fren 3104 FRENCH LITERARY TEXTS: NOVEL, POETRY, DRAMA (5710)

15 assignments--1 exam--\$248--4 degree credits--text price \$27--Akehurst

Provides training in reading literary works of poetry, drama, prose. Completely in French.

Fren 3602 LITERATURE IN ENGLISH TRANSLATION: FLAUBERT AND MODERN WRITING (5714)

6 assignments--1 exam--\$248--4 degree credits--text price \$38--Lock

An intensive reading in English of major works by Flaubert in the context of Freudian criticism and modern writing.

Gardening

See Horticultural Science

General College

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.

Refer to the following pages for General College courses.

Arts, Communication, and Philosophy Division

GC 0402 Grammar and Usage Review, p. 47

GC 1355 Ethics, p. 85

GC 1365 Literatures of the United States, p. 59

GC 1371 Literature: Reading Short Stories, p. 59

GC 1816 Afro-American Literature, p. 59

Science, Business, and Mathematics Division

GC 0611 Mathematics Skills Review, p. 81

GC 0621 Elementary Algebra, p. 81

GC 0625 Intermediate Algebra, Part I, p. 81

GC 0631 Intermediate Algebra, Part II, p. 82

GC 1161 Solar System Astronomy, p. 39

GC 1162 Stellar Astronomy, p. 39

GC 1166 Principles of Chemistry, p. 44

GC 1235 Law in Society, p. 42

GC 1454 Statistics, p. 98

GC 1511 Introduction to Modern Business, p. 42

GC 1513 Principles of Small Business Operations, p.42

- GC 1534 Practical Law, p. 42
- GC 1540 Accounting Fundamentals I, p. 42
- GC 1542 Accounting Fundamentals II, p. 43
- GC 1551 Marketing: Introduction, p. 43
- GC 1553 Marketing: Principles of Management, p. 43
- GC 1571 Introduction to Microcomputer Applications, p. 49

Social and Behavioral Science Division

- GC 1283 Psychology of Human Development, p. 91
- GC 1284 Behavior Problems of Children, p. 45
- GC 1722 Parent-Child Relationships, p. 62
- GC 1733 Contemporary Sex Roles, p. 62

Geography (CLA)

- John Borchert, Ph.D., Regents' Professor Emeritus, Geography*
- Philip Gersmehl, Ph.D., Professor of Geography*
- Cary Komoto, M.A., Ph.D. candidate, Geography*
- Catherine Lockwood, Ph.D. candidate, Geography*
- Frank Pucci, M.A., Ph.D. candidate, Geography*
- Roderick H. Squires, Ph.D., Associate Professor of Geography*
- James Young, M.S.Ed., M.A., Ph.D. candidate, Geography*

Geog 1501 THE LANGUAGE OF MAPS (4409)

13 assignments--4 exams--\$303.75--5 degree credits--text price \$24--Gersmehl, Komoto, and Young

Study of various phases of the process of using maps to communicate ideas. Ways of describing location, distance, direction, area, and other basic spatial concepts. Data classification, map symbols, methods of analyzing patterns on maps. Use of maps to inform and/or persuade.

Geog 3101 GEOGRAPHY OF THE UNITED STATES AND CANADA (4453)

14 assignments--2 exams--\$248--4 degree credits--text price \$49--Lockwood

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 environments upon people and their 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 (T443)

Television course--10 assignments--2 exams--\$248 (plus texts)--4 degree credits--study guide \$10--Borchert

The changing geography of Minnesota and the Upper Midwest. Explores the legacy from the railroad era, transformation in the auto-air age, and the emerging future. **Broadcast: spring 1992 on KTCI (Channel 17), KWCM (Channel 10), KSMQ (Channel 15), and WDSE (Channel 8) (see the red section).**

Course Descriptions

Geog 3111 GEOGRAPHY OF MINNESOTA (V443)

Videocassette course--10 assignments--2 exams--\$248 (plus texts)--4 degree credits--study guide \$10--video rental \$50 (\$25 refund)--Borchert

See above. Students view the cassettes at Walter Library, Morris Center, Duluth Media Library, Rochester Center, or on their Home VCR (see General Information, Videocassette Courses). Available February 1992.

Geog 3121 GEOGRAPHY OF LATIN AMERICA (4450)

14 assignments--2 exams--\$248--4 degree credits--text price \$57--Pucci

Provides an opportunity to study and evaluate the character and diversity of Mexico, Central America, the Caribbean, and South America. Individual countries and major regions within them are analyzed. The influence of both cultural and physical elements upon people and their use of the land is emphasized. Problems are considered on both a national and regional basis.

Geog 3181 GEOGRAPHY OF THE SOVIET UNION (4452)

12 assignments--2 exams--\$248--4 degree credits--text price \$53--Young

An introduction to the diverse characteristics and regions of the Soviet Union. Emphasizes a topical analysis of the physical, cultural, and economic phenomena in the U.S.S.R., including the impact of present political and economic trends. Each lesson examines one or two major regions of the Soviet Union.

Geog 3355 ENVIRONMENTAL PROBLEMS (4454)

4 assignments--no exams--\$248--4 degree credits--text price \$9--Squires

Defining and "solving" environmental problems; implementing "solutions."

Geology and Geophysics (IT)

Robert E. Sloan, Ph.D., Professor of Geology and Geophysics

Geo 1001 THE DYNAMIC EARTH: AN INTRODUCTION TO GEOLOGY (4501)

16 assignments--2 exams--\$243--4 degree credits--text price \$50--Sloan

An introduction to general geology. Survey of the main features of the physical world and the processes that have evoked them. Topics: plate tectonics, rock formation, weathering, soils, deserts, oceans, and the phenomena of earthquakes, glaciers, and volcanoes. Rock and mineral collection recommended.

Geo 1002 HISTORICAL GEOLOGY (4503)

13 assignments--2 exams--\$243--4 degree credits--text price \$48--Sloan

Evolution of the earth and its inhabitants from their origins to the present, with emphasis on the past 600 million years. The first part of the course outlines the fundamentals of geology, evolution, and paleontology. Does not include lab.

German (CLA)

Gisela Peters, M.A., Lecturer, German and Russian, Macalester College
Gerhard Weiss, Ph.D., Professor of German

Ger 1101 BEGINNING GERMAN I (5805)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$44--2 audio cassettes \$6.75--Peters

Introduction to the basic structures of the German language and its most frequently used vocabulary. Intended to give a student a foundation in the skills of reading, writing, and listening.

Ger 1102 BEGINNING GERMAN II (5806)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$44--4 audiocassettes \$11.50--Peters

Continuation of Ger 1101. (Prerequisite: Ger 1101 or 1 year of high school German) **This course is now in preparation; please inquire before enrolling.**

Ger 3610 GERMAN AUTHORS AND/OR TOPICS IN TRANSLATION: POST-WAR DEVELOPMENTS AS SEEN THROUGH THE WORKS OF HEINRICH BÖLL (5809)

7 assignments--1 exam--\$248--4 degree credits--text price \$51--Weiss

Through reading Böll's novels and short stories, students will gain an understanding of the development of West German society since 1945. In addition to reading Böll's fiction, students will learn about post-war Germany through extensive study notes and some outside reading. Students will also be asked to use media resources (films, magazines, video tapes, as available) to round out their knowledge of contemporary Germany.

Greek (CLA)

Lane Smith, B.A., Teaching Assistant and Ph.D. candidate, Classical and Near Eastern Studies

Grk 1101 BEGINNING CLASSICAL GREEK I (5901)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$21--1 audiocassette \$3.50--Smith

An introduction to Homeric and Classical Greek language: alphabet, vocabulary, and idioms. Selected readings from the *Iliad* and *Odyssey* of Homer and Classical Greek selections of moderate difficulty. Written translation exercises, oral exercises, and introduction to scansion and meter.

Health Science Units (Health Sciences)

Gary T. Athelstan, Ph.D., Professor of Physical Medicine and Rehabilitation

HSU 5008 SOCIAL AND PSYCHOLOGICAL ASPECTS OF PHYSICAL DISABILITY (V466)

Video cassette course--1 assignment--2 exams--\$325--4 degree credits--text price \$70--study guide \$10--video rental \$50 (\$25 refund)--Athelstan

Communication barriers often exist between able-bodied people and those with physical

Course Descriptions

disabilities. By understanding the psychological and social impact of various disabilities, students should be better equipped to interact with disabled persons on a professional or personal level. Directed toward nurses, physicians, therapists, counselors, teachers, and health administrators with the goal of helping them to provide more effective services. Employers, family members, friends, and disabled individuals may also find this course useful. Topics: common disabling conditions, the process of psychological adjustment to disability, the impact on families, societal attitudes, new advances related to independent living, educational and vocational programs for the disabled, and medical rehabilitation and long term care. Course co-author is Dr. Nancy Crewe. Also available as PMed 5445. Students may receive credit for only one of the following: HSU 5008 or PMed 5445. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

History (CLA)

Deborah Bachrach, Ph.D., History, Continuing Education and Extension

Hyman Berman, Ph.D., Professor of History

Jane Carroll, M.A., Ph.D. candidate and Teaching Assistant, History

George D. Green, Ph.D., Associate Professor of History

William Holway, B.A., Teaching Assistant, History

Timothy Hoogland, M.A., Ph.D. candidate and Teaching Assistant, History

Calvin Hoovestol, J.D., Ph.D. candidate and Teaching Assistant, History

Tom B. Jones, Ph.D., Regents' Professor Emeritus of History

David Kopf, Ph.D., Professor of History

Joy Lintelman, M.A., Ph.D. candidate and Instructor, History

Russell Menard, Ph.D., Professor of History

Michael Metcalf, Fil. dr., Professor of History and Scandinavian Studies

Clark Miller, Ph.D., Assistant Vice President, Corporate Compensation, First Bank System

John Kim Munholland, Ph.D., Professor of History

Paul L. Murphy, Ph.D., Professor of History

Thomas Noonan, Ph.D., Professor of History

Edward Tebbenhoff, M.A., Teaching Assistant, History

Ruth Townsend, M.A., Research Assistant, History

David Woodard, M.A., Ph.D. candidate and Teaching Assistant, History

Hist 1001 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES (4737)

12 assignments--2 exams--\$243--4 degree credits--text price \$60--Holway

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 1001, 1002, 1003 need not be taken in sequence.

Hist 1002 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES (4738)

12 assignments--2 exams--\$243--4 degree credits--text price \$60--Holway

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. Hist 1001, 1002, 1003 need not be taken in sequence.

Hist 1003 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES (4739)

12 assignments--2 exams--\$243--4 degree credits--text price \$60--Holway

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 1001, 1002, 1003 need not be taken in sequence.

Hist 1051 ANCIENT CIVILIZATION I (4761)

12 assignments--2 exams--\$243--4 degree credits--text price \$31--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. Students must have access to a large library to successfully complete this course.

Hist 1052 ANCIENT CIVILIZATION II (4762)

12 assignments--3 exams--\$243--4 degree credits--text price \$40--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) Students must have access to a large library to successfully complete this course.

Hist 1053 ANCIENT CIVILIZATION III (4763)

12 assignments--2 exams--\$243--4 degree credits--text price \$40--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) Students must have access to a large library to successfully complete this course.

Hist 1151/3151 ENGLISH HISTORY TO THE 17th CENTURY (4709/4710)

12 assignments--2 exams--\$243/\$248--4 degree credits--text price \$78-- Bachrach

Part one of a two-part sequence covers the history of England from earliest times to the death of Queen Elizabeth I. Students enrolling in the 3000-level course will be expected to do extra work.

Hist 1152/3152 ENGLISH HISTORY FROM THE 17TH CENTURY TO THE PRESENT (4711/4712)

12 assignments--2 exams--\$243/\$248--4 degree credits--text price \$64--Bachrach

Part two of this two-part sequence covers the period from the Stuart Accession through the Cold War. Students enrolling in the 3000-level course will be expected to do additional work.

Hist 1301 AMERICAN HISTORY I (4728)

12 assignments--2 exams--\$243 (plus texts)--4 degree credits--video rental \$50 (\$25 refund)--Menard and Tebbenhoff

United States history from colonial times to Reconstruction. A survey course emphasizing political, economic, social, and diplomatic history of the U.S. to 1880. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Hist 1302 AMERICAN HISTORY II (4729)

11 assignments--1 exam--\$243--4 degree credits--text price \$84--video rental \$50 (\$25 refund)--Woodard and Hoovestol

United States history survey course from 1880 to the present. **Students view the cassette at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Hist 1305 CULTURAL PLURALISM IN AMERICAN HISTORY (4759)

7 assignments--3 exams--\$243 (plus texts)--4 degree credits--Townsend

A survey of the development of American society focusing on the roles of African-Americans, Native Americans, Asian-Americans, and Hispanic-Americans. Issues of cultural pluralism, empowerment, racism, and intergroup relations are explored within a comparative historical framework.

Hist 1305 CULTURAL PLURALISM IN AMERICAN HISTORY (K476)

Radio course--\$243 (plus texts)--4 degree credits--study guide \$10--Townsend

See above. **Broadcast: fall 1991 on KUOM radio, 770 AM (see the red section).**

Hist 1451/3451 SURVEY OF CIVILIZATIONS IN ANCIENT ASIA (4741/4744)

15 assignments--1 exam--\$243/\$248--4 degree credits--text price \$32--Kopf

Ancient societies in East, South, and West Asia. Students enrolling in the 3000-level course will be expected to do extra work.

Hist 1452/3452 SURVEY OF ASIAN CIVILIZATIONS IN THE MIDDLE PERIOD (4742/4745)

12 assignments--1 exam--\$243/\$248--4 degree credits--text price \$31--Kopf

Fifth through the 18th centuries. Students enrolling in the 3000-level course will be expected to do extra work.

Hist 1453/3453 SURVEY OF ASIAN CIVILIZATIONS IN THE MODERN ERA (4743/4746)

14 assignments--1 exam--\$243/\$248--4 degree credits--text price \$31--Kopf

The modern era. Students enrolling in the 3000-level course will be expected to do extra work.

Hist 3551 HISTORY OF THE ANCIENT NEAR EAST (4764)

12 assignments--no exams--\$248--4 degree credits--text price \$82--Jones

In-depth study of selected topics in early Mesopotamian history (Sumerian-Old Babylonian period to 1550 B.C.). Required reading, written assignments, and major research paper in lieu of final examination. Students must have access to a large library to complete this course. (Prerequisite: Hist 1051 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Hist 3552 HISTORY OF ANCIENT EGYPT (4765)

11 assignments--no exams--\$248--4 degree credits--text price \$94--Jones

In-depth study of Egypt and its neighbors to 1200 B.C. Required readings, written assignments, and a major research paper in lieu of final exam. Students must have access to a large library to complete this course. (Prerequisite: Hist 1051 or equivalent)

Hist 3700 TOPICS IN EUROPEAN HISTORY: THE LIFE AND TIMES OF PETER THE GREAT (4787)

6 assignments--no exams--\$248--4 degree credits--text price \$30--study guide \$10--Noonan
A study of tsar Peter the Great of Russia and his impact both on his country and on Europe as a whole. In looking at Peter's 43 year reign, two major themes will be explored--Peter's efforts to westernize Russia and his constant wars against neighboring countries, especially Sweden. Topics that will be studied include Peter's early years, his various wars, battles, and peace treaties, and the reforms he introduced into Russian life.

Hist 3700 TOPICS IN EUROPEAN HISTORY: SWEDEN, 1560-1721: EXPERIMENT IN EMPIRE (4809)

3 assignments--no exams--\$248--4 degree credits--text price \$28--study guide \$10--Metcalf
Study of the formation and dismantling of Sweden's Baltic empire between 1560 and 1721 highlights the administrative, economic, demographic, and social foundations of the experience, as well as the politics and diplomacy of the period. Students will work with primary sources in translation as well as several scholarly texts.

Hist 3722 EUROPE IN THE ERA OF WORLD WAR II (4713)

4 assignments--no exams--\$248--4 degree credits--text price \$53--10 optional audiocassettes \$24.75--Munholland
Origins and diplomatic background of World War II, strategic objectives and campaigns, and the political and social impact of the war. Students must indicate whether they want to take the course with or without the optional audiocassettes.

Hist 3725 THE WORLD CONFLICT, 1931-1945 (4760)

3 assignments--no exams--\$248--4 degree credits--text price \$50--Munholland
The global character of World War II. Discusses the causes of the war, the rise of dictatorships, preparations for war in Germany, Italy, and Japan, the response of the Allies, and the war itself, which engulfed nations on all continents and cost uncounted millions of lives.

Hist 3812 CIVIL WAR AND RECONSTRUCTION (4755)

4 assignments--no exams--\$248--4 degree credits--text price \$51--Miller
Politics and society from 1848 to 1877. The Compromise of 1850 and the "finality" period; nativism and the Know-Nothing movement; party realignment and the rise of the Republican Party; the West, Dred Scott, John Brown, and the coming of the Civil War; Lincoln, Douglas, and the crisis of secession; the rise and fall of the Confederacy; Grant, Sherman, and the politics of total war; emancipation; presidential and radical reconstruction; the Ku Klux Klan; the origins of the Gilded Age; redemption and the Compromise of 1877.

Hist 3822 THE UNITED STATES IN THE 20TH CENTURY: 1932-1960 (V473)

Videocassette course--10 lessons--\$248 (plus texts and study guide)--4 degree credits--video rental \$50 (\$25 refund)--Berman
The Great Depression and the New Deal; the challenge of fascism and the coming of World War II; the origins of the Cold War; the great red scare; the politics and culture of the Eisenhower era; the origins of the civil rights movement; labor relations. Includes a videocassette documentary narrated by Berman. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Hist 3841 AMERICAN BUSINESS HISTORY (V476)

Videocassette course--3 assignments--2 exams--\$248--4 degree credits--text price \$39--study guide \$20--video rental \$50 (\$25 refund)--Green

This course explores the role of business leaders such as James J. Hill, Carnegie, Rockefeller, Morgan, and Ford, the development of business institutions, and the interaction of business with economic developments, social values, and government economic policies. **Students view the cassettes at Walter Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Hist 3881 AMERICAN FOREIGN RELATIONS (4770)

12 assignments--2 exams--\$248--4 degree credits--text price \$62--Hoogland

Foreign policy and diplomacy during the period America sought independence through territorial expansion, 1760-1865.

Hist 3883 AMERICAN FOREIGN POLICY 1945-1990 (4708)

12 lessons--\$248 (plus texts)--4 degree credits--video rental \$50 (\$25 refund)--Woodard
American foreign policy from Franklin D. Roosevelt to Reagan. Deals with issues such as American isolationism, economic diplomacy, World War II, the Cold War, and Vietnam. **Students view the cassette at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Hist 3910 TOPICS IN AMERICAN HISTORY: A CENTURY OF AMERICAN IMMIGRATION: 1884-1984 (4756)

3 assignments--no exams--\$248--4 degree credits--text price \$43--Lintelman

This course presents a history of a century of American immigration. Considered are migration patterns, ethnic communities and conflict, maintenance of ethnic cultures, immigration legislation, social mobility, and the emergence of a pluralistic America. Students will compare immigrant experiences in both urban and rural settings.

Hist 5138 BYZANTINE HISTORY I (4810)

12 assignments--2 exams--\$248--4 degree credits--text price \$34--Jones

The later Roman Empire (A.D. 284-565). Establishment of the new regime by Diocletian and Constantine the Great; founding of Constantinople and the imperial alliance with the Christians; Theodosius the Great and the two-fold division of the empire; Age of Justinian (A.D. 527-565); foreign, domestic and religious affairs, art and architecture, literature and law. Students must have access to a large library to complete this course.

Hist 5131 BYZANTINE HISTORY II (4811)

12 assignments--2 exams--\$248--4 degree credits--text price \$21--Jones

The middle period of Byzantine history--from the death of Justinian (A.D. 565) to the accession of Basil II (A.D. 976). Heraclius and the defeat of the Sasanians; the rise of Islam; barbarian pressures in the Balkans and relations with the West; Isaurian, Amorian, Macedonian dynasties; Iconoclasm; aspects of Byzantine culture--religion, art, architecture, literature, law, and science. Students must have access to a large library to complete this course.

Hist 5331 AMERICAN CONSTITUTIONAL HISTORY (4804)

2 assignments--1 exam--\$248--4 degree credits--text price \$53--Murphy and Carroll

The origins and developments of constitutional government in America with emphasis on the role of constitutional politics in the evolution of public policy. This course emphasizes the English and colonial background through the Reconstruction period.

Hist 5332 AMERICAN CONSTITUTIONAL HISTORY (4805)

10 lessons--\$248 (plus texts)--4 degree credits--video rental \$50 (\$25 refund)--Murphy and Carroll

A continuation of Hist 5331. Emphasizes the Constitution and the rule of law in modern America. Includes an optional videocassette with discussions of the Constitution by eminent judges and scholars. Students must indicate whether they want to take the course with or without the optional videocassette. **This course is now in preparation; please inquire before enrolling.**

Horse Production

See Animal Science

Horticultural Science (Agriculture)

C. Gustav Hard, Ph.D., Professor of Horticultural Science and Landscape Architecture

Hort 1010 HOME HORTICULTURE: LANDSCAPE GARDENING AND DESIGN (5155)

\$243 (plus texts)--4 degree credits--Hard

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 advanced or experienced gardeners. Text assignments and home projects with plants for the garden will be required. Topics: planting, transplanting, seeds, soils, fertilizers, preparing beds and planting areas, selecting a good garden site, controlling garden pests, weeding, watering, cultivating, vegetable gardening, and landscape maintenance. Also discusses annuals, perennials, bulbs, and roses for northern gardens.

Hort 1010 HOME HORTICULTURE: LANDSCAPE GARDENING AND DESIGN (K515)

Radio course--\$243 (plus texts)--4 degree credits--Hard

See above. **Broadcast: spring 1992 on KUOM radio, 770 AM (see the red section).**

Humanities (CLA)

Jon Bassewitz, M.A., Graduate Student Instructor, Comparative Studies in Discourse and Society Program

George Bisztray, Ph.D., Professor, Department of Slavic Languages and Literatures, University of Toronto

Claudia Crawford, Ph.D., Assistant Professor, Humanities

Dallas Ouren, Ph.D., Humanities, Continuing Education and Extension

Hum 1001 HUMANITIES IN THE MODERN WORLD I (5205)

14 assignments--no exams--\$243--4 degree credits--text price \$53--Ouren

This course explores the 18th century Enlightenment and Romantic Reaction movements. The main themes discussed are reason, human nature, and the problem of evil. Authors discussed include Marlowe, Pope, Voltaire, Rousseau, and Goethe.

Course Descriptions

Hum 1002 HUMANITIES IN THE MODERN WORLD II (5202)

15 assignments--2 exams--\$243--4 degree credits--text price \$43--Bisztray
Industrial Revolution, romanticism, socialism, individualism. Selected documents of economic and socialist theory and the romantic movement; representative works by Zola, Ibsen, Dostoevsky, Tolstoy.

Hum 1003 HUMANITIES IN THE MODERN WORLD III (5207)

15 assignments--no exams--\$243--4 degree credits--text price \$45--Ouren
The focus of this course is the late 19th century. The main topics are evolution (Darwinism) and the beginnings of Existentialism. Authors discussed include Kierkegaard, Nietzsche, Turgenev, Thomas Mann, and Chekhov.

Hum 1004 HUMANITIES IN THE MODERN WORLD IV (5208)

14 assignments--2 exams--\$243--4 degree credits--text price \$54--Bisztray
Civilization between two wars; the impact of psychoanalysis; a critique of communism and national socialism; the intellectual profile of the Western world since World War II. Covers the period from World War I to the 1960s. Authors studied include Freud, Lenin, Malraux, T. S. Eliot, Solzhenitzyn, Brecht, and Durrenmatt.

Hum 1111 EUROPEAN HERITAGE: GREECE (5209)

15 assignments--no exams--\$243--4 degree credits--text price \$50--Ouren
This course deals with Greek culture and Greece as the birthplace of Reason. The course traces the development of Greek thought and literature from the Homeric epic, through Greek tragedy and comedy, to the dialogues of Plato.

Hum 1113 EUROPEAN HERITAGE: ROME (5210)

14 assignments--no exams--\$243--4 degree credits--text price \$43--Ouren
This course deals with major texts of Roman culture and the early development of Christianity. The major authors read are Plutarch, Virgil, the Stoics, Lucretius, St. Augustine, and the New Testament.

Hum 1301 DISCOURSE AND SOCIETY (5213)

\$243 (plus texts)--4 degree credits--video rental \$50 (\$25 refund)--Bassewitz
Nature of the humanities explored through interpretation of major works from literature, rhetoric, history, philosophy, the visual arts, music, and film. Humanities knowledge and its place in a liberal education. **Students view the cassette at Walter Library or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

Hum 1302 TEXT AND CONTEXT (5214)

11 assignments--2 exams--\$243--4 degree credits--text price \$68--video rental \$50 (\$25 refund)--Crawford
Examination of varied historically grounded case studies--early 18th century art, two novels, a historical work, an anthropological work, an opera, examples of mass culture, and analysis of advertising. Ways social and political conflicts of particular moments and specific locations are represented in the discourse of these case studies. Students relate the cultural discourses represented in the case studies to the larger socio-historical conditions out of which they arise by learning to apply Marxist critical theory, discourse theory, ideological critique and theories of gender and race. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

Industrial Relations (Management)

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

Kenneth Gagala, Ph.D., Director of Labor and Urban Affairs, Industrial Relations Center
Earl Willford, M.Th., Lecturer in Industrial Relations

IR 0001 SUPERVISION I: ELEMENTS OF SUPERVISION (2231)

11 assignments--1 exam--\$182.25--3 certificate credits--text price \$45--Willford
A general discussion of basic principles of supervision in the office and factory. Survey of principles, methods, and applications for the handling of day-to-day problems of supervisors with emphasis on human relations and organizational aspects of such problems. Deals with selection, induction, and training of new employees, role of the supervisor, communication, employee appraisal, delegation, approaches to leadership, handling grievances, discipline, and employee morale.

IR 3000 TOPICS IN INDUSTRIAL RELATIONS: TEACHING LABOR RELATIONS IN THE SCHOOLS (2250)

10 assignments--no exams--\$275--4 degree credits--text price \$31--Gagala
This course enables elementary and secondary school teachers to incorporate the study of labor unions and collective bargaining into their lesson plans. Also assists teachers to discuss labor issues with their students when national and local developments demand a response. Provides a knowledge of the labor relations process as it affects the teaching profession.

IR 3007 COLLECTIVE BARGAINING AND LABOR RELATIONS (2262)

12 assignments--2 exams--\$275--4 degree credits--text price \$42--Gagala
An introductory survey of collective bargaining and labor-management relations. The course examines the historical evolution of trade unions in the US, the structure and administration of trade unions, and the processes of collective bargaining and contract administration. The course work incorporates case exercises that provide students with insights into the real world nature of labor-management relations. (Prerequisite: at least 90 credits completed or in progress)

Information and Decision Sciences (Management)

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

Carl Adams, Ph.D., Professor and Chair, Information and Decision Sciences

IDSc 1010 FUNDAMENTALS OF INFORMATION DEVELOPMENT AND USE (2283)

10 lessons--\$243 (plus texts)--4 degree credits--Adams
Explores the concepts and skills that are necessary to understand data and how it can be acquired and used. Topics: computing, data handling, formal use of data in problem solving and decision

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making, and managing information and information resources. Students need access to a computer or the ability to come to campus to use the equipment in the University's computer labs. **This course is now in preparation; please inquire before enrolling.**

Italian (CLA)

Lucyann Carlone, M.A., Teaching Specialist, French and Italian

Ital 1101 BEGINNING ITALIAN I (5402)

\$303.75 (plus texts)--5 degree credits--Carlone

Speaking, reading, and cultural objectives based on an audiolingual approach. Students learn to understand and express fundamental ideas, to write anything they can say, and to master the fundamental structures of Italian. **This course is now in preparation; please inquire before enrolling.**

Jewish Studies (CLA)

David Cooperman, Ph.D., Professor of Sociology

Tzvee Zahavy, Ph.D., Professor of Classical and Near Eastern Studies

JwSt 3034 INTRODUCTION TO JUDAISM (V864)

Videocassette course--10 assignments--2 exams--\$248--4 degree credits--text price \$74--video rental \$50 (\$25 refund)--Zahavy

Concepts, movements, and institutions in the development of classical Judaism, as manifested in the literature and festivals of the Jewish people from Second Commonwealth times to the present. Also available as ReIS 3034. Students may obtain credit for this course either as JwSt or ReIS, but not both. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

JwSt 3126 MODERN JUDAISM (8610)

12 assignments--2 exams--\$248--4 degree credits--text price \$51--Zahavy

This course explores the roots of modern Judaism in Eastern Europe, the immigration experience, and the formation of American Judaism as a distinctive religious system with its major components: the rabbi, the community, Israel, religious obligations, and theology.

JwSt 3521 THE HOLOCAUST (A861)

Audiocassette course--4 assignments--no exams--\$248--4 degree credits--text price \$30--study guide \$10--10 audiocassettes \$24.75--Cooperman

Nazi destruction of Jewish life in Europe, 1933-1945. Historical and social background of European communities. Anti-Semitism and Nazism. Ghettos under Nazi rule; social and cultural organization, and government. Nazi terror and destruction; Jewish resistance; historical consequences.

Journalism and Mass Communication (CLA)

Journalism majors should follow requirements for pre-journalism major as shown in the College of Liberal Arts Bulletin.

Roy E. Carter, Jr., Ph.D., Professor Emeritus of Journalism and Sociology

Irene Clepper, Ph.D., Journalism, Continuing Education and Extension

Nancy L. Roberts, Ph.D., Associate Professor of Journalism and Mass Communication, and adjunct faculty member, Program in American Studies

Jour 3173 MAGAZINE WRITING (3774)

19 assignments--no exams--\$248--4 degree credits--text price \$60--10 optional audiocassettes \$24.75--Roberts

Writing nonfiction feature articles for adult consumer and trade publications is covered, as is a study of market free-lance methods, including query letters. Students will write, revise, and submit three articles to magazines or newspaper feature sections of their choice. (Not to be taken by students who have achieved major status.) Students must indicate whether they want to take the course with or without the optional audiocassettes.

Jour 5501 COMMUNICATION AND PUBLIC OPINION I (3792)

12 assignments--2 exams--\$248--4 degree credits--text price \$43--Carter

A study of theories of communication, public opinion, and attitude change, as well as an examination of research findings about communication, opinion, and persuasion, and some of the methods and methodological problems with which consumers of such research should be familiar.

Jour 5601 HISTORY OF JOURNALISM (3791)

13 assignments--2 exams--\$248--4 degree credits--text price \$54--Clepper

Development of American newspapers and periodicals from beginnings in prehistoric times to present day; rise of radio and television; relation of communications developments to political, economic, and social trends; press-government credibility crises.

Latin (CLA)

George Sheets, Ph.D., Associate Professor and Chair, Classical and Near Eastern Studies

Lane Smith, B.A., Ph.D. candidate and Teaching Assistant, Classical and Near Eastern Studies

Lat 1101 BEGINNING LATIN I (6201)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$14--Smith

Basic grammar and vocabulary, practice in reading and writing Latin, workbook exercises, easy Latin readings, and Roman legends.

Lat 1102 BEGINNING LATIN II (6207)

15 assignments--1 exam--\$303.75--5 degree credits--text price \$14--Smith

Continuation of Lat 1101. Similar in content and method, leading to connected reading in *Fabulae Faciles (Easy Stories)*. (Prerequisite: Lat 1101 or equivalent)

Course Descriptions

Lat 1103 BEGINNING LATIN III (6208)

11 assignments--1 exam--\$303.75--5 degree credits--text price \$14--Smith

A review of the elements of Lat 1101 and Lat 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 PROSE: CAESAR AND OTHERS (6209)

15 assignments--2 exams--\$303.75--5 degree credits--text price \$18--Smith

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 its army by Hannibal at Cannae, the first important speech of its 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. (Prerequisite: Lat 1103 or equivalent)

Lat 3105 LATIN POETRY: CATULLUS (6212)

10 assignments--1 exam--\$310 (plus texts and computer software)--5 degree credits--Sheets

Selected poetry of C. Valerius Catullus, lyric genius of the late Roman Republic. Students must have access to an Apple computer (not an Apple II) to use the Hypercard computer software that provides word-by-word dictionary and grammar analysis, line-by-line metrical analysis, and on-line reference grammar and text-search facilities. (Prerequisite: Lat 1103 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Lat 3106 LATIN POETRY: VERGIL'S AENEID (6211)

17 assignments--2 exams--\$310--5 degree credits--text price \$31--Smith

Readings of selections from Books I-II; background reading in Roman life and thought is included in the text. (Prerequisite: Lat 1103 or equivalent)

Law

See Business Law

Linguistics (CLA)

Cynthia Robb Clamons, M.A., Teaching Assistant, Linguistics

Ling 1001 THE NATURE OF HUMAN LANGUAGE (V352)

Videocassette course--4 assignments--1 exam--\$243--4 degree credits--text price \$17--study guide \$10--video rental \$50 (\$25 refund)--Clamons

This introductory course presents a survey of the nature of human language, its properties, its possible origins, and how it differs from animal communication. Methods of describing the sounds, structures and meanings of language are also examined, along with a consideration of the relationship between language and the brain, how children acquire language, and the different roles of language in society. Whenever possible, points are illustrated with examples from the everyday use of English. **Students view the cassettes at Walter Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Management (Management)

Also see Business Studies

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

Sumit Majumdar, Ph.D., Assistant Professor of Corporate Strategy, School of Business Administration, University of Michigan

Mark Weber, M.B.A., J.D., Teaching Assistant, Strategic Management and Organization

Robert M. Wiseman, M.B.A., Instructor, Strategic Management and Organization

Mgmt 3001 FUNDAMENTALS OF MANAGEMENT (2280)

14 assignments--2 exams--\$275--4 degree credits--text price \$52--Weber
Leadership and management functions such as those required to establish goals, policies, procedures, and plans. Motivation, planning and control systems, and concepts of organizational structure and behavior. Must be taken A-F. (Prerequisite: at least 90 credits completed or in progress)

Mgmt 3002 PSYCHOLOGY OF MANAGEMENT (2282)

14 assignments--2 exams--\$275--4 degree credits--text price \$30--Wiseman
Development and application of behavior principles, methods, and skills that underlie managerial competencies in preventing and solving problems within and between individuals and groups, and aid in effective use of human resources. Projects and procedures are used to highlight concepts, methods, and skills, and to give practice in applying them to management problems. Must be taken A-F.

Mgmt 3004 BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION (2281)

10 lessons--\$343.75 (plus texts)--5 degree credits--Majumdar
Undergraduate-level capstone course designed to develop skill in the general management process of identifying and analyzing strategic issues and problems, establishing goals, and designing realistic programs of actions. Concepts and approaches to strategic planning are explored. These concepts are applied to solve strategy formulation and implementation problems. Usually the viewpoint of the general manager (department, division, or executive level) is taken. Must be taken A-F. (Prerequisite: senior and completion of business core)

Mgmt 3008 ENTREPRENEURSHIP AND THE SMALLER ENTERPRISE (2285)

13 lessons--\$275 (plus texts)--4 degree credits--Weber
Assessment of opportunities and constraints in establishing and managing one's own firm; structuring a new venture, buying into an existing enterprise, owning an enterprise versus becoming a principal employee in a new venture. Case method. Course designed to accommodate both the undergraduate student who wants course credit and the non-degree seeking entrepreneur who wants information and planning guidelines to assist him/her to start and subsequently manage his/her own small business. (Prerequisite: completion of business core courses or permission of instructor) **This course is now in preparation; please inquire before enrolling.**

Course Descriptions

Marketing (Management)

Also see Business Studies

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

Richard O. Sielaff, M.B.A., Ph.D., Professor of Marketing, School of Business and Economics, University of Minnesota Duluth

Mktg 3000 PRINCIPLES OF MARKETING (2524)

12 assignments--2 exams--\$275--4 degree credits--text price \$52--Sielaff
Basic policy and strategy issues in marketing and the environmental factors that affect these issues. Legal, behavioral, ethical, competitive, economic, and technological factors that affect product, pricing, promotion, and marketing-channel decisions. Must be taken A-F. (Prerequisites: Econ 1101 or equivalent and at least 90 credits completed or in progress)



Mathematics (IT and GC)

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 noncredit courses in mathematics, certain courses available through the high school program of the Department of Independent Study also fulfill entrance requirements of the Institute of Technology and other colleges. For Independent Study courses in high school mathematics, see the High School Program section.

Aparna Ganguli, Ph.D., Assistant Professor, Science, Business, and Mathematics Division, General College

David L. Giese, Ph.D., Professor, Science, Business, and Mathematics Division, General College

Alexander Gohar, M.S., Teaching Assistant, School of Mathematics

Shamlall Gupta, M.S., M.A., Associate Professor, College of St. Catherine

Laura L. Koch, Ph.D., Assistant Professor, Science, Business, and Mathematics Division, General College

Thomas Ressler, Ph.D., Director of Minority Math Program, School of Mathematics

Douglas Robertson, Ph.D., Associate Professor, Science, Business, and Mathematics Division, General College

V.C. Varadachari, Ph.D., Department of Mathematics, Lakewood Community College, White Bear Lake, Minnesota

GC 0611 MATHEMATICS SKILLS REVIEW (7214)

12 assignments--2 exams--\$243--no credit--text price \$40--Koch

An in-depth review of basic mathematics from whole numbers to geometry. Emphasis is on both computation and understanding the basic concepts. Ideal for students who plan to continue with elementary algebra.

GC 0621 ELEMENTARY ALGEBRA (7227)

9 assignments--3 exams--\$243--no credit--text price \$42--Robertson

For students with a strong arithmetic background who are ready to study elementary algebra. Topics: signed numbers, algebraic expressions, equations, inequalities, rational expressions, exponents, polynomials, factoring, graphing, 2x2 systems, radical expressions, and word problems from these areas. Prepares students for GC 0625, Intermediate Algebra, Part I. (Prerequisite: knowledge of arithmetic or GC 0611 or GC 0615 or Math 0005)

GC 0625 INTERMEDIATE ALGEBRA, PART I (7219)

14 assignments--3 exams--\$243--no credit--text price \$40--Ganguli

For students needing additional preparation in algebra before Intermediate Algebra, Part II. Sets, real numbers, linear equalities, linear inequalities, absolute values, polynomials, rational expressions, exponents, roots, quadratic equations, relations and functions, systems of equations, word problems. (Prerequisite: GC 0621 or Math 0006)

Course Descriptions

GC 0631 INTERMEDIATE ALGEBRA, PART II (7205)

16 assignments--3 exams--\$303.75--no credit--text price \$32--Giese
Concepts and manipulative skills of algebra necessary for student to compete in a college algebra course. Topics 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: GC 0621 with a grade of B+ or better, or GC 0625 or 1445, or Math 0006)

Math 1008 TRIGONOMETRY (7218)

12 assignments--2 exams--\$243--4 degree credits--text price \$42--calculator \$11--Varadachari
Analytic trigonometry, identities, equations, properties of functions; right and oblique triangles without logarithmic computations. Calculator with trig and inverse trig functions necessary. (Prerequisites: plane geometry, high school higher algebra, mathematics placement score)

Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY (7217)

18 assignments--3 exams--\$303.75--5 degree credits--text price \$47--Ressler
Functions, graphs, quadratic equations, inequalities, complex numbers, theory of equations, permutations and combinations, probability, systems of equations, graphing linear and quadratic equations, conic and standard position, logarithms. (Prerequisite: plane geometry, 2 years high school algebra and mathematics placement score, or plane geometry and GC 0631)

Math 1142 SHORT CALCULUS (7240)

16 assignments--3 exams--\$303.75--5 degree credits--text price \$60--Varadachari
For students in pre-business administration, pre-pharmacy, and others requiring a minimal amount of calculus; students who plan to take several quarters of mathematics should register for Math 1211-1221-1231. (Prerequisite: Math 1111 or mathematics placement score)

Math 1201 PRECALCULUS (7202)

16 assignments--4 exams--\$303.75--5 degree credits--text price \$47--Gupta
Students study inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, trigonometric, exponential, and logarithmic functions. Intended for students who need to review high school higher algebra and trigonometry before taking a calculus sequence. (Prerequisite: GC 0631 or high school higher algebra, trigonometry, and mathematics placement score)

Math 1211 CALCULUS I (7224)

16 assignments--3 exams--\$303.75--5 degree credits--text price \$50--Varadachari
Analytical geometry and calculus of functions of one variable. (Prerequisite: Math 1201 with a grade of C or better, or Math 1008 and 1111 with grades of C or better, or 4 years of high school math and math placement score)

Math 1211 CALCULUS I (V722)

Videocassette course--10 assignments--2 exams--\$303.75--5 degree credits--text price \$50--study guide \$10--video rental \$50 (\$25 refund)--Gohar
Analytical geometry and calculus of functions of one variable, applications. (Prerequisite: Math 1201 with a grade C or better or Math 1111 and 1008 with grades of C or better, or 4 years high school math and math placement score) **Students view the cassettes at Walter Library, Duluth Media Library, or on their Home VCR (see General Information, Videocassette Courses).**

Math 1221 CALCULUS II (7225)

16 assignments--3 exams--\$303.75--5 degree credits--text price \$38-- Varadachari
A continuation of Calculus I. (Prerequisite: grade of C or better in Math 1211)

Math 1231 CALCULUS III (7226)

16 assignments--3 exams--\$303.75--5 degree credits--text price \$38-- Varadachari
A continuation of Calculus II. Infinite series and power series. (Prerequisite: grade of C or better in Math 1221)

Math 3066 ELEMENTARY DIFFERENTIAL EQUATIONS (7296)

16 assignments--3 exams--\$292--4 degree credits--text price \$45--Varadachari
Equations of first order, applications; linear equations with constant coefficients, Laplace transforms, simultaneous equations, and series solutions. (Prerequisite: Math 1231 with grade of C or better or equivalent)

Math 3221 INTRODUCTION TO LINEAR ALGEBRA AND LINEAR DIFFERENTIAL EQUATIONS (7236)

16 assignments--3 exams--\$365--5 degree credits--text price \$45--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, applications. (Prerequisite: Math 1231 with grade of C or better or equivalent)

Mechanical Engineering (IT)

Tesfahun Berhe, Ph.D., Lecturer in Mechanical Engineering

ME 1025 ENGINEERING GRAPHICS (3026)

12 assignments--3 exams--\$243--4 degree credits--text and materials \$82--Berhe
Engineering representation in pictorial view and multiview; sketching techniques, size description, standard and simplified practices applied to graphical communication. Analysis of systems of projection; correlation of graphical and numerical solutions of space problems, intersections and development. (Prerequisite: Math 1211 or equivalent)

Music (CLA)

Johannes Riedel, Ph.D., Professor Emeritus, School of Music

Everett L. Sutton, Ph.D., Professor of Music

Janika Vandervelde, Ph.D., Instructor, School of Music

Mus 1531 THEORY I: FOUNDATIONS OF TONAL THEORY (7311)

11 lessons (90-minute audiocassettes)--\$182.25--3 degree credits--text price \$38--Vandervelde
An integrated course in music theory incorporating sight singing, spelling, writing, and aural dictation 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

Course Descriptions

ensemble, or increase their understanding and listening enjoyment of music. Also offers a review of rudiments of music required of all elementary education majors. Much of the course material is on audiocassettes rather than in the traditional written format. **Must be taken concurrently with Mus 1511, for a total of 4 credits.** (Prerequisite: Mus 1001 or equivalent)

Mus 1511 EAR TRAINING AND SIGHT SINGING I (7311.1)

11 lessons--\$60.75--1 degree credit--9 audiocassettes \$22.50--Vandervelde
See above. **Must be taken concurrently with Mus 1531, for a total of 4 credits.**

Mus 5702 AMERICAN MUSIC: TWENTIETH-CENTURY AMERICAN MUSIC (A731)

Audiocassette course--6 assignments--1 exam--\$248--4 degree credits--text price \$32--study guide \$10--10 audiocassettes \$24.75--Riedel
Analysis of American music during this century: folk, popular and classical, black and Chicano, opera and symphony, contemporary music.

Mus 5950 TOPICS IN MUSIC: MUSIC APPRECIATION (A732)

Audiocassette course--7 assignments--2 exams--\$248--4 degree credits--no required text--14 audiocassettes \$34--study guide \$10--Sutton
Analyzes music in the repertory of our culture--forms and styles from the 17th century to the present. Discusses the basic musical elements of rhythm, tonality, melody, and texture. The course is intended to increase the listener's musical vocabulary and skills in analyzing and appreciating musical forms such as: symphonies, concertos, chamber, keyboard and choral music, opera and song.

Norwegian (CLA)

William E. Mishler, Ph.D., Associate Professor of Scandinavian

Nor 1101 BEGINNING NORWEGIAN I (6303)

16 assignments--2 exams--\$303.75--5 degree credits--text price \$42--7 audiocassettes \$18--Mishler
A survey of Norwegian grammar, plus composition and the reading of easy prose.

Nor 1102 BEGINNING NORWEGIAN II (6304)

16 assignments--2 exams--\$303.75--5 degree credits--text price \$47--5 audiocassettes \$13.75--Mishler
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)

Operations and Management Sciences (Management)

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

Carl Adams, Ph.D., Professor and Chair, Information and Decision Sciences

OMS 1020 DATA ANALYSIS AND STATISTICAL INFERENCE FOR MANAGERS (2284)

\$243 (plus texts)--4 degree credits--Adams

Introduction to probabilistic and statistical techniques for decision making, including data analysis, sampling, estimation, and hypothesis testing and regression. Uses computer software and computer-stored data in statistical analysis. Introduction to modeling and linear programming. (Prerequisites: IDSc 1010, pre-management status, Math 1111; Math 1131 recommended) **This course is now in preparation; please inquire before enrolling.**

Philosophy (CLA and GC)

Daniel Flory, M.A., Ph.D. candidate (Philosophy), Instructor, Composition

Candido P. Zanoni, Ph.D., Professor, Arts, Communication, and Philosophy Division, General College

Phil 1001 INTRODUCTION TO LOGIC (7608)

18 assignments--2 exams--\$303.75--5 degree credits--text price \$33--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.

Phil 1002 INTRODUCTION TO PHILOSOPHY (7600)

15 assignments--2 exams--\$303.75--5 degree credits--text price \$30--Flory

Western philosophy is generally considered to have four main branches--epistemology, metaphysics, axiology, and logic. This course introduces students to the first three of these traditional areas of study. By considering specific problems from each branch, students learn both historical and contemporary methods for answering fundamental questions about the ultimate nature of reality.

GC 1355 PHILOSOPHY: PROBLEMS OF ETHICS (7606)

14 assignments--2 exams--\$243--4 degree credits--text price \$25--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.

Course Descriptions

Physical Medicine and Rehabilitation (Medical School)

Gary T. Athelstan, Ph.D., Professor of Physical Medicine and Rehabilitation

PMed 5445 SOCIAL AND PSYCHOLOGICAL ASPECTS OF PHYSICAL DISABILITY (V466.1)

Videocassette course--1 assignment--2 exams--\$325--4 degree credits--study guide \$10--text price \$70--video rental \$50 (\$25 refund)--Athelstan
See HSU 5008.

Physics (IT)

Robert L. Cassola, Ph.D., Director, Technology Programs, Control Data Corporation, Minneapolis

Roger S. Jones, Ph.D., Associate Professor of Physics

Phys 1001 THE PHYSICAL WORLD (7713)

22 assignments--3 exams--\$243--4 degree credits--text price \$55--Cassola
Fundamental laws and principles of the physical world discussed in the context encountered in modern science and technology. Topics: motion of particles, laws of motion, momentum conservation, energy conservation, gravity, fluids, temperature, heat, wave motion, the nature of light, optics, electricity, electric circuits, and magnetism. No credit IT students. (Prerequisite: one year high school algebra)

Phys 1003 THE CHANGING PHYSICAL WORLD (V773)

Videocassette course--no assignments--4 exams--\$243--4 degree credits--text price \$24--study guide \$10--video rental \$50 (\$25 refund)--Jones
This course introduces the nonscientist to the changing world of 20th-century physics. Against a background of history and philosophy, it will highlight the new ideas and discoveries of relativity, cosmology, and quantum theory as seen from the vast scale of stars and galaxies, through the everyday realm of matter and energy, to the submicroscopic level of atoms and nuclei. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Phys 1041 INTRODUCTORY PHYSICS I (7741)

18 assignments--3 exams--\$243--4 degree credits--text price \$53--Cassola
Primarily for students interested in a general, non-calculus physics course, but also for CLA distribution requirements. Topics include uniformly accelerated motion, Newton's laws of motion, work, energy, motion of rigid bodies, mechanical properties of matter, temperature, gas law, thermal properties of matter, thermodynamics, vibratory motion, wave motion, and sound. Replaces old Phys 1032. Students who have completed Phys 1031 should take Phys 1041 to complete the series. (Prerequisites: high school algebra, geometry, and trigonometry)

Phys 1042 INTRODUCTORY PHYSICS II (7742)

16 assignments--3 exams--\$243--4 degree credits--text price \$53--Cassola
Second course in the series. Topics: electric fields, direct current circuits, magnetism, electromagnetic induction, alternating currents, electromagnetic waves, properties of light, optical devices, interference, diffraction, atomic structure, the atomic nucleus, and physics of the universe. Replaces old Phys 1031. (Prerequisite: Phys 1041 or equivalent)

Phys 1045 INTRODUCTORY PHYSICS LABORATORY I (7718)

8 assignments--no exams--\$60.75--1 degree credit--lab book \$5--Cassola
Laboratory experiments offered in conjunction with Phys 1041. Experiments include graphical analysis of data, geometry of motion, gravitational field, energy, power, and sound waves. S-N grading only. (Prerequisite: Phys 1041 or equivalent, or concurrent registration)

Phys 1046 INTRODUCTORY PHYSICS LABORATORY II (7720)

6 assignments--no exams--\$60.75--1 degree credit--lab book \$5 (plus materials)--Cassola
Laboratory experiments offered in conjunction with Phys 1042. Experiments: probability and statistics, direct current circuits, magnetic fields, optics, optical instruments, and diffraction. S-N grading only. (Prerequisite: Phys 1042 or equivalent, or concurrent registration)

Phys 1104 GENERAL PHYSICS (7733)

16 assignments--3 exams--\$243--4 degree credits--text price \$58--Cassola
Primarily for premedical and biological science students. Topics covered include motion, Newton's laws, work and energy, momentum and the pressure of gases, mechanical properties of matter, temperature, thermal properties of matter, thermodynamics, sound, entropy. No credit for IT students. (Prerequisite: Math 1142 and high school trigonometry or Math 1008)

Phys 1105 GENERAL PHYSICS (7734)

15 assignments--3 exams--\$243--4 degree credits--text price \$58--Cassola
Second course in the series. Topics covered include fluid statics, fluid dynamics, elastic properties of solids, vibration, traveling waves, standing waves, sound waves, reflection and refraction of light, optical instruments, interference, electric fields, and electrical energy. No credit for IT students. (Prerequisite: Phys 1104)

Phys 1106 GENERAL PHYSICS (7735)

14 assignments--3 exams--\$243--4 degree credits--text price \$58--Cassola
Third course in the series. Topics covered include direct-current circuits, capacitors, magnetic fields and forces, alternating-current circuits, special relativity, wave-particle duality, Bohr model of the atom, quantum mechanics, nuclear physics, and elementary particle physics. No credit for IT students. (Prerequisite: Phys 1105)

Phys 1281 GENERAL PHYSICS (7710)

16 assignments--3 exams--\$243--4 degree credits--text price \$51--Cassola
Calculus-level general physics course. Topics covered include fluid statics and dynamics, waves in elastic media, sound, heat, and thermodynamics, kinetic theory of gases, electrostatics, capacitance and dielectrics, and electric circuits. (Prerequisites: Physics 1271 or equivalent, and completion of or concurrent registration in an introductory calculus course).

Phys 1291 GENERAL PHYSICS (7711)

18 assignments--3 exams--\$243--4 degree credits--text price \$51--Cassola
Calculus-level general physics course. Topics covered include the magnetic field, Ampere's Law, Faraday's law of induction, inductance, magnetic properties of matter, electromagnetic oscillations, alternating currents, Maxwell's equations, electromagnetic waves, nature and propagation of light, reflection and refraction of plane and spherical waves, interference, diffraction, gratings and spectra, polarization, light and quantum physics, waves and particles. (Prerequisites: completion of or concurrent registration in introductory calculus course, Phys 1281 or equivalent)

Course Descriptions

Phys 1311 COMPREHENSIVE INTRODUCTORY PHYSICS WITH CALCULUS I (7743)

15 assignments--3 exams--\$243 (plus texts)--4 degree credits--Cassola
Calculus-level general physics. Topics: vectors, kinematics in two and three dimensions, particle dynamics, work, energy, collisions, and gravitation. (Prerequisite: completion of or concurrent registration in introductory calculus course)

Phys 1321 COMPREHENSIVE INTRODUCTORY PHYSICS WITH CALCULUS II (7744)

15 assignments--3 exams--\$243 (plus texts)--4 degree credits--Cassola
Calculus-level general physics. Topics: rigid-body kinematics and dynamics, statics, elasticity, oscillations, mechanical waves, sound, fluid statics and dynamics, heat, and thermodynamics. (Prerequisite: Phys 1311 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Phys 1331 COMPREHENSIVE INTRODUCTORY PHYSICS WITH CALCULUS III (7745)

15 assignments--3 exams--\$243 (plus texts)--4 degree credits--Cassola
Calculus-level general physics. Topics: the electric field, electric potential, capacitors, dielectrics, DC circuits, magnetic fields, induction, magnetic materials, and AC circuits. (Prerequisite: Phys 1321 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Phys 1341 COMPREHENSIVE INTRODUCTORY PHYSICS WITH CALCULUS IV (7746)

14 assignments--3 exams--\$243 (plus texts)--4 degree credits--Cassola
Calculus-level general physics. Topics: Maxwell's equations, electromagnetic waves, nature and propagation of light, reflection, refraction, lenses, mirrors, optical instruments, interference, diffraction, special relativity, quanta, atomic spectra, nuclei, fission, and fusion. (Prerequisite: Phys 1331 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Phys 3501 MODERN PHYSICS (7704)

17 assignments--3 exams--\$292--4 degree credits--text price \$57--Cassola
Descriptive course in modern physics. Topics: quantum mechanics, hydrogen atom, multielectron atoms, molecular structure, quantum statistics, thermal radiation, solid state physics, nuclear physics. (Prerequisite: Physics 1291 or 1106)

Political Science (CLA)

Terence Ball, Ph.D., Professor of Political Science

Dorothy Dodge, Ph.D., Professor of Political Science, Macalester College

Sandra Healy, B.S., Teaching Assistant, Political Science

Forrest Maltzman, B.A., Teaching Assistant, Political Science

Norma Noonan, Ph.D., Professor of Political Science, Augsburg College

Edward Sumstine, B.A., Ph.D. candidate, Political Science

Poi 1001 AMERICAN GOVERNMENT AND POLITICS (7903)

18 assignments--2 exams--\$303.75--5 degree credits--text price \$63--Maltzman
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 1041 CONTEMPORARY POLITICAL IDEOLOGIES (V796)

Videocassette course--4 assignments--2 exams--\$243--4 degree credits--text price \$49--study guide \$10--video rental \$50 (\$25 refund)--Ball

A systematic survey of the major competing ideologies of the 20th century, including communism, conservatism, liberalism, fascism, "liberation" and "green" ideologies, and others. Special emphasis is placed on the historical sources, philosophical foundations, and argumentative structure of these influential ideologies. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Pol 3308 THE UNITED STATES CONGRESS (7932)

14 assignments--2 exams--\$248--4 degree credits--text price \$47--Maltzman

Internal organization, committee system, party leadership, norms, recruitment; legislative policymaking; relationship with the president and bureaucracy; interest group, political party, and constituency influences on the congressional process.

Pol 3309 JUDICIAL PROCESS (7934)

12 assignments--3 exams--\$248--4 degree credits--text price \$66--reading supplements \$30--Healy

Structure of the American judiciary; selection of judges; process of litigation; influences on judicial decisions; impact of and compliance with decisions; role of the Supreme Court in the American political system. (Prerequisite: Pol 1001 or equivalent)

**Pol 3810 TOPICS IN INTERNATIONAL POLITICS AND FOREIGN POLICY:
UNDERSTANDING WAR: ITS CAUSES AND CONSEQUENCES (7929)**

3 assignments--no exams--\$248--4 degree credits--text price \$83--study guide \$10--Sumstine
Normative issues surrounding international violence; causes of violence and mechanisms for creating international peace; alternative structures for limiting future violence and maintaining peace.

Pol 5471 GOVERNMENT AND POLITICS OF THE SOVIET UNION (7955)

12 assignments--2 exams--\$248--4 degree credits--text price \$83--Noonan

Analysis of politics in the USSR, including the Soviet political heritage, the impact of Marxism-Leninism, principal institutions, historical developments since 1917, Soviet foreign policy, political elites, the decision-making process, political socialization, Perestroika, and selected economic and political issues.

Pol 5473 CHINESE GOVERNMENT AND POLITICS (7954)

12 assignments--2 exams--\$248--4 degree credits--text price \$49--Dodge

An exploration of China since the Communist revolution and Chinese political shifts from 1950 to 1980; their attempts at modernization, achieving a high quality of life for the Chinese people, and achieving a major role in international politics. Topics: Chinese political ideology, developmental policies and plans, the political and economic impact of developmental plans, and the contemporary Chinese international role. (Prerequisite: 12 credits in social sciences or consent of instructor)

Pol 5737 AMERICAN POLITICAL PARTIES (7987)

15 assignments--2 exams--\$248--4 degree credits--text price \$44--Healy

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)

Course Descriptions

Portuguese (CLA)

Ronald W. Sousa, Ph.D., Professor, Comparative Literature, and Professor, Spanish and Portuguese

Port 3970 DIRECTED STUDIES: THE EVERPRESENT PAST IN SPANISH AND PORTUGUESE CULTURE (A684)

Audiocassette course--no assignments--2 exams--\$248--4 degree credits--study guide \$10--11 audiocassettes \$27--Sousa

See SpPt 3610 (Spanish). Most readings will be in the original language. Texts are on reserve at Wilson Library, Minneapolis campus. Must be Portuguese major.

Psychology (CLA)

Also see Child Psychology

Sander Latts, Ph.D., Associate Professor, Social and Behavioral Sciences Division, General College

Mary Jo Meadow, Ph.D., Professor of Psychology and of Religious Studies and Director of Religious Studies, Mankato State University

David J. Weiss, Ph.D., Professor, Psychology Department

Orville Weiszhaar, Ph.D., Psychology, Continuing Education and Extension

Psy 1001 INTRODUCTION TO PSYCHOLOGY (8104)

20 assignments--2 exams--\$303.75--5 degree credits--text price \$46--Weiss

Introduction to the study of human behavior. Prerequisite for all advanced courses in psychology. Topics include biological foundations of behavior; learning and memory; cognition, thinking, language and social development; individual differences and measurement; and personality, psychopathology, and psychotherapy.

Psy 3101 INTRODUCTION TO PERSONALITY (8188)

14 assignments--2 exams--\$248--4 degree credits--text price \$49--Meadow

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: Psy 1001)

Psy 3604 INTRODUCTION TO ABNORMAL PSYCHOLOGY (8197)

14 assignments--2 exams--\$248--4 degree credits--text price \$55--Weiszhaar

Focuses on the theoretical causes of human behavior, the description of behavioral disorders, the etiologies of behavioral disorders, and treatment alternatives. (Prerequisite: Psy 1001) Students may not receive credit for both Psy 3604 and Psy 5604.

Psy 3970 DIRECTED STUDIES: STRESS MANAGEMENT (8198)

12 assignments--2 exams--\$248--4 degree credits--text price \$31--1 audiocassette \$6--Weiszhaar

The concept of stress, various ways of measuring stress levels, the concept of coping, and various methods of coping. Information will be incorporated from diverse medical and psychological research to show how the brain, beliefs, moods, and thoughts affect one's physical and

psychological well-being. Specific techniques for dealing with stress directly and for health maintenance. Appropriate for health-care providers dealing with patients with stress-related problems, or for individuals suffering from stress who want to understand the problem.

GC 1283 PSYCHOLOGY OF HUMAN DEVELOPMENT (4108)

12 assignments--2 exams--\$243--4 degree credits--text price \$45--Latts

The growth and development of an individual from conception through old age is explored. Aspects of development emphasized include physical, motor, social, emotional, and psychological growth. Integration of facets of development is made in order to understand a human being as a complex organism functioning in a complex environment.

Public Affairs (Humphrey Institute)

George Warp, J.D., M.A., Professor Emeritus of Public Affairs, Hubert H. Humphrey Institute of Public Affairs

PA 5810 DEVELOPMENT ADMINISTRATION (4570)

12 assignments--2 exams--\$248--4 degree credits--text price \$28--Warp

Problems and issues in development, the aid relationship, manpower for development, administrative reform, the regional approach, public enterprise, and case studies.

Public Health (Public Health)

Also see Veterinary Medicine

Robert W. ten Bensel, M.D., M.P.H., Professor, School of Public Health, Department of Pediatrics, and Adjunct Professor, Center for Youth Development and Research, School of Social Work

PubH 5609 TOWARD AN UNDERSTANDING OF CHILD SEXUAL ABUSE (V467)

Videocassette course--11 assignments--no exams--\$325--4 degree credits--text price \$37--study guide \$10--video rental \$50 (\$25 refund)--ten Bensel

The 10 programs of this course deal with a historical understanding of child sexual abuse, including definitions, dynamics, effects on the victim, how society intervenes, and prevention methods. This course is aimed at the professional in public health, health sciences, social work, education, and law. **Students view the cassettes at Walter Library or on their home VCR (see General Information, Videocassette Courses).**

PubH 5642 CHILD ABUSE AND NEGLECT (V465)

Videocassette course--1 assignment--no exams--\$243.75--3 degree credits--text price \$19--study guide \$10--video rental \$50 (\$25 refund)--ten Bensel

This course is a survey of the basic concepts and knowledge of child abuse and neglect. It includes a historical overview and the issue of balance of rights between children and their parents. Examples of child abuse and neglect, understanding why it occurs, its consequences, and how society can intervene and prevent it is presented. **Students view the cassettes at Walter Library, Duluth Media Library, Morris Center, or on their Home VCR (see General Information, Videocassette Courses).**

Course Descriptions

Religious Studies (CLA)

William W. Malandra, Ph.D., Associate Professor, Classical and Near Eastern Studies
Heidi Swanson, B.A., Graduate Student and Teaching Assistant, Near Eastern Studies
Tzvee Zahavy, Ph.D., Professor, Classical and Near Eastern Studies

ReIS 1031 RELIGIONS OF SOUTH ASIA (5523)

12 assignments--2 exams--\$243 (plus texts)--4 degree credits--video rental \$50 (\$25 refund)--Malandra

Introduction to Hinduism, Buddhism, and Jainism. Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.

ReIS 1032 RELIGIONS OF EAST ASIA (5521.1)

13 assignments--1 exam--\$243--4 degree credits--text price \$56--Swanson

An introduction to the religious traditions of China and Japan--Confucianism, Taoism, Buddhism, Shinto, and folk religion--as they historically developed and as they are practiced today. An effort is made to seek the basic assumptions underlying each tradition and the value systems involved in each tradition. Students may not receive credit for both ReIS 1032 and EAS 1032.

ReIS 3034 INTRODUCTION TO JUDAISM (V553)

Videocassette course--10 assignments--2 exams--\$248--4 degree credits--text price \$74--video rental \$50 (\$25 refund)--Zahavy

See JwSt 3034.

Rhetoric (Agriculture)

Jill Gidmark, Ph.D., Professor, Arts, Communication, and Philosophy Division, General College

Rhet 3562 WRITING IN YOUR PROFESSION (3950)

10 assignments--no exams--\$292--4 degree credits--text price \$46--Gidmark

The course presupposes solid competence in basic composition skills and allows each student to develop individualized, professionally-written projects. The relationship between structuring information to meet the needs of particular readers and writing effectively is stressed. Assignments include the proposal, memorandum, letter of application, resume, and a substantial research report. (Prerequisites: freshman communication requirement, Rhet 1151, junior status)

Russian (CLA)

Gary Jahn, Ph.D., Associate Professor of Russian and East European Studies
Catherine Kulesov, Ph.D., Associate Professor Emeritus of Russian and East European Studies

Russ 1101 BEGINNING RUSSIAN I (6603)

9 assignments--2 exams--\$303.75 (plus audiocassettes)--5 degree credits--text price \$50--Jahn

A multipurpose program of instruction in the fundamentals of the Russian language. Acquaints

students with all four basic language skills: listening, reading, speaking, and writing. **Optional use of computer materials** (please call for information).

Russ 1102 BEGINNING RUSSIAN II (6604)

17 assignments--2 exams--\$303.75--5 degree credits--text price \$50--5 audiocassettes \$13.75--Jahn

Continuation of Russ 1101. (Prerequisite: Russ 1101)

Russ 1103 BEGINNING RUSSIAN III (6605)

17 assignments--2 exams--\$303.75--5 degree credits--text price \$50--5 audiocassettes \$13.75--Jahn

Continuation of Russ 1102. (Prerequisite: Russ 1102)

Russ 3421 RUSSIAN LITERATURE: MIDDLE AGES TO DOSTOEVSKY (6650)

9 assignments--1 exam--\$248--4 degree credits--text price \$55--Jahn

The history of Russian literature from its beginning (about A.D. 1000) to the middle of the 19th century. Covers the well-known writers of the 19th century: Pushkin, Gogol, and Dostoevsky. Students will read both literary works (in English) and scholarly materials (historical, biographical, critical commentary). Assignments include one extended interpretive essay or research paper.

Russ 3422 RUSSIAN LITERATURE: TOLSTOY TO PRESENT (6651)

12 assignments--1 exam--\$248--4 degree credits--text price \$58--Kulesov

Introductory study of literary movements represented by well-known Russian writers and their selected works from the second half of the 19th century to the present. Student will read both literary works (in English) and scholarly material (historical, biographical, critical commentary). Assignments include four interpretive essays and a number of optional writings about the works read.

Scandinavian (CLA)

Also see Norwegian; Swedish

William E. Mishler, Ph.D., Associate Professor of Scandinavian

Scan 3602 THE SCANDINAVIAN FAIRY TALE AS LITERATURE (A631)

Audiocassette course--4 assignments--no exams--\$248--4 degree credits--text price \$20--study guide \$10--10 audiocassettes \$24.75--Mishler

An exploration of Hans Christian Andersen's stories and tales (in English).

Slavic and East European Languages

See Russian

Course Descriptions

Social Work (Human Ecology)

Rama Pandey, Ph.D., Professor, School of Social Work

Robert W. ten Benschel, M.D., M.P.H., Professor, School of Public Health, Department of Pediatrics, and Adjunct Professor, Center for Youth Development and Research, School of Social Work

SW 1001 INTRODUCTION TO AMERICAN SOCIAL WELFARE AND COMMUNITY SERVICES (8692)

16 assignments--1 exam--\$303.75--5 degree credits--text price \$49--Pandey
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 BA in Social Welfare Program. Course is seen as prerequisite for practice methods courses.

SW 5010 SEMINAR: SPECIAL TOPICS--TOWARD AN UNDERSTANDING OF CHILD SEXUAL ABUSE (V467.1)

Videocassette course--11 assignments--no exams--\$292--4 degree credits--text price \$37--study guide \$10--video rental \$50 (\$25 refund)--ten Benschel
See PubH 5609. Students may not receive credit for both PubH 5609 and SW 5010.

Sociology (CLA and GC)

Jodi Burmeister-May, B.A., Ph.D. candidate and Teaching Assistant, Sociology

Janice Fiola, B.A., Ph.D. candidate, Sociology

Hyo-Sook Hwang, M.S., Instructor, Sociology

Scott Magnuson-Martinson, Ph.D., Instructor of Sociology, Normandale Community College

Greg Owen, Ph.D., Teaching Associate II, Sociology

Joel Samaha, Ph.D., Professor of History

Soc 1001 INTRODUCTION TO SOCIOLOGY (8605)

13 assignments--2 exams--\$243--4 degree credits--text price \$34--Magnuson-Martinson
A general introduction to the sociological analysis of social processes and social structure. Topics include: socialization, stratification, and social inequality; deviance and social control; and social change. General theoretical perspectives and research methods are discussed. Emphasis is placed on the application of concepts and theories to everyday life.

Soc 1002 AMERICAN COMMUNITY (8604)

5 assignments--no exams--\$243--4 degree credits--text price \$34--Burmeister-May
This course is intended to give students an opportunity to engage in an in-depth analysis of American urban life. By looking at such phenomena as the distribution of population, urban-rural differences, social factors in business systems, occupational groups, determination of social status, and minority group adjustment, American Community attempts to answer the questions: Is there an American "community," "culture," "value system," and "way of life"?

Soc 3101 INTRODUCTION TO AMERICAN CRIMINAL JUSTICE (A866)

Audiocassette course--3 assignments--no exams--\$248--4 degree credits--text price \$46--study guide \$10--10 audiocassettes \$24.75--Samaha

Policies and issues in American criminal justice. Focuses on problems in police, prosecution, courts, jails, prisons, and alternatives to incarceration. Includes such topics as domestic violence, plea bargaining, bail, prison crowding, career criminals, purposes of punishment, the death penalty and police patrol.

Soc 3101 INTRODUCTION TO AMERICAN CRIMINAL JUSTICE (K866)

Radio course--3 assignments--no exams--\$248--4 degree credits--text price \$46--study guide \$10--Samaha

See above. **Broadcast: spring 1992 on KUOM radio, 770 AM (see the red section).**

Soc 3501 THE FAMILY SYSTEM (8675)

6 assignments--2 exams--\$248--4 degree credits--text price \$47--Hwang

The family in contemporary American society with attention to historical and cross-cultural comparisons; interrelationships with other social institutions, socialization, patterns of mate selection, life cycle processes and norms of human sexuality. (Prerequisite: Soc 1001 or consent of instructor)



Course Descriptions

Soc 3551 WORLD POPULATION PROBLEMS (8672)

15 assignments--2 exams--\$248--4 degree credits--text price \$53--Fiola
This course examines the causes and consequences of rapid human population growth. Optimistic and pessimistic opinions about the balance between population and resources are examined, as are policy options that exist to manipulate future population growth. Other topics include population growth and economic development, world food shortages, industrialization and urbanization, the feminist movement, and population policies. The scope of the course is world wide, the view comparative, and the emphasis on improving students' ability to interpret current and future everyday events in light of population dynamics.

Soc 5960 TOPICS IN SOCIOLOGY: DEATH AND DYING (8691)

no assignments--2 exams--\$248--4 degree credits--text price \$18--study guide \$5--Owen
Death and Dying explores the issues and problems that mortality present to modern American society. Topics include the dying patient, grief, the funeral, death and the child, youth and suicide, the role of care-giving professions, moral and ethical issues surrounding death, and life after death. (Prerequisite: Soc 1001)

Spanish (CLA)

Rene Jara, Ph.D., Professor, Spanish and Portuguese

*Ronald W. Sousa, Ph.D., Professor, Comparative Literature, and Professor,
Spanish and Portuguese*

Zhongshu Tan, M.A., Teaching Assistant, Spanish and Portuguese

Span 0221 READING SPANISH (6817)

13 assignments--1 exam--\$243--no credit--text price \$32--Tan
Prepares students primarily for reading, and especially for reading general and technical nonliterary prose. The department will certify to the Graduate School a reading knowledge of Spanish upon successful completion of the final examination. S-N grading only.

Span 1101 BEGINNING SPANISH I (6806)

14 assignments--6 exams--\$303.75--5 degree credits--text price \$80--8 audiocassettes \$20.25--Tan
Fundamentals of Spanish. Students develop listening and speaking skills by means of tapes, and learn to read and write basic Spanish in the cultural context of Spain and Spanish America.

Span 1102 BEGINNING SPANISH II (6807)

15 assignments--2 exams--\$303.75--5 degree credits--text price \$80--7 audiocassettes \$18--Tan
Continuation of Span 1101. (Prerequisite: Span 1101 or equivalent)

Span 1103 BEGINNING SPANISH III (6808)

15 assignments--2 exams--\$303.75--5 degree credits--text price \$80--7 audiocassettes \$18--Tan
Continuation of Span 1102. (Prerequisite: Span 1102 or equivalent)

Span 1104 INTERMEDIATE SPANISH I (6809)

10 assignments--2 exams--\$303.75--5 degree credits--text price \$83--5 audiocassettes \$13.75--Tan
Speaking and comprehension; development of reading and writing skills based on materials from

Spain and Spanish America. Grammar review; compositions. (Prerequisite: Span 1103 or equivalent)

Span 1105 INTERMEDIATE SPANISH II (6810)

10 assignments--2 exams--\$303.75--5 degree credits--text price \$83--5 audiocassettes \$13.75--Tan

Continuation of Span 1104. (Prerequisite: Span 1104 or equivalent)

Span 1502 CULTURES AND CIVILIZATIONS OF LATIN AMERICA: INDIAN, EUROPEAN-COLONIAL, AFRICAN ROOTS (6843)

14 assignments--2 exams--\$243--4 degree credits--text price \$21--Jara

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 their 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.

SpPt 3610 TOPICS IN SPANISH-PORTUGUESE CIVILIZATION AND CULTURE (A682)

Audiocassette course--no assignments--2 exams--\$248--4 degree credits--text price \$35--11 audiocassettes \$27--study guide \$10--Sousa

The course investigates how the concept of "regenerationism" has retained and exerted cultural force in the Iberian nations, forming a part of their cultural systems--and how it continues to exert that force today. Course materials chronologically structured around the development of the notion that, in Spain and Portugal, there are no beginnings--only "re-beginnings." Selections from literature, philosophy, and social commentary illustrate this sense of a lost past of imperial greatness and the need to recreate it. The survey begins with the Portuguese poet Luis de Camoes' epic poem of 1578 and ends with documents about the Spanish "nationalities" of the post-Franco era. Readings in translation.

Span 3970 DIRECTED STUDIES: THE EVERPRESENT PAST IN SPANISH AND PORTUGUESE CULTURE (A683)

Audiocassette course--no assignments--2 exams--\$248--4 degree credits--study guide \$10--11 audiocassettes \$27--Sousa

See above. Most readings will be in the original language. Texts are on reserve at Wilson Library, Minneapolis campus. Must be Spanish major.

Statistics (CLA and GC)

Donald Berry, Ph D., Professor, School of Statistics

Joan Garfield, Ph.D., Associate Professor, Science, Business, and Mathematics Division, General College

Stat 1001 INTRODUCTION TO THE IDEAS OF STATISTICS (7272)

9 assignments--no exams--\$243--4 degree credits--no required text--Berry

Learning under uncertainty; using probabilities to describe uncertainty; making inferences about causality using sample information; comparing treatments; correlation; estimating; predicting;

Course Descriptions

testing hypotheses. Applications in business decision making, sports, medicine, and in the physical and social sciences. (Prerequisite: high school algebra) **This course is now in preparation; please inquire before enrolling.**

Stat 1001 INTRODUCTION TO THE IDEAS OF STATISTICS (7274)

9 assignments--no exams--\$243 (plus computer software)--4 degree credits--no required texts--Berry

See above. Students must have access to an Apple computer to take this course. **This course is now in preparation; please inquire before enrolling.**

GC 1454 STATISTICS (7273)

16 assignments--2 exams--\$303.75--5 degree credits--text price \$43--Garfield
Introduction to modern statistics, emphasizing problem solving through statistical decision making. Topics: organization and presentation of data, summary statistics, sampling, probability, distributions, simple estimation, correlation, and hypothesis testing. (Prerequisite: elementary algebra)

Swedish (CLA)

Gunnar Thander, M.A., Ph.D. candidate, Department of Scandinavian Studies

Swed 1101 BEGINNING SWEDISH I (6900)

17 assignments--no exams--\$303.75--5 degree credits--text price \$68--4 audiocassettes \$11.50--Thander

An introduction to written and spoken Swedish through basic grammar, workbook exercises, and easy composition. Vocabulary useful to everyday situations is covered.

Swed 1102 BEGINNING SWEDISH II (6902)

22 assignments--no exams--\$303.75--5 degree credits--text price \$68--2 audiocassettes \$6.75--Thander

Continuation of Swed 1101. (Prerequisite: Swed 1101).

Swed 1103 BEGINNING SWEDISH III (6903)

20 assignments--no exams--\$303.75--5 degree credits--text price \$68--1 audiocassette \$3.50--Thander

Continuation of Swed 1102. (Prerequisite: Swed 1102).

Swed 1104 INTERMEDIATE SWEDISH I (6904)

22 assignments--no exams--\$303.75--5 degree credits--text price \$68--1 audiocassette \$3.50--Thander

Continued development of reading and writing skills in Swedish. (Prerequisite: Swed 1103)

Swed 1105 INTERMEDIATE SWEDISH II (6905)

8 assignments--no exams--\$303.75 (plus texts)--5 degree credits--4 audiocassettes \$11.50--Thander

Continued development of reading and writing skills in Swedish. (Prerequisite: Swed 1104)

Textiles and Clothing (Human Ecology)

Shari Peterson, M.Ed., Assistant Professor, Science, Business, and Mathematics Division, General College

TexC 1641 INTRODUCTION TO RETAIL MERCHANDISING (2004)

10 assignments--3 exams--\$182.25--3 degree credits--text price \$53--Peterson
General aspects of retailing, including types of retailers, market research, management, buying, promotion, and trends. Concentrates on retailing careers within the structure of existing retail firms and distinguishes between department, discount, and specialty store retailing.

TexC 1642 SEMINAR: INTRODUCTION TO RETAIL MARKETING (2205)

3 assignments--no exams--\$60.75--1 degree credits--no required text-- Peterson
An experiential, field-based course designed to interact with TexC 1641; consists of interviews with people engaged in various retailing careers.

Theatre Arts (CLA)

Arthur Ballet, Ph.D., Professor of Theatre Arts (retired)
Charles Nolte, Ph.D., Professor of Theatre Arts

Th 1101 INTRODUCTION TO THE THEATRE (V406)

Videocassette course--3 assignments--1 exam--\$243--4 degree credits--text price \$65--
video rental \$50 (\$25 refund)--Ballet
History and theory of plays and playwrights. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Th 5115 PLAYWRITING (A405)

Audiocassette course--2 assignments--no exams--\$248--4 degree credits--text price \$30--
study guide \$10--10 audiocassettes \$24.75--Nolte
Techniques of playwriting are explored in detail by students with some playwriting competence. The craft of writing a well-made play and experimentation in more modern styles are examined in the context of each student working toward the completion of a one-act or full-length play. (Prerequisite: Th 1321 or consent of instructor)

Th 5186 HISTORY OF THE AMERICAN THEATRE (A401)

Audiocassette course--no assignments--1 exam--\$248--4 degree credits--text price \$54--
study guide \$10--11 audiocassettes \$27--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.

Course Descriptions

Veterinary Medicine (Veterinary Medicine)

Joseph S. Quigley, D.V.M., Instructor, Veterinary Public Health

CVM 3100 PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY (A461)

Audiocassette course--5 assignments--no exams--\$215.50--2 degree credits--text price \$31--study guide \$10--10 audiocassettes \$24.75--Quigley

Explores the interrelationships of people and animals in society today from different perspectives. Topics include: the human-animal bond; animal awareness; animal rights and human morality; humaneness; pets, pet behavior, and pet-facilitated therapy.

Women's Studies (CLA)

Rachael E. Martin, M.A., Instructor, Women's Studies, University of Minnesota Duluth
Michelle Mouton, B.A., Teaching Assistant and Graduate Student, History

WS 1990 NORTHERN MINNESOTA WOMEN: MYTHS AND REALITIES (A882) (U of M Duluth)

Audiocassette course--\$182.25--3 degree credits--text price \$32--study guide \$20--10 audiocassettes \$24.75--Martin

This course examines the stereotypes and realities of life for Northern Minnesota Indian, Yankee, and immigrant women from the times of early settlement to the present day. See General Information section, Duluth Credit.

WoSt 3910 TOPICS IN WOMEN'S STUDIES: WOMEN BETWEEN VICTORIANISM AND EMANCIPATION (8821)

3 assignments--no exams--\$248--4 degree credits--text price \$48--Mouton

This course will explore continuity and change in the history of Anglo-American women from the late Victorian era to the present. Topics: the Victorian legacy, women and work, women's education, female sexuality, reproduction, and women and politics.

Media-Assisted Courses

Because some courses can be more interesting and intellectually stimulating with a visual or audio component, Independent Study offers several kinds of media-assisted courses. These include radio, television, audiocassette, and videocassette courses.

Our radio and television courses, which are offered with the cooperation of University Media Resources, public radio stations, and public television stations, are broadcast each quarter of the academic year. After one of these degree-credit courses has been broadcast, it is converted to an audiocassette or a videocassette course so that students may continue to enroll in it.

Each media-assisted course consists of the media component, a course study guide, and texts. The study guide integrates all of the course components--it details the reading assignments from the required texts, gives the viewing or listening assignments, and contains study notes, written assignments, and/or exam information.

The broadcast schedule for this year's radio and television courses, plus information specific to each type of course, is given below. Most radio and television courses follow the University's quarter schedule. Students, however, may take up to one year to complete the course requirements. Information about our audiocassette and videocassette courses is given on the next pages. Descriptions of these courses are given in the Course Descriptions section of this bulletin.

Radio and Television Courses

The radio and television courses we offer are listed below according to University quarter. Descriptions and costs of these courses can be found in the Course Descriptions section of this bulletin, arranged alphabetically by department. Some upper-division television courses are available for graduate credit.

Radio Station

Twin Cities: KUOM Radio, 770 AM

New courses offered on weekdays over KUOM radio take advantage of KUOM's call-in format. Students and other listeners will be able to telephone the station and ask questions of the instructor and receive prompt and personal feedback. The call-in feature is not available for Saturday repeats and other Saturday courses.

Television Stations

Twin Cities: KTCI-TV, Channel 17
Appleton: KWCM-TV, Channel 10
Duluth: WDSE-TV, Channel 8
Austin: KSMQ-TV, Channel 15

If You Miss a TV or Radio Program

You can go to the following University of Minnesota locations to view or listen to a cassette of a program. Please call ahead to check cassette availability and open hours.

Twin Cities:
Learning Resources Center
15 Walter Library
Minneapolis campus
612/624-1584

Morris:
Morris Learning Center
232 Community Services Building
Morris campus
612/589-2211, ext. 6456

Duluth:
Media Services Center
248 Library
Duluth campus
218/726-6121

Rochester:
Rochester Center
1200 South Broadway
Rochester, MN
507/288-4584

Fall 1991

Registration dates: August 26--October 18

(If you are registering for a course broadcast in Duluth, you may register starting August 14.)

Radio courses

Cultural Pluralism in American History, Hist 1305

KUOM: Tues., 1-2 p.m., Sept. 24-Nov. 26
(repeats) Saturdays, 12-1 pm, Sept. 28-Nov. 30

Survey of American Literature, 1900-1960, Engl 3413

KUOM: Saturdays, 1-2 pm, Sept. 28-Nov. 30

Television courses

Education of the Gifted and Talented, EPsy 5690

- KTCI: Tuesdays, 9:30-10 p.m., Sept. 24-Nov. 26
(repeats) Thursdays, 9:30-10 p.m., Sept. 26-Nov. 28
KWCM: Tuesdays, 7-7:30 a.m., Sept. 24-Nov. 26
KSMQ: Wednesdays, 5:30-6 p.m., Sept. 25-Nov. 27
(repeats) Thursdays, 2-2:30 p.m., Sept. 26-Nov. 28
WDSE: Wednesdays, 6:15-6:45 a.m., Sept. 11-Nov. 13
(repeats) Saturdays, 7:30-8 a.m., Sept. 14-Nov. 16

Inventing the Future: Living, Learning, and Working in the 1990s, EdPA 5099

- KWCM: Thursdays, 7-7:30 a.m., Sept. 26-Nov. 28
KTCI: Tuesdays, 9-9:30 p.m., Sept. 24-Nov. 26
(repeats) Thursdays, 9-9:30 p.m., Sept. 26-Nov. 28

Winter 1992

Registration dates: Dec. 9--Jan. 31

(If you are registering for a course broadcast in Duluth, you may register starting November 4.)

Radio courses

Shakespeare II, Engl 3242

- KUOM: Wednesdays, 2-3 p.m., Jan. 8-Mar. 11
(repeats) Saturdays, 12-1 p.m., Jan. 11-Mar. 14

Introduction to African Literature, Afro 3601

- KUOM: Saturdays, 1-2 p.m., Jan. 11-Mar. 14

Television courses

Family Relationships, FSoS 5200

- KTCI: Tuesdays, 9-9:30 p.m., Jan. 7-Mar. 10
(repeats) Thursdays, 9-9:30 p.m., Jan. 9-Mar. 12
KWCM: Tuesdays, 7-7:30 a.m., Jan. 7-Mar. 10

Second Language Programs for Young Children: Like Child's Play, Elem 5321

- KTCI: Tuesdays, 9:30-10 p.m., Jan. 7-Mar. 10
(repeats) Thursdays, 9:30-10 p.m., Jan. 9-Mar. 12
KWCM: Thursdays, 7-7:30 a.m., Jan. 9-Mar. 12

KSMQ: Wednesdays, 5:30-6 p.m., Jan. 8-Mar. 11
(repeats) Thursdays, 2-2:30 p.m., Jan. 9-Mar. 12
WDSE: Wednesdays, 6:15-6:45 a.m., Dec. 4-Feb. 5
(repeats) Saturdays, 7:30-8 a.m., Dec. 7-Feb. 8

Spring 1992

Registration dates: Mar. 2-April 24

(If you are registering for a course broadcast in Duluth, you may register starting February 12.)

Radio courses

Home Horticulture, Hort 1010

KUOM: Wednesdays, 1-2 p.m., Apr. 1-June 3
(repeats) Saturdays, 12-1 p.m., Apr. 4-June 6

Introduction to American Criminal Justice, Soc 3101

KUOM: Saturdays, 1-2 p.m., Apr. 4-June 6
(repeats) Saturdays, 1-2 p.m., Apr. 4-June 6

Television courses

Second Language Programs for Young Children: Like Child's Play, Elem 5321

KTCl: Tuesdays, 9-9:30 p.m., Mar. 31-June 2
(repeats) Thursdays, 9-9:30 p.m., Apr. 2-June 4
KWCM: Tuesdays, 7-7:30 a.m., Mar. 31-June 2

Geography of Minnesota, Geog 3111

KTCl: Tuesdays, 9:30-10 pm, Mar. 31-June 2
(repeats) Thursdays, 9:30-10 pm, Apr. 2-June 4
KWCM: Thursdays, 7-7:30 a.m., Apr. 2-June 4
KSMQ: Wednesdays, 5:30-6 p.m., Apr. 1-June 3
(repeats) Thursdays, 2-2:30 p.m., Apr. 2-June 4
WDSE: Wednesdays, 6:15-6:45 a.m., Mar. 11-May 13
(repeats) Saturdays, 7:30-8 a.m., Mar. 14-May 16

Audiocassette Courses

See Audiocassette Courses in the General Information section

Videocassette Courses

See Videocassette Courses in the General Information section

The following courses use videos extensively, and the videos are available for home use. For information about them, check the Course Descriptions section of this bulletin.

Anth 1102, Introduction to Social and Cultural Anthropology
Arch 5956/AmSt 3920/AmSt 5920, The Meanings of Place
ArH 1001, Introduction to the Visual Arts
Comp 1031, Introduction to Business and Technical Communication
EdPA 5099, Inventing the Future
Elem 5321, Second Language Programs for Young Children: Like Child's Play
EPsy 5400, Career Development and Planning
EPsy 5690, Education of the Gifted and Talented
Engl 3410, Voices and Visions in American Poetry
Engl 3851, The English Language
FSoS 5200, Family Relationships
Geog 3111, Geography of Minnesota (in preparation)
Hist 3841, American Business History
HSU 5008/PMed 5445, Social and Psychological Aspects of Physical Disability
JwSt 3034/ReIS 3034, Introduction to Judaism
Ling 1001, Nature of Human Language
Math 1211, Calculus I
Phys 1003, The Changing Physical World
Pol 1041, Contemporary Political Ideologies
PubH 5609, Toward an Understanding of Child Sexual Abuse
PubH 5642, Child Abuse and Neglect
Th 1101, Introduction to the Theatre

Updates for Professionals Program (UPP)

The courses in this program are designed to help professionals in business and industry maintain their expertise in a climate of rapid technological change. UPP courses reflect cutting-edge research in a variety of disciplines, including computer science, chemical and electrical engineering, and statistical theory.

They were developed as intensive, non-credit short courses that can be used by groups or individuals. Course materials consist of videocassettes or audiocassettes, printed materials, and occasionally computer software or other instructional tools.

UPP courses currently or soon to be available include:

Supercomputer Architecture and Programming--A nine hour discussion of the properties of supercomputer components and architectures. Specific emphasis is placed

on multitasking, the advantages and problems of pipeline structure, and programming science algorithms for optimal computation.

Making Decisions in Industry--Six hours of training in quantitative thinking that will enhance a person's ability to maximize decision options. Includes ways to modify strategies as information accumulates and how to trade immediate payoffs for information that will improve overall payoffs.

Signal Processing--An international panel of experts under the sponsorship of the Institute for Applied Mathematics presents six hours of lecture and discussion covering methods used in approaching one-dimensional and multidimensional problems in signal processing. Topics range from radar to x-ray crystallography.

Supercomputer Simulations in Astrophysics--Three hour demonstration of computational and display techniques used to simulate fluid dynamics experiments. Comparing model computations to observations of actual phenomena shows how the supercomputer handles the complex calculations needed to simulate gaseous jets, the convection process, and the dynamics of heat transfer.

Strategies in Interfacial Engineering: Seeing in New Ways--Brief video introduction to advances in understanding colloidal and interfacial systems made possible by recent technology for directly viewing microstructures.

Computer Graphics--This course enables mathematicians, statisticians, and programmers without graphic experience to write 2D graphics applications programs using the Graphic Kernel System (GKS) and X-Windows. Video demonstrations included advanced graphics applications as well as basic techniques.

For further information on UPP courses, call **612/624-9303**.

High School Program

The University of Minnesota Department of Independent Study offers high school correspondence courses as an educational service to the state. These 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 particular English, science, foreign language, 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 to personal satisfaction.

With the approval of high 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 school board only. **Students expecting to use credits earned through Independent Study to meet graduation requirements must obtain permission from school authorities before enrolling.**

Adults 19 years old 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 GED examinations. Detailed information about the GED examinations in Minnesota may be obtained by contacting the High School Certificate (GED) office, State Department of Education, Capitol Square Building, 550 Cedar St., St. Paul, MN 55101; 612/296-4057.

Admission

Independent Study courses are open to anyone who can benefit from them. High school credits are awarded, however, only in cooperation with 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 Approval for Registration on the registration form).

Cancel/Add

See the General Information section, Cancel/Add

Cancellations

See the General Information section, Cancellations; Refunds

College Courses Through Independent Study

Also see College PSEO Enrollment

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 credits is, of course, a function of the college the student enters. See the Course Descriptions section of this bulletin for a complete listing of college courses offered by Independent Study.

College level courses especially useful to high school students are:

Comp 0011 Preparation for Writing Practice

Comp 1011 Writing Practice I

GC 0611 Mathematics Skills Review

Math 1008 Trigonometry

Engl 1016 Introduction to American Literature

GC 1534 Practical Law

After Graduation: Many high school graduates cannot go to college immediately, but must seek temporary or long-term employment. For these people, Independent Study courses at the college level may be an important way of earning credits toward a degree or certificate. Independent Study offers courses in a wide range of subjects designed to meet individual needs. If you want to continue your education through Independent Study courses, see the other sections of this bulletin.

College PSEO Enrollment

In 1985 the Minnesota state legislature enacted the Post-Secondary Enrollment Options Act (PSEO). Under the PSEO, eligible high school juniors and seniors can take college courses and earn high school units and, subsequently, college credits for the courses they successfully complete. The Minnesota State Department of Education pays for the tuition, fees, and books for the courses. The PSEO can be used for Independent Study college courses.

High school students interested in taking courses through Independent Study under the PSEO must submit all registration materials to the Advanced High School Student Services Office. Registration consists of:

1. consulting with the student's high school counselor to complete the PSEOA notice of registration form;
2. submitting a high school transcript;
3. completing an Independent Study registration form;
4. providing a brief statement explaining the purpose of registering in the course (e.g., how you plan to use the credits).

If you have any questions regarding selection criteria, acceptable courses, or enrollment forms, please contact:

Advanced High School Student Services Office
University of Minnesota
107 Armory Building
15 Church St. SE
Minneapolis, MN 55455
612/626-1666

Course Completion

See the General Information section, Course Completion; Lesson Service

Credit Card Payment Plan

See the General Information section, Credit Card Payment Plan

Credits

Independent Study courses satisfy University of Minnesota entrance requirements and may be accepted by school districts in fulfillment of requirements for high school graduation. The courses listed in this section use the semester as the basis of credit evaluation. If your school uses a different basis, consult your counselor or principal. (Also see Admission; Tuition and Fees.)

Exams

See the General Information section, Examinations

Faculty

The instructor for each course is listed with the course description. More information on each faculty member is given following the subject area divisions under Courses (see below).

Grades

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 F indicates

unsatisfactory work; students who earn an F will not receive credit for the course. The University keeps a record of all courses completed and will mail grade reports to students and/or high school officials on request (see the General Information section, Transcripts and Records).

How to Enroll

If you plan to apply Independent Study credits toward high school graduation, obtain permission from your high school district authorities. If you would like to know more about a course before enrolling, write to Independent Study for an introduction to the course. The introduction will give you an outline of the course content and work.

Complete a registration form, and send it with full or partial payment tuition (see Tuition and Fees; Partial Payment Plan, below). You are encouraged to order your texts/supplies for a course at the time you register. For information on ordering texts/supplies at the time you register, see the General Information section, Textbooks and Supplies; Postage.

Send your registration form and payment to the Department of Independent Study, University of Minnesota, 45 Westbrook Hall, 77 Pleasant St. SE, Minneapolis, MN 55455. Remittances should be by check, money order, credit card, or authorization for payment from your school district. Checks or money orders should be payable to the University of Minnesota.

Learning Through Independent Study

See the General Information section, Course Completion; Lesson Service

Lesson Service and Mailing Procedures

See the General Information section; Lesson Service; Postage

National University Continuing Education Association (N.U.C.E.A.)

See the General Information section, National University Continuing Education Association

Partial Payment Plan

Independent Study offers a partial payment plan for students who cannot pay full tuition at the time of registration. This does not apply to tuition paid for by credit card. Texts and supplies ordered through Independent Study must be paid in full at the time of purchase. Under the partial payment plan, one-third of the total tuition, plus a service charge of \$8 per course, is paid at the time of registration. The remaining two-thirds is payable in two equal payments due 30 days and 60 days after the date of registration. A sample payment schedule (including the \$8 service charge) is given on the following page.

Tuition	1st payment	2nd payment	3rd payment
\$40 (1/4 unit)	\$21	\$13.50	\$13.50
\$80 (1/2 unit)	\$34	\$27	\$27

Lesson assignments will be accepted only through that third of the course for which tuition has been paid. For example, a student who enrolls in a 12-assignment course will not receive instruction beyond assignment 4 if he or she has only made the first payment. A course grade will not be issued until all payments are received and processed.

Registration will be canceled if total tuition has not been paid within 90 days of the original registration date, unless permission has been obtained from the Administrative Director of Independent Study. Once registration has been canceled, you may continue the course only by reenrolling.

Students who want to use the partial payment plan should fill in the appropriate space on the registration form and send it, along with the service charge, the first payment, and any other fees, to Independent Study.

Postage

See the General Information section, Postage

Reenrollment

See the General Information section, Reenrollment

Refunds

See the General Information section, Refunds

Reinstatements

See the General Information section, Reinstatements

Sales Tax

See the General Information section, Taxable Items

Textbooks and Supplies

See the General Information section, Textbooks and Supplies; Postage

Tuition and Fees

Also see How to Enroll

Tuition is \$40 per 1/4 unit and \$80 per 1/2 unit (tuition is subject to change without notice). Refer to the Course Descriptions section for information on college tuition rates.

Either you or your school district may pay the tuition 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 Approval for Registration on the registration form).

Courses

Business

Margaret K. Lydell, M.A., Instructor, Continuing Education and Extension, University of Minnesota

Gary R. Seiler, B.S., Instructor, Continuing Education and Extension, University of Minnesota

Gary G. Strom, M.S., Business Instructor, Minneapolis Technical College

Accounting, Part A (9813)

1/2 unit--11 assignments--2 exams--text price \$37--Strom

A simple accounting cycle for a small service business is worked out in 11 lessons and two application projects. Students will use debits, credits, balance sheets, general journals, ledgers, cash journals, work sheets, and income statements. This course will give an individual some of the basics of accounting.

General Business, Part A (9823)

1/2 unit--10 assignments--2 exams--text price \$30--Seiler

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: business and our economic system; money, credit, and banks; earning an income; labor and management; taxation; economic problems; and citizenship as it relates to the free enterprise system.

General Business, Part B (9824)

1/2 unit--10 assignments--2 exams--text price \$30--Seiler

A continuation of Part A, with emphasis on the role of the consumer in our economic system. Topics: money management; the art of spending; consumer protection; consumer credit; making money payments; building financial security; and insurance.

Shorthand, Part A (9901)

1/2 unit--18 assignments--2 exams--text price \$31--Lydell

An introduction to basic business shorthand, including the alphabet, brief forms, and the theory of Gregg Simplified Shorthand. After completing this course, a student should be able to take dictation at 60 words per minute.

English

Melvin A. Hoke, M.A., English Instructor, South High School, Minneapolis

Robert C. Erickson, M.A., Director, Global Studies Resource Center

Ninth Grade English, Part A (9831)

1/2 unit--10 assignments--1 exam--text price \$39--Hoke
Introduction to the epic (Homer's *Odyssey*) and the elements of the short story (plot, character, setting, point of view, and theme). Assignments in analytical, autobiographical, and descriptive writing

Ninth Grade English, Part B (9832)

1/2 unit--10 assignments--1 exam--text price \$39--Hoke
Introduction to poetry, nonfiction, and drama (*Romeo and Juliet*).

Tenth Grade English, Part A (9833)

1/2 unit--10 assignments--1 exam--text price \$45--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 assignments--1 exam--text price 44--Hoke
A continuation of Part A.

Eleventh Grade English, Part A (9835)

1/2 unit--9 assignments--1 exam--text price \$41--Hoke
An interdisciplinary approach to language and literature through a study of American literature from its beginnings through the 19th century. Readings include selections from Jefferson, Crèvecoeur, de Tocqueville, 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--9 assignments--1 exam--text price \$41--Hoke
A continuation of Part A, this course 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 (9847)

1/2 unit--10 assignments--1 exam--text price \$41--Hoke
A thematic approach to the study of Western literature. Topics include ways of looking at literature, the conflict of wills, choices and consequences, and the personal essay. Students will explore these topics in the works of Orwell, de Maupassant, Sophocles, Moliere, Chaucer, Plato, Hardy, Greene, Woolf, Tolstoy, Camus, and others.

Twelfth Grade English, Part B (9848)

1/2 unit--10 assignments--1 exam--text price \$46--Hoke
A continuation of Part A. Topics explored are appearance versus reality, protest against injustice, and the search for meaning in life. Students will explore these topics in the works of Ibsen, Kafka, Auden, Lawrence, Swift, Mansfield, Zola, Conrad, Joyce, and others.

Straight Thinking (9839)

1/4 unit--6 assignments--1 exam--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 exam is optional. Independent Study will furnish one blank audiocassette to students who have access to a recorder.

Youth in Conflict (9840)

1/4 unit--6 assignments--1 exam--text price \$18--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 exam is optional. Independent Study will furnish one blank audiocassette to students who have access to a recorder.

Meaning and Self-Discovery in Literature (9841)

1/4 unit--6 assignments--1 exam--text price \$25--Hoke

In examining the viewpoints 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 exam is optional. Independent Study will furnish one blank audiocassette to students who have access to a recorder.

Practical Writing (9842)

1/4 unit--6 assignments--1 exam--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 assignments--no exams--no required text--Hoke

Designed for the student who wants additional practice in expository writing, this course offers experience in composing essays of description, persuasion, comparison/contrast, criticism, interpretation, and stylistic imitation. One assignment involves analyzing a newspaper article.

Creative Writing (9849)

1/2 unit--10 assignments--no exams--no required text--Hoke

A comprehensive introduction to various types of creative writing. Students explore the sources of creative writing and learn how to describe a scene, reveal character, tell a story, and write poetry, a short script, and an article or personal essay. In addition to submitting one example of each of these forms of creative writing, students are required to write a longer final paper.

Contemporary Literature/Contemporary Problems (9843)

1/2 unit--8 assignments--1 exam--text price \$49--Hoke

A presentation of literature with a view to understanding contemporary problems, this course permits students to gain insight into the problems of Indians, blacks, women, ecology, and the future.

The Black American Experience (9924)

1/2 unit--9 assignments--1 exam--text price \$20--Hoke

Through literature, this course provides an examination of the African heritage and the slave experience of black Americans. Students read short stories, an autobiography, and poetry written by black authors.

The American Dream in American Drama (9846)

1/2 unit--10 assignments--1 exam--text price \$46--Hoke

Examines the notion of America as the "Promised Land" offering wealth, security, equality, and opportunity to all citizens. The American Dream is explored in 11 modern plays (1920-1972). Among the plots and themes are the story of a successful winegrower who needs a bride, black people reaching for wealth, and contemporary alienation.

Contemporary Global Problems (9925)

1/2 unit--10 assignments--no exams--text price \$19--R. Erickson

This course examines many of the important issues facing the citizens of the world today. It introduces students to ways of thinking about themselves and their opinions on contemporary world problems, and gives them a foundation for understanding the world in the future.

Languages

College-level foreign language courses are available in the following languages. For information on these courses, see the college Course Descriptions section.

French	Norwegian
German	Russian
Greek (Classical)	Spanish
Latin	Swedish

Dee Buth, M.A., German Teacher, Blaine High School

Adele Donchenko, Ph.D., Associate Professor, Russian and East European Studies, College of Liberal Arts, University of Minnesota

Sue Sorheim, M.A., German Instructor, North Hennepin Community College

Beginning Russian, Part A (9961)

1/2 unit--10 assignments--2 exams--text price \$18--3 audiocassettes \$9--Donchenko

Reading, writing, translation, and grammar of the Russian language.

Beginning Russian, Part B (9962)

1/2 unit--10 assignments--2 exams--text price \$18--3 audiocassettes \$9--Donchenko

Continuation of Part A. (Prerequisite: Beginning Russian, Part A, or equivalent)

Beginning German, Part A (9963)

1/2 unit--10 assignments--2 exams--Buth and Sorheim

Reading, writing, translation, and grammar of the German language. **This course is now in preparation; please inquire before enrolling.**

Beginning German, Part B (9964)

1/2 unit--9 assignments--2 exams--Buth and Sorheim

A continuation of Part A. (Prerequisite: Beginning German, Part A, or equivalent) **This course is now in preparation; please inquire before enrolling.**

Mathematics

David L. Ekstrand, M.A., Mathematics Professor, St. Thomas Academy, St. Paul

Arne J. Koch, M.A., Instructor, Continuing Education and Extension, University of Minnesota

John W. Walther, M.Ed., Math Instructor, South High School, Minneapolis

Elementary Algebra, Part A (9892)

1/2 unit--12 assignments--2 exams--text price \$42--Ekstrand

A basic course in elementary algebra designed to acquaint students 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 modern mathematics background. (Prerequisite: basic arithmetic)

Elementary Algebra, Part B (9893)

1/2 unit--12 assignments--2 exams--text price \$42--Ekstrand

A continuation of Part A. (Prerequisite: Elementary Algebra, Part A, or equivalent)

Plane Geometry, Part A (9887)

1/2 unit--13 assignments--2 exams--text price \$43--Walther

A basic course in high school geometry. Topics include points, lines and planes, proofs, angles, theorems, parallel lines, proving lines parallel, proving triangles congruent, congruent segments and angles, applying congruent triangles, inequalities, definitions and properties of similar polygons, working with similar triangles, Pythagorean theorem, and ratios, proportion, and similarity. (Prerequisite: one year of high school elementary algebra or equivalent)

Plane Geometry, Part B (9888)

1/2 unit--13 assignments--2 exams--text price \$43--Walther

A continuation of Part A, this course emphasizes circle relationships, areas and volumes, solids, cylinders, cones, spheres, distance, midpoint, slope formulas, coordinate geometry, and geometric constructions and transformations. (Prerequisite: Plane Geometry, Part A, or equivalent)

Trigonometry (9876)

1/2 unit--12 assignments--2 exams--text price \$37--Walther

An introduction to basic trigonometric functions and their use in solving right and oblique triangles. 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)

Higher Algebra, Part A (9885)

1/2 unit--10 assignments--2 exams--text price \$39--Ekstrand

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 want 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 (9886)

1/2 unit--10 assignments--2 exams--text price \$39--Ekstrand

A continuation of Part A. 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)

Science

Kenneth Jeddelloh, Ph.D., Science Teacher, Minneapolis Public Schools

John F. Koser, M.S., Physics and Astronomy Teacher, Wayzata Senior High School, Wayzata, Minnesota

Biology, Part A (9801)

1/2 unit--10 assignments--1 exam--text price \$44--Jeddelloh

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 assignments--1 exam--text price \$44--Jeddelloh

A continuation of Part A. General topics include human inheritance, embryology, and evolution; viruses, molds, yeasts, and bacteria and their importance to humans; and green plants and their functions. (Prerequisite: Biology, Part A, or one semester of high school biology)

Physics, Part A (9909)

1/2 unit--9 assignments--4 exams--text price \$35--Koser

This course explores the basic principles and laws of physics in the areas of motion and the causes of motion; forces and interactions; work, energy, momentum; kinetic theory of matter; heat transfer; and the interaction of heat and work. Students apply these laws and principles in the assignment problems and in 10 experiments. The experiments can be performed using materials found in most home, e.g., a watch or other timer, a measuring device, C clamps, pennies, string, quart jars. (Prerequisites: high school algebra, geometry, and advanced algebra or trigonometry)

Physics, Part B (9910)

1/2 unit--6 assignments--3 exams--text price \$35--lab materials \$28--Koser

The second part of the physics sequence, this course considers the electromagnetic spectrum and the nature of light, geometric optics, diffraction and polarization, electrostatics, D.C. circuits, and electromagnetic induction. The seven experiments require materials that can be purchased as needed at electronics or hobby stores, or purchased as a kit from Independent Study. (Prerequisites: high school algebra, geometry, and advanced algebra or trigonometry)

Social Studies

Robert J. Falk, Ph.D., Associate Professor Emeritus, Department of Psychology and Mental Health, University of Minnesota, Duluth

Bruce H. Jasper, B.A., B.S., Social Studies Instructor, Hosterman Junior High School, New Hope, Minnesota

Fred A. Johnson, Ph.D., Social and Behavioral Sciences Division, General College, University of Minnesota

Melvin A. Hoke, M.A., English Instructor, South High School, Minneapolis

Problems of American Democracy, Part A (9911)

1/2 unit--12 assignments--2 exams--text price \$45--Johnson

A basic introduction to the theory and reality of American social problems, this course is equivalent to the first half of 12th grade social studies. Topics include society and culture, the process of socialization, problems of social mobility, and problems of continuity and change.

Problems of American Democracy, Part B (9912)

1/2 unit--12 assignments--2 exams--text price \$49--Johnson

This course is the equivalent of the second half of 12 grade social studies. Topics include principles and practices of government, the political processes, national government, financing government, and the United States and world affairs.

American History, Part A (9922)

1/2 unit--12 assignments--2 exams--text price \$38--Jasper

Survey of American history from early colonization through the Civil War and Reconstruction. Also designed to acquaint students with the processes involved in gathering and interpreting historical information.

American History, Part B (9923)

1/2 unit--12 assignments--2 exams--text price \$43--Jasper

A continuation of Part A, this course covers Reconstruction through the 1970s.

General Psychology, Part A (9941)

1/2 unit--14 assignments--1 exam--text price \$45--Hoke

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 include sensation, perception, learning, motivation, and behavior.

General Psychology, Part B (9942)

1/2 unit--16 assignments--1 exam--text price \$45--Hoke

A continuation of Part A. Topics include verbal behavior, cognitive processes, frustration and conflict, individual differences, personality, behavior pathology, social psychology, and foundations of behavior. (Prerequisite: General Psychology, Part A)

Project Self-Discovery (9943)

1/2 unit--10 assignments--no exams--no required text--Falk

Through introspective assignments, students gain a better understanding of themselves and their world. Designed to encourage students to grow to see themselves in positive ways, perceive themselves and their world accurately and realistically, and learn to identify with and relate to other people.

CEE Certificate Programs

Continuing Education and Extension (CEE) offers several certificate programs consisting of degree-credit courses or a combination of degree- and certificate-credit courses. Students entering these programs should have adequate educational preparation or other experience that qualifies them to work with college-level material. The certificate-credit courses represent an accelerated and specialized approach to subject matter, and are not transferable to a degree program. Degree credit courses may be used toward both degrees and certificates.

Some certificate programs are regarded by business and industry as valuable professional and technical preparation for employment and promotion. Students whose career plans require college training, but who cannot devote the time necessary to earn a degree, may want to consider a certificate program. Students are encouraged to consult with employers regarding the usefulness of the certificate in seeking new employment or possible promotional opportunities. With careful planning, some certificates can be a stepping-stone to a degree program. If a degree is your goal, contact CEE Counseling (612/625-2500) for assistance. Work on most certificates may be done through a combination of Independent Study, Extension Classes, day school, or summer session.

Degree and certificate programs **may change or be discontinued**. The University will make every reasonable effort to assist admitted students in completing a program.

Students may transfer credits from other accredited institutions, although a minimum of 25 percent of the credits required for any certificate must be earned through the University of Minnesota. The residency requirement cannot be met by repeating courses at the University of Minnesota that have already been successfully completed at another institution. Courses need not be taken in order except as prerequisites make it necessary.

Certificate requirements are subject to modification. There is no time limit on the use of credits. Students may not be enrolled in more than three certificate programs at one time. Students interested in taking courses toward certificate programs on the S-N grading system should first consult an Extension adviser at 612/625-2500.

Application--Students can obtain a copy of Certificate Program Information, with an application form, by contacting CEE Counseling, 612/625-2500, 314 Nolte Center. A nonrefundable \$15 application fee will be required with all applications. Students are urged to consult with an adviser early in their programs, before completing an application for admission, regarding application time, admissibility to a certificate program, residency requirements, and specific admission information for each certificate.

Certificate Programs

Admission criteria vary among certificate programs. Admission decisions are based on previous college performance (a better than C average is required), educational objectives, and patterns of coursework completed. Students will be notified of admission status by mail approximately three weeks after all transcripts and application materials are received.

Completion--A student nearing completion of the required work who expects to receive a certificate must file a Certificate Completion form when registering for his or her last course. A \$16 nonrefundable certificate fee is required at the time the Certificate Completion form is filed. There is a quarterly deadline for filing this form. On completion of a specified program with at least a C (2.00) overall grade average (including a 2.00 grade point average in University of Minnesota coursework), the student is awarded a certificate. Certificates are awarded by Continuing Education and Extension, not by individual colleges of the University of Minnesota. All certificates are dated and awarded as of each quarter of the academic year.

All CEE certificates may be earned with honors. A student earning a 3.00 to 3.49 grade point average in University of Minnesota credits within the certificate will be awarded a certificate "with distinction." A student earning a 3.50 grade point average, or better, in University of Minnesota credits within the certificate will be awarded a certificate "with high distinction." At least 60 percent of the requirements for a certificate with honors must be earned at the University of Minnesota and must be taken on the A-F grading system. Colleges at the University retain the right to determine honors requirements for a degree; earning a certificate with honors does not guarantee admission into a college's honors program.

For information about certificate programs, including transfer of credits, contact CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Drive SE, Minneapolis, MN 55455; 612/625-2500.

Courses or course sequences now available or soon to be available through Independent Study are followed by an asterisk (*).

Extension Certificates--Group I

Group I certificates can be earned entirely through Independent Study.

Liberal Arts Certificate (45 credits)

The Liberal Arts Certificate program offers students an introduction to a liberal arts education and is equivalent to one year of University study. The certificate can constitute the freshman year of a degree program in liberal arts or business, if carefully planned. A minimum of **50 percent** of all coursework (23 credits) must be taken on the A-F grading system.

Certificate Programs

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

English Requirements (5-8 credits)

Comp 1011--Writing Practice I*

Core Requirements (32 credits) Eight credits in each of the following groups:

Group A--Language, Logic, Mathematics, and the Study of Argument

Group B--Physical and Biological Universe

Group C--Individual and Society

Group D--Literary and Artistic Expression

Electives: Additional liberal arts courses are required for a total of 45 credits for the certificate. Before taking courses applicable to this certificate, students should obtain a copy of CLA courses offered through Continuing Education and Extension that meet the Group Distribution Requirements. Contact CEE Counseling, University of Minnesota, 314 Nolte Center, 315 Pillsbury Dr. SE, Minneapolis, MN 55455; 612/625-2500.

Mathematics and Science Certificate (45 credits)

The Mathematics and Science Certificate provides students with the fundamentals of mathematics and science, and is the equivalent of one year of University study. The credits earned in this certificate program can be used toward a degree in either the College of Liberal Arts or the Institute of Technology (depending on the choice of electives).

A minimum of **50 percent** of all coursework (23 credits) must be taken on the A-F grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits at the University.

Prerequisite: Two years of algebra and two years of geometry, including trigonometry.

Core Requirements (25-28 credits)

Comp 1011--Writing Practice I*

Math 1211--Calculus I*

Math 1221--Calculus II*

Math 1231 or Math 1241**--Calculus III*

Math 3211--Multivariable Calculus*

Electives: Additional credits for a total of 45 credits, selected from the following areas.

Aerospace Engineering and Mechanics

Astronomy

Biology

Botany

Chemistry

Ecology

Engineering

Geology

Microbiology

Physics

**Math 1241 is required for Institute of Technology degrees

Certificate Programs

Extension Certificates--Group II

Group II certificates can be partially completed through Independent Study, but require additional credits from day school, Extension Classes, or transferred credits.

Undergraduate Development Certificates in Accounting

The accounting certificates can be of value to individuals in some accounting positions in industry, to management personnel who are required to deal with common finance and accounting data, and to business people who wish to have a basic understanding of the elementary principles of accounting and corporation finance. The Level II certificate provides a background for additional study in preparation for the Certified Public Accountant and Certified Management Accountant examinations. In most cases, students who work toward the certificate have already completed a bachelor's degree. Students who do not have a bachelor's degree should consider the accounting program in the Bachelor of Science in Business degree as a preferable alternative.

Admission to Undergraduate Development Certificates in Accounting--To be considered for admission, students must have completed the equivalent of a minimum of 90 quarter college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed, with particular emphasis on the last 90 credits.

Note--Upper division (3000- or 5000-level) management courses in CEE are taught with the expectation that, in addition to having completed all pre-management coursework, students either will have earned a B- grade average in 90 credits of college-level work or will have already completed a bachelor's degree.

Level I (61-64 credits)

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

Core Requirements

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting

Acct 3001--Introduction to Management Accounting

Acct 3101-5102--Intermediate and Advanced Financial Reporting

Acct 3201--Intermediate Management Accounting

Comp 1011--Writing Practice I*

Comp 3022--Critical Thinking and Writing for Management

Econ 1101,1102--Principles of Microeconomics and Macroeconomics*

IDSc 1010--Fundamentals of Information Development and Use*

IDSc 3030--Information Systems and Information Management

Math 1111--College Algebra and Analytic Geometry*

Math 1142--Short Calculus* or Math 1211--Calculus I*

OMS 1020--Data Analysis and Statistical Inference for Managers

Level II (89-92 credits)

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

Core Requirements (77-80 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Acct 3001--Introduction to Management Accounting
Acct 3101-5102--Intermediate and Advanced Financial Reporting
Acct 3201--Intermediate Management Accounting
Comp 1011--Writing Practice I*
Comp 3022--Critical Thinking and Writing for Management
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IR 3002--Personnel and Industrial Relations
IDSc 1010--Fundamentals of Information Development and Use*
IDSc 3030--Information Systems and Information Management
Math 1111--College Algebra and Analytic Geometry*
Math 1142--Short Calculus* or Math 1211--Calculus I*
OMS 1020--Data Analysis and Statistical Inference for Managers
12 credits of accounting electives

Electives (12 credits)

BFin 3000--Finance Fundamentals*
BGS 3002--Business and Society*
BGS 3004--International Business*
BLaw 3058--Business Law: Contracts*
Econ 3015--Managerial Economics
Ins 5100--Risk Management and Insurance
LM 3000--Introduction to Logistics Management
Mgmt 3001--Fundamentals of Management*
Mgmt 3004--Business Policy: Strategy Formulation and Implementation*
Mktg 3000--Principles of Marketing*
OMS 3000--Introduction to Operations Management

Undergraduate Development Certificates in Business Administration

The Undergraduate Development Certificates in Business Administration have been approved by the Carlson School of Management and arranged under the supervision of its faculty. They present integrated, high-quality, university-level programs of shorter length and scope than four-year degree programs. They are designed 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.

Students admitted to Undergraduate Development Certificates in Business Administration are usually working toward a Bachelor of Science in Business degree or have

Certificate Programs

already completed a bachelor's degree in another area. It is possible for a students to move from a course of study for a certificate into a planned program leading to a Bachelor of Science in Business degree. Those who contemplate such a long-range objective should consult an adviser (612/625-2500), who can monitor their progress carefully.

Admission to Undergraduate Development Certificates in Business Administration--To be considered for admission, students must have completed the equivalent of a minimum of 90 quarter college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed, with particular emphasis on the last 90 credits.

Note--Upper division (3000- or 5000-level) management courses in CEE are taught with the expectation that, in addition to having completed all pre-management coursework, students either will have earned a B-grade average in 90 credits of college-level work or will have already completed a bachelor's degree.



Level I Business Administration Certificate (49-52 credits)

This certificate represents the equivalent of one academic year of study in business. It offers a background in the basic fields of business administration. All the credits received in completing the Level I Certificate are credited toward a Level II Certificate and represent half of its required work load.

All courses must be taken on the A-F grading system. Students transferring credits from other accredited institutions to this program must take a minimum of 12 credits in business courses from the Core Requirement at the University.

Pre-management Requirement (37-40 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Comp 1011--Writing Practice I*
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IDSc 1010--Fundamentals of Information Development and Use*
Math 1111--College Algebra and Analytic Geometry*
OMS 1020--Data Analysis and Statistical Inference for Managers
Psy 1001--Introduction to Psychology*

Core Requirements (12 credits) At least three courses selected from the following to total 12 credits

Acct 3001--Introduction to Management Accounting
BFin 0001C--Introduction to Investments
BFin 3000--Finance Fundamentals*
BGS 3002--Business and Society*
BGS 3004--International Business*
BLaw 3058--Business Law: Contracts*
Econ 3105--Managerial Economics
IR 3002--Personnel and Industrial Relations
IDSc 3030--Information Systems and Information Management
Ins 5100--Risk Management and Insurance
LM 3000--Introduction to Logistics Management
Mgmt 3001--Fundamentals of Management*
Mgmt 3004--Business Policy: Strategy Formulation and Implementation*
Mktg 3000--Principles of Marketing*
Math 1142--Short Calculus* or Math 1211--Calculus I*

Level II Business Administration Certificate (90 credits)

The Level II Business Administration Certificate is a continuation of the Level I Certificate. The completion of the certificate approximates the second and third years of a four-year degree program, with emphasis on the basic principles and theories of business administration.

Students who are contemplating continuing toward a degree from the Carlson School of Management should consult an adviser **before** they begin working toward the Level II Business Administration Certificate.

Certificate Programs

Only nonbusiness electives may be taken on the S-N grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 24 credits in business courses (not including the pre-management requirement) at the University.

Pre-management Requirement (42-45 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Comp 1011--Writing Practice I*
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IDSc 1010--Fundamentals of Information Development and Use*
Math 1111--College Algebra and Analytic Geometry*
Math 1142--Short Calculus* or Math 1211--Calculus I*
OMS 1020--Data Analysis and Statistical Inference for Managers
Psy 1001--Introduction to Psychology*

Core Requirements (24 credits) At least six courses selected from the following to total 24 credits

Acct 3001--Introduction to Management Accounting
BFin 0001C--Introduction to Investments
BFin 3000--Finance Fundamentals*
BGS 3002--Business and Society*
BGS 3004--International Business*
BLaw 3058--Business Law: Contracts*
Econ 3105--Managerial Economics
IR 3002--Personnel and Industrial Relations
IDSc 3030--Information Systems and Information Management
Ins 5100--Risk Management and Insurance
LM 3000--Introduction to Logistics
Mgmt 3001--Fundamentals of Management
Mgmt 3004--Business Policy: Strategy Formulation and Implementation*
Mktg 3000--Principles of Marketing*
OMS 3000--Introduction to Operations Management

Electives in the Carlson School of Management: At least 16 additional credits in upper division business administration. These should be selected in consultation with a CEE counselor.

Other Electives: Satisfactory completion of pre-management degree requirements in Physical and Biological Sciences, Individual and Society, or Literary and Artistic Expression, for a total of 90 credits.

Note: Students considering a degree from the Carlson School of Management should choose electives that could become part of the degree program. Such students should contact Independent Study for a list of the pre-management courses offered through Independent Study that meet the requirements of the Carlson School of Management and should also contact CEE Counseling early in their program.

Credit and Financial Management Certificate (66-67 credits)

The Credit and Financial Management Certificate program was developed cooperatively by Continuing Education and Extension, the Carlson School of Management, and the National Association of Credit Management. The program prepares students for careers in trade credit management, loan management, and financial management.

All courses must be taken on the A-F grading system, with the exception of Composition and Speech, which may be taken on the S-N grading system. Students transferring credits to this program from other accredited institutions must take a minimum of 16 credits at the University.

Admission to the Credit and Financial Management Certificate--To be considered for admission, students must have completed the equivalent of a minimum of 90 quarter college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed, with particular emphasis on the last 90 credits.

Not all of the courses required for the National Association of Credit Management (NACM) certification are available at the University of Minnesota. Persons interested in these awards should contact Lois M. Bell, City Place Building, Suite 600, 730 Hennepin Ave., Minneapolis, MN 55403, telephone 612/341-9615, for further information on obtaining the additional coursework elsewhere.

Note--Upper division (3000- or 5000-level) management courses in CEE are taught with the expectation that, in addition to having completed all pre-management coursework, students either will have earned a B- grade average in 90 credits of college-level work or will have already completed a bachelor's degree.

For more information about working toward this certificate, contact CEE Counseling at 612/625-2500.

Core Requirements (58 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Acct 3001--Introduction to Management Accounting
Acct 3101--Intermediate Financial Reporting
BFin 3000--Finance Fundamentals*
BLaw 3058-3078**, 3088**--Business Law*
Comp 1011--Writing Practice I*
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IR 3002--Personnel and Industrial Relations
Mgmt 3002--Psychology in Management*
Mktg 3000--Principles of Marketing*
Spch 1101--Fundamentals of Speech Communication: Oral Communication

**Students in the Credit and Financial Management Certificate program should take BLaw 3078 and 3088 during 1991-92. These courses are currently under review for continuance.

Certificate Programs

Electives (8 credits)

Acct 3201--Intermediate Management Accounting
BFin 3100--Financial Management
BFin 3601--Bank Financial Management
Econ 3701/5721--Money and Banking*
GC 3732--Consumer Transactions and the Law
Ins 5100--Risk Management and Insurance
LM 3000--Introduction to Logistics Management
Mgmt 3001--Fundamentals of Management*

Industrial Relations Certificate (45 credits)

The Industrial Relations Certificate was developed by the Industrial Relations Center of the Carlson School of Management. It provides technical training in industrial relations and in the use of specialist techniques. Advanced professional training in industrial relations is available only through the day and evening M.A. and Ph.D. programs.

Students may use S-N grading for Psy 3801 and nonbusiness electives, up to a **maximum of 12** credits toward the certificate. Students transferring credits to this program from other accredited institutions must take a minimum of 12 credits in Industrial Relations at the University.

Note--Upper division (3000- or 5000-level) management courses in CEE are taught with the expectation that, in addition to having completed all pre-management coursework, students either will have earned a B- grade average in 90 credits of college-level work or will have already completed a bachelor's degree. Courses at the 3000-level are primarily for juniors and seniors. Courses at the 5000-level are primarily for juniors, seniors, and graduate students.

Core Requirements (33 credits)

Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IR 3002--Personnel and Industrial Relations
IR 3007--Collective Bargaining and Labor Relations*
IR 3010--The Individual and the Organization, or Psy 5702--Psychology of Individual Behavior in Organizations
Psy 1001--Introduction to Psychology*
Psy 3801--Introduction to Statistical Methods, or approved substitute
Soc 1001--Introduction to Sociology*

Electives (12 credits)

Econ 3501 or 5531--Labor Economics
Econ 5534--Economic Security
Econ 5561--Wages and Employment
IR 0001C--Supervision I*
IR 3000--Topics in Industrial Relations*

IR 5000--Topics in Industrial Relations
any other 3000- or 5000-level IR course
IDSc 3030--Information Systems and Information Management
Mgmt 3001--Fundamentals of Management*
OMS 5160--Deterministic Modeling and Optimization
Psy 3011--Introduction to Psychology of Learning
Psy 3124--Psychology of Individual Differences
Psy 3201--Introduction to Social Psychology
Psy 5045--Psychology of Motivation
Psy 5501--Vocational Psychology
Psy 5701--Personnel and Industrial Psychology
Psy 5703--Psychology of Organizational Training and Development
Psy 5705--Work Motivation
Soc 5201--Introduction to Social Psychology
Soc 5411--Formal Organizations

Management of Administrative Services Certificates

The Management of Administrative Services Certificates (Associate and Fellow) have been discontinued. Students who plan to complete these certificates should call Nancy Gonzalez in CEE Counseling (612/625-2500) for important completion information.

The Management of Administrative Services Certificate programs have been developed by Continuing Education and Extension with the Carlson School of Management and the Administrative Management Society. These college-level certificate programs provide management training. Their purpose is to assist employees to become more competent in their present positions and improve their opportunity for advancement.

Admission to the Management of Administrative Services Certificate--To be considered for admission, students must have completed the equivalent of a minimum of 90 quarter college credits with a minimum of a B- grade average. Students who have completed a bachelor's degree will be individually reviewed, with particular emphasis on coursework in their junior and senior years.

Note--Upper division (3000- or 5000-level) management courses in CEE are taught with the expectation that, in addition to having completed all pre-management course work, students either will have earned a B- grade average in 90 credits of college-level work or will have already completed a bachelor's degree.

Associate in Management of Administrative Services Certificate (54 credits)

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

Certificate Programs

Core Requirements (43-47 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Acct 3001--Introduction to Management Accounting
BLaw 3058--Business Law: Contracts*
Comp 1011--Writing Practice I*, or GC 1531--Business Writing, or Comp 0003C--Review of Business English
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IDSc 1010--Fundamentals of Information Development and Use*
IDSc 1075--Elementary COBOL
Math 1111--College Algebra and Analytic Geometry*
Math 1131--Finite Mathematics
OMS 1020--Data Analysis and Statistical Inference for Managers
Psy 1001--Introduction to Psychology*

Electives: An additional course selected from the Requirements or Electives for the Fellow Certificate (below) for a total of 54 credits.

Fellow in Management of Administrative Services Certificate (90 credits)

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

Core Requirements (43-47 credits)

Acct 1050 (formerly 1024-1025)--Introduction to Financial Reporting
Acct 3001--Introduction to Management Accounting
BLaw 3058--Business Law: Contracts*
Comp 1011--Writing Practice I*, or Comp 0003C--Review of Business English and GC 1531--Business Writing
Econ 1101, 1102--Principles of Microeconomics and Macroeconomics*
IDSc 1010--Fundamentals of Information Development and Use*
IDSc 1075--Elementary COBOL
Math 1111--College Algebra and Analytic Geometry*
Math 1131--Finite Mathematics
OMS 1020--Data Analysis and Statistical Inference for Managers
Psy 1001--Introduction to Psychology*

Group Requirements (36 credits)

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

BFin 0001C--Introduction to Investments
BFin 3000--Finance Fundamentals*
IR 3002--Personnel and Industrial Relations
Ins 5100--Risk Management and Insurance
Mgmt 3002--Psychology in Management*
Mktg 3000--Principles of Marketing*

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

Acct 3001--Introduction to Management Accounting
Acct 3101--Intermediate Financial Reporting
Acct 3255--Managerial Costs, or Acct 3201--Cost Accounting
BFin 3100--Financial Management
BLaw 3088--Business Law*
IR 3010--Human Relations and Applied Organization Theory
LM 3000--Introduction to Logistics Management
Mgmt 3001--Fundamentals of Management*

Electives: Additional credits from the following courses or areas for a total of 90 credits.

IR 0001C-0002C--Supervision I*-II	Insurance
Psy 5751--Psychology of Advertising	Logistics Management
Accounting	Management
Economics	Marketing
English	Production
Finance	Social Science
Humanities	Speech
Industrial Relations	

Undergraduate Development Certificate (UDC) Series

Developed with the Institute of Technology, the UDC Series provides a plan for continuing education in particular disciplines and recognizes completion of an educational program indicative of increasing levels of technical capability. With departmental approval, degree-credit courses offered in certificate programs may be applied toward a subsequent baccalaureate degree. This requires early contact with an adviser (612/625-2500) to discuss admission to the Institute of Technology.

The UDC in Engineering and Science--45 Credits (described below) is the initial required program in the UDC series. It indicates familiarity with basic science and engineering topics and is equivalent to the first year of college study. After completing the UDC in Engineering and Science--45 Credits, students can continue in particular disciplines through the UDC--90 Credits or the UDC--135 Credits. (The UDC--135 Credits is only available in Electrical Engineering.)

Students interested in a listing of the Undergraduate Development Certificates or additional information should contact CEE Counseling at 612/625-2500.

Undergraduate Development Certificate in Engineering and Science--45 Credits

The UDC in Engineering and Science--45 Credits provides students with the fundamentals of mathematics, physics, and technical communication skills that enable them to handle support assignments in any engineering field. In addition, it gives them background for more specialized or advanced study as either an engineer or engineering technician. All courses in the UDC in Engineering and Science--45 Credits carry degree credit and are applicable to a baccalaureate degree.

Certificate Programs

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

Prerequisite: High School graduate or equivalent; two years of algebra and two years of geometry, including trigonometry

Core Requirements (34-37 credits)

Comp 1011--Writing Practice I*

Math 1211--Calculus I*

Math 1221--Calculus II*

Math 1241**--Calculus III

ME 1025--Engineering Graphics*, or CSci 3101--A Fortran Introduction to Computer Programming, or CSci 3102--A Pascal Introduction to Computer Programming, or CSci 3322--Algorithms and Data Structures II, or CSci 3113--An Introduction to Programming in C

Phys 1271*-1275-1281*-1285--General Physics and Lab

Electives: Courses from nontechnical electives for a total of 45 credits. Nontechnical electives may be chosen from the following fields: anthropology, 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

Through Independent Study, it is possible to earn credits that can be used in a variety of degree programs at the University. **There are limitations, however, on the use of Independent Study credits in degree programs in certain departments or individual schools.** If you want to apply credits earned through Independent Study to a University degree program, you are urged to consult an academic advisor in CEE Counseling (625-2500) or your college office before enrolling.

It is important to plan coursework and to follow University procedures when working on a degree. If you have never been admitted to the University but want to work toward a University degree, you should contact CEE Counseling (612/625-2500) early in your planning. It is also essential to read the official bulletin of the college to which you want to be admitted. College bulletins can be obtained by writing the Bulletin Room, University of Minnesota, 110 Williamson Hall, 231 Pillsbury Dr. SE, Minneapolis, MN 55455 or by calling 612/625-3030.

College of Education

1425 University Ave. SE

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 Independent Study courses.

Students can use the liberal education requirements listed under the College of Liberal Arts as a guide in completing many of the preprofessional requirements of the College of Education. Some Independent Study courses in education are acceptable in College of Education programs. For more information, write to the College of Education, 1425 University Ave. SE, Minneapolis, MN 55414, or call 612/625-1550.

Teacher's Certificate

Most Independent Study courses can be used in the acquisition and renewal of teacher's certificates. However, Independent Study **does not evaluate teaching or education experience for a certificate or recommend courses.**

Questions concerning teacher certifications should be directed to the State Department of Education or a similar agency (in Minnesota--Director of Certification and Placement, Capitol Square Building, 550 Cedar St., St. Paul, MN 55101; 612/296-2046.

Degree Programs

General College

40 Appleby Hall, Minneapolis campus

In January 1986, the Regents of the University of Minnesota voted to discontinue awarding General College degrees. The mission of the General College is to prepare students to transfer to University degree programs.

Graduate School

316 Johnston Hall, Minneapolis campus

Credits earned through most Independent Study courses are not accepted for graduate credit in the University of Minnesota Graduate School. Specified broadcast television courses, at the graduate level, are available for graduate credit (information is given in the course study guide). Exceptionally, FSoS 5240 (American Families in Transition) can be used toward the M.Ed. Home Video courses do **not** carry graduate credit. Independent Study courses 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.

Institute of Technology

105 Lind Hall, Minneapolis campus

The Institute of Technology grants degrees in several fields of engineering and science. In addition to required mathematics and science courses, the Institute of Technology requires 36 credits of liberal education distributed as outlined in the *Institute of Technology Bulletin*. Independent Study courses may be used to satisfy the liberal education requirement, as well as some of the technical courses. A minimum of 90 credits of on-campus coursework would be necessary for any IT degree. **It is not possible to complete an entire degree in the Institute of Technology through Independent Study.**

Assistance in planning a course of study and an evaluation of transfer credits is available by appointment at CEE Counseling.

Carlson School of Management

290 Hubert H. Humphrey Center, Minneapolis Campus

Approximately half of the course requirements for the Bachelor of Science in Business (B.S.B.) are available through Independent Study. **It is not possible to complete the entire BSB degree through Independent Study.** The Carlson School of Management will accept a maximum of 16 credits of upper division (3000- and 5000-level) business

coursework completed through correspondence study toward the B.S.B. degree. Interested students should arrange for early consultation by contacting CEE Counseling at 612/625-2500.

Both the accounting and the general management programs are outlined in the *Carlson School of Management Bulletin*. For a list of the pre-management and management courses offered through Independent Study that meet Carlson School of Management requirements, write or call CEE Counseling. A copy of "Pursuing a Bachelor's Degree Through Continuing Education and Extension" may also be obtained through CEE Counseling.

Note--Students taking Carlson School of Management upper division undergraduate (3000- or 5000-level) courses are expected to have completed the equivalent of 90 quarter credits with a minimum of a B- grade average.

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 B.A., B.S., B.F.A., B.M., or B.I.S. degrees. Students should contact CEE Counseling for a list of Independent Study courses that can be used to satisfy CLA distribution requirements or for further information on any of the CLA programs.

Independent Study offers sufficient courses to earn approximately the first 90 credits toward a B.A., B.S., or B.I.S. degree. It is not possible to complete these degrees entirely through Independent Study.

Associate in Liberal Arts (A.L.A.)

The College of Liberal Arts no longer offers the A.L.A. degree as a primary goal for students entering the college. The degree may be granted only by special petition. Students who want information about the A.L.A. degree should contact 114 Johnston Hall; 612/624-4545.

Bachelor of Arts (B.A.)

Candidates for the Bachelor of Arts degree must complete a minimum of 180 acceptable credits, 72 in 3000- and 5000-level courses (with a minimum of 45 credits graded A, B, or C in CLA courses). No more than 12 credits of D-graded work may be applied toward the 180-credit degree requirement. Students also must satisfy the English Composition, second language, world studies, U.S. cultural pluralism, and group distribution requirements. Finally, B.A. candidates must complete a major sequence in the field of their choice and complete at least 28 credits in 3000- and 5000-level courses from areas outside their majors. (Interdepartmental majors are exempt from the 28-credit requirement). Independent Study offers sufficient courses to earn at least the first 90 credits toward a B.A. degree.

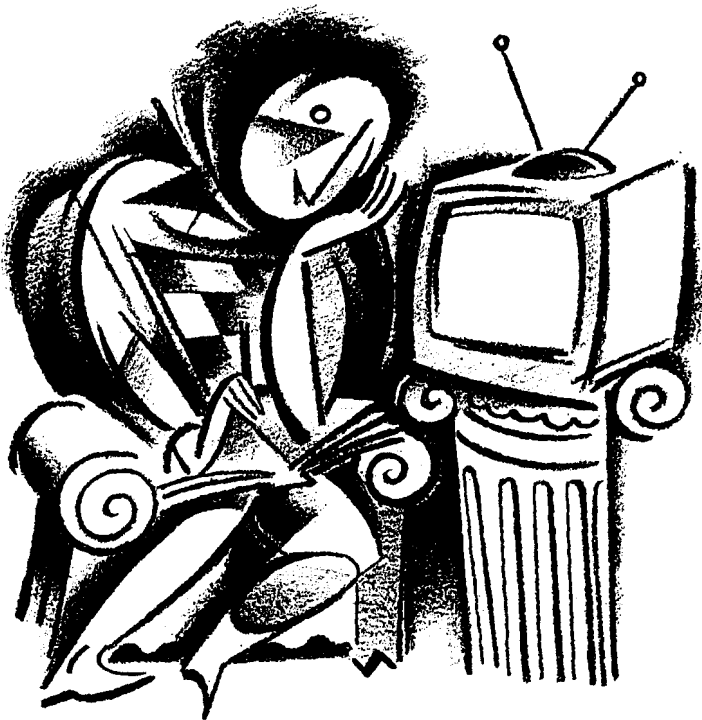
Degree Programs

Bachelor of Science (B.S.)

The Bachelor of Science degree is offered in CLA by the departments of Child Psychology, Communication Disorders, Economics, Geography, Sociology, and the Urban Studies program. Its requirements are substantially those of the B.A. program except that the second language, world studies, and U.S. cultural pluralism requirements are not included, and the major may be more extensive and concentrated. For further information contact CEE Counseling at 612/625-2500.

Bachelor of Individualized Studies (B.I.S.)

The Bachelor of Individualized Studies degree is offered for students who want to propose an individualized program of studies based on personal academic objectives. Proposals must be evaluated and approved by at least two faculty advisers. Candidates for the Bachelor of Individualized Studies degree must complete a minimum of 180 acceptable credits, 75 of which must be in 3000- or 5000-level courses. Independent Study offers sufficient courses to earn at least the first 90 credits toward a B.I.S. degree. For further information, contact CEE Counseling at 612/625-2500.



University College

317 Walter Library, Minneapolis campus

University College offers two bachelor's degree programs, each of which enables students to design their own Bachelor of Arts or Bachelor of Science degree and to incorporate large amounts of learning done through Independent Study. Information is available from the college office or from the appropriate program office (see below).

Inter-College Programs (ICP) is a student designed, credit-based alternative to traditionally structured degree majors. Since 1930 it has allowed students to design an intercollegiate or interdisciplinary program suited to their individual objectives. There is no fixed curriculum, and a student may draw on the entire University for courses to prepare a degree plan leading to a B.A. or B.S. degree. With careful planning, it is possible to complete a baccalaureate degree in the Inter-College Program through Independent Study if you have already completed two or three years of college or have about 120-130 credits. A limitation to completing an ICP degree via Independent Study is the number of courses available.

The Inter-College Program application process includes preparing a carefully conceived statement of objectives and a proposed course list. Students generally spend several weeks planning their degree programs, a process that requires meetings with ICP academic advisers and University faculty advisers.

The Program for Individualized Learning serves students with clear educational goals who want to design and carry out individualized B.A. or B.S. degree programs. Students tend to select the program because they value the freedom to make significant choices about what and how they learn, because they have experiences they can use as foundations for further learning, and because they want to use a variety of educational resources at the University and in the community.

Students are admitted on the basis of evidence that they have the attributes and academic skills needed to pursue a self-directed degree program, e.g., skills in writing, project design, and educational planning. A degree program can incorporate a variety of learning resources, including University classes, Independent Study courses, and self-designed projects. Knowledge gained from independent learning prior to admission may be applied if it can be demonstrated and evaluated as college-level learning. Individualized Learning students design their degree programs around a set of standards, called graduation criteria. The criteria combine learning in a major area of study with learning in the liberal arts. Students pursue programs in a wide variety of fields, often studying in many disciplines and creating new and innovative areas of study. Examples of recent degree programs include: Wilderness and Wildlife Conservation, Visual Theatre, American Social Movements, Paleoanthropology, and Investment Analysis: Emphasis on Asia.

Degree Programs

For more information about the Program for Individualized Learning, students should read the *University College Bulletin* and arrange to attend an information session.

Residents of west central Minnesota can learn about the program by contacting the Learning Center at the University of Minnesota-Morris, 231 Community Services Building, Morris, MN 56267. All others should contact the Minneapolis office.

For further information, contact:

Inter-College Program
University of Minnesota
7 Wulling Hall
86 Pleasant St. SE
Minneapolis, MN 55455
612/624-2004

Program for Individualized Learning
University of Minnesota
201 Wesbrook Hall
77 Pleasant St. SE
Minneapolis, MN 55455
612/624-4020

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Send for Information, Forms, Bulletins

Please use the form below in requesting information, forms, and bulletins. We'll be happy to send bulletins to your friends, too!

Send it to: Department of Independent Study
University of Minnesota
45 Wesbrook Hall
77 Pleasant St. SE
Minneapolis, MN 55455

Please send me:

- | | |
|---|--|
| <input type="checkbox"/> a bulletin | <input type="checkbox"/> Home Video information |
| <input type="checkbox"/> bulletin for University College | <input type="checkbox"/> current radio/TV course listing |
| <input type="checkbox"/> introduction to the following course(s): | <input type="checkbox"/> registration form |
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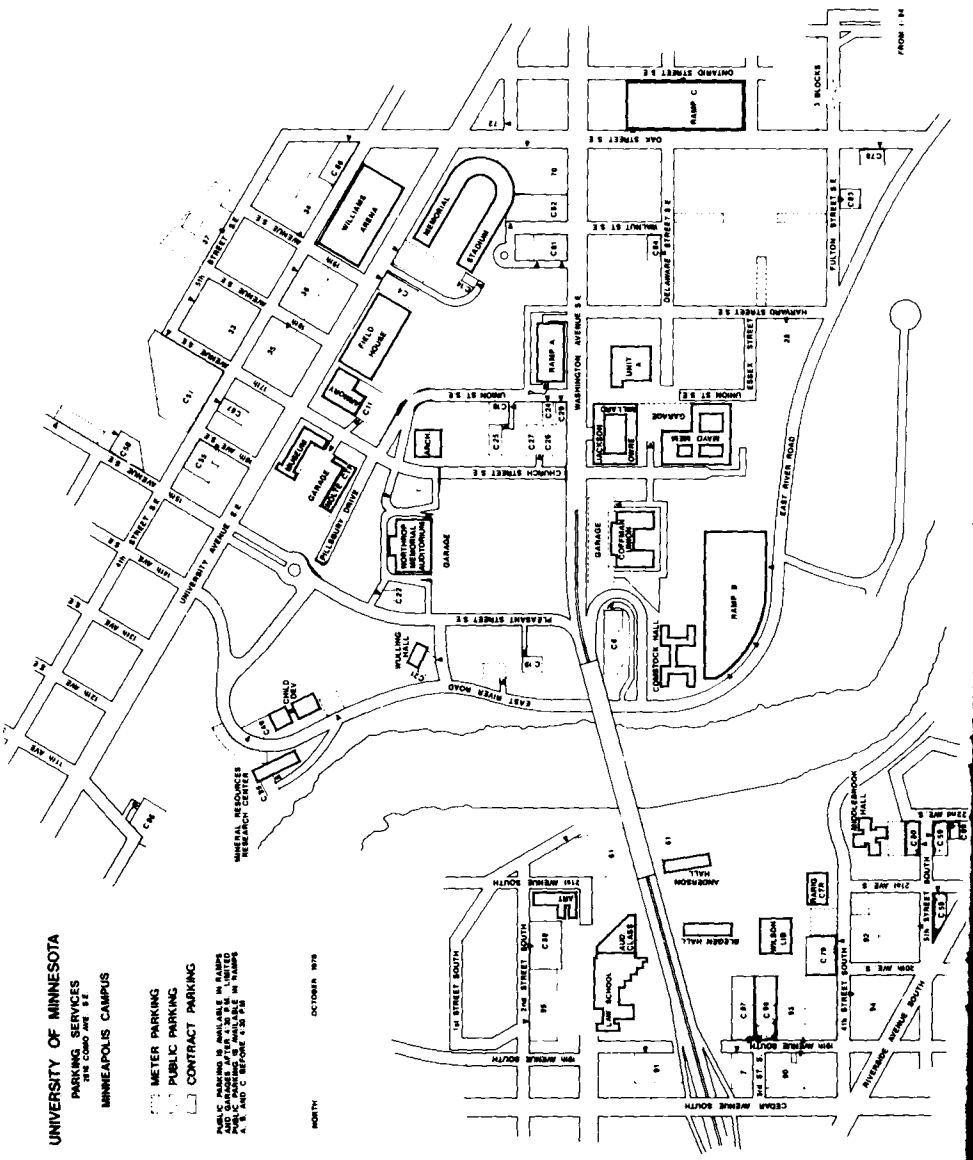
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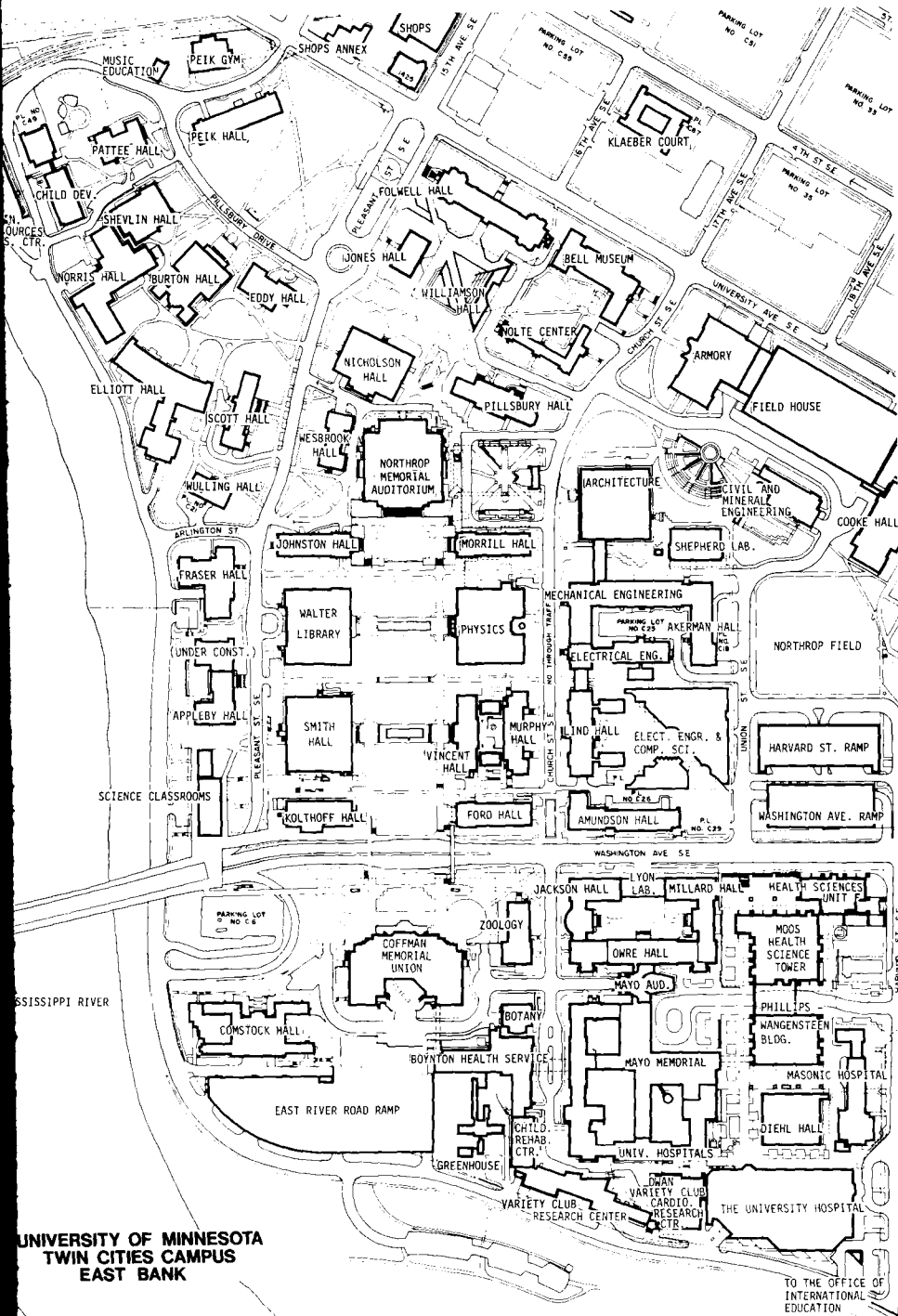
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