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1992 Summer Evening Extension Classes

First 5-week term June 16 to July 21
10-week term June 16 to August 26
Second 5-week term July 23 to August 26

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 11 to June 3*

First 5-week term *May 11 to June 3*

Second 5-week term *May 11 to July 8*

II. In-Person Registration (See Office Hours, page 8)

Ten-week term *May 26 to June 3*

First 5-week term *May 26 to June 3*

Second 5-week term *May 26 to July 8*

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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 **1991-92 Extension Classes Bulletin**. For a copy, telephone 624-2388. **The 1992-93 Bulletin will be available August 1, 1992.**

Equal Opportunity

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420. S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by 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, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455, (612) 624-9547.

Registration and General Information

101 Westbrook 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 sections and nonlimited-enrollment sections. Limited-enrollment sections have specified limits on the number of students who will be permitted into the section. These sections are starred. The limit is given with the course description in most cases. Early registration by mail is the best way to obtain space in limited-enrollment sections. For complete details see the instructions for **Registration by Mail**.

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 sections.

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

Regular registration offices are at 101 Wesbrook Hall on the Minneapolis campus (east bank) of the University of Minnesota and at the MacPhail Center in downtown Minneapolis at 1128 LaSalle Avenue. 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.** 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 17.

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. Disclosure of this information is voluntary.

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 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. (All tuition and fees are due when you register except for students on financial aid.)

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 11 to June 3	May 11 to June 3	May 11 to July 8
In-person registration	May 26 to June 3	May 26 to June 3	May 26 to July 8
Last day to register without a late fee	June 3, 1992	June 3, 1992	July 8, 1992

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

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.

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 Westbrook 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 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 10, 12, and 15.

Students registering with **Regents' Scholarships** should read the section on page 13. 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 8.**

10-week term	May 26—June 3
First 5-week term	May 26—June 3
Second 5-week term	May 26—July 8

3. **Bring your completed registration form to the registration clerk at an Extension registration office during the in-person registration period.** See locations below. For limited-enrollment classes, the clerk will tell you whether there is still space in the class. Students who register at the Minneapolis campus registration office at 101 Westbrook Hall may check the closed-class board before bringing their registration to the registration clerk. For non-limited classes, the clerk will check your registration form to make sure it is completed properly.
4. **You must pay the full amount of tuition and fees when you register. You are not registered until your tuition and fees are paid.** Students are urged to pay tuition with a personal check or money order.
5. **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	MacPhail Center	St. Paul Campus Admissions
101 Westbrook Hall	1128 LaSalle Ave.	and Records
Minneapolis Campus	Downtown Minneapolis	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.

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 6
 10-week term July 27
 Second 5-week term August 12

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 24).

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 12:	Mon. through Thurs.	8 a.m.-8 p.m.
	Fridays.	8 a.m.-4:30 p.m.
May 25 (Holiday):	All offices closed	
June 15-July 31:	Mon. through Thurs.	8 a.m.-6:30 p.m.
	Fridays.	8 a.m.-4:30 p.m.
July 3 (Holiday):	All offices closed	
Aug. 3-30:	Weekdays.	8 a.m.-4:30 p.m.

St. Paul Campus

130 Coffey Hall

In-person registration only (limited classes)

May 26-June 3: Mon. through Fri. 9 a.m.-4 p.m.

May 25 (Holiday): All offices closed

MacPhail Center Office (Downtown Minneapolis)

1128 LaSalle Avenue

Minneapolis, MN 55403 (telephone 627-4020)

June 8-Sept. 7: Mon. through Fri. 8 a.m.-4:30 p.m.

May 25 (Holiday): All offices closed

July 3 (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 20.

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 full amount of the tuition and other fees must be paid 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.

The 1992 summer tuition for Extension Classes is as follows:

\$60.75 a credit: For 1000-level courses
Certificate courses
Entrance credit courses
Noncredit courses (does not necessarily apply to reduced tuition-courses)

\$62 to \$112.50 a credit: For 3000-level courses and 5000-level courses; per credit rate depends on tuition of the college offering the credit

\$136 a credit: For 8000-level courses (open only to students **admitted** to the University of Minnesota Graduate School) and for 5000-level courses taken for graduate credit; see **Graduate Credit**, page 20.

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.

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 Westbrook (624-6354) if they have received notification from their banks that a check has been returned to Extension Classes. No arrangements for partial payment can be made. Students in need of financial assistance should see **Financial Aid 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.

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

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 Westbrook Hall, telephone 624-5577, on the Minneapolis campus. Authorizations must include the following:

1. **Proper address:** Department of Extension Classes, University of Minnesota, 101 Westbrook 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 Westbrook 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 1991-92 academic year. In addition, all students except Minnesota State Grant and Minnesota Part-Time Student Grant Program 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).

Regents' Scholarships will not be accepted if a delayed payment has been granted and the class is closed.

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 registration 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 28. 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 or exceed the number of credits on which their aid is based may not be able to obtain the aid or may be required to pay back all or part of the award.

Programs

Minnesota Part-Time Student Grant Program—The MPTSGP provides funds for students enrolled for five credits or less during the summer period from June 16 to August 26.

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. 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 1990 income. Eligibility for the second five-week term is based on 1991 income. Under some circumstances, estimated 1992 income may be allowed.

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 1991-92 school year or took fewer than 12 credits in one or more quarters in 1991-92. 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 1991-92, you must submit one to ACT by May 1, 1992. In addition, you must submit a Summer Financial Aid Application, which will be available in 210 Fraser Hall beginning March 25. 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, 1992, 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 1991-92 school year or took less than 12 credits in one or more quarters in 1991-92. 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 1991-92, you must submit one to ACT by May 1, 1992. In addition, you must submit a Summer Financial Aid Application, which will be available in 210 Fraser Hall beginning March 25. 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 on- and off-campus jobs. 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 1991-92 American College Testing Family Financial Statement (ACT FFS) to ACT by May 1, 1992, 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 beginning March 25. 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. 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 1992 loans, you must submit a 1991-92 ACT Family Financial Statement (ACT FFS) to ACT by May 1, 1992, if you have not already done so. In addition, your financial aid file must be complete by July 18, 1992. If you already received one Stafford Student Loan for 1991-92, 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 1992. All loans require at least half-time registration and admission to a University of Minnesota 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 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.

Eligible employees are those working at least 75-percent time in an ongoing or temporary appointment; working 100-percent during the period for which they apply for a scholarship if on a 9-month or 12-month appointment; laid-off employees and those on maternity or other leaves without pay. Employees on student or academic appointments and family members of University employees are not eligible for Regents' Scholarships.

Tuition is waived. Normally, required student services fees do not have to be paid unless you want to purchase and use the service. Regents' Scholarships do not cover retroactive tuition, late fees, course fees, lab fees, books, deposits, records 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.

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 (plus all course fees or special fees). See the Compleat Scholar section in the **Noncredit Course Offerings** section of this bulletin. You must submit a letter from your department head verifying employment when you register. For limited-enrollment classes, you may register starting the second week of mail registration. For nonlimited classes, you may register during regular registration periods.

Graduate Assistant Tuition Fellowship Program—Graduate students and professional trainees who hold appointments as teaching assistants, research assistants, administrative fellows, and certain other professional school student positions may receive tuition fellowships for 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 1991-92 Extension Classes Bulletin 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 Wesbrook 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 Wesbrook 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 Wesbrook 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. As of Oct. 1, 1991, benefits are payable for full-time (\$170 monthly); three-fourths time (\$127.50 monthly); and one-half time (\$85 monthly). For less than one-half time, the benefit is \$42.50 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 Wesbrook Hall.

New G.I. Bill (Chapter 30; Montgomery)—Provides benefits to individuals who initially entered active duty after July 1, 1985, and meet qualifications. 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 Wesbrook 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 filing 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 5 for the first 5-week term and 10-week term and before June 14 for the second 5-week term.

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

- First 5-week term—May 12
- 10-week term—May 12
- Second 5-week term—June 18

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. Any withdrawals will be reported to the VA, which will result in an adjustment of benefit, and possibly an overpayment.
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 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, 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 stu-

dent 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 23).

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 \$9 a copy. 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 \$9 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 are eligible for a University I.D. card and are encouraged to obtain one. Students not admitted to a college may purchase an I.D. card for \$5. To purchase a card, obtain an authorization for \$5 from the Bursar's Office and bring it to the I.D. office where your student status will be verified.

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. also 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 some extended hours. 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 University residence credits; however, until students have been formally admitted to the college from which they expect to obtain a degree, these credits are not considered to meet the college 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 654 in the 1991-92 **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 transferability.

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. Courses 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. Courses taken for graduate credit and taught by faculty members authorized to teach graduate-level courses.
3. Courses for transfer 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.

Policy change starting summer 1992—Students who register for 5000-level course work in CEE who want graduate credit must pay Graduate School tuition rates. Courses for which graduate credit is available usually include the graduate-level tuition cost after the course title.

If a course taken previously is approved for transfer to a University of Minnesota Graduate School transcript, the student must pay the difference between 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.

Check with the Extension Classes Registration Office, 101 Westbrook Hall (625-3333) if you have questions.

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 Continuing Education and 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, direct 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 CEE 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** listing 350 courses and general information is available from the Department of Independent Study, University of Minnesota, 45 Wesbrook 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 Wesbrook 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

Extension Classes no longer offers diamond (◆) courses for no-credit registration at reduced tuition.

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, 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-percent 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 132.

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 22 for the first 5-week term and June 26 for the 10-week term; July 29 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 15-18:	8 a.m. to 6 p.m.
June 19:	8 a.m. to 4:30 p.m.
July 23, 27, 28, 29:	8 a.m. to 6 p.m.
July 24:	8 a.m. to 4:30 p.m.

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

All bookstores are closed June 29 and 30 for inventory.

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

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

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

A duplicate fee statement may be obtained at 101 Wesbrook 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.

How To Cancel/Add Classes

Students who wish to cancel/add classes or class sections, after being officially registered, can do so either in person at 101 Wesbrook Hall or by mail if space is available.

Students who wish to cancel/add after an initial registration will be subject to the following fees and conditions: Prior to and during the first week of classes—none; during the second week of classes—\$10, if accepted; during or after the third week of classes—\$20, if accepted.

Students may not cancel/add from the first 5-week session or the 10-week session to the second 5-week session after June 15.

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

Cancel/add during the second week or after—After the second class meeting, no cancel/add will be accepted without **written** permission of the instructor of the course the student wants to add.

Any cancel/add after the midpoint of the term requires scholastic approval.

There will be no late fee if: (1) University requests the cancel/add be made; (2) the cancel/add is required because of an unacceptable grade in a prerequisite course (see **Grades**, page 17); (3) cancel/add 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) cancel/add is between sections of a course with the same course number.

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

Students are requested to present 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 28), 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 6
10-week term	July 27
Second 5-week term	August 12

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 Wesbrook 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. (Can-

cellations 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 Wesbrook Hall (624-6354) before you stop payment of a check for any reason.

Veterans—Any veteran registered under the G.I. Bill must notify the Extension Veterans Office, 101 Wesbrook 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 any late fees) under the conditions outlined in item 2 below; or (3) a refund of part of the tuition and any course fees and special fees after the class has begun, provided that the student cancels and requests a refund within the time limits outlined in the refund 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 how to cancel/add classes, page 26.

1. Full refund of all tuition and course-related 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 course-related fees 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. (Students on financial aid should check with an adviser before requesting refunds.)
 - 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 Wesbrook 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 Wesbrook 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 course-related 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 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 20.

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 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).
○	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 21.
Qtr	Quarter
Sem	Semester
Spec	Special Term
S/N	Satisfactory/No credit grading system. See page 17.
A/F	Letter grading system. See page 17.
Prereq	Prerequisite. See page 17.
Lect	Lecture
Rec	Recitation
Sec	Section

Credit Course Offerings

(Noncredit courses are listed beginning on page 98. See Buildings and Maps, pages 138-145; Course Numbering, page 30)

Accounting

(645 Management/Economics: 624-6506)

Carlson School of Management

Summer Accounting courses are offered for seven weeks, June 16-Aug. 4, 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. 5 credits, \$343.75 plus \$16 special fee. Total \$359.75.

Introduction to basic concepts of measurement and valuation which underlie the development of financial reports for external users. Financial statement preparation, analysis of alternative valuation approaches, and interpretation of financial statement information are the focal points of the course. (Prereq 40 cr completed. Limited to 45)

Ten wk ★Sec 14 MW—6-9, BlegH 215
★Sec 15 TTh—6-9, BlegH 215

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

A broad overview of management accounting as the main information collection and analysis technology in an organization. Topics include analysis of cost-volume-profit 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 45)

Ten wk ★Sec 5 TTh—6-8:30, BlegH 150

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

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

Ten wk ★Sec 3 MW—6-8:30, BlegH 255

Acct 5102 ADVANCED REPORTING I. 4 undergraduate credits, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560.

Development of an understanding of the relationship between complex events such as defined benefit pension plans, leases, and intercorporate investments and the reflection of these events in financial statements. Includes an introduction to business combinations and consolidated financial reporting. (Prereq 3101, 5101. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 60).

Ten wk ★Sec 2 MW—6-8:30, BlegH 220

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Acct 5125 AUDITING PRINCIPLES AND PROCEDURES. 4 undergraduate credits, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560.

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. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30 Extension students)

Ten wk ★Sec 2 TTh—5:30-8, BlegH 220

Acct 5135 INCOME TAX ACCOUNTING. 4 undergraduate credits, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560. (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. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30 Extension students)

Ten wk ★Sec 3 MW—5:30-8, BlegH 110

Acct 5160 FINANCIAL STATEMENT ANALYSIS. 4 undergraduate credits, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560.

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 30 Extension students)

Ten wk ★Sec 1 Th—5:30-9, BlegH 240

Acct 5180 ADVANCED FINANCIAL REPORTING II. 4 undergraduate credits, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560.

Consolidated financial reporting with a particular focus on international business organizations. An introduction to reporting issues in governmental and not-for-profit entities is also presented. (Prereq 3102 or 5102. At least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota. Limited to 30 Extension students)

Ten wk ★Sec 3 TTh—5:30-8, BlegH 110

Afro-American and African Studies

(808 Social Science Tower: 624-9847)

College of Liberal Arts

Arab 3213 THE QUR'AN AS LITERATURE. 4 credits, \$MidE 3213, \$ReIS 3212, \$248.

Texts and commentaries in translation. Knowledge of Arabic not required. (No prereq. Meets concurrently with MidE 3213. Limited to a combined total of 30 students)

First 5 wk ★Sec 1 MW—4:30-6:30, BlegH 210, Teirab AshShareef

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

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

First 5 wk ★Sec 2 TTh—6:15-8:50, BlegH 210, Charles A. Pike

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Afro 3910 THE AFRICAN-AMERICAN CHILD: A COMPREHENSIVE APPROACH. 4 credits, \$248.

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

First 5 wk ★Sec 2 TTh—6-8:30, BlegH 135, Gayle Foreman

American Indian Studies

(102 Scott Hall: 624-1338)

College of Liberal Arts

AmIn 1771 INTRODUCTION TO AMERICAN INDIAN STUDIES. 4 credits, \$AmSt 1771, \$243.

Content, methods, and objectives of American Indian Studies. Images of the American Indian, persistence and change in American Indian communities, linguistics, and tribal ethnohistories. *Meets CLA Cultural Pluralism requirement.* (No prereq. Limited to 40)

First 5 wk ★Sec 1 MW—6-8:30, FordH 150, Collins Oakgrove

AmIn 3036 DAKOTA HISTORY AND CULTURE. 4 credits, \$248.

The processes of maintenance and change in Dakota culture. *Meets CLA World Studies and Cultural Pluralism requirements.* (No prereq. Limited to 40)

Second 5 wk ★Sec 1 TTh—6-8:30, FordH 150, Carrie Schommer

American Studies

(104 Scott Hall: 624-4190)

College of Liberal Arts

AmSt 1003 AMERICAN CULTURE. 4 credits, \$243.

Interdisciplinary study of selected class, gender, public policy, and social issues by comparing the cultures and artistic expression of at least three of the following groups: European American, African American, American Indian, Chicano/Latino, and Asian American. 1920s to the present. (No prereq)

Second 5 wk Sec 2 TTh—6-8:30, BuH 125

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

A study of the ways in which the works of selected American writers, painters, architects, filmmakers, and other artists can illuminate tensions and conflicts which have arisen out of a dual commitment by Americans to values located in nature and the natural landscape, on the one hand, and, on the other, to values associated with technological progress and ever-higher levels of affluence. "The myth of the garden" in literature and painting. Significance of paintings of urban-technological landscapes. The development of the skyscraper and of the "Chicago School" of

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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, BuH 123, William H. Agee

AmSt 5920 TOPICS: CONTEMPORARY POPULAR CULTURE IN THE UNITED STATES. 4 undergraduate credits, \$248, 4 graduate credits, \$544.

An analysis of the examples of the diversity of American popular culture in order to understand the cultural struggles currently taking place. Theories derived from Gramsci, Bakhtin, de Certeau, Hall, and Fiske will inform the analysis. Cultural examples for analysis drawn from electronic and print media include figures such as Madonna and Elvis, as well as texts and cultural practices, and will raise issues of national identity, gender, race, age, and class. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Second 5 wk ★Sec 3 MW—6-8:30, BuH 125, John Fiske

Ancient Studies

(205¹/₂ Folwell Hall: 625-2503)

College of Liberal Arts

No courses offered Summer 1992.

(See CSch 0552, Ancient Stories: Fossils of Southeastern Minnesota)

Anthropology

(215 Ford Hall: 625-3400)

College of Liberal Arts

(See also REX 0211, 0212, 0213, Archaeological Research in the Western Peloponnese: Messene, Pylos, and Morea)

Anth 1101 HUMAN ORIGINS. 5 credits, §1001, \$303.75. (IS)

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

Second 5 wk Sec 3 MW—6-9:20, FordH 155

Anth 1102 INTRODUCTION TO SOCIAL AND CULTURAL ANTHROPOLOGY. 5 credits, §1002, \$303.75. (IS)

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

First 5 wk Sec 5 MW—6-9:20, FordH 155

Anth 3003 THE RISE OF CIVILIZATION. 4 credits, \$248.

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

First 5 wk Sec 2 TTh—6-8:50, FordH 155

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Arabic

(See Afro-American and African Studies)

Architecture

(110 Architecture: 624-7866)

College of Architecture and Landscape Architecture

(See also CSch 0122, The Prairie School in Our Midst: The Work of Purcell and Elmslie in Minnesota)

Noncredit Workshops

Arch 0013 EXPLORING ARCHITECTURE: A CAREER DISCOVERY WORKSHOP. No credit, \$182.25.

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 20-24, July 27-31,
Arch 40, Peter Carlsen
No late fee through July 13.

Arch 0014 CONSTRUCTION PROCESS: A JOB SITE VISITATION SEMINAR. No credit, \$121.50.

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 8-15, Arch 50; July 22-Sept. 9,
Arch 50 Arnold Lucke
No late fee through July 1.

Arch 1010 INTRODUCTION TO ARCHITECTURE DRAWING. 4 credits, \$243.

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 5970 DIRECTED STUDY. Credits arranged, \$73 per undergraduate credit. \$136 per graduate credit.

Independent study in Architecture. Subject matter arranged. Areas of study useful to individual program objectives not available in regular course offerings. *For complete information, contact Prof. Stephen Weeks, 110 Architecture, University of Minnesota, Minneapolis, MN 55455. Telephone 624-2832. (Prereq written #.* Qualified students may register for graduate credit at the University of Minnesota)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Area Studies Programs

(232A Social Sciences: 624-8543)

College of Liberal Arts

East Asian Studies (EAS)

EAS 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, §Hist 3463, \$243.

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)

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

EAS 3471 20TH-CENTURY JAPAN. 4 credits, §Hist 3471, \$248.

The development of an industrial society, parliamentary government, mass culture, and imperialism from the Meiji reforms to the late 19th century through World War II to the contemporary period. (No prereq. Meets concurrently with Hist 3471)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 250, Byron Marshall

Latin American Studies (LAS)

LAS 3403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO THE PRESENT. 4 credits, §Hist 1403, 3403, \$248.

Contradictions of modern societies: economic expansion, dependency, population growth and the social crisis, democratic and authoritarian politics. (No prereq. Meets concurrently with Hist 1403, 3403)

Second 5 wk Sec 1 **TTh**—6-8:30, BlegH 260, Arlene Diaz

Middle Eastern Studies (MidE)

MidE 3213 THE QUR'AN AS LITERATURE. 4 credits, §Arab 3213, \$248.

Texts and commentaries in translation. Knowledge of Arabic not required. (No prereq. Meets concurrently with Arab 3213. Limited to a combined total of 30 students)

First 5 wk ★Sec 1 **MW**—4:30-6:30, BlegH 210, Teirab AshShareef

MidE 3544 THE ARAB WORLD IN RECENT TIMES. 4 credits, §Hist 3544, \$248.

Central Arab lands (the Arabian peninsula, Iraq, Syria, Jordan, Lebanon, Egypt) and North African region (Libya, Tunisia, Morocco, Algeria) from end of World War I to the present. Foreign occupation and struggle for independence, position in regional and international politics. (No prereq. Meets concurrently with Hist 3544)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 245, Caesar Farah

MidE 3545 ISLAMIC MYSTICISM. 4 credits, \$248.

The rise of Sufism, from asceticism to theosophical mysticism; the leading historical personalities, their beliefs and preachings; relationships to Orthodox Islam and non-Muslim mystical movements; concepts and organizations; the place of Sufism in modern religious trends. (No prereq)

First 5 wk Sec 1 **TTh**—6-8:30, BlegH 245, Caesar Farah

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

South Asian Studies (SoAS)

SoAS 3710 TOPICS: INDIA THROUGH FILM. 4 credits, \$248.

Documentary films will center on Gandhi, caste, village life, and current social problems. Topics introduced in the films will be discussed in class and amplified in short papers to be assigned. Students will develop presentations on topics of special interest to them. (No prereq)

First 5 wk Sec 1 **TTh**—6-8:30, FolH 246, Paul Staneslow

Art History

(107 Jones Hall: 624-4500)

College of Liberal Arts

(See also CSch 0108, From Protest to Profit and Back Again: The Legacy of the Art of the 1960s; REX 0802, Artistic Discovery About 17th-Century Naples)

ArH 1001 INTRODUCTION TO THE VISUAL ARTS. 4 credits, §3001, \$243 plus \$4 course fee. Total \$247.

Basic problems of art. Major visual arts examples as a basis for study of the nature of art, problems of design, materials and techniques, presented topically rather than chronologically. (No prereq. Meets concurrently with 3001)

Second 5 wk Sec 2 **MW**—6:20-8:50, AndH 310, Sheila McNally

ArH 3001 PRINCIPLES OF THE VISUAL ARTS. 4 credits, §1001, \$248 plus 4 course fee. Total \$252.

Similar to 1001, but with expanded reading and contact with works of art. (No prereq. Meets concurrently with 1001)

Second 5 wk Sec 1 **MW**—6:20-8:50, AndH 310, Sheila McNally

ArH 3035 MYTHOLOGY IN WESTERN ART. 4 credits, §Clas 3035, \$248 plus \$4 course fee. Total \$252.

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)

Second 5 wk Sec 1 **TTh**—6:20-8:50, 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

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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. 4 credits, \$243 plus \$5 course fee and \$10 special fee. Total \$258.

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 20 MW—6-9:45, ArtB 141

Second 5 wk ★Sec 21 TTh—6-9:45, ArtB 140, Myers

Ten wk ★Sec 22 T—6-9:45, ArtB 150

Arts 1102 DRAWING. 4 credits, \$243 plus \$5 course fee and \$5 special fee. Total \$253.

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

Second 5 wk ★Sec 6 MW—6-9:45, ArtB 150, Tom Rose

Arts 1301 BASIC SCULPTURE. 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

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

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

Arts 1404 COLOR. 4 credits, \$243 plus \$5 course fee and \$10 special fee. Total \$258.

Introduction to color and pictorial organization. This will provide students with intensive investigation of color and its visual implications. (Prereq 1101. See **Restrictions**, page 37. Limited to 20)

First 5 wk ★Sec 10 TTh—6-9:45, ArtB 160, Karl Bethke

Arts 1601 VIDEO ARTS PRODUCTION I. 4 credits, \$243 plus \$160 course fee and \$5 special fee. Total \$408.

The use of video cameras, microphones, and video recorders, techniques of lighting, sound recording, and editing are explored through lecture, demonstration, and hands-on experience. Work of video artists are viewed and discussed in terms of video theory and technique. Students work in groups to plan, shoot, and edit a short tape. (No prereq. Limited to 15)

Ten wk ★Sec 7 W—6-10, Intermedia Arts, 425 Ontario, Kim Downing

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

ArtS 1602 ART AND COMPUTERS I. 4 credits, \$243 plus \$160 course fee and \$5 special fee. Total \$408.

A combination lecture and studio course focusing on the creative use of the Amiga and various other microcomputers. This computer graphics course will introduce students to the principles and use of computers and software packages from which they generate images of their own design to be recorded and displayed on videotape. (No prereq. Limited to 15)

Ten wk ★Sec 8 T—1-5, Intermedia Arts, 425 Ontario, Alison Morse

Ten wk ★Sec 9 T—6-10, Intermedia Arts, 425 Ontario, Melisande Charles

ArtS 1701 INTRODUCTION TO PHOTO MEDIUM. 4 credits, \$243 plus \$25 course fee and \$10 special fee. Total \$278.

A course in black and white photography for beginners with little or no experience. Lectures on contemporary and historical use of photography. The course will cover techniques in the use of the camera, film development and enlargements. Emphasis on the creative process. Student must have camera. Any 35mm camera 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. 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

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

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

ArtS 1812 CERAMICS. 4 credits, \$243 plus \$60 course fee and \$10 special fee. Total \$313.

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

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

ArtS 3105 PAINTING. 4 credits, \$248 plus \$10 special fee. Total \$258.

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

First 5 wk ★Sec 4 MW—6-9:45, ArtB 161

ArtS 3120 PAINTING. 4 credits each term (maximum 12 cr), \$248 plus \$10 special fee. Total \$258 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, Herman Rowan

ArtS 3160 WATERCOLOR. 4 credits each term (maximum 12 cr), \$248 plus \$10 special fee. Total \$258 each term.

Introduction to transparent watercolor. Figure, still life, landscape, and individual
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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

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

ArtS 3601 VIDEO ARTS PRODUCTION II. 4 credits, \$248 plus \$160 course fee and \$5 special fee. Total \$413.

Building on skills learned in ArtS 1601 students will develop conceptual skills involved in video production. Areas covered will include scripting, storyboarding, budgeting, and other preproduction concerns; advanced camera and lighting techniques, editing with emphasis on the creative process, video processing, and monitoring equipment. Students will complete a final project individually or with a group. (Prereq 1601. Limited to 15)

Ten wk ★Sec 4 M—6-10, Intermedia Arts, 425 Ontario, Michael Rivard

ArtS 5160 WATERCOLOR. 4 undergraduate credits each term (maximum 15 cr), \$248 plus \$10 special fee. Total \$258 each term. 4 graduate credits each term (maximum 15 cr), \$544 plus \$10 special fee. Total \$554 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. May not be taken for graduate credit. Limited to a combined total of 25)

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



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; explore artmaking's connections to the subconscious; photograph people; draw and paint; create contemporary bead art; write children's books; make fabric art; work with outstanding ethnic artists and more.

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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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 5 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 Wesbrook 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, \$303.75 plus \$10 course fee. Total \$313.75. (IS)

An introduction to the principles of biology. The cell, metabolism, heredity, reproduction, ecology and evolution. 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, \$275 plus \$16 special fee. Total \$291. (IS)

World business with emphasis on the global economy, international concepts, global business structures, comparative cultures and environments, global business 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 120, Ian Maitland

Business Law

(645 Management/Economics: 624-6506)

Carlson School of Management

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

BLaw 3058 INTRODUCTION TO LAW, AND THE LAW OF CONTRACTS AND SALES CONTRACTS. 4 credits, \$8158, \$275 plus \$16 special fee. Total \$291. (IS)

Study of the origin of law, its place in and effect upon society; the history and development of law; the system of courts; and legal procedure. An extensive study of the law of contracts as the basic law affecting business transactions; and 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 135, Donald G. Campbell

Second 5 wk ★Sec 9 MW—6-8:30, BlegH 135, Donald G. Campbell

Chicano Studies

(102 Scott Hall: 624-6309)

College of Liberal Arts

Chic 3375 FOLKLORE OF GREATER MEXICO. 4 credits, \$AmSt 3920, \$248.

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 CLA World Studies and Cultural Pluralism requirements. Limited to 40)

First 5 wk ★Sec 1 MW—6-8:30, BuH 125, Mario Montaño

Child Psychology

(104 Child Development: 624-2396)

College of Education

Institute of Child Development

CPsy 1301 INTRODUCTORY CHILD PSYCHOLOGY. 4 credits, \$3309, \$5301, \$243. (IS)

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

Ten wk Sec 4 T—6:20-8:50, BuH 120, Patricia Sargent

CPsy 3309 INTRODUCTORY CHILD PSYCHOLOGY FOR THE SOCIAL SCIENCES. 4 credits, \$1301, \$5301, \$292.

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

Ten wk Sec 4 T—6:20-8:50, BuH 120, Patricia Sargent

Classics

(331 Folwell Hall: 625-5353)

Classical and Near Eastern Studies

College of Liberal Arts

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Clas 3012 THE WORLD OF ROME. 4 credits, §5012, \$248.

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)

First 5 wk Sec 1 **MW**—6:20-8:50, FolH 104, Jackson Hershbell

Clas 3035 MYTHOLOGY IN WESTERN ART. 4 credits, §ArH 3035, \$248 plus \$4 course fee. Total \$252.

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 ArtH 3035)

Second 5 wk Sec 1 **TTh**—6:20-8:50, AndH 310, Sheila McNally

Clas 3081 CLASSICAL EPIC IN TRANSLATION. 4 credits, §5081, \$248.

Homer's *Iliad* and *Odyssey*; Virgil's *Aeneid*; cultural context of epic, the heroic character, epic formulas, poetic techniques. (No prereq. Meets concurrently with 5081)

First 5 wk Sec 2 **MW**—6:20-8:50, FolH 50, Thomas Clayton

Clas 5012 THE WORLD OF ROME. 4 undergraduate credits, §3012, \$248. 4 graduate credits, \$544.

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)

First 5 wk Sec 1 **MW**—6:20-8:50, FolH 104, Jackson Hershbell

Clas 5081 CLASSICAL EPIC IN TRANSLATION. 4 undergraduate credits, §3081, \$248. 4 graduate credits, \$544.

See description for 3081. 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 3081)

First 5 wk Sec 2 **MW**—6:20-8:50, FolH 50, Thomas Clayton

Communication Disorders

(115 Shevlin Hall: 624-3322)

College of Liberal Arts

1992 Summer Symposium:

Behavior Modification and Stuttering

Saturday, June 13 (8 a.m.-4:30): The history, current status, and future of stuttering and behavior modification. Attendance at the entire symposium is required. Led by Prof. Gerald Siegel and leading researchers from around the nation. 1 credit (CDis 5900). Must be taken S-N. Telephone 624-3322 for complete information, registration instructions, tuition and fees, availability of graduate credit, and other information.

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

The Compleat Scholar

(See page 98)

Composition and Communication

(306 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, \$303.75. (IS)

Provides guided practice in solving writers' problems through recitation, in-class workshops, and individual conferences. Writing assignments focus on defining purpose, organizing and developing content, analyzing audiences, drafting the whole essay and its parts, and revising and editing so as to master the fundamentals of expository structure and style. After first day of class, consent of instructor is required. (No prereq. Limited to 25)

The Writing Practice requirement is fulfilled by successful completion of Comp 1011. Students whose work does not meet an acceptable standard in 1011 will receive a continuation grade ("X"), and will take Comp 1013 to complete the requirement. Comp 1013 will be taught Fall Quarter 1992.

Ten wk ★Sec 29 M—6-8:50, KoltH S134

Ten wk ★Sec 30 T—6-8:50, AmundH 156

Ten wk ★Sec 31 T—6-8:50, KoltH S134

Comp 1027 INTERMEDIATE EXPOSITORY WRITING. 4 credits, \$243.

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

Ten wk ★Sec 10 M—6-8:30, AmundH 124

Ten wk ★Sec 11 W—6-8:30, AmundH 124

Comp 3014 WRITING IN THE SOCIAL SCIENCES. 4 credits, \$248. (IS)

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

Ten wk ★Sec 7 M—6-8:30, BlegH 245

Ten wk ★Sec 8 M—6-8:30, KoltH S133

Ten wk ★Sec 9 W—6-8:30, KoltH S135

Ten wk ★Sec 10 W—6-8:30, KoltH S133

Comp 3022 CRITICAL READING AND WRITING FOR MANAGEMENT. 4 credits, \$248.

Strategies and conventions for writing in management and related fields. Improve-
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

ment 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 5 W—6-8:30, BlegH 350

Comp 3027 ADVANCED EXPOSITORY WRITING. 4 credits, \$248.

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

Ten wk ★Sec 13 T—6-8:30, KoltH S133

Ten wk ★Sec 14 Th—6-8:30, AmundH 124

Ten wk ★Sec 15 Th—6-8:30, KoltH S133

Comp 3031 TECHNICAL WRITING FOR ENGINEERS. 4 credits, \$248. (IS)

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

Ten wk ★Sec 8 T—6-8:30, AmundH 124

Ten wk ★Sec 9 T—6-8:30, KoltH S135

Ten wk ★Sec 10 Th—6-8:30, AmundH 120

Ten wk ★Sec 11 Th—6-8:30, SmithH 121

Comp 3032 PREPROFESSIONAL WRITING FOR BUSINESS. 4 credits, \$248. (IS)

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

Ten wk ★Sec 7 T—6-8:30, BlegH 230

Ten wk ★Sec 8 T—6-8:30, BlegH 255

Ten wk ★Sec 9 W—6-8:30, RarigC 610

Comp 3033 WRITING FOR THE HEALTH SCIENCES. 4 credits, \$248.

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

Ten wk ★Sec 2 M—6-8:30, AmundH 104

Comp 3085 SPECIAL PROJECTS IN ADVANCED COMPOSITION. 4 credits, \$248 plus \$40 special fee. Total \$288.

Individual writing conferences scheduled at student's and instructor's convenience. Interested students should contact the Composition Office (306 Lind Hall,

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

625-2888) 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

Computer Science

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

Institute of Technology

Computer Cards

Students will be expected to pay a user fee of \$35 a term for courses that have a formal or an informal laboratory.

CSci 3101 A FORTRAN INTRODUCTION TO COMPUTER PROGRAMMING. 4 credits, §1100-1101, \$292 plus \$6 special fee. Total \$298.

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 5 MW—6-8:40, EE/CSci 3115

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

CSci 3113 INTRODUCTION TO PROGRAMMING IN C. 4 credits, \$292.

Intensive introduction to syntax and semantics of the C language, with introduction to UNIX tools for implementing C programs. Students will write programs, use debugging aids, and build libraries. (Prereq 3101 or 3102 or any programming experience and precalculus or #. Limited to 50)

First 5 wk ★Sec 2 TTh—6-8:40, EE/CSci 3115

Second 5 wk ★Sec 3 MW—6-8:40, EE/CSci 3115

Continuing Education for Women (CEW)

(See page 98)

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.

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Dnce 1007 FUNDAMENTAL JAZZ I. 1 credit, \$60.75.

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

First 5 wk ★Sec 2 TTh—5:45-7:45, PeikG 65, Michael Ellison

Dnce 1008 FUNDAMENTALS OF JAZZ II. 1 credit, \$60.75.

Stylistic range of jazz dance and the differences in the resistance and the attack of movement, level two. (Prereq 1007 or equivalent. Limited to 20)

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

Dnce 1031 BALLROOM DANCE I. 1 credit, \$60.75 plus \$3 special fee. Total \$63.75.

Elementary steps and variations of the foxtrot, lindy, waltz, tango, cha-cha, rhumba, 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 151, Mary B. Lampe (men only)

★Sec 6 MTWTh—1:25-2:15, NorrisH 151, Mary B. Lampe (women only)

Second 5 wk ★Sec 7 MTWTh—1:25-2:15, NorrisH 151, Mary B. Lampe (men only)

★Sec 8 MTWTh—1:25-2:15, NorrisH 151, Mary B. Lampe (women only)

Dnce 1077 BEGINNING TAP I. 1 credit, \$60.75.

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

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

Dnce 1078 BEGINNING TAP II. 1 credit, \$60.75.

The basics of tap. Basic time steps. (Prereq 1077 or equivalent. Limited to 20)

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

Dnce 1110 DANCE TOPICS: AEROBICS FOR THE DANCER. 1 credit, \$60.75.

Low-impact aerobic workout using techniques of modern and jazz. (No prereq. Limited to 20)

First 5 wk ★Sec 8 MW—4-5, NorrisH 153, Linda Stoen

Second 5 wk ★Sec 9 MW—4-5, NorrisH 153, Linda Stoen

Dnce 1110 TOPICS: FUNDAMENTAL MODERN I. 1 credit, \$60.75 plus \$7 special fee. Total \$67.75.

Introduction to fundamentals of modern dance technique. (No prereq. Limited to 20)

First 5 wk ★Sec 10 MW—4:15-6:15, NorrisH 67, Diane Aldis

Dnce 1110 TOPICS: FUNDAMENTAL BALLET I. 1 credit, \$60.75 plus \$7 special fee. Total \$67.75.

Introduction to the fundamentals of classical ballet techniques including barre and center work. (No prereq. Limited to 20)

First 5 wk ★Sec 11 TTh—5:30-7:30, NorrisH 67, Mary Harding

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Dnce 1110 TOPICS: FUNDAMENTAL MODERN II. 1 credit, \$60.75 plus \$7 special fee. Total \$67.75.

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 12 MW—4:15-6:15, NorrisH 67, Diane Aldis

Dnce 1110 TOPICS: FUNDAMENTAL BALLET II. 1 credit, \$60.75 plus \$7 special fee. Total \$67.75.

Fundamentals of Classical ballet including barre, center work, and combinations; level two. (Prereq Fundamental Ballet I. Limited to 20)

Second 5 wk ★Sec 13 TTh—5:30-7:30, NorrisH 67, Mary Harding

Dnce 3330 DANCE TOPICS: TEACHING AEROBICS. 2 credits, \$146 plus \$7 special fee. Total \$153.

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, \$243.

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 7 TTh—6-8, McNH 216, StP Campus

Dsgn 1523 DESIGN PROCESS: DRAWING I. 4 credits, \$243.

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

First 5 wk ★Sec 4 TTh—6-9:55, McNH 258, StP Campus

Dsgn 1528 (formerly 1521) DESIGN PROCESS: COLOR. 4 credits, \$243 plus \$7.50 special fee. Total \$250.50.

Study of color concepts and their applications to design. Students will also be required to purchase supplies for this class which 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 4 MWTh—6-8, McNH 262, StP Campus

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Dsgn 1531 SURFACE FABRIC DESIGN I. 4 credits, \$243 plus \$35 course fee. Total \$278.

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

First 5 wk ★Sec 2 **MW**—6-9:55 and arr, McNH B9, StP Campus,
Richard Abell

Dsgn 1550 INTERMEDIATE DRAFTING. 4 credits, \$243 plus \$10 course fee. Total \$253.

Intermediate-level drafting instruction in parallel drawing, perspective drawing, and architectural dimensioning. **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)

First 5 wk ★Sec 4 **MTh**—6-9:55 and arr, McNH 475, StP Campus

Dsgn 3251 GRAPHIC DESIGN I. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

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 480, StP Campus

Second 5 wk ★Sec 4 **MW**—6-9:55, McNH 333, StP Campus

Dsgn 3252 GRAPHIC DESIGN II. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Continued development of professional skills in areas of layout and design for advertising. Photographic techniques, color separation, and other printing/production techniques are included. (Prereq 3251 or #. Limited to 24)

Second 5 wk ★Sec 3 **TTh**—6-9:55, McNH 333, StP Campus

Dsgn 3253 GRAPHIC DESIGN III. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Continued development of layout skills. Exposure to actual working conditions. Advertising psychology, consumer relations, and business management. Printing papers. Orientation in agency, studio, and corporate procedures. (Prereq 3252. Limited to 24)

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

Dsgn 3255 TYPOGRAPHIC DESIGN. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

Theory and application of principles of typographic composition. Emphasis on typography history, type faces and letter forms, typesetting methods, terminology, type specification, and copyfitting. (Prereq 1220. Limited to 24)

First 5 wk ★Sec 4 **MW**—6-9:55, McNH 333, StP Campus

Dsgn 3523 DESIGN PROCESS: DRAWING II. 4 credits, \$292.

Advanced problem solving in drawing with application of design elements and principles. Assignments done both in and out of studio. (Prereq 1523, Applied Design, Costume Design, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing student. Limited to 24)

First 5 wk ★Sec 5 **MW**—6-9:55, McNH 258, StP Campus

Second 5 wk ★Sec 6 **TTh**—6-9:55, McNH 258, StP Campus

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Dsgn 3525 DESIGN PROCESS: TWO-DIMENSIONAL DESIGN. 4 credits, \$292.

Experiments with principles of two-dimensional design. (Prereq 1525 or equivalent, Applied Design, Costume Design, Housing, Interior Design, Retail Merchandising, or Textiles and Clothing student, pass portfolio review. Limited to 24)

Second 5 wk ★Sec 4 MW—6-9:55, McNH 258, StP Campus

Dsgn 3527 DESIGN PROCESS: THREE-DIMENSIONAL DESIGN. 4 credits, \$292 plus \$10 course fee. Total \$302.

Study and application of principles of three-dimensional design. (Prereq 1523, 1525, Applied Design, Costume Design, Housing, Interior Design, pre-Interior Design, Retail Merchandising, pre-Retail Merchandising, 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, \$292 plus \$7.50 special fee. Total \$299.50.

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 4 TTh—6-9:55, McNH 262, StP Campus

Dsgn 3534 COMPUTER APPLICATIONS TO DESIGN PROBLEMS. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

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)

Second 5 wk ★Sec 7 TTh—6-9:55, McNH 305 (Mac Lab), StP Campus

Dsgn 3552 COMPUTER-AIDED DESIGN, DRAFTING SYSTEM I. 4 credits, \$292 plus \$7.50 course fee. Total \$299.50.

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 3 MW—5:30-9:30, McNH 305 (IBM Lab), StP Campus, Stephen Manlove

Dsgn 3582 FIELD EXPERIENCE IN DESIGN. 3 credits, \$219.

Supervised 60 hours "on site" exhibition installation during August, 1992. Organizational meeting Sat., Aug. 8, 10 a.m. at the Creative Activities Building, Minnesota State Fairgrounds, St. Paul. (Limited to 14)

Spec Term ★Sec 1 Aug. 8-26, Time arr, Days arr, Richard Abell
No late fee through July 31

Dsgn 5552 INTERIOR DESIGN IV: RESIDENTIAL DESIGN. 4 undergraduate credits, \$292 plus \$10 course fee. Total \$302. 4 graduate credits, \$544 plus \$10 course fee. Total \$554.

Advanced problems in planning and furnishing residential spaces to meet individual or family needs. (Prereq 3553, 3557, TexC 3621, Hsg 1801, or #, Δ; Dsgn 3554 and TexC 3622 recommended. Qualified students may register for graduate credit at the University of Minnesota. Limited to 20)

Second 5 wk ★Sec 1 MTWTh—3:30-6:30, McNH 475, StP Campus, Denise Guerin

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Interior Design in Europe

Summer term (June 17-July 6); 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; and the Global Campus, Department of Extension Classes. (8 credits; limited to 20 participants)

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

Early Childhood Studies Program

(Department of Extension Classes, 306 Westbrook 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

See **Area Studies Programs**, page 36, and **Institute of Languages and Literatures**, page 72.

Economics

(1035 Management/Economics: 625-6353)

College of Liberal Arts

Econ 1101 (formerly 1002)-1102 (formerly 1001) PRINCIPLES OF ECONOMICS. 4 credits each term, if no credit received for any other beginning economics course. **No credit for new numbers is available if credit was received under old numbers.** \$243 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 130

Ten wk 1101 ★Sec 32 **MW**—6-7:20, BlegH 105

Ten wk 1101 ★Sec 33 **MW**—7:30-8:50, BlegH 105

Ten wk 1101 ★Sec 34 **TTh**—6-7:20, BlegH 105

Ten wk 1102 ★Sec 35 **MW**—6-7:20, BlegH 115

Ten wk 1102 ★Sec 36 **MW**—7:30-8:50, BlegH 115

Ten wk 1102 ★Sec 37 **TTh**—7:30-8:50, BlegH 115

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Econ 3101 MICROECONOMIC THEORY. 4 credits, \$3105 or BGS 3001, \$248.

Behavior of households, firms and industries under competitive and monopolistic conditions. Factors influencing production, price and advertising decisions. **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 115

Educational Psychology

(212 Burton Hall: 626-9392)

College of Education

Note: American Sign Language courses can be used to complete a second language requirement. Contact CEE Counseling (625-2500) with questions.

EPsy 1601 AMERICAN SIGN LANGUAGE I. 5 credits, \$303.75.

Introduces fundamentals of American Sign Language as a second language. Emphasis is placed on varieties of sign language and sign language practices, questions, commands, and simple sentences. Receptive and Expressive sign vocabulary building are featured. **May be taken S-N.** (No prereq. Limited to 25)

First 5 wk ★Sec 17 **MTWTh**—8-10:15 a.m., E1H N647, Shirley Egbert

Second 5 wk ★Sec 18 **MTWTh**—8-10:15 a.m., E1H N647, Shirley Egbert

EPsy 1602 AMERICAN SIGN LANGUAGE II. 5 credits, \$303.75.

Introduces fundamentals of American Sign Language as a second language beyond the basic level. Emphasis is placed on locatives, classifiers, and temporal and distributional aspects. Receptive and Expressive sign vocabulary building are featured at the conversational level. **May be taken S-N.** (Prereq 1601 or #. Limited to 25)

First 5 wk ★Sec 12 **MTWTh**—11:15 a.m.-1:30, CivMinE 212, Shirley Egbert

Second 5 wk ★Sec 13 **MTWTh**—11:15 a.m.-1:30, FolH 208, Shirley Egbert

EPsy 1603 AMERICAN SIGN LANGUAGE III. 5 credits, \$303.75.

Expands on the conversational use of American Sign Language as a second language including grammar, deaf culture, short stories, and narratives. Receptive and Expressive use of ASL will be stressed at the conversational level. **May be taken S-N.** (Prereq 1602 or #. Limited to 25)

First 5 wk ★Sec 12 **MTWTh**—3:30-5:45, E1H N647

Second 5 wk ★Sec 13 **MTWTh**—3:30-5:45, E1H N647, Amy Hile

EPsy 3601 AMERICAN SIGN LANGUAGE IV. 5 credits, \$365.

Stresses conversational use of American Sign Language and culturally significant topics relating to the deaf community, complex use of ASL, grammatical features and vocabulary expansion. Comprehension and expression of jokes, dialogues, stories are emphasized. **May be taken S-N.** (Prereq 1603. Limited to 25)

First 5 wk ★Sec 12 **MTWTh**—10:30 a.m.-12:45, E1H N647, Diane Holte

Second 5 wk ★Sec 13 **MTWTh**—10:30 a.m.-12:45, E1H N647, Diane Holte

EPsy 3602 AMERICAN SIGN LANGUAGE V. 5 credits, \$365.

Stresses common conversational use of American Sign Language and culturally significant topics relating to the deaf community. Idiomatic use of sign in conversation
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

tion and expansion of vocabulary are introduced. Comprehension and expression of common conversational topics and idiomatic expressions are emphasized. **May be taken S-N.** (Prereq 3601. Limited to 25)

First 5 wk ★Sec 14 **MTWTh**—1-3:15, EitH N647, Diane Holte

Second 5 wk ★Sec 15 **MTWTh**—1-3:15, EitH N647, Diane Holte

EPsy 3603 CULTURAL PERSPECTIVES OF DEAFNESS. 3 credits, \$219.

Provides an introduction to the deaf community, its social norms, values, and folklore. The international integration of social, religious, athletic, literary, and scholarly institutions are introduced. **May be taken S-N.** (Prereq 1603)

Second 5 wk Sec 5 **MW**—12-2:45, PtH 204

English

College of Liberal Arts

English Language and Literature courses (Engl)

(207 Lind Hall: 625-3363)

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

Engl 1005 INTRODUCTION TO LITERATURE. 4 credits, \$243.

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

First 5 wk ★Sec 4 **MW**—6-8:30, MurH 308, Kathy Mapes

Second 5 wk ★Sec 5 **TTh**—6-8:30, MurH 308, Carol Mason

Engl 1013 FAMOUS ENGLISH AND AMERICAN POEMS. 4 credits, \$243.

Shorter poems by English and American poets, ranging from the Renaissance to the present. An introduction to the reading of poetry; introduction to poems traditionally thought basic to English and American literature. (No prereq. Limited to 40)

First 5 wk ★Sec 1 **MW**—6-8:30, LindH 229, David Pink

Engl 1016 INTRODUCTION TO AMERICAN LITERATURE. 4 credits, \$243.

Critical discussion of and writing about selected works of American literature. Typical authors: Poe, Hawthorne, Whitman, Dickinson, Twain, Frost, Fitzgerald, Hurston. (No prereq. Limited to 40)

First 5 wk ★Sec 3 **TTh**—6-8:30, LindH 217, David Martin

Engl 1017 INTRODUCTION TO MODERN POETRY. 4 credits, \$243. (IS)

Critical discussion of and writing about selected modern poems. Typical authors: Thomas, Frost, Moore, Yeats, Hardy, Cummings. (No prereq. Limited to 40)

Second 5 wk ★Sec 3 **TTh**—6-8:30, LindH 203, Bill Rozaitis

Engl 1018 INTRODUCTION TO MODERN FICTION. 4 credits, \$243.

Critical discussion of and writing about selected modern novels and stories. Typical authors: Conrad, Lawrence, Joyce, Woolf, Cather, Hemingway, Faulkner, Nabokov. (No prereq. Limited to 40)

Second 5 wk ★Sec 2 **MW**—6-8:30, LindH 215, Sandra Herzan

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Engl 1241 INTRODUCTION TO SHAKESPEARE. 4 credits, \$243.

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, Phys 210, James Berg

Second 5 wk ★Sec 3 MW—6-8:30, Phys 210, Susan Hyman

Engl 1591 LITERATURE OF AMERICAN MINORITIES. 4 credits, \$243.

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, FordH 150, Shawn Gillen

Second 5 wk ★Sec 5 MW—6-8:30, LindH 229, Tomoko Kuribayashi

Engl 1621 INTRODUCTION TO WOMEN WRITERS. 4 credits, \$243.

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

First 5 wk ★Sec 2 MW—6-8:30, LindH 215, Gretchen Legler

Engl 1671 THE SHORT STORY. 4 credits, \$243.

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 215, James Brownlee

Engl 3008 TECHNIQUES OF LITERARY STUDY. 4 credits, \$248.

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)

First 5 wk ★Sec 5 TTh—6-8:30, AmundH 158, Charles Lewis

Engl 3009 MODERN LITERARY THEORY. 4 credits, \$248.

Problems of interpretation and criticism. Questions of meaning, form, authority, literary history, social significance. (Prereq English major or minor, and completion of English 3008 or 16 credits literature or Δ . Limited to 30)

First 5 wk ★Sec 4 MW—6-8:30, LindH 217, John Mowitz

Engl 3241 SHAKESPEARE. 4 credits, §3243, \$248.

Plays from Shakespeare's early and middle periods. All sections read *A Midsummer Night's Dream*, *Hamlet*, a history play, and two or three others. (No prereq. Limited to 40)

First 5 wk ★Sec 3 MW—6-8:30, LindH 305, D. B. Haley

Engl 3242 SHAKESPEARE. 4 credits, §3243, \$248. (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)

Second 5 wk ★Sec 2 MW—6-8:30, LindH 203, Lisa Lovelace

Engl 3851 THE ENGLISH LANGUAGE. 4 credits, §5851, \$248. (IS)

The English language: its structure (phonetics, phonology, morphology, syntax,

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

semantics) and its use (pragmatics, dialect variation, and first language acquisition). (No prereq. Limited to 120)

First 5 wk ★Sec 4 MW—6-8:30, EE/CSci 3230, Robert Brown

Second 5 wk ★Sec 5 MW—6-8:30, EE/CSci 3230, Christopher Anson

(See also REX 0902, The Origin of English Words)

Engl 3960 JUNIOR-SENIOR SEMINAR: POETRY AS CULTURAL CRITIQUE. 4 credits, \$248.

Examines the status of "poetry" in several cultures of the Americas, bringing together techniques of close reading and broad cultural inquiry. Issues such as the ethics and politics of "ethnopoetics" and cross-cultural pollination; the role of poetry in shaping political consciousness (the Negritude movement, for example, or the spate of women's, gay, ethnic anthologies that came out of the late '60s in the U.S.); and poetry as the interface (suture) of dominant and non-dominant cultures. Primarily 20th-century poetry of the English-speaking world (but some texts in translation), poetry theory, and ethnographic texts and historical texts. Contact the English Undergraduate Office at (612) 625-4592 for department permission. (Prereq English major status, completion of Comp 3011 or 3012, jr or sr and written Δ. Limited to 17)

Second 5 wk ★Sec 2 TTh—6-8:30, LindH 216, Maria Damon

Engl 5151 18TH-CENTURY ENGLISH NOVEL. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

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, BlegH 340, Joel Weinsheimer

Engl 5471 AMERICAN DRAMA. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

American drama from 1914 to present; representative American plays of the 18th, 19th, and early 20th centuries. Emphasis on plays since 1914. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Second 5 wk ★Sec 1 MW—6-8:30, LindH 305, Arthur Geffen

Engl 5851 STRUCTURE OF MODERN ENGLISH. 4 undergraduate credits, \$3851, \$248. 4 graduate credits, \$544.

Survey of modern English grammar: phonology, syntax, and semantics; variations and change. (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 40)

Second 5 wk ★Sec 1 TTh—6-8:30, LindH 305, Genevieve Escure

Engl 5940 FIGURES IN ENGLISH AND AMERICAN LITERATURE: CONRAD. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

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 1 TTh—6-8:30, LindH 302, Chester Anderson

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Creative and Professional Writing (EngW)

(204 Lind Hall: 625-6366)

(See also writing courses in Composition and in The Compleat Scholar noncredit section)

EngW 1102 INTRODUCTION TO FICTION WRITING. 4 credits, §Engl 1101, §Comp 1101, 1113, \$243. (IS)

Beginning instruction in the art of fiction: characterization, plot, dialogue, and style. Writing exercises to help students generate ideas. Students read and discuss published fiction as well as their own writing. (Prereq EngW 1101 or equivalent. Limited to 25)

Second 5 wk ★Sec 5 TTh—6-8:30, RarigC 616

EngW 1103 INTRODUCTION TO POETRY WRITING. 4 credits, §Engl 1101, §Comp 1101, 1113, \$243. (IS)

Beginning instruction in the art of poetry. Discussion of student poems and contemporary poetry, ideas for generating material, and writing exercises both in and out of class. (Prereq EngW 1101 or equivalent. Limited to 25)

First 5 wk ★Sec 3 TTh—6-8:30, LindH 315

EngW 3102 INTERMEDIATE FICTION WRITING. 4 credits, §Engl 3101, §Comp 3101, \$248. (IS)

For students with experience in writing fiction. Exercises, experiments, assigned readings, and discussion of students' work. (Prereq EngW 1102 or equivalent. Limited to 20)

First 5 wk ★Sec 3 TTh—6-8:30, LindH 215, Mikhail Iossel

EngW 3110 TOPICS IN CREATIVE WRITING: WRITING THE MEMOIR. 4 credits, \$248.

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

Second 5 wk ★Sec 3 TTh—6-8:30, AmundH 158

(See also CSch 0311, Reading and Writing the Memoir)

EngW 5130 TOPICS IN ADVANCED CREATIVE WRITING: MIXED GENRE WORKSHOP. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

Advanced workshop that may include work in either prose or poetry. *Students not in the graduate program in creative writing must submit an application packet, including a 10-page manuscript, for this course by Fri., May 15; for further information, call the creative writing program office: 625-6366.* (Prereq written Δ . Qualified students may register for graduate credit at the University of Minnesota. Limited to 15)

First 5 wk ★Sec 3 TTh—6-8:30, LindH 320, Michael Dennis Browne

Family Social Science

(290 McNeal Hall: 625-1900)

College of Human Ecology

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

FSoS 1001 DYNAMICS OF FAMILY RELATIONSHIPS. 4 credits, \$243 plus \$1 special fee. Total \$244. (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 197, StP Campus, Connie Noyce

(See also REX 0260, Impact of Sexual Abuse Treatment on Family Functioning)

FSoS 1025 PARENTHOOD. 4 credits, \$243.

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

FSoS 5240 MARRIAGE AND FAMILY THERAPY TECHNIQUES: TRANCE AND HYPNOSIS. 2 or 3 credits, \$146 or \$219.

Principles for inducing trance and for utilizing trance states in the therapeutic process with individual adults and children, couples, and families. An easily learned "generic" model of trance induction serves as a basis for investigating the role of hypnosis in working with a wide variety of client problems, regardless of the theoretical orientation or individual style of the therapist. Ethical, legal, and practical implications of using hypnosis in therapy also are examined. (Prereq licensure by the Minnesota Board of Marriage and Family Therapy or enrollment in a graduate program that includes training in marriage and family therapy, or #. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 3 **FSa**—8:30 a.m.-5:30, June 26, 27, McNH 375, StP Campus, *and*
FSa—8:30 a.m.-5:30, July 10, 11, McNH 375, StP Campus, James Maddock

FSoS 5240 SPECIAL TOPICS: INTERRACIAL FAMILY LIFE. 3 undergraduate credits, \$219. 3 graduate credits, \$408.

An overview of the research and legal, mental health, discrimination, and identity issues facing interracial families. Case studies, individual projects, and discussions with experts provide a rare opportunity for critical examination of cross-cultural issues in service delivery to this fast-growing family unit. *Instructors are Charles Willie, Professor of Family Sociology at Harvard Graduate School of Education, and Vivian Jenkins Nelsen, President and CEO of the International Institute for Interracial Interaction, Inc. (INTER-RACE) at Augsburg College. Professor Willie has written the books School Desegregation Plans that Work; Black and White Families: A Study in Complementarity; A New Look at Black Families; and The Caste and Class Controversy.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota)

Spec Term Sec 4 **MTWThF**—9 a.m.-4, July 6-10, McNH 274, StP Campus

FSoS 5240 SPECIAL TOPICS: MEDICAL FAMILY THERAPY. 3 undergraduate credits, \$219. 3 graduate credits, \$408.

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 course in family therapy and written #. Qualified students may register for graduate credit at

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

the University of Minnesota. Limited to 20)

Spec Term ★Sec 5 F—8:30 a.m.-5, July 24, 31, Aug. 7, McNH 375,
StP Campus, William J. Doherty

FSoS 5251 AGING FAMILIES. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

Aging families as complex developing systems interacting with changing social structure. Marital relationships, role changes, and family care-giving issues. (Prereq 5200 or SW 5024 or equivalent). Qualified students may register for graduate credit at the University of Minnesota)

Second 5 wk Sec 1 TTh—6-8:30, McNH 33, StP Campus, Daniel Detzner

1992 Summer Study in Southeast Asia June 15-July 5, 1992

FSoS 5240 SPECIAL TOPICS: CULTURAL PERSPECTIVES ON FAMILY STRESS. 3-5 credits, \$219-\$365 tuition (travel costs extra).

A comparison of how families in different cultures cope with stress events, normative (birth, death, maturation of children) and catastrophic (war, flood, unemployment). Modes of coping, such as mastery, meditation, acceptance, prayer, and denial and their relation to religion and culture are explored. *Instructors are Pauline Boss and Richard Hey.* (Prereq #. Qualified students may register for graduate credit at the University of Minnesota)

Participants in this study trip visit Thailand, Singapore, and Java and Bali. Housing is in hotels and campus dormitories. Local guides and lecturers supplement University of Minnesota faculty members. The registration deadline is April 15, 1992. Students may call beyond the deadline date to see if openings exist and to register late. Requirements include readings, lectures, and a journal. Pre-departure lectures 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 1991-92 *Extension Classes Bulletin*, page 656. 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, \$292.

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 pre-
(continued next page))

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

req. Students interested in graduate credit should see 5029. Meets concurrently with 5029. Limited to a combined total of 20)

Spec Term ★Sec 7 **W**—6-9:30, June 17-July 29, McNH 274, StP Campus *and*
Sa—9 a.m.-5, June 27, McNH 274, StP Campus, Philip Colgan

FSoS 3032 CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW. 4 credits, \$292.

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 16-18, McNH 274, StP Campus; *and*
Th—6-10, July 23, 30, McNH 274, StP Campus, Philip Colgan

FSoS 3034 TOPICS IN ALCOHOL AND DRUG ABUSE. 1-5 credits, \$73 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

FSoS 3035 CLINICAL INTERNSHIP IN CHEMICAL ABUSE PROBLEMS. 2-18 credits, \$73 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, \$219.

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 20)

Spec Term ★Sec 4 **ThFSa**—9 a.m.-5, July 9-11, McNH 274, StP Campus, Philip Colgan

FSoS 5008 INTROSPECTIVE WORKSHOP AND CLINICAL SUPERVISION. 1 or 2 undergraduate credits, \$73 or \$146. 1 or 2 graduate credits, \$136 or \$272.

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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

FSoS 5029 COUNSELING SKILLS PRACTICUM I. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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 6 **W**—6-9:30, June 17-July 29, McNH 274, StP Campus; *and*
Sa—9 a.m.-5, June 27, McNH 274, StP Campus, Philip Colgan

FSoS 5032 CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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 16-18, McNH 274, StP Campus; *and*
Th—6-10, July 23, 30, McNH 274, StP Campus, Philip Colgan

FSoS 5034 TOPICS IN ALCOHOL AND DRUG ABUSE. 1-5 undergraduate credits, \$73 a credit. 1-5 graduate credits, \$136 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

FSoS 5035 CLINICAL INTERNSHIP IN CHEMICAL ABUSE PROBLEMS. 2-18 undergraduate credits, \$73 a credit plus \$25 special fee for each placement. 2-18 graduate credits, \$136 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**, Constance Fabunmi

FSoS 5037 GROUP THERAPY: THEORY AND PRACTICE. 3 undergraduate credits, \$219. 3 graduate credits, \$408.

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 20)

Spec Term ★Sec 4 **ThFSa**—9 a.m.-5, July 9-11, McNH 274, StP Campus, Philip Colgan

Finance

(735 Management/Economics: 624-2888)

Carlson School of Management

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

BFin 3000 FINANCE FUNDAMENTALS. 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

Provides students with a comprehensive, analytical introduction to the principal concepts in finance. After considering the general business environment, the course examines valuation theory. Then financial management decisions concerning uses and sources of funds are presented, thus introducing students to capital budgeting. 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 150, Seongho Park

Second 5 wk ★Sec 8 MW—6-9, BlegH 150, Jaevk Khil

(See also PSch 0906, Investments and Personal Financial Planning)

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 REX 0905, French/American Cross-Cultural Conversation)

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, \$243. (IS)

This course is designed solely to impart a basic reading knowledge of the French language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals only with the reading aspect of the language, there are no sessions for oral-aural drills and composition, and great skill can be acquired in a short time. At the end of one quarter the student is given an 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, PeikH 155

Fren 1104 INTERMEDIATE FRENCH. 5 credits, \$303.75.

Discussion of literary and cultural readings. Grammar review and development of writing skills. (Prereq 1103 or #. Limited to 50)

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

Fren 1105 INTERMEDIATE FRENCH. 5 credits, \$303.75.

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

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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

French and Italian

(260 Folwell Hall: 624-4308)

College of Liberal Arts

Frit 3604 CINEMAS OF THE REAL. 4 credits, \$248.

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, FolH 208

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, \$303.75. (IS)

For students with adequate background in elementary algebra. Sets, real numbers, linear equations, linear inequalities, absolute value equations and inequalities, exponents, polynomials, systems of equations, word problems, rational expressions, roots and radicals, complex numbers. (Prereq GC Math Level D or GC 0621 with grade of C or better or GC 1435. Limited to 30)

Ten wk ★Sec 4 **W**—5:30-8:30, ApH 103, Aparna Ganguli

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

GC 0631 INTERMEDIATE ALGEBRA, PART II. No credit, §GC 1446, \$303.75. (IS)

Basic knowledge of linear and quadratic equations and inequalities, exponents, factoring, rational expressions, roots, radicals, complex numbers, and graphing assumed. Topics include quadratic equations, matrix solutions to systems of equations, general inequalities, conic sections, functions, logarithmic and exponential functions, introduction to sequences, series, and binomial theorem. (Prereq GC math level E or GC 0625 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, \$303.75.

With aid of instructor, topics selected from following: whole numbers, fractions, decimals, percents, signed numbers, formulas, simple graphs, ratio and proportion, sets, properties, equations, inequalities, rectangular graphs, polynomials, factoring, rational expressions, radicals. Offered through Mathematics Learning and Assessment Center. May be repeated as needed. (Prereq GC math level B or C or 0641. Limited to 30)

Ten wk ★Sec 4 M—5-8, ApH 9

GC 1114 PERSONAL ENVIRONMENTAL HEALTH. 4 credits, \$243.

Emphasis on applying health concepts to daily life for a healthier, longer life. Topics include pollution, infectious and degenerative diseases, drugs, stress, allergies, immunity, and digestive problems. (Prereq GC 1132 recommended. Limited to 40)

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

GC 1161 PHYSICAL SCIENCE: SOLAR SYSTEM ASTRONOMY. 4 credits, \$243.

Introductory survey of solar system: planets, satellites, asteroids, comets, meteorites. Celestial sphere, coordinate systems, time intervals, motion, physical attributes of various members of our solar system; space program findings. Opportunity to observe through University telescope. Four one-hour evening laboratories or independent study project arranged. (No prereq. Limited to 40)

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

GC 1283 PSYCHOLOGY OF HUMAN DEVELOPMENT. 5 credits, \$303.75. (IS)

Focuses on growth and development of individual from conception through old age. Physical, motor, social, emotional, and psychological growth, and cognitive development. Integrated view of facets of development in order to understand human being as a complex organism functioning in a complex environment. The family as the main environmental factor in early development of individual. (No prereq. Limited to 35)

First 5 wk ★Sec 2 MW—5:30-9, ApH 223, Sander Latts

GC 1374 THE MOVIES: AN INTRODUCTORY COURSE. 4 credits, \$243 plus \$10 course fee. Total \$253.

Films as art forms and as communication media. Students view films in class, may read film scripts, and may attend film showings locally to learn how to analyze films and to recognize their unique characteristics. (No prereq. Limited to 35)

First 5 wk ★Sec 4 MW—6-9, ApH 302, Del Adamson

GC 1421 WRITING LABORATORY: BASIC WRITING. 4 credits, \$243 plus \$10 course fee. Total \$253.

Students write on various topics in response to reading and discussion. Personal
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

help with individual writing problems. Emphasis on clear and effective written expression through extensive writing and revision. Microcomputer instruction; uses Macintosh PC. (No prereq. Limited to 18)

Second 5 wk ★Sec 3 MW—5-7:30, ApH 219

GC 1454 STATISTICS. 4 credits, \$243. (IS)

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—5-7:30, ApH 303, Joan Garfield

GC 1456 FUNCTIONS AND PROBLEMS OF LOGIC. 4 credits, \$1442, \$243.

Introduction to logical thinking. Students apply critical analysis and techniques of precise reasoning to various types of discourse and argument, and develop habits of systematic thinking by learning about complexities of language, difference between good and bad evidence, and methods of deductive and inductive reasoning. (No prereq. Limited to 30)

First 5 wk ★Sec 4 TTh—5:30-8, ApH 223, Candido Zanoni

GC 1461 ORAL COMMUNICATION: SPEAKING AND CREATIVE THINKING. 4 credits, \$243 plus \$10 course fee. Total \$253.

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 3 TTh—5-7:30, ApH 102, Fred Amram

GC 1481 CREATIVITY: ART LABORATORY—EXPERIENCES IN THE MEDIA. 3 credits (may be repeated for max 9 cr), \$182.25.

Opportunity for creative experiences in number of art media. Laboratory planned and operated to meet individual needs and interests of students and to provide means to develop creative awareness and ability. Includes reading assignments, lectures, and gallery trips. Computer art; uses Macintosh PC. (No prereq. Limited to 15)

Second 5 wk ★Sec 1 TTh—5-7:30, ApH 202, 219, Jerome Gates

GC 1513 SMALL BUSINESS OPERATIONS. 4 credits, \$243. (IS)

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

First 5 wk ★Sec 4 TTh—5:30-8, ApH 226, Patrick Kroll

GC 1534 PRACTICAL LAW. 4 credits, \$243. (IS)

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, and joint ownership and tenancy. (No prereq. Limited to 35)

Second 5 wk ★Sec 3 MW—6-8:30, ApH 226, Peter Kahn

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

GC 1537 PROFESSIONAL SELLING. 4 credits, \$243 plus \$10 course fee. Total \$253.

In order to apply knowledge and skills from many fields for a professional sales career, students develop an understanding of related theories and their applications. Format includes lecture/discussions, guest speakers, films, and case problems; techniques practiced in small group activities include role playing, sales demonstrations, and videotaping. Qualifications needed for successful career in sales, opportunities, and pitfalls also discussed. (No prereq. Limited to 35)

Second 5 wk ★Sec 2 TTh—5-7:30, ApH 226, Mary K. St. John

GC 1551 MARKETING: INTRODUCTION. 4 credits, \$243. (IS)

Product pricing, distribution, and promotional principles; target market and segmentation analysis; current marketing strategies and trends. (No prereq. Limited to 35)

First 5 wk ★Sec 3 MW—5-7:30, ApH 226, Shari Peterson

GC 1571 INTRODUCTION TO MICROCOMPUTER APPLICATIONS. 5 credits, \$303.75 plus \$10 course fee. Total \$313.75. (IS)

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. Meets concurrently with 1572. Limited to 25)

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

GC 1572 INTRODUCTION TO COMPUTER PROGRAMMING. 5 credits, \$3571, \$303.75 plus \$10 course fee. Total \$313.75.

Experience using microcomputer as problem-solving tool. Students design, write, code, and run computer programs on IBM microcomputers. Emphasis on writing properly structured and documented BASIC programs to solve problems from social sciences. Provides excellent background for further programming courses. (Prereq 1571 or IBM microcomputer experience. Meets concurrently with 1571. Limited to 25)

Ten wk ★Sec 2 T—5-8, ApH 319, Douglas Robertson

GC 1733 CONTEMPORARY SEX ROLES. 4 credits, \$243. (IS)

Social roles and related expectations, informal and formal roles, role modification, and role reversal. Overcoming sexual stereotyping. Focus on analyzing the openness and rigidity of sex roles in childhood socialization; education; mate selection; marital, parental, and homemaking roles; occupations; and social trends. (No prereq. Limited to 35)

Ten wk ★Sec 2 T—5:30-8, ApH 103, Gail Thoen

GC 1836 ASIAN-AMERICAN LITERATURE. 4 credits, \$243.

Examines the Asian experience in America, both historical and contemporary, through literary works produced by Asian-Americans. (No prereq. Limited to 35)

Second 5 wk ★Sec 1 TTh—5-7:30, ApH 302, Jill Gidmark

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

German

(231 Folwell Hall: 625-2080)

College of Liberal Arts

(See also REX 0242, History of German Settlements in Eastern Europe; REX 0904, The German Language in Minnesota)

Ger 1000 INDIVIDUALIZED GERMAN FOR NON-DEGREE CREDIT. 2-5 credits (maximum 5 cr), §1101, \$60.75 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Each student earns credits at his/her own pace, working with book, computer, and tapes. Teacher available for consultation and testing. 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, \$303.75.

Third quarter of German language. Classroom instruction with 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; \$60.75 per credit.

Emphasis on proficiency according to the national ACTFL system. Reception (listening and reading) emphasized first, followed by production (writing). Students work at own pace with book, computer, audio- and videotapes, earning credit through testing as they progress through material. Teachers available for consultation and testing. Two weeks after the end of the session, students who have completed more credits during the session than they registered for should go to the 101 Westbrook 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

Ger 3510 TOPICS IN GERMAN STUDIES: SWITZERLAND. 4 credits, \$248.

Explores concepts and experience of the multi-cultural Swiss nation, focusing on its socio-historical, economic, and political situation, and Switzerland's role within Europe '92. **May be taken for credit toward a minor in German or most German major emphases.** (Prereq 1106 or the graduation proficiency test)

Second 5 wk Sec 1 MTh—6:20-8:50, FolH 104, Margrit Zinggeler

Ger 3641 INTRODUCTION TO GERMAN FOLKLORE. 4 credits, \$248.

The traditional folklore genres: charms (magic), legends, fairy tales, ballads. **Not open for credit toward a major in German.** Requires no knowledge of German. (No prereq)

First 5 wk Sec 2 MW—6-8:30, FolH 240, Anatoly Liberman

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.

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Ger 0221 READING GERMAN. No credit, \$243.

This course is designed to help students acquire a reading knowledge of basic German as rapidly as possible. No prior knowledge of German is required. Grammar is reduced to a 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

Ger 0222 READING GERMAN. No credit, \$243.

This course is designed to give students experience in intensive reading of German scholarly texts and enable graduate students to satisfy departmental requirements for an advanced degree. 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 312, Ray Wakefield

History

(614 Social Sciences: 624-2800)

College of Liberal Arts

(See also *Mind, Self, and Society* courses in The Compleat Scholar noncredit section)

Hist 1002 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, §1002H, §3002, \$243. (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, \$243. (IS)

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

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

Hist 1301 AMERICAN HISTORY. 4 credits, §1301H, \$243. (IS)

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

First 5 wk Sec 4 **TTh**—6-8:30, RarigC 616

Hist 1302 AMERICAN HISTORY. 4 credits, §1302H, \$243. (IS)

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

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

Hist 1403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO THE PRESENT. 4 credits, §3403, §LAS 3403, \$243.

Contradictions of modern societies: economic expansion, dependency, population growth and the social crisis, democratic and authoritarian politics. (No prereq. Meets concurrently with 3403 and LAS 3403)

Second 5 wk Sec 1 **TTh**—6-8:30, BlegH 260, Arlene Diaz

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Hist 1432 HISTORY OF AFRICA: 1800 TO PRESENT. 4 credits, \$3432, \$243.

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

First 5 wk Sec 1 **MW**—6-8:30, BlegH 250

Hist 1463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$3463, \$EAS 1463, \$243.

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)

First 5 wk Sec 1 **MW**—6-8:30, BlegH 155

Hist 3002 INTRODUCTION TO MODERN EUROPEAN HISTORY SINCE THE MIDDLE AGES. 4 credits, \$1002, \$1002H, \$248.

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, \$248.

1870 to recent times. (No prereq. Meets concurrently with 1003)

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

Hist 3403 SURVEY OF LATIN AMERICAN HISTORY: 1929 TO THE PRESENT. 4 credits, \$1403, \$LAS 3403, \$248.

Contradictions of modern societies: economic expansion, dependency, population growth and the social crisis, democratic and authoritarian politics. (No prereq. Meets concurrently with 1403, LAS 3403)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 260, Arlene Diaz

Hist 3432 HISTORY OF AFRICA: 1800 TO PRESENT. 4 credits, \$1432, \$248.

See course description for Hist 1432. (No prereq. Meets concurrently with 1432)

First 5 wk Sec 2 **MW**—6-8:30, BlegH 250

Hist 3463 INTRODUCTION TO EAST ASIA IN MODERN TIMES. 4 credits, \$1463, \$EAS 1463, \$248.

See course description for Hist 1463. (No prereq. Meets concurrently with 1463, EAS 1463)

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

Hist 3471 20th-CENTURY JAPAN. 4 credits, \$EAS 3471, \$248.

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 ear. (No prereq. Meets concurrently with EAS 3471)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 250, Byron K. Marshall

Hist 3544 THE ARAB WORLD IN RECENT TIMES. 4 credits, \$MidE 3544, \$248.

Central Arab lands (the Arabian peninsula, Iraq, Syria, Jordan, Lebanon, Egypt) and North African region (Libya, Tunisia, Morocco, Algeria) from end of World War

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

I to the present. Foreign occupation and struggle for independence, position in regional and international politics. (No prereq. Meets concurrently with MidE 3544)

Second 5 wk ★Sec 2 TTh—6-8:30, BlegH 245, Caesar Farah

Hist 3625 FRANCE IN THE AGE OF ENLIGHTENMENT. 4 credits, \$248.

The writings of several leading thinkers of the enlightenment, including Montesquieu, Voltaire, and Rousseau, examined in the context of 18th-century French history. (No prereq)

Second 5 wk Sec 1 MW—6-8:30, BlegH 10, James D. Tracy

Hist 3633 HISTORY OF GERMANY: EMPIRE TO HITLER, 1848-1945. 4 credits, \$248.

Unification, political and economic development, growth of socialism, World War I and revolution, the Weimar years, the Nazi seizure of power. (No prereq)

First 5 wk Sec 1 MW—6-8:30, BlegH 260, Richard Rudolph

Hist 3723 EUROPE SINCE WORLD WAR II. 4 credits, \$248.

Reconstruction of European politics and society; emergence of Cold War in Europe; decolonization; economic cooperation and development; East-West relations. (No prereq)

Second 5 wk Sec 2 TTh—6-8:30, BlegH 145

Hist 3823 UNITED STATES IN THE 20TH CENTURY: 1960 TO THE PRESENT. 4 credits, \$248.

The conflicts of the 1960s; the New Frontier and Great Society, the black struggle for freedom; the Vietnam War; the new left and counterculture; the women's movement and gay liberation; Watergate and the uncertainties of the 1970s; the Reagan counterrevolution. (No prereq)

First 5 wk Sec 2 TTh—6:20-8:50, BlegH 10, Hyman Berman

Humanities

(314 Ford Hall: 624-5553)

College of Liberal Arts

Hum 1003 HUMANITIES IN THE MODERN WORLD III. 4 credits, \$Rhet 1303, \$243. (IS)

Impact of science, especially evolution theory, on religious and humanistic thought; roots of existentialism; disorientation in modern culture; impressionism. Integrative study of works by creative figures such as Kierkegaard, Darwin, Nietzsche, Chekhov, Joyce, Mann, Manet, Monet, Renoir, Degas, Wagner, Debussy, Mahler. (No prereq)

Second 5 wk Sec 2 MW—6-8:30, FordH 55, Claudia Crawford

Hum 1004 HUMANITIES IN THE MODERN WORLD IV. 4 credits, \$Rhet 3381, \$243. (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 2 MW—6-8:30, FordH 55, George Kliger

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Hum 1301 DISCOURSE AND SOCIETY. 4 credits, \$243. (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 30)

Second 5 wk ★Sec 4 TTh—6-8:30, FordH 160, Dubem Okafor

Hum 1303 KNOWLEDGE, PERSUASION, AND POWER. 4 credits, \$243.

Inquiry into the ways certain bodies of discourse come to cohere, to exercise persuasive power, and to be regarded as authoritative, while others are marginalized, ignored, or denigrated. Interrelations of center and periphery, hegemony and counterhegemony, canon and apocrypha. (No prereq. Limited to 30)

First 5 wk ★Sec 2 TTh—6-8:30, FordH 160, Amitava Kumar

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, \$292.

Scientific management, mathematical models, methods engineering, work measurement, worker satisfaction and participation, wage payment plans, break-even analysis, incremental costs, the time value of money and 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 55, E. Barnett

IEOR 5030 QUALITY CONTROL AND RELIABILITY. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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, \$275 plus \$16 special fee. Total \$291. (IS)

An introduction to the human resource management function in organizations.
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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 4 MW—6-9, BlegH 120

IR 3010 THE INDIVIDUAL IN THE ORGANIZATION. 4 credits, \$275 plus \$16 special fee. Total \$291.

An introduction to the human side of organizations, focusing on workers and how they enter and succeed in the work setting. Coverage includes theories and techniques of employment interviewing; training needs analysis; career planning; management development; turnover, out-placement, and retirement; understanding leadership roles and styles; work motivation, organization culture and job design; and planning for change. Course involves lecture presentations, discussion, case studies, and simulation exercises. (Prereq at least 90 cr completed or in progress)

Second 5 wk Sec 4 MW—6-9, BlegH 120

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, \$243 plus \$16 special fee. Total \$259. (IS)

Meeting information needs of managers. Sources of data, data collection methods, (continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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 11111. 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 83.

IDSc 3030 (formerly MSci 3030) INFORMATION SYSTEMS AND INFORMATION MANAGEMENT. 4 credits, §MSci 3030, §IDSc 3002, §MIS 3100, 5100, 3101, 3300, 5101, \$275 plus \$16 special fee. Total \$291.

Defining information requirements. Developing information systems applications. Using information systems. Defining data structures and building and using databases. Formulating database retrievals. Building and using models and expert systems to support decision making. Obtaining external data to support model building and decision making. Evaluating information. Skill development in database software. *This course is equivalent to MIS 3100, 5100, 3101, 3300, and 5101.* (Prereq IDSc 1010 and OMS 1020. Limited to 30)

Ten wk ★Sec 7 **Th—Lect**, 5:30-8, BlegH 130
Th—Lab, 8-9, HHCtr 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.*

Institute of Languages and Literatures

(105 Folwell: 624-0007 or 624-3331)

College of Liberal Arts

East Asian Languages and Literatures

Chn 3161 CHINESE POETRY IN ENGLISH TRANSLATION. 4 credits, \$248.

Major poets examined in context of their intellectual, social, and aesthetic traditions. Knowledge of Chinese not required. (No prereq)

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

Chn 3163 20TH-CENTURY CHINESE LITERATURE IN ENGLISH. 4 credits, \$248.

Main trends in Chinese literature from May 4th period (circa 1919) to present. Knowledge of Chinese not required. (No prereq)

Second 5 wk Sec 2 **TTh—6-8:30**, FolH 114, Sally Liberman

EAS 3001 CHINESE-JAPANESE CALLIGRAPHY. 4 credits, \$248.

Chinese calligraphic styles, aesthetic analysis, demonstration and practice of techniques. (No prereq. Limited to 25)

Second 5 wk ★Sec 2 **MTTh—5:30-8:30**, NichH 209

★Indicates limited-enrollment section. See page 5.
Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Hmg 1011 BEGINNING WHITE HMONG. 5 credits, \$303.75.

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, Phys 157

Hmg 1012 BEGINNING WHITE HMONG. 5 credits, \$303.75.

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, Arch 15

Jpn 3021-3022-3023 INTERMEDIATE JAPANESE. 5 credits each section, \$310 each section.

Foundation for reading knowledge of Japanese. Review and pattern drill. *A concentrated program of study permitted 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 100, ClaOff B26, StP Campus

MTWThF—10:30 a.m.-12:05, HckrH, 100, ClaOff B26, StP Campus

Ten wk 3022 ★Sec 5 **MTWThF**—8-10:15 a.m., HckrH 100, ClaOff B26, StP Campus

MTWThF—10:30 a.m.-12:05, HckrH 100, ClaOff B26, StP Campus

Ten wk 3023 ★Sec 6 **MTWThF**—8-10:15 a.m., HckrH 100, ClaOff B26, StP Campus

MTWThF—10:30 a.m.-12:05, HckrH 100, ClaOff B26, StP Campus

Insurance and Risk Management

(537 Management/Economics: 624-2500)

Carlson School of Management

(See also Finance)

PLEASE 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.

Business degree students must take insurance courses A-F.

All Ins courses have been approved by the Commissioner of Commerce for insurance and real estate continuing education credit.

Ins 5100 RISK MANAGEMENT AND INSURANCE. 4 undergraduate credits, \$3100, \$8100, \$275 plus \$16 special fee. Total \$291. 4 graduate credits, \$544 plus \$16 special fee. Total \$560.

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

How to recognize and evaluate the property, liability, and personnel risks facing a business firm, a family, or some other economic unit. The tools of risk management—mainly retention, loss control, and insurance—and the conditions under which they should be used. How to select and deal with an insurer. Public policy issues—such as availability of insurance, insurance pricing, employee benefits, workers' compensation, automobile, professional and product injury/compensation systems, and social insurance. **May be taken S-N**—only by non-business degree students. (Prereq at least 90 credits completed or in progress. Qualified students may register for graduate credit at the University of Minnesota)

First 5 wk Sec 3 TTh—6-9, BlegH 350, C. Arthur Williams

Interdepartmental Study

(225 Johnston Hall: 624-5701)

College of Liberal Arts

ID 5525 GARBAGE, GOVERNMENT, AND THE GLOBE. 4 credits, \$248.

Learn about the messy, real-world problems of solid waste management in this two-week course for teachers. How will garbage affect the economy, politics, environment, and health of future generations of animals and humans? Because the problems of garbage cannot be solved by narrow disciplinary approaches, this course is multidisciplinary, examining issues such as toxic waste, ethics, the effects of garbage on soil and water, and the implications of waste management policies on international business. *Teachers will examine, select, and create curricular materials on solid waste that they can use in their classes. The course will involve speakers, videos, discussions, and field trips in addition to lectures.* **Call Extension Classes at 625-3898 for further information and registration materials.** (No prereq. Inquire about graduate credit at the time of registration. Limited to 30)

Spec Term ★Sec 3 **June 22–July 2, 1992** with a final day scheduled during the 1992-93 academic year for evaluation and refinement of curricular materials.

International Relations

(248 Social Sciences: 624-9353)

College of Liberal Arts

No courses offered summer 1992.

Journalism and Mass Communication

(111 Murphy Hall: 625-9824)

College of Liberal Arts

Jour 1001 INTRODUCTION TO MASS COMMUNICATION. 4 credits, \$243.

Nature, functions, and responsibilities of communication media and agencies ex-
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

amined 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 3776 MASS COMMUNICATION LAW. 4 credits, \$248.

Brief historical background, First Amendment rights, basic law of defamation, free press and fair trial, access to news, access to the press, privacy, contempt, obscenity, the regulation of broadcasting and advertising, antitrust controls, legal and ethical rules affecting journalistic practice. **May not be taken S-N.** (No prereq; if you have not been officially admitted to major or minor status in a SJMC program, you may not apply this toward the major or minor. Limited to 72)

Second 5 wk ★Sec 2 MW—6:20-8:50, MurH 308

Jour 5182 SUPERVISION OF SCHOOL PUBLICATIONS. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

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. **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. 2, MurH 105, 311
MTWTh—9 a.m.-7, Aug. 3-6, MurH 105, 311
No late fee through July 27

Landscape Architecture

(205 North Hall: 625-8285)

College of Architecture and Landscape Architecture

(See also landscape courses in The Practical Scholar noncredit section)

LA 5117 PLANTING DESIGN: AESTHETIC AND FUNCTIONAL CRITERIA. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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)

Second 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 undergraduate credits, \$292. 4 graduate credits, \$544.

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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Latin

(310 Folwell Hall: 625-5353)

College of Liberal Arts

Lat 1101-1102-1103 LATIN. 5 credits each term, \$303.75 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, \$303.75. (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

See Area Studies Programs, page 36.

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.) \$121.50 plus \$30 special fee. Total \$151.50.

Practical assistance to the student in developing efficient study habits, organizing materials, preparing for examinations, and improving the speed and comprehension of reading. Diagnosis and practice in basic skill areas such as reading,

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

spelling, vocabulary, and elementary composition also are provided. (No prereq. Limited to 30)

Ten wk ★Sec 14 **M**—6-8:30, WullH 130, Alexandra Crittenden

Ten wk ★Sec 15 **W**—6-8:30, WullH 130, Joyce Weinsheimer

LASK 1303 INTERNSHIP EXPERIENCE FOR DISABLED STUDENTS. 2 credits. (Credits do not count toward a B.A. degree.) \$121.50.

Gain work experience through a paid or volunteer internship. (Prereq 1302. Limited to 20)

Ten wk ★Sec 2 **W**—4:30-6:30, FolH 138, Susan A. Aase

Linguistics

(142 Klæber Court: 624-3528)

College of Liberal Arts

Ling 3001 INTRODUCTION TO LINGUISTICS. 5 credits, §3005, 5001, \$310.

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 undergraduate credits, §3001, 3005, \$310. 5 graduate credits, \$680.

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 undergraduate credits, \$248. 5 graduate credits, \$680.

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 1 **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, \$275 plus \$16 special fee. Total \$291. (IS)

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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, Shobha Das

Second 5 wk Sec 8 MW—6-8:45, AndH 370, Charles Flaherty

Mgmt 3002 PSYCHOLOGY IN MANAGEMENT. 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

Centers on development and application of behavior principles, methods, and skills which underlie managerial competence in preventing and solving problems within and between individuals and groups and aid in effective utilization of human resources. Various laboratory procedures are used to highlight concepts, methods and skills and furnish practice in applying them to management problems. (Prereq at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 36)

First 5 wk ★Sec 7 TTh—6-8:45, BlegH 205, Amy Hietapelto

Second 5 wk ★Sec 8 MW—6-8:45, BlegH 235, Donald Van de Walle

Mgmt 3004 BUSINESS POLICY: STRATEGY FORMULATION AND IMPLEMENTATION. 5 credits, \$343.75 plus \$16 special fee. Total \$359.75. (IS)

Undergraduate-level capstone course designed to develop skill in the general management functions of identifying and analyzing strategic issues and problems, establishing corporate or divisional goals, and designing realistic programs of action. Case analysis and discussion in class. Students also meet in small groups to prepare cases and occasionally presentations to be made to the entire class. Concepts and approaches to strategic planning are taught in this course. These concepts as well as 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 30)

First 5 wk ★Sec 7 TTh—5:30-9, HHCtr 30, David Deephouse

Marketing

(1235 Management/Economics: 624-5055)

Carlson School of Management

Mktg 3000 PRINCIPLES OF MARKETING. 4 credits, \$275 plus \$16 special fee. Total \$291. (IS)

Study of the basic policy and strategy issues in marketing and the environmental factors that affect these issues. Legal, behavioral, ethical, competitive, economic, and technological factors are examined as they affect product, pricing, promotion, and marketing channel decisions. (Prereq Econ 1101 or #, and at least 90 cr completed or in progress. **May not be taken S-N.** Limited to 250)

Second 5 wk ★Sec 6 MW—5:30-8:30, BlegH 5

Mktg 3010 BUYER BEHAVIOR AND MARKETING ANALYSIS. 4 credits, \$3098, 3095, \$275 plus \$16 special fee. Total \$291.

Identifying and applying secondary and primary data to solve marketing problems. Special consideration is given to consumer and organizational buyer behavior.

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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, OMS 1020 or equivalent, and at least 90 cr completed or in progress. Limited to 40)

Ten wk ★Sec 7 T—5:30-8:30, BlegH 125

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, \$243.

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, VinH 16

Math 1111 COLLEGE ALGEBRA AND ANALYTIC GEOMETRY. 5 credits, §1201, \$303.75. (IS)

Functions and graphs, quadratic equations, progressions, inequalities, complex numbers, theory of equations, permutations and combinations, probability, systems of equations, determinants, graphing of linear and quadratic equations, conics in standard position, logarithms. (Prereq plane geometry, 2 years high school algebra and mathematics placement score or plane geometry and GC 0631. See **Mathematics prerequisites** page 79. Limited to 35)

Ten wk ★Sec 19 MW—6-8:05, AmundH 158

Ten wk ★Sec 20 TTh—6-8:05, Phys 143

Ten wk ★Sec 21 TTh—9:30-11:35 a.m., MacP

Offered through Continuing Education for Women

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★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Math 1142 SHORT CALCULUS. 5 credits, §1211, \$303.75. (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 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 79. Limited to 35)

Ten wk ★Sec 8 TTh—6-8:05, KoltH S136

Math 1201 PRE-CALCULUS. 5 credits, §1008, §1111, \$303.75. (IS)

Inequalities, analytical geometry, complex numbers, binomial theorem, mathematical induction, functions and graphs, and trigonometric, exponential and logarithmic functions. (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 79. Limited to 35)

Ten wk ★Sec 11 MW—6-8:05, Phys 143

Math 1211 CALCULUS I. 5 credits, §1142, 1311, 1611, \$303.75. (IS)

Analytic geometry and calculus of functions of one variable, applications. *May be used to replace 1251.* (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 79. Limited to 35)

Ten wk ★Sec 15 MW—6-8:05, KoltH S140

Ten wk ★Sec 16 TTh—6-8:05, KoltH S140

Math 1221 CALCULUS II. 5 credits, §1321, 1421, \$303.75. (IS)

A continuation of the course described under 1211. *May be used to replace 1252.* (Prereq grade of C or better in 1211. Limited to 35)

Ten wk ★Sec 12 MW—6-8:05, VinH 16

Math 5090 CALCULUS REFRESHER. 5 undergraduate credits, \$365. 5 graduate credits, \$680.

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 S136

Mechanical Engineering

(125 Mechanical Engineering: 625-0705)

Institute of Technology

ME 1025 ENGINEERING GRAPHICS. 4 credits, §EG 1025, \$243. (IS)

Engineering representation in pictorial view and multiview; sketching techniques, size description, standard and simplified practices applied to graphical communi-

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

cation. Analysis of systems of projection; correlation of graphical, numerical, and computer solutions of space problems, intersections and development. Methods of computer-aided graphics. *Textbooks and supplies for this course cost approximately \$100.* (Prereq ¶Math 1211 or equivalent)

Ten wk Sec 3 T—6-9:30, Arch 10

ME 3020 MECHANICAL ENGINEERING COMPUTATION. 4 credits, \$292.

Application of numerical methods and FORTRAN programming to the solution of mechanical engineering problems. Engineering programming style. Methods for solving linear and non-linear engineering equations. Interpolating and displaying engineering data. Simulating mechanical systems. Thermal analysis using finite difference techniques. (Prereq IT student, Math 3321 or equivalent, CSci 3101. Limited to 50)

First 5 wk ★Sec 1 MTh—6-9, Arch 10, T Chase

ME 5254 DESIGN MORPHOLOGY WITH APPLICATIONS. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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

Middle Eastern Studies

See **Area Studies Programs**, page 36, and **Institute of Languages and Literatures**, page 72.

Music

(100 Ferguson Hall: 624-5740)

College of Liberal Arts

Mus 1001 FUNDAMENTALS OF MUSIC. 4 credits, \$243.

Investigation of music notation and fundamental concepts underlying musical structure. Intervals, clefs, chords, scales, cadences, harmonic analysis, rhythm and meter. Emphasis on active participation: playing the piano, singing, clapping rhythms, aural perception. Weekly laboratory assignments in vocal and piano performance. (No prereq)

First 5 wk Sec 13 MTh—6:15-9:25, FergH 225, John Anderson

Second 5 wk Sec 14 MTh—6:15-9:25, FergH 225

Mus 1051 PIANO CLASS FOR NON-MUSIC MAJORS. 2 credits, \$121.50.

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 13 T—6:15-8:15, FergH 259

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Mus 1512 EAR-TRAINING AND SIGHT-SINGING II. 1 degree credit, \$60.75.

Melodic, harmonic, and rhythmic dictation; sight-singing; clef-reading; musician-ship drill. (Prereq 1511, ¶1532)

Ten wk Sec 1 MTh—6:15-7, FergH 149

Mus 1532 THEORY II: HARMONY AND VOICE LEADING. 3 credits, \$182.25 (♦\$91.25).

Writing and analysis of basic diatonic tonal structures. Basic harmonic and contra-puntal relationships. (Prereq 1531, ¶1512)

Ten wk Sec 1 MTh—7:15-8:50, FergH 149

Mus 5150 BODY AWARENESS IN ACTIVITY: THE ALEXANDER TECHNIQUE FOR MUSICIANS. 2 undergraduate credits, \$124. 2 graduate credits, \$272.

Introduction to the Alexander Technique with specific applications to music perfor-mance. Emphasis on body/mind awareness to promote technical ease and free-dom. **May be repeated for credit.** (Prereq music major or #. Qualified students may register for graduate credit at the University of Minnesota. Limited to 12)

First 5 wk ★Sec 4 T—6-9, FergH 105, B Lightner

Mus 5950 VOICE WORKSHOP: FUNCTION, CARE, AND EXPRESSION. 2 undergrad-uate credits, \$124. 2 graduate credits, \$272.

Interdisciplinary collaborative approach utilizing both traditional and scientific methodology in dealing with voice problems; anatomy, physiology, and acoustics of the vocal mechanism; voice health, pathologies, and therapies; application of technique to expressive vocal performance. **Call 624-5270 for information re-garding course content, time, place, and additional fees.** (Prereq written #; ap-plication is required. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Spec Term ★Sec 4 MTWThFSa—June 22-27

Summer Opportunities Through Professional Development and Conference Services

I. Sacred Choral Music Summer Workshops

Two week-long workshops with Philip Brunelle, nationally known conductor. Telephone 625-5813 for information and to register.

Sacred Choral Repertoire (July 6-11): Explores music for chorus and solo voice. Includes guest conductors. 2 graduate credits (Mus 5950)

Building the Sacred Music Library (July 13-17):

Explores the systematic and thorough building of a library of sacred choral music. 1 graduate credit (Mus 5950)

II. New Technologies for Keyboard Instruction: Options For Individual and Group Study (July 23-26):

Applications of electronic technology for music/key-board instruction. Telephone 624-6053 for complete course description, regis-tration materials and instructions, credit and noncredit costs, availability of graduate credit, and other information. 1 credit (Mus 5950).

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Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Natural Resources and Environmental Studies

(436 Borlaug Hall: 625-7747)

Colleges of Agriculture and Natural Resources

The following two courses are offered concurrently. **Students must register for both courses, using separate registration forms for each course.** This is a total of 5 credits.

NRES 5099 PROBLEM SOLVING IN NATURAL RESOURCES AND ENVIRONMENTAL STUDIES I. 2 undergraduate credits, NRES 5100†, \$146. 2 graduate credits, \$163.50.

Helps students identify and analyze natural resource and environmental problems. Students identify a problem and develop a solution, participating as a team. (Prereq sr or #, †NRES 5100. May not be taken for graduate credit. Meets concurrently with 5100. Limited to 20)

Spec Term ★Sec 1 **ThFTW**—8 a.m.-4, July 23, 24, Aug 21, 25, 26, BorH 375, StP Campus, Terence H. Cooper
FM—8 a.m.-12, July 31, Aug 7, 14, 24, BorH 375, StP Campus, Terence H. Cooper

NRES 5100 PROBLEM SOLVING IN NATURAL RESOURCES AND ENVIRONMENTAL STUDIES II. 3 undergraduate credits, NRES 5099†, \$219. 3 graduate credits, \$244.80.

Further development of a solution to the problem identified in 5099. Discussions reflect diverse aspects of the problem and assignments. Oral and written presentations. Students participate as a team. (Prereq 5099, †NRES 5099. May not be taken for graduate credit. Meets concurrently with 5099. Limited to 20)

Spec Term ★Sec 1 **ThFTW**—8 a.m.-4, July 23, 24, Aug 21, 25, 26, BorH 375, StP Campus, Terence H. Cooper
FM—8 a.m.-12, July 31, Aug 7, 14, 24, BorH 375, StP Campus, Terence H. Cooper

(See also REX 0270, Negotiating the Complexities of Natural Resource Management)

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, \$243 plus \$16 special fee. Total \$259. (IS)

Introduction to probabilistic and statistical techniques for decision making, including data analysis, sampling, estimation, and hypothesis testing and regression. Using computer software and computer-stored data in statistical analysis. Introduction to modeling and linear programming. (Prereq MSci 1010 or IDSc 1010, pre-management student, Math 1111; Math 1131 recommended. Limited to 45)

Ten wk ★Sec 6 **W**—5:30-8:50, BlegH 125

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

OMS 3000 (formerly OM 3000) INTRODUCTION TO OPERATIONS MANAGEMENT. 4 credits, \$OM 3000, \$275 plus \$16 special fee. Total \$291.

Concepts and principles related to the management of operations functions, including operations strategy, 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 125, John B. Knauff

Philosophy

(355 Ford Hall: 625-6563)

College of Liberal Arts

Phil 1001 LOGIC. 5 credits, \$303.75. (IS)

Application of formal techniques for evaluating arguments. (No prereq)

First 5 wk Sec 7 **MW**—6:20-8:50, FordH 115, Douglas Lewis

Second 5 wk Sec 8 **TTh**—6:20-8:50, FordH 285, C. Wade Savage

Phil 1002 INTRODUCTION TO PHILOSOPHY. 5 credits, \$303.75. (IS)

Problems, principal methods and schools of philosophy; historical and contemporary views. (No prereq)

Second 5 wk Sec 6 **MW**—6:20-8:50, FordH 285, William Hanson

Phil 1003 INTRODUCTION TO ETHICS. 5 credits, \$303.75.

Problems that arise when human beings attempt to think systematically about conduct and value. (No prereq)

First 5 wk Sec 4 **TTh**—6:20-8:50, FordH 285, Sandra Peterson

Physical Education

(224 Cooke Hall: 625-1007)

College of Education

(See also PSch 0805, Racewalking: An Introduction to Wellness)

PE 3330 DANCE TOPICS: TEACHING AEROBICS. 2 credits, \$146 plus \$7 special fee. Total \$153.

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)

First 5 wk Sec 1 **TTh**—4-5:30, NorrisH 67, Linda Stoen

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Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Plant Biology

(220 Biological Sciences: 625-1234)

College of Biological Sciences

(See also *Natural and Physical Sciences* and...*Etcetera* in The Compleat and Practical Scholar noncredit section)

PBio 1009 MINNESOTA PLANT LIFE. 4 credits, \$243 plus \$20 special fee. Total \$263.

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 24)

Ten wk ★Sec 1 **MW**—6:10-8:55, BioSci 6, StP Campus

PBio 5960 PLANT BIOLOGY WORKSHOP DESIGNED FOR ELEMENTARY TEACHERS. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

A two-week workshop to help teachers learn how plants can be used in their classrooms (a 1991 pilot workshop was well-received by elementary teacher participants). During the workshop, participants learn how to easily obtain and grow plants and integrate them into a variety of classroom activities. Introduction to projects such as Bottle Biology, Wisconsin Fast Plants, and GrowLab. Background information in plant biology and a chance to learn about current research in plant biology from University faculty who have a strong interest in setting up a network between the University and K-12 educators. *Teachers have time to select, adapt, and create curricular material for their own classrooms.* Instructors are Tom Soulen, Associate Professor of Plant Biology; Jane Phillips, Director of Instructional Labs in the College of Biological Sciences; and Sandy Tank of the Minnesota Landscape Arboretum. *A stipend for participation is pending funding. Registration of pairs of teachers from one school is given preference. Call Extension Classes at 625-3898 for further information and registration materials.* (No prereq. Inquire about graduate credit at the time of registration. Limited to 20)

Spec Term ★Sec 1 **June 15-26, 1992** plus three to four additional follow-up meetings to be arranged during the 1992-93 academic year at participants' convenience

Political Science

(1414 Social Sciences: 624-4144)

College of Liberal Arts

Pol 1001 AMERICAN GOVERNMENT AND POLITICS. 5 credits, \$303.75. (IS)

Principles, organization, processes, functions of government, and the interplay of political forces in the United States. Attention throughout to current issues. (No prereq)

First 5 wk Sec 5 **MW**—6-9:15, AndH 230, Greg McAvoy

Pol 1025 WORLD POLITICS. 4 credits, \$243.

Contemporary international relations; forms of state interaction; problems of conflict and cooperation. (No prereq)

First 5 wk Sec 4 **TTh**—6-8:30, BlegH 225, Gary Prevost

Pol 1041 CONTEMPORARY POLITICAL IDEOLOGIES. 4 credits, \$243. (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)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 225, Edwin Fogelman

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Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Pol 3051 INTRODUCTION TO POLITICAL ANALYSIS. 5 credits, \$1051, \$310.

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)

Second 5 wk Sec 2 **MW**—6-9:15, BlegH 155, Mark Mattern

Pol 3306 THE AMERICAN PRESIDENCY. 4 credits, \$248.

The office and individual presidents; organizational characteristics of the Executive Office and individual qualities of decision making; relationships with Congress, the bureaucracy, parties, interest groups, media, and public opinion. (Prereq 1001 or equivalent or #)

Second 5 wk Sec 1 **TTh**—6-8:30, BlegH 135, James Melcher

Pol 3309 JUDICIAL PROCESS. 4 credits, \$248.

Structure of American judiciary; selection of judges; process of litigation; influences on judicial decisions; impact of and compliance with decisions; role of Supreme Court in American political system. (Prereq 1001 or equivalent or #)

First 5 wk Sec 1 **TTh**—6-8:30, BlegH 120, Sandra Johnstone

Pol 3477 (formerly 3773) POLITICAL DEVELOPMENT. 4 credits, \$248.

Political processes and problems associated with economic development process; the political economy of underdevelopment and development; problems of state building and the development of political institutions. (Prereq 1054 or 3051 or #)

Second 5 wk Sec 2 **TTh**—6-8:30, BlegH 205, Raymond Duvall

Pol 3661 DEMOCRATIC THEORY. 4 credits, \$248.

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 #)

First 5 wk Sec 1 **MW**—6-8:30, BlegH 335, Andrew Davison

Pol 3835 THE INTERNATIONAL SYSTEM. 4 credits, \$248.

Structure of international system; balance of power, bipolar and other international systems; theories of stability. Change, conflict, and cooperation. (No prereq)

First 5 wk Sec 2 **MW**—6-8:30, BlegH 205, Mark Laffey

Portuguese

(See page 93)

Psychology

(N218 Elliott Hall: 625-4042)

College of Liberal Arts

(See also *Human Development* courses in The Practical Scholar noncredit section)

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Psy 1001 INTRODUCTION TO PSYCHOLOGY. 5 credits, \$303.75. (IS)

Introduction to study of human behavior. Prerequisite for all advanced courses in psychology. (No prereq)

Ten wk Sec 16 MW—6:20-8:30, AndH 270

Ten wk Sec 17 TTh—6:20-8:30, AndH 270

Psy 1003 APPLICATION OF PSYCHOLOGY TO LIVING. 4 credits, \$243.

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)

Ten wk Sec 4 Th—6-8:30, FolH 138

Psy 1004-1005 INTRODUCTORY LABORATORY PSYCHOLOGY. 4 credits each term, \$243 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, EltH 150-160

First 5 wk 1004 ★Sec 7 MW—6:20-8:50, BuH 123

Second 5 wk 1005 ★Sec 8 TTh—6:20-8:50, EltH 150-160

Second 5 wk 1005 ★Sec 9 MW—6:20-8:50, BuH 123

Psy 3011 INTRODUCTION TO THE PSYCHOLOGY OF LEARNING. 4 credits, \$248.

Basic methods. Fundamental concepts and principles governing the learning process. (Prereq 1005 or #)

CEW

First 5 wk Sec 3 TTh—9-11:30 a.m., MacP, Michael Young

Offered through Continuing Education for Women

Psy 3101 INTRODUCTION TO PERSONALITY. 4 credits, \$5101, \$248. (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, AmundH 240

Psy 3201 INTRODUCTION TO SOCIAL PSYCHOLOGY. 4 credits, \$248.

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 3 T—6-8:30, FordH 130

Psy 3604 INTRODUCTION TO ABNORMAL PSYCHOLOGY. 4 credits, \$5604, \$248. (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, FordH 130

Psy 3801 INTRODUCTION TO STATISTICAL METHODS. 4 credits, \$248.

Quantification in research problems in psychology. Descriptive and inferential statistics, hypothesis testing, nonparametric statistics. Examples from various ar-

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eas of psychology. (Prereq 1001 or equivalent. Limited to 50)

Ten wk ★Sec 9 **M**—6-8:30, EltH N119

Ten wk ★Sec 10 **T**—6-8:30, EltH N119

Ten wk ★Sec 11 **Th**—6-8:30, EltH N119

Psy 5014 PSYCHOLOGY OF HUMAN LEARNING AND MEMORY. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

Processes and principles in human learning and memory. Feedback, instruction and learning, individual differences in learning, a cognitive processes in learning and retention, theories of human memory. (Prereq 1005 or 3011 or 3051 or #, except for students in honors sequence and grad students. Qualified students may register for graduate credit at the University of Minnesota)

Ten wk Sec 1 **Th**—6-8:30, FolH 116, Glenace Edwall

Psy 5141 PSYCHOLOGY OF WOMEN. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

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)

Ten wk Sec 3 **Th**—6:20-8:50, FordH 349, Susan Zeller

Public Health

(A302 Mayo: 624-6669)

(See also REX 0302, Better Health at Lower Cost)

Tenth Annual Summer Occupational Health and Safety Institute

August 24-September 4, 1992

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, Principles in Occupational Epidemiology, Principles of Management in Health Services Organizations, Risk Assessment and Risk Management, Theory and Practice of Occupational Health, Topics in Occupational Medicine, Ventilation Control of Occupational Hazards, and Agricultural Health and Safety. These 14 courses are designated for Category 1 credit of the Physician's Recognition Award of the American Medical Association, are designed to meet the requirements of the Minnesota Board of Nursing for nursing contact hours, and have been awarded Maintenance of Certification Points by the American Board of Industrial Hygiene.

For further information, contact: 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.

★Indicates limited-enrollment section. See page 5.

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Research Explorations

(See page 99)

Rhetoric

(202 Haecker: 624-3445)

College of Agriculture

Rhet 1104 LIBRARY RESEARCH METHOD. 1 credit, \$60.75.

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, \$243.

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 23)

Ten wk ★Sec 3 **Th**—6-8:30, HckrH 111, StP Campus

Rhet 1160 EFFICIENT COLLEGE READING. 3 credits, \$5160, \$182.25 plus \$3 course fee. Total \$185.25. (IS)

Factors for successful college reading; application of psycholinguistic and cognitive reading theories; opportunities for developing expertise in reading comprehension and retention, rapid reading, vocabulary power, and communication skills. Not a basic course. A suggested follow-up for PO 1001, How to Study. (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, \$243.

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**—6-9:30, CentLib 4, StP Campus, Michael Bennett

Second 5 wk ★Sec 6 **MW**—5-8:30, CentLib 4, StP Campus

Rhet 3380 HUMANITIES: THE LITERATURE OF SOCIAL REFLECTION. 2 credits, \$121.50.

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**—6:20-7:40, HckrH 209, StP Campus

Rhet 3562 WRITING IN YOUR PROFESSION. 4 credits, \$292. (IS)

Projects in writing professional reports. Analyses of audience and situation; writing
(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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

Ten wk ★Sec 5 **W**—6-8:30, CentLib 6, StP Campus (Limit 22)

Rhet 5160 COLLEGE READING. 4 undergraduate credits, \$1160, \$292 plus \$3 course fee. Total \$295. 4 graduate credits, \$326.40 plus \$3 course fee. Total \$329.40.

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**—6-9:30, FordH 115, Michael Bennett

Rhet 5572 PROCEDURES AND POLICIES MANUAL. 2 undergraduate credits, \$146. 2 graduate credits, \$163.20.

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 undergraduate credits, \$219. 3 graduate credits, \$244.80.

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, ClaOff B45, StP Campus, Signe Betsinger

Scandinavian Languages and Literature

(200 Folwell Hall: 625-9887)

College of Liberal Arts

Scan 3601 GREAT LITERARY WORKS OF SCANDINAVIA. 4 credits, \$248.

Major literary works from the Middle Ages to the present. (No prereq)

First 5 wk Sec 1 **TTh**—6:20-8:50, FolH 134, Göran Stockenström

Scan 3615 THE FAMILY IN SCANDINAVIAN LITERATURE. 4 credits, \$248.

Representative tests dealing with family socialization from a historical perspective. (No prereq)

Second 5 wk Sec 1 **TTh**—6:20-8:50, FolH 134, Göran Stockenström

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Social Work

(400 Ford Hall: 624-5888)

College of Human Ecology

SW 1001 INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES. 5 credits, \$303.75. (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 170, David Hollister

SW 5010 SEMINAR: SPECIAL TOPICS—FACULTY ROLE: Scholarship, Teaching, and Service. 3 undergraduate credits, \$219. 3 graduate credits, \$408.

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)

First 5 wk ★Sec 10 TTh—4:15-7, FordH 170, Ron Rooney

SW 5601 ETHNO-CULTURAL CONCEPTS IN SOCIAL WORK PRACTICE. 3 graduate credits, \$408; 4 undergraduate credits, \$292.

Relation of ethno-cultural concepts to the development of social welfare policies and services, and social work practice. Critical examination of commonalities of principle and cross-ethnic issues that integrate ethno-cultural dimensions and identification of significant orientations toward welfare issues and practices among the four major ethnic minority groups of color (American Indian, Asian American, black, Hispanic). The contribution of each to effective interpersonal and intra-group relationships with the social service delivery system will be discussed. *The course meets in the Employee Development Classroom (Level A of the Hennepin County Government Center). Enter the building on the north side of 6th Street, under the skyway, take the escalator downstairs to Level A. Parking is available after 4 p.m. in the Hennepin County underground garage for \$2 maximum. For Hennepin County Community Service social workers who are earning 27 graduate credits, this course meets the core requirement for ethno-cultural concepts.* (No prereq. Qualified students may register for graduate credit at the University of Minnesota. Limited to 25)

Ten wk ★Sec 2 T—4:45-7:45, Henn Co Govt Ctr, Oliver Williams

Sociology

(909 Social Sciences: 624-4300)

College of Liberal Arts

Soc 1001 INTRODUCTION TO SOCIOLOGY. 4 credits, \$243. (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 7 TTh—6-8:30, BlegH 235

Second 5 wk Sec 8 TTh—6-8:30, BlegH 235

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Soc 1003 SOCIAL PROBLEMS. 4 credits, \$243.

Sociological analysis of major contemporary problems; theory behind the causes, discussion of methods for studying them, and analysis of potential solutions. Problems may include poverty, racial discrimination, inequality, sex roles, crime, drugs, population problems, and pollution. (No prereq)

First 5 wk Sec 2 **MW**—6-8:30, BlegH 235

Soc 3101 (formerly CJS 3101) INTRODUCTION TO AMERICAN CRIMINAL JUSTICE. 4 credits, \$248. (IS)

Components and dynamics as well as philosophical underpinnings of the criminal justice system. (No prereq)

First 5 wk Sec 2 **MW**—6-8:30, BlegH 225, David Ward

Soc 3102 INTRODUCTION TO CRIMINAL BEHAVIOR AND SOCIAL CONTROL. 4 credits, \$248.

Basic issues in criminology and the sociology of law and social control organizations. (Prereq 3101)

Second 5 wk Sec 2 **MW**—6-8:30, BlegH 240, David Ward

Soc 3201 PRINCIPLES OF SOCIAL PSYCHOLOGY. 5 credits, \$3506, \$310.

Ideas and findings related to social psychology; experience in developing empirically based knowledge in social science. Includes lecture and lab. (Prereq 1001. Limited to 40)

Second 5 wk ★ Sec 2 **MW**—6-9, BlegH 225

Soc 3503 SEX, ROMANCE, AND RELATIONSHIPS. 4 credits, \$248. (IS)

Sociological, historical, and feminist perspectives on gender relationships and personal life; ideas of masculinity and femininity; the social and historical construction of love and romance, intimacy, emotional and personal life, and sexuality. (Prereq 1001)

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

Soc 3954 SOCIOLOGICAL PERSPECTIVES ON RACE, CLASS, AND GENDER. 4 credits, \$248.

Societal-level analysis of race, class, and gender inequality. How the three forms of inequality operate independently and in conjunction with one another in American institutions and society. (No prereq)

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

South Asian and Middle Eastern Studies

See **Area Studies Programs**, page 36, and **Institute of Languages and Literatures**, page 72.

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

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 satisfied by successfully passing an examination given at the end of the course. Graduate students should check with their advisers for specific language requirements in their field of study.

Span 0221 READING SPANISH. No credit, \$243. (IS)

This course is designed solely to impart a basic reading knowledge of the Spanish language; full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals with only one aspect of the language—reading—great skill can be acquired in a short time. At the end of the one quarter the student may take the equivalent of the Spanish Graduate Reading Examination. The department will certify to the Graduate School a reading knowledge of Spanish upon successful completion of this examination. **Must be taken S-N.** (No prereq)

First 5 wk Sec 2 **MW**—6-8:30, FolH 148, Francisco Ocampo

Span 1103 BEGINNING SPANISH. 5 credits, \$303.75. (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 218, Hernán Vidal

Span 1104 INTERMEDIATE SPANISH. 5 credits, \$303.75. (IS)

Speaking and comprehension; development of reading and writing skills based on materials from Spain and Spanish America. Grammar review; compositions and oral presentation. (Prereq 1103 or 1205. Limited to 25)

First 5 wk ★Sec 4 **MW**—6-8:50, FolH 134

Second 5 wk ★Sec 5 **TTh**—6-8:50, FolH 214

Span 1105 INTERMEDIATE SPANISH. 5 credits, \$303.75. (IS)

For description, see 1104. (Prereq 1104 or #. Limited to 25)

First 5 wk ★Sec 4 **TTh**—6-8:50, FolH 240

Span 1106 INTERMEDIATE SPANISH. 5 credits, \$303.75.

For description, see Span 1104. (Prereq 1105 or #. Limited to 25)

Second 5 wk ★Sec 4 **MW**—6-8:50, FolH 240

Span 3005 ORAL COMMUNICATION: SPEAKING AND LISTENING. 4 credits, \$248.

Dialogues, group discussions, simulated situational conversations, interviews, skits, debates based on themes from audio and video tapes, records, speakers from Spain and Spanish America. Emphasis on fluency in speaking and understanding oral expression. (Prereq 1106 or equivalent. Limited to 15)

Second 5 wk ★Sec 2 **TTh**—6-8:50, FolH 246, Roberto Reis

(See also REX 0903, The Pragmatics of Word Order in Spoken Spanish)

Span 3614 DON QUIJOTE: A STUDY OF LOST ILLUSIONS. 4 credits, \$248.

An analysis of Cervantes's *Don Quijote* and an examination of its reception from the early 1600s to modern times. A component of the course is *Don Quijote's* reception in Spanish America. Taught in English. (No prereq. **May not be used for Spanish or Portuguese major credit.** Limited to 50)

First 5 wk ★Sec 2 **TTh**—6-8:30, FolH 50, Nicholas Spadaccini

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Span 3920 TOPICS IN SPANISH-AMERICAN LITERATURE. 4 credits, \$248.

Focuses on a central theme related to important groups of writers, literary movements, trends, critical approaches, and methods. (Prereq 3104 or #. Limited to 25)

Second 5 wk ★ Sec 1 MW—6-8:30, FolH 246, René Jara

Quincentennial Summer Program for Spanish Teachers and King Juan Carlos Fellowships

Summer term (July 1-August 4); graduate-level program designed for U.S. teachers of Spanish. Courses in Spanish society and culture, 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, Department of Spanish and Portuguese, Ortega y Gasset Foundation, and the Sociedad del Quinto Centenario. (9-13.5 credits.) **For information:** The Global Campus, 106 Nicholson Hall; telephone 626-7138

International Program in Toledo, Spain

Summer term (June 15-July 27); integrates Spanish language study, liberal arts courses, and excursions 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, Department of Spanish and Portuguese, and Ortega y Gasset Foundation. (9-14 credits.) **For information:** The Global Campus, 106 Nicholson Hall; telephone 626-7138.

Speech-Communication

(460 Folwell Hall: 624-5800)

College of Liberal Arts

Spch 1101 FUNDAMENTALS OF SPEECH COMMUNICATION: ORAL COMMUNICATION. 4 credits, \$243.

Basic understanding of oral communication processes. Study and application of essential elements in oral communication. Consideration of criticism and response to oral discourse. Opportunities for individual speaking. (No prereq. Limited to 22)

First 5 wk ★Sec 5 MW—6-8:30, FolH 419

First 5 wk ★Sec 6 TTh—6-8:30, FolH 419

Second 5 wk ★Sec 7 MW—6-8:30, FolH 419

Second 5 wk ★Sec 8 TTh—6-8:30, FolH 318

Spch 1313 ANALYSIS OF ORAL ARGUMENT. 4 credits, \$243.

Strategies for analyzing and evaluating arguments received aurally. Problems in listening and responding to argument. (No prereq. Limited to 22)

First 5 wk ★Sec 4 TTh—6-8:30, FolH 426

Spch 3411 SMALL GROUP COMMUNICATION PROCESSES. 4 credits, \$248.

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)

First 5 wk ★Sec 4 MW—6-8:30, FolH 246

Second 5 wk ★Sec 5 TTh—6-8:30, FolH 419

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Spch 3451 INTERCULTURAL COMMUNICATION: THEORY AND PRACTICE. 4 credits, §UC 3701, \$248.

Theories of and factors influencing intercultural communication. Development of effective intercultural communication skills. (Prereq planning an intercultural experience. Limited to 20)

First 5 wk ★Sec 3 MW—6-8:30, FolH 426

★**Spch 3452 COMMUNICATION AND THE INTERCULTURAL REENTRY.** 4 credits, \$248.

Communication processes during return to home culture after intercultural experience. 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, FolH 426

Statistics

(270a Vincent Hall: 625-8046)

College of Liberal Arts

Stat 3091 INTRODUCTION TO PROBABILITY AND STATISTICS. 4 credits, §5121, §5131, \$248.

Elementary probability and probability distributions, sampling and elements of statistical inference. (Prereq differential and integral calculus)

Ten wk Sec 4 T—6:15-8:45, Phys 166

Study Skills

See Learning and Academic Skills, page 76. See also page 107.

Textiles and Clothing

(240 McNeal Hall: 624-9700)

College of Human Ecology

Design, Housing, and Apparel

TexC 1643 APPAREL INDUSTRY. 4 credits, \$243.

Structure, operation, and problems of domestic and foreign apparel industries including ready-to-wear, couture, and auxiliary fashion sector. Interrelationships with the textile industry and distributors. (Prereq Econ 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, \$219.

Principles of flat pattern design; drafting and advance pattern development. (Prereq 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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

TexC 3643 RETAIL MERCHANDISING. 5 credits, \$365.

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

Vocational and Technical Education

(210 Vocational/Technical Building: 624-1221)

College of Education

Vocational and Technical Education

VoEd 5770 TRAINING AND DEVELOPMENT: QUALITY AND PRODUCTIVITY THEORIES AND PRACTICES. 1-4 credits. 4 undergraduate credits this offering, \$292. 4 graduate credits, \$326.40.

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)

Second 5 wk ★Sec 16 **TTh**—5:30-9:30, VoTech R285, StP Campus,
Gary N. McLean

National Youth Leadership Council's Fourth Annual Summer Service-Learning Teacher Institute June 25-30, 1992

SPECIAL TOPICS IN INSTRUCTION: SUMMER SERVICE-LEARNING TEACHER INSTITUTE (VoEd 5100, 3 credits). Experientially based course for educators interested in integrating service-learning into the school curriculum, co-curricular activities, or youth agencies. Course covers rationale, philosophy, and purposes of service-learning in schools and youth-serving agencies; design, development, and implementation of curriculums and programs in which young people serve their communities; and exploration of learner outcomes and evaluation/assessment of projects. Institute leader is University Professor James C. Kielsmeier. *Residency required at Wilder Forest Retreat Center, Stillwater, for five-day course.*

To register, and for course information regarding tuition, fees, space availability, graduate credit, and details of course content, contact the National Youth Leadership Council, 1910 W. Cty Rd B, Roseville, MN 55113; telephone (612) 631-3672.

Women's Studies

(492 Ford Hall: 624-6006)

College of Liberal Arts

(See also CSch 0281 Women in Love: The Women of Harlequin Romances, Gothic Novels, and the Soap Operas; REX 0607, Women in Science, Engineering, and Mathematics Majors)

WoSt 3102 FEMINIST THOUGHT AND THEORY. 4 credits, \$248.

Representative feminist theories and their relations to political action. (No prereq. Limited to 40)

Second 5 wk ★Sec 2 **TTh**—5:30-8, FordH 120, Rose Brewer

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

WoSt 3205 (formerly 3301) WOMAN: A SENSE OF IDENTITY. 4 credits, \$5205, \$248.

Exploration of social and psychological factors which inhibit or enhance a woman's continuously developing sense of identity. Learning who you are, what you want, and how to take appropriate action. Exercises in power, body image, goal setting, and 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—6:15-9:15, CivMinE 212, Dorothy Loeffler
Offered through Continuing Education for Women

WoSt 5200 WOMEN AND COMPETITION. 4 undergraduate credits, \$248. 4 graduate credits, \$544.

An exploration of women's views, perspectives, issues, and concerns regarding competition in a variety of arenas including friendships, relationships, work, and education. (No prereq. Limited to 40. Qualified students may register for graduate credit at the University of Minnesota)

First 5 wk ★Sec 1 TTh—5:30-8, FordH 175, Patricia Faunce

WoSt 5205 WOMAN: A SENSE OF IDENTITY. 4 undergraduate credits, \$3205, \$248. 4 graduate credits, \$544.

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—6:15-9:15, CivMinE 212, Dorothy Loeffler
Offered through Continuing Education for Women

Youth Development and Research

(386 McNeal Hall: 624-3700)

College of Human Ecology (School of Social Work)

YoSt 5201 YOUTH WORK PRACTICE: INTERNSHIP AND SEMINAR. 4 undergraduate credits, \$292. 4 graduate credits, \$544.

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 undergraduate credits, \$292. 4 graduate credits, \$544.

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 5201 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

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Noncredit Courses

Credit courses are listed beginning on page 31.

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; University Access; and...Etcetera*. (There are no *Business and Professional Development* courses offered this summer.)

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 100 for CSch offerings and page 107 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 100.*

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. **For information on Continuing Education for Women**

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

credit and noncredit classes, call CEW at 624-5267. The following credit courses are being offered through CEW this summer:

Math 1111	College Algebra and Analytic Geometry
Psy 3011	Introduction to the Psychology of Learning
WoSt 3205/5205	Woman: A Sense of Identity

See page 100 for CSch offerings and page 107 for PSch offerings.

II. Mind and Muse

Mind and Muse, a cooperative effort from The Compleat Scholar and Split Rock Arts Program, is a special series of weekend retreats in the arts and humanities which combines intellectual exploration with hands-on artistic experimentation. Mind and Muse encourages both nonartists and artists to learn more about their world and themselves while exploring creativity.

See page 112 for Mind and Muse 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 113 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 8. Late registration dates are listed with course descriptions for each noncredit class.

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

noncredit courses

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 25.

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-percent discount on all noncredit classes. Persons who have current memberships with Walker Art Center, the Minneapolis Institute of Arts, the Bell Museum, the Minnesota Zoo, and the Minnesota Landscape Arboretum receive 10-percent discounts in those classes offered cooperatively with these respective organizations (see individual course descriptions for tuition). Only one 10-percent discount may be applied to each registration. Participants pay full course and special fees, if any.

Refunds

The Compleat Scholar/Practical Scholar refund policy follows the Extension Classes policy described on page 28 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 0108 FROM PROTEST TO PROFIT AND BACK AGAIN: THE LEGACY OF THE ART OF THE 1960s. No credit, \$45 (age 62 and WAC members, \$40.50).

new

Many claim that the social activism and political consciousness of the 1960s are making a comeback in the 1990s. After the so-called "Me Decade" of the 1970s and the greed decade of the 1980s, volunteerism is at record levels nationwide and people seem ready for a return to social responsibility. What can be learned by reevaluating the turbulent decade of the 1960s and by tracing the vestiges of its art

(continued next page)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

into the present art scene? We are currently living with the legacy of many art movements that emerged during the 1960s including pop, minimalism, earth art, body art, and public sculpture. Each of these movements reflected various aspects of the social and political activities of their times. Issues raised by that decade's artists continue to inform thinking about the relationship between art and commerce, the appropriation of media images, and the necessity of art to challenge its viewers. Drawing on the rich resources of Walker Art Center—including works in its Sculpture Garden and Print Study Room—as well as a special exhibition of prints by pop artist Claus Oldenburg (many of which are being exhibited for the first time), this course will explore how these tendencies in art have evolved over the past 30 years and, in the process, have changed forever our perception of what constitutes contemporary art. (Offered in cooperation with Walker Art Center. Limited to 70)

Spec Term ★Sec 1 **Th**—6-8, July 23-Aug. 6 (3 meetings),
Walker Art Center, Lecture Room, Vineland Pl.,
Mpls, Ligon
No late fee through July 16

(Margy Ligon, director of education at Walker Art Center, is a frequent lecturer on the art of the 1960s)

CSch 0122 THE PRAIRIE SCHOOL IN OUR MIDST: THE WORK OF PURCELL AND ELMSLIE IN MINNESOTA, 1907-1920. No credit, \$30 (age 62 and MIA members, \$27).

The Prairie School style began with the work of Frank Lloyd Wright in Chicago in the 1890s. It quickly spread throughout the Midwest and numerous admirers of Wright adapted the style to their own work. Minneapolis architects William Purcell and George Elmslie were among the most successful practitioners of the style. The course will include a discussion of what the Prairie School was and place Purcell and Elmslie's residences, banks, and churches within the context of both the Prairie School and American architecture of the early 20th century. Students tour the Purcell-Cutts house near Lake of the Isles in Minneapolis, an outstanding example of the design principles of the Prairie School which guided the work of Purcell and Elmslie. (Offered in cooperation with the Minneapolis Institute of Arts. Both MIA and Compleat Scholar will accept registrations. Limited to a combined total of 30)

Spec Term ★Sec 1 **Th**—6-8, June 18, 25 (2 meetings),
Mpls Institute of Arts, 2400 3rd Ave. S., Lathrop
No late fee through June 11

(Alan K. Lathrop is professor and curator of Northwest Architectural Archives at the University of Minnesota. He is a longtime student of the lives and work of architects who were active in this area. He is especially interested in the work of Purcell and Elmslie, whose records are housed in the Northwest Architectural Archives)

CSch 0160 PHOTOGRAPHY WORKSHOP I. No credit, \$41 (age 62, \$36.90).

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 (**June 13**) 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. (Limited to 16)

Spec Term ★Sec 1 **T**—6:30-8:30, June 9, 30 (2 meetings plus field trip),
Minnesota Valley National Wildlife Refuge,
Classroom B, 3815 E. 80th Street, Bloomington, Faulkner
No late fee through June 2
(continued next page)

★Indicates limited-enrollment section. See page 5.

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noncredit courses

(Hal Faulkner is an advanced graduate student in the Department of Studio Arts at the University of Minnesota. He has been a photographer for 20 years and has been a teaching assistant at the Ansel Adams photography workshops. Faulkner uses almost exclusively the platinum/paladium printing process)

CSch 0161 PHOTOGRAPHY WORKSHOP II. No credit, \$41 (age 62, \$36.90).

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 (**June 27**) 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. Previous photography experience required. (Limited to 16)

Spec Term ★Sec 1 **T**—6:30-8:30, June 9, July 14 (2 meetings plus field trip), Minnesota Valley National Wildlife Refuge, Classroom B, 3815 E. 80th Street, Bloomington, Faulkner
No late fee through June 2

(Hal Faulkner is an advanced graduate student in the Department of Studio Arts at the University of Minnesota. He has been a photographer for 20 years and has been a teaching assistant at the Ansel Adams photography workshops. Faulkner uses almost exclusively the platinum/paladium printing process)

CSch 0167 USING DRAWING IN EVERYDAY LIFE. No credit, \$62 (age 62, \$55.80).

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. (Limited to 20)

Spec Term ★Sec 1 **W**—6:30-8:30, June 10 July 8 (5 meetings), ClaOff B26, STP Campus, Kirkeby
No late fee through June 3

(Kris Kirkeby is a free-lance scientific illustrator. She also teaches natural science drawing to adults and children)

CSch 0174 WATERCOLOR: FLOWER PAINTING WORKSHOP. No credit, \$43 (age 62, \$38.70). *Tuition does not include lunch.*

Draw inspiration from the beautiful gardens of the Minnesota Landscape Arboretum. Includes a demonstration of watercolor techniques, individual attention, and the option of painting indoors or outside. Lunch available in the tea room at the Arboretum. (Limited to 20)

new

Spec Term ★Sec 1 **Th**—9 a.m.-4, July 16 (1 meeting), Minnesota Landscape Arboretum, Classroom 2, 3675 Arboretum Drive, Chanhassen, Netz
No late fee through July 9

(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)

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CSch 0175 WATERCOLOR: LANDSCAPE PAINTING WORKSHOP. No credit, \$43 (age 62, \$38.70). Tuition does not include lunch.

Sketch and paint landscapes in the beautiful Minnesota Landscape Arboretum. Includes watercolor techniques demonstration, individual attention, and the option of painting indoors or outside. Lunch available in the tea room. (Limited to 20)

Spec Term ★Sec 1 **Th**—9 a.m.-4, June 25 (1 meeting),
Minnesota Landscape Arboretum, Classroom 2,
3675 Arboretum Drive, Chanhassen, Netz
No late fee through June 18

(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)

Mind, Self, and Society

CSch 0201 IRELAND'S EVOLUTION FROM COLONY TO EUROPEAN COMMUNITY MEMBER. No credit, \$79 (age 62, \$71.10).

As England's first colony, Ireland simmered with resentment against its larger neighbor until it finally broke free in the early 20th century. However, that freedom was obtained by foregoing control of a small portion of the island, which remains part of the United Kingdom. Instead of enjoying the complete separation most citizens of both countries would prefer, Ireland and Great Britain remain tied together by Northern Ireland. Although both countries have deep economic problems and should be concentrating on the means of integrating into the new European economy, they are constantly distracted by the old wound, kept bloody by violence. Learn the political background of Ireland's unhappy history through lectures and illustrations. Suggested text: R. F. Foster's *Modern Ireland 1600-1972* (available in paperback). (Limited to 30)

Spec Term ★Sec 1 **Th**—10:15 a.m.-12:15, June 18-July 23
(6 meetings), Washburn Library,
5244 Lyndale Ave. S., Mpls, Kulisheck
No late fee through June 11

(Patricia Jo Kulisheck is an advanced graduate student in the University of Minnesota's Department of History, where she has taught Irish history)

CSch 0219 RUSSIAN AND EAST EUROPEAN HISTORY THROUGH LITERATURE. No credit, \$89 (age 62, \$80.10).

Gain knowledge of the major trends in the history of Russia and eastern Europe as reflected in the rich literature of the regions. The course deals primarily with the 19th and 20th centuries. Readings and background lectures are designed to aid in understanding the tumultuous events of the past, present, and future. (Limited to 40)

Spec Term ★Sec 1 **Th**—6:15-8:15, June 18-July 23 (6 meetings),
BlegH 255, Rudolph
No late fee through June 11

(Richard Rudolph is a professor in the Department of History at the University of Minnesota. His specialty is Russian and east European history, a topic on which he has written widely)

CSch 0250 DREAM LIFE. No credit, \$86 (age 62, \$77.40).

Explore dreams as visitations from the mysterious world of unconscious life. Dreams offer us a fascinating opportunity to connect to creativity and healing in
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noncredit courses

ourselves. We will look at various ideas about dreams—their importance, function, and meaning—from different times and cultures, asking how our modern Western attitudes fit in. Explore some of the many ways to interpret dreams and work with dream images. Some dream work will be included each session along with ample time for questions and discussion. (Limited to 25)

Spec Term ★Sec 1 W—9:30-11:30 a.m., June 17-July 22 (6 meetings), MacP, Kittelson
No late fee through June 10

(Mary Lynn Kittelson is a practicing Jungian analyst in the Twin Cities and an instructor for the Minnesota Jung Association and the Twin Cities Analyst Training Program)

CSch 0281 WOMEN IN LOVE: THE WOMEN OF HARLEQUIN ROMANCES, GOTHIC NOVELS, AND THE SOAP OPERAS. No credit, \$48 (age 62, \$43.20).

new

This multimedia course considers "women in love" from a popular culture perspective: Harlequin Romances, Gothic novels, and television and cinematic soap operas. Readings include early Gothic works, pulp romances, lesbian fiction, and multiracial/ethnic narratives. The video component of the course investigates daytime and prime-time soap operas as well as "Hollywood" presentations. (Limited to 25)

Spec Term ★Sec 1 T—6-8, June 23-July 14 (4 meetings), FordH 120, Olano
No late fee through June 16

(Pamela Olano is a doctoral scholar in English and the Center for Advanced Feminist Studies. 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)

Writing

CSch 0301 CREATIVE WRITING I. No credit, \$86 (age 62, \$77.40).

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—10:15 a.m.-12:15, June 23-July 28
(6 meetings), Washburn Library,
5244 Lyndale Ave. S., Mpls, Lewis
No late fee through June 16

(Charles 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)

CSch 0311 READING AND WRITING THE MEMOIR. No credit, \$89 (age 62, \$80.10).

new

Explore the memoir as a genre, taking into account its origins and development, its place in society, and the rich varieties of style and content. Discuss, argue with, evaluate, and confront memoirs written by such authors as Patricia Hampl, Audre Lorde, Black Elk, and Isaac Bashevis Singer. Students will select short passages from assigned texts and use them as inspiration for writing of their own. Participants may choose to model content, structure, a technical device, language, style,

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or voice. Designed to help the student grow as reader, writer, and observer. (Limited to 18)

Spec Term ★Sec 1 **T**—10:15 a.m.-12:15, June 23-July 28 (6 meetings),
St. Anthony Park Library, 2245 Como Ave., StP, Welch
No late fee through June 16

(Susan Welch is an adjunct faculty member in the Creative Writing Program at the University of Minnesota. She has also taught at Stanford University. Her writing has received numerous awards, including a Bush Foundation grant and a Pushcart Prize)

CSch 0323 NONFICTION WRITING FOR PUBLICATION. No credit, \$77 (age 62, \$69.30).

Develop your writing skills and learn how to sell your work in magazine, newspaper, book, and corporate markets. Designed to meet the specific needs of individual students. 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 **W**—6-8, June 17-July 29 (6 meetings—no class July 1),
Washburn Library, 5244 Lyndale Ave. S., Mpls, Vick
No late fee through June 10

(Judith Vick has a master's degree in journalism from the University of Minnesota. She is a published author and editor of newspaper and magazine articles and several books, and a market consultant)

Literature

CSch 0421 TWO NOVELS BY NADINE GORDIMER. No credit, \$65 (age 62, \$58.50).

Nadine Gordimer, winner of the 1991 Nobel Prize for literature, said that "writers provide implicitly a critic of their society...and in a country like South Africa writing is an act." She also said that "art seeks to explain the inexplicable in life." The class will read *The Conservationists*, one of Gordimer's earlier novels, and *My Son's Story*, one of her recent works. Participants will study her language and style as well as her observations of the complex interrelationships that characterize life in South Africa. (Offered in cooperation with the Woman's Club of Minneapolis. Limited to 50)

Spec Term ★Sec 1 **Th**—9:30-11:30 a.m., July 23-Aug. 20
(5 meetings), Woman's Club of Mpls,
410 Oak Grove, Kheim
No late fee through July 16

(Johanna Kheim has taught French and humanities at the University of Minnesota. Her doctoral studies at the University were in comparative literature, with a focus on the 19th- and 20th-century novel)

CSch 0449 THE MYSTERY IN THE MYSTERY: DETECTIVES ON SPIRITUAL JOURNEYS. No credit, \$63 (age 62, \$56.70).

Mystery writer P.D. James asserts that murder mysteries can be successful only in a culture that understands itself as being moral, and that the mystery writer has a particular responsibility to examine and reflect good and evil. Read and discuss James's *A Taste for Death* and Tony Hillerman's *Talking God*. Explore the role of the spiritual journey of Adam Darglish and Joe Lemphorn as they work to solve a

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noncredit courses

case as well as bring harmony to their private lives. Discuss questions such as what is the difference for these detectives between the evil of murder and the evil that destroys the human spirit? What effect does the confrontation of evil as detectives have on their inner struggle for personal justice? Answer these questions and grapple with James's idea that the role of the murder mystery is to mirror cultural morality. (Limited to 25)

Spec Term ★Sec 2 **W**—6-8, June 24-July 22 (5 meetings),
AmundH 116, Wilson
No late fee through June 17

(Paula Wilson is an avid mystery reader and a doctoral candidate in American studies at the University of Minnesota. Her research focuses on cultural images of women in religion)

CSch 0450 WILLIAM FAULKNER'S DETECTIVE FICTION. No credit, \$58 (age 62, \$52.20).

In his lifetime, William Faulkner wrote two books of pure detective fiction—*Knight's Gambit*, a collection of short stories, and *Intruder in the Dust*, a novel. He also wrote at least one "unofficial" detective novel, *Absalom! Absalom!*, a work that is not exactly a detective story but employs many of the elements of this popular genre. In addition, he helped write the screenplay for the famous detective film, *The Big Sleep*, directed by his friend Howard Hawks and starring Humphrey Bogart and Lauren Bacall. This class will explore informally Faulkner's work in detective and mystery fiction and film.

new

Spec Term Sec 1 **W**—6-8, June 17-July 8 (4 meetings),
Walker Library, 2880 Hennepin Ave. S., Mpls, Geffen
No late fee through June 10

(Arthur Geffen is an associate professor of English and American studies at the University of Minnesota. He has written on a number of American authors, notably Walt Whitman and William Faulkner, and he is currently writing a book on Faulkner's short fiction)

Natural and Physical Sciences

CSch 0506 SUMMER WILDFLOWERS, FERNS, AND SHRUBS OF MINNESOTA. No credit, \$104 (age 62 and Bell Museum members, \$93.60).

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 in-depth use of field guides to acquaint participants with the plants seen on three Saturday field trips: **June 20** (half day), **June 27** (full day), and **Aug. 1** (half day); locations of field trips dependent on where plants are in bloom (**participants provide own transportation; carpooling encouraged**). (Offered in cooperation with the Bell Museum of Natural History. Limited to 25)

BELL
MUSEUM
COURSE



Spec Term ★Sec 1 **Th**—6:30-8:30, June 18-July 16 (5 meetings plus 3 field trips), BioSci 182, StP Campus, Burrell
No late fee through June 17

(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)

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CSch 0552 ANCIENT STORIES: FOSSILS OF SOUTHEASTERN MINNESOTA. No credit, \$64 (age 62, \$57.60).

The remains of plants and animals preserved in rock layers tell a story about the evolution of life. What organisms lived in the seas of prehistoric Minnesota? Observe fossils from ancient seabeds in the exposed sedimentary rock in southeastern Minnesota. Includes an overview of the fossil record, modes of fossilization, and principles of evolution and stratigraphy. Lectures plus an all-day Saturday field trip to southeastern Minnesota for fossil collecting (**June 27**). (Participants provide own transportation; carpooling encouraged) (Limited to 20)

Spec Term ★Sec 1 **M**—6:30-8:30, June 22, 29 (2 meetings plus field trip), PillsH 121, Sloan
No late fee through June 15

(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)

The Practical Scholar course offerings**University Access****PSch 0604 HOW TO PREPARE FOR THE PRE-PROFESSIONAL SKILLS TEST (PPST).** No credit, \$43 (age 62, \$38.70).

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. Students should purchase the PPST guide available at the Minnesota Book Center in Williamson Hall prior to the first class. (Limited to 40. Limit is absolute—no instructor permission)

Spec Term ★Sec 3 **T**—6-8, June 30-July 14 (3 meetings), AmundH 120
No late fee through June 23

(Instructor, to be assigned, will be a staff member in the Learning and Academic Skills Center at the University of Minnesota)

PSch 0620 GRAMMAR REFRESHER. No credit, \$68 plus \$2 special fee. Total \$70 (age 62, \$61.20 plus \$2 special fee. Total \$63.20).

Has it been too many years since you studied subjects, verbs, and all those other forgotten terms? Do you labor over sentences and agonize over paragraphs? Designed for people who had a strong background in grammar (however many years ago), but who would now like to review basic skills. It is intended for those considering returning to the classroom, those already in school and having problems with writing, and those who would like a refresher for personal correspondence. Review grammar, punctuation, sentence structure, and common problem areas. Format includes lecture, exercises, and student participation. Students should plan to spend a few hours each week completing homework assignments. (Limited to 20)

Spec Term ★Sec 3 **W**—9-11 a.m., June 24-July 22 (5 meetings), MacP, DeNoble
No late fee through June 17

(Jan DeNoble is a graduate student in English and a teaching assistant in the General College at the University of Minnesota)

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noncredit courses

PSch 0662 ELEMENTARY ALGEBRA. No credit, \$154 (age 62, \$138.60).

Instruction in elementary algebra including signed numbers, solving equations, graphing, factoring, rational expressions, roots, and radicals. Option of taking self-graded quizzes to monitor progress during class. Prepares students for Intermediate Algebra (PSch 0663) or GC 0625. (Limited to 30)

Spec Term ★Sec 2 **M**—6-7:45, June 15-Aug. 24 (11 meetings),
AmundH 120, Robertson
No late fee through June 8

(Douglas Robertson is an associate professor in the General College at the University of Minnesota. He has worked in the Math Preparation Program since 1977. He was one of the recipients of the 1989-90 Morse-Alumni Award for Outstanding Contributions to Undergraduate Education as well as the 1990 CEE Distinguished Teaching Award. His research interests are in developmental mathematics education)

Human Development

PSch 0802 ENHANCING SELF-ESTEEM. No credit, \$55 (age 62, \$49.50).

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. Examine the tools for building and maintaining a positive self-image. This course is designed as an educational experience, not a therapy group. (Limited to 20)

Spec Term ★Sec 3 **Th**—6-8, June 11-July 2 (4 meetings), NCCE 229, Flower
No late fee through June 4

(Jill Flower is a licensed psychologist who received her doctoral degree from the University of Minnesota. In addition to teaching, she maintains a private therapy practice)

PSch 0805 RACEWALKING: AN INTRODUCTION TO WELLNESS. No credit, \$37 (age 62, \$33.30).

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 9-30 (3 meetings—no class June 23),
BFAB 285, Howell
No late fee through June 2

(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 0813 BUILDING A LEISURE IDENTITY: PERSONAL GROWTH THROUGH PLAY. No credit, \$22 (age 62, \$19.80).

Building a "career identity" is given a high priority by today's society. Developing a "leisure identity" is often ignored or given only minimal attention and energy. The

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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**—6-9, June 18 (1 meeting), FolH 104, Krantz
No late fee through June 11

(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 0827 JOB SEARCH STRATEGIES. No credit, \$47 (age 62, \$42.30).

Designed for people who currently are job hunting and for those planning to do so. Topics include choosing an approach, performing self-assessments, targeting possible employers, writing résumés and cover letters, and interviewing. Participants have the opportunity to share ideas and support with other job seekers. (Limited to 20)

Spec Term ★Sec 2 **W**—6-8, July 1-22 (4 meetings), NCCE 229, Huck
No late fee through June 24

(Christina Huck is a career counselor who has worked with University students and other adults, and has taught career planning classes and job search workshops. Her doctoral dissertation focuses on mid-life career change)

PSch 0829 CAREER DECISIONS: STRATEGIES FOR CHANGE. No credit, \$91 plus \$10 special fee. Total \$101 (age 62, \$81.90 plus \$10 special fee. Total \$91.90).

Take the first step toward assessing your job, your goals, and your self 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 4 **W**—6-8, June 17-July 22 (4 meetings),
 NCCE library
No late fee through June 10

Spec Term ★Sec 5 **Th**—6-8, July 2-Aug. 6 (6 meetings), NCCE 140, Huck
No late fee through June 25

(Christina Huck is a career counselor who has worked with University students and other adults, and has taught career planning classes and job search workshops. Her doctoral dissertation focuses on mid-life career change)

... Etcetera

PSch 0906 INVESTMENTS AND PERSONAL FINANCIAL PLANNING. No credit, \$58 (age 62, \$52.20).

Cover fundamental issues of sound financial management planning. Intended for both the novice and experienced investor, this series emphasizes concepts to help you better manage and control your financial future. *First session: Basic Financial Management Process.* Taking your financial inventory, personal budgeting and planning, determining goals and objectives for investment, retirement, future expenditures, and cash control procedures. Reviewing basic needs for savings, in-

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noncredit courses

urance, 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 16-30 (3 meetings),
Washburn Library, 5244 Lyndale Ave. S., Mpls,
Whittlinger
No late fee through June 9

(Erica Whittlinger, M.B.A., is president of Whittlinger Capital Management Inc., an investment advisory firm)

PSch 0957 ANALYSIS OF FLOWER GARDEN DESIGN. No credit, \$43 (age 62 and Arboretum members, \$38.70).

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 experience required. Bring sketch paper and colored pencils. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 25)

Spec Term ★Sec 1 **Th**—6-9, July 23, 30 (2 meetings),
Minnesota Landscape Arboretum, Classroom 1,
3675 Arboretum Drive, Chanhassen, Hanckek
No late fee through July 16

(Anne Hanckek 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 0959 THE EXOTIC WORLD OF THE JAPANESE GARDEN. No credit, \$37 (age 62 and Arboretum members, \$33.30).

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. After the second session, there is the option of ending the class at a Japanese restaurant for lunch. The cost for lunch is not included in course tuition. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 25)

Spec Term ★Sec 1 **T**—9 a.m.-12, June 23, 30 (2 meetings),
Minnesota Landscape Arboretum, Classroom 2,
3675 Arboretum Drive, Chanhassen, Kooyman
No late fee through June 16

(Shirley Mah Kooyman, director of volunteers at the Minnesota Landscape Arboretum, is a botanist and master gardener)

PSch 0960 THE ART OF CHINESE GARDENS. No credit, \$13 (age 62 and Arboretum members, \$11.70).

new The creation of a Chinese garden is a process of abstraction and stylization based on reality. It is a blend of nature and art closely related to traditional Chinese painting. **(continued next page)**

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

ing. The long history of Chinese gardens has influenced the design of Japanese gardens. Explore the history, philosophy, design methods, and materials used in Chinese gardens, and examine the affinities and contrasts between Chinese and Japanese gardens. (Offered in cooperation with the Minnesota Landscape Arboretum. Limited to 30)

Spec Term ★Sec 1 T—10 a.m.-12, July 21 (1 meeting),
Minnesota Landscape Arboretum, Classroom 2,
3675 Arboretum Drive, Chanhassen, Kooyman
No late fee through June 14

(Shirley Mah Kooyman, director of volunteers at the Minnesota Landscape Arboretum, is a botanist and master gardener)

PSch 0963 HERBACEOUS PERENNIAL PLANTS: IDENTIFICATION AND USE IN THE GARDEN. No credit, \$96 (age 62, \$86.40).

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)

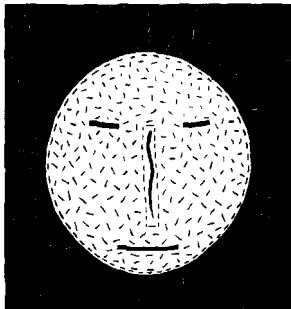
Spec Term ★Sec 1 T—6-8:30, June 16, 23, 30, July 7, August 4, 18
(6 meetings—first session will meet in NCCE 229), Burrell
No late fee through June 9

(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)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

MIND AND MUSE



Mind and Muse

Mind and Muse, a cooperative effort from The Compleat Scholar and Split Rock Arts Program, is a special series of weekend retreats in the arts and humanities which combines intellectual exploration with hands-on artistic experimentation. Mind and Muse encourages both nonartists and artists to learn more about their world and themselves while exploring creativity.

To receive your Mind and Muse brochure with complete information about dates, locations, faculty, costs, and registration for weekends scheduled for 1992-93, call 624-8880.

Registration

Registrations are accepted on a first-come, first served basis. Register in person or by mail in 306 Wesbrook Hall, 77 Pleasant Street S.E., Minneapolis, MN 55455; or call 624-6800 for more information.

You may use your Visa or MasterCard to pay for Mind and Muse retreats. To register by phone using your credit card, call 624-6800.

THE WORD, THE EYE, THE HAND: NATIVE AMERICAN ARTS OF MINNESOTA. June 5-7.

A late spring retreat on Lake Mille Lacs to explore and experience the arts, culture, and history of the Ojibway people of Minnesota. Group leader Ron Libertus will lecture on the social, political, and ethnolinguistic history of the Ojibway, and a local expert will offer a history of the Mississippi band of Ojibway, the kin group that was resettled at the western edge of Lake Mille Lacs. Participants will get a guided tour of the Mille Lacs Indian Museum, which features an excellent collection of historical artifacts, clothing, and ceremonial objects, and live interpretive programs. There will be a special focus on Ojibway art, known for its vitality and creativity, in which the group will learn about the historical development of Woodland Indian art and how inter-tribal and European influences shaped their designs, techniques, and materials. Participants will try their hands at traditional art forms such as beadworking and birch bark basketry under the guidance of master artists from the Mille Lacs area. Additional retreat activities will be determined by the group's Ojibway hosts, and possibilities include sampling traditional Ojibway foods, a chance to observe traditional music and dance, time outdoors near the water and in the woods, and more. Participants will stay in shoreline townhomes at Izatys Golf and Yacht Club, located on Lake Mille Lacs near Onamia, just a short drive from the Mille Lacs Indian Museum and the Mille Lacs Indian Reservation. Each townhome has two or three bedrooms, two and a half bathrooms, kitchen, living room with fireplace, and walkout patio. (Limited to 48)

★Indicates limited-enrollment section. See page 5.

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Registration is now open; deadline for registration is May 15.

★Spec Term, Sec 1, no credit, \$365 price includes two nights' lodging (shared bedroom in a shared townhome); six meals; use of pool, spa, sauna, and recreational facilities; all gratuities and taxes; and all course materials and art supplies. (A limited number of single bedrooms are available; call 624-6800 for extra cost and availability)

(Ron Libertus [Leech Lake Ojibway] is a professor of American Indian art history at the University of Minnesota and at Rollins College in Winter Park, Florida. He pioneered courses in American Indian art history and served as curator of American Indian art at both the Minneapolis Institute of Arts and the Chicago Art Institute)



RESEARCH EXPLORATIONS

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 1992 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 in Germany and in Greece.

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.

★Indicates limited-enrollment section. See page 5.

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noncredit courses

The Contribution

REX volunteers contribute their share of the cost of participating in the project and are responsible for travel expenses. **Because REX participants are contributing money and time to research sponsored by the University of Minnesota, a tax-exempt organization, the amount of your contribution may qualify as a tax-deductible contribution.**

The contribution covers such costs as field and laboratory expenses, compilation of research findings, and program planning, implementation, and administration. Projects have different arrangements regarding accommodations, meals, ground transportation, and clothing and equipment needs, so cost coverage varies.

Volunteer contributions do not cover airfare, costs to and from the assembly site, visas, passports, inoculations, medical or other emergencies, or other personal expenses.

Cancellation and Refunds

Payment of the required initial \$150 deposit is nonrefundable unless the University REX program cancels the research project or the applicant is not accepted as a project participant. The balance 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 most 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:* summer 1992; to be arranged. *Contribution:* \$150.

Vegetable growing is gaining importance in Minnesota, and soil fertility research to expand production of crops such as potatoes, field corn, and soybeans is the core of this project. REX volunteers will participate in field work, including the collection of soil and tissue samples for nitrogen analysis, prepare samples in the lab, and

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Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

conduct analysis; water samples will also be collected for nitrate analysis. If working at the appropriate time, REX volunteers will also be involved in planting and harvesting plots. Some day trips may be expected. Required participant qualification: willingness to work outside in most weather conditions. Project leader is Carl Rosen, associate professor, Department of Soil Science. Location: primarily St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0112 ON-FARM MANAGEMENT. *Dates:* Apr. to June and Oct. to Dec. 1992. *Contribution:* \$150.

On-farm research experiences will concentrate on farm management of calving and breeding 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 Department of Animal Science are conducting experiments on pre-calving and post-calving management, developing identification record systems, and conducting humane animal practices for economic beef production. REX 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, artificial insemination, estrus observation, and other tasks. Project leader is Charles Christians, professor, Department of Animal Science. Location: Beef Barn, St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0119 NEUROBIOLOGY OF PAIN AND OPIATES. *Dates:* to be arranged. *Contribution:* \$150.

In order to develop new approaches to developing analgesic agents without addictive properties, this research project employs a variety of techniques to determine the chemistry, anatomy, and pharmacology of pain transmission. REX volunteers will work both with a team member and independently as they monitor the analgesic activity of various compounds in laboratory animals. General knowledge of biology and/or biochemistry and a desire to work with lab animals that are clean and friendly required. Project leader is Alice A. Larson, professor, Department of Veterinary Pathobiology. Location: Animal Science/Veterinary Medicine Building 217, St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0121 IMPACT OF AGRICULTURAL CHEMICALS ON GROUNDWATER. *Dates:* to be arranged; daily work for two to three weeks. *Contribution:* \$150.

Developed in conjunction with the President's Initiative on Water Quality, this ongoing project is part of a large national program. Working with the project's leader and associate scientist, REX volunteers will take water and soil samples from one or more of the project's four major sites (one in Westport in Pope County; one near Princeton in Sherburne County; one just east of Rochester; and a fourth in Waseca). They will then assist in the analysis of collected samples. Analysis based on this research has already affected public policy on agriculture and the environment. Volunteers will also participate in other group activities, including discussion of pertinent environmental issues. Project leader is J. L. Anderson, professor, Department of Soil Science. Location: Pesticide Analytical Lab, St. Paul campus, and various field locations. **Call 625-9001 for registration information and an application form.**

REX 0123 THE INFLUENCE OF NEUROTENSIN ON GASTRIC FUNCTION. *Dates:* to be arranged. *Contribution:* \$150.

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noncredit courses

Using standard surgical procedures, a gastric cannula and a strain gauge transducer will be implanted in domestic turkeys. After the turkeys recover, neurotensin is infused, gastric secretions collected, and gastric motility monitored to determine the effects of neurotensin on gastric function. REX volunteers will assist in surgery, care for turkeys, and perform experiments. As a result of participating in the project, volunteers will gain an understanding of experimental design, surgical procedures, gastric physiology, and neurotensin functions. Required participant qualifications: organizational ability, dexterity, willingness to work. Project leader is Gary Duke, professor, Department of Veterinary Pathobiology. Location: Animal Science/Veterinary Medicine Building, St. Paul campus. Call 625-9001 for registration information and an application form.

REX 0129 ISOLATION AND PURIFICATION OF CHICKEN ANTIBODIES. *Dates:* to be arranged. *Contribution:* \$150.

Working with the project leader and other researchers, REX volunteers in this project will assist in isolating tubulin antibodies from chicken eggs and partially purifying them so that they can be used in studies of how plants use different forms of tubulin during development. The goal is to get the chicken antibodies into a form that is useful for microscopy and biochemical assays. Volunteers will precipitate and affinity-purify antibody proteins from egg yolks using routine procedures established in the lab. Knowledge of elementary chemistry required. Project leader is Sue Wick, associate professor, Department of Plant Biology. Location: St. Paul campus. 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. Some laboratory and microscopy experience would be helpful skills for a research volunteer. Limited to two volunteers. Project leader is Edward Stadelmann, professor, Departments of Horticultural Science and Landscape Architecture. Location: Alderman Hall 228, St. Paul campus. Call 625-9001 for registration information and an application form.

REX 0142 EVALUATING GRAPES FOR GROWING IN MINNESOTA. *Dates:* to be arranged. *Contribution:* \$150.

Working with members of the research team, REX volunteers will participate in this project to learn about the feasibility and difficulties of growing grapes in a cold climate. Activities include planting, pruning, and training grapevines; harvesting fruit, winemaking, collecting data on vine performance for disease resistance and fruit quality; and assisting with hybridization. The project includes both grape breeding and viticulture trials pertinent to developing grapes as a crop for cold climates. Required participant qualification: willingness to work outdoors under most conditions. Project leader is James Luby, associate professor, Department of Horticultural Science. Location: Horticultural Research Center, Excelsior, Minn. Call 625-9001 for registration information and an application form.

REX 0143 THE PIGEON PEA IN MINNESOTA: INVESTIGATION OF THE CULTURE AND POTENTIAL CULINARY USE OF A TROPICAL LEGUME. *Dates:* to be arranged. *Contribution:* \$150.

Many plants grown in the temperate zone have a tropical/subtropical origin. Recently developed early maturing types of pigeon pea make its culture in Minnesota possible. Vernalization, hybridization, cultural, disease, and product use studies

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are just beginning. REX volunteers will develop experiments, try preparation methods, and assist in conducting experiments already under way. Required participant qualifications: imagination, knowledge of biology or plant biology, skill in technical and popular writing, ability to drive car. Project leader is David W. Davis, professor, Department of Horticultural Science. Location: St. Paul campus and Sand Plain Experimental Farm, Becker, Minn. **Call 625-9001 for registration information and an application form.**

REX 0144 BREEDING AND PRODUCING FRUIT CROPS IN MINNESOTA. *Dates:* to be arranged. *Contribution:* \$150.

The work carried on in this project seeks to improve fruit production in Minnesota by developing varieties suited to the climatic conditions of this northern zone. Activities vary with the season. REX volunteers might assist in pruning and harvesting cultivar trials, maintaining experimental plots, and observing variation for fruit quality and disease and pest resistance in fruit species grown in Minnesota. Volunteers will learn the feasibility of growing fruit crops in Minnesota and the potential variations of fruit species. Required participant qualifications: willingness to work outside during most weather conditions; interest in plant biology. Project leaders are Emily Hoover, associate professor, and James Luby, associate professor, Department of Horticultural Science. Location: Horticultural Research Center, Excelsior, Minn. **Call 625-9001 for registration information and an application form.**

REX 0145 MOLECULAR EVOLUTION OF PLANT PATHOGENIC FUNGI. *Dates:* to be arranged. *Contribution:* \$150.

This project questions generic and species concepts of non-obligate plant pathogenic fungi, namely *Cercospora* and allied genera. Research involves isolation of nuclear DNA, the polymerase chain reaction to amplify specific regions, and partial sequence analysis of a coding and non-coding region to infer phylogenetic relationships. The REX volunteer would isolate DNA, perform the polymerase chain reaction, and sequence selected regions of rDNA. Volunteer will also analyze data using computer programs. Required participant qualifications: math skills through algebra and a desire to do careful and excellent science. Project leader is Elwin Stewart, professor, Department of Plant Pathology. Location: Christensen Laboratory, St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0147 REDUCING THE NEED FOR PESTICIDES: DEVELOPMENT OF INSECT AND DISEASE RESISTANT VEGETABLES. *Dates:* to be arranged. *Contribution:* \$150.

European corn borer, fungal leaf rust, and maize dwarf mosaic virus are serious pest problems on sweet corn. One focus of this project is to investigate resistance and other traits of populations and families genetically segregating for resistance to these pests. In other experiments green peas varying in resistance to a soil-borne fungal pathogen will be evaluated and selected via plant breeding experiments in the field and laboratory. REX volunteers will have an opportunity to assist in inoculum preparation, plant inoculation and infestation, selection of resistant plants, plant hybridization, and data collection. Required participant qualifications: knowledge of biology or plant biology; ability to drive a car; reliability. Project leader is David W. Davis, professor, Department of Horticultural Science. Location: St. Paul campus with possible trip(s) to the Southern Experiment Station, Waseca; the Sand Plain Experimental Farm, Becker, Minn.; and/or the Horticultural Research Center, Chanhassen. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

noncredit courses

REX 0150 INSECT POLLINATION IN PRAIRIES. *Dates:* summer 1992; five days a week; weeks to be arranged. *Contribution:* \$150.

Compare insect populations in two types of prairies—virgin prairies and planted restored 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 preserve in Twin Cities area. **Call 625-9001 for registration information and an application form.**

REX0151 EFFECT OF LAKE SUPERIOR ON SPRUCE BUDWORM MOTH DEVELOPMENT. *Dates:* to be arranged; summer 1992. *Contribution:* \$150.

Laboratory study suggests that spruce budworm moths developing near Lake Superior should be larger than those developing inland. Body size is important because it predicts reproductive potential and other performance traits in insects. REX volunteers will be able to participate in most activities required to design and conduct this study: *planning, collecting, rearing, measuring, and analyzing data.* Schedule includes one week of orientation followed by about 10 days in the field, and concludes with one to two full-time weeks at the St. Paul campus. Schedule is flexible except for field work, which is timed to insect development. Special skills are not required; necessary skills will be taught during orientation. Project leader is William E. Miller, professor, Department of Entomology. Location: Hovland, Minn., and St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0209 KELHEIM: ORIGINS OF AN IRON AGE CITY. *Dates:* pre-trip seminar on June 17, 1992; museum field research from July 21 to Aug. 1. *Contribution:* to be determined.

University of Minnesota teams under the direction of Peter Wells have, since 1987, recovered large quantities of archaeological material from the Late Iron Age (200-50 B.C.) urban settlement at Kelheim in Bavaria, Germany. This summer Wells and his team will analyze the sherds of pottery, animal bones, iron implements, bronze and glass ornaments, and Celtic coins found thus far in an effort to understand the character of the community and the lives of the people who lived there 2,000 years ago. Working in the Kelheim Museum, REX volunteers will catalog, label, sort, and classify artifacts; interspersed with this work will be discussions about the nature of archaeological research and the use of prehistoric archaeology as a way of teaching about human cultural development and as background to history. Field trips to other excavation sites and museums will also be included. Required qualifications: curiosity, good observation skills, capacity to handle details. Project leader is Peter S. Wells, professor and director, Center for Ancient Studies. Location: pre-trip seminar, Minneapolis campus; museum field research, Kelheim, Bavaria, Germany. **Call 625-9001 for registration information and an application form.**

REX 0211 ARCHAEOLOGICAL RESEARCH IN THE WESTERN PELOPONNESUS: MESSENE. *Dates:* approximately June 18-July 7, 1992; finalized dates will be available before volunteers selected for the project are asked to make a commitment. *Contribution:* to be determined. (The Departments of Classical and Near Eastern Studies and Art History sponsor several major archaeological enterprises in the Western Peloponnesus. This is one of three projects available to volunteers. See also REX 0212 and REX 0213)

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Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

Founded in 369 B.C. as the capital city of the Messenians, the fortifications and public monuments of Messene are among the finest in the ancient world. The virtually complete remains of a Hellenistic mausoleum, including architectural members and marble sculpture, were discovered recently by the director of Greek Excavations at the site. A University of Minnesota team will work in collaboration with Greek Excavations to record and eventually reconstruct the building. The 1992 season will involve the creation of photographs and detailed drawings of all architectural elements as the blocks are moved. Required participant qualifications: aptitude, not necessarily competency, in drawing; willingness and capacity for hard work, long hours (i.e., more than eight per day), and tent living. Participants will share tents. Volunteers accepted into this project must enroll in Field Research in Archaeology (Clas 5120), which will meet approximately six hours on Saturdays beginning in April and teach skills and information needed for the summer's work. Project leaders are Fred Cooper, professor, Department of Classical and Near Eastern Studies; and Joseph Alchermes, assistant professor, Department of Classical and Near Eastern Studies. Location: Greece. **Call 625-9001 for registration information and an application form.**

REX 0212 ARCHAEOLOGICAL RESEARCH IN THE WESTERN PELOPONNESUS: PYLOS. *Dates:* July 7-Aug. 3, 1992. *Contribution:* to be determined. (The Departments of Classical and Near Eastern Studies and Art History sponsor several major archaeological enterprises in the Western Peloponnese. This is one of three projects available to volunteers. See also REX 0211 and REX 0213)

Among the best preserved of Bronze Age complexes in Greece, the palace at Pylos has yielded decorated walls and floors, Linear B tablets, sealings, pottery, and other artifacts. Twenty years after the close of original excavations, a University of Minnesota team resumed active field work in 1990. A 10-year program of research will include creation of a state plan of the extant architecture, topographical survey of the surrounding region, and eventual further excavation at the site. The 1992 season will involve uncovering previously excavated architecture and making detailed drawings of the remains, as well as continued work on a regional topographical survey. Required participant qualifications: aptitude, not necessarily competency, in drawing; willingness and capacity for hard work, long hours (i.e., more than eight per day), and tent living. Participants will share tents. Volunteers accepted into this project must enroll in Field Research in Archaeology (Clas 5120), which will meet approximately six hours on Saturdays beginning in April and teach skills and information needed for the summer's work. Project leaders are Fred Cooper, professor, Department of Classical and Near Eastern Studies; and Joseph Alchermes, assistant professor, Department of Classical and Near Eastern Studies. Location: Greece. **Call 625-9001 for registration information and an application form.**

REX 0213 ARCHAEOLOGICAL RESEARCH IN THE WESTERN PELOPONNESUS: MOREA. *Dates:* Aug. 5-26, 1992. *Contribution:* to be determined. (The Departments of Classical and Near Eastern Studies and Art History sponsor several major archaeological enterprises in the Western Peloponnese. This is one of three projects available to volunteers. See also REX 0211 and REX 0212)

A multi-year survey of vernacular village architecture by a University of Minnesota team began in 1991 in an attempt to record regional premodern architecture before its destruction by concrete, bulldozer, and neglect. The goal is to create a corpus of surviving architecture from late medieval times to the 20th century. The 1992 season will involve electronic and traditional methods of recording and mapping villages and medieval sites, and the gathering of research materials for further

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noncredit courses

studies in vernacular architecture, disappearing village customs, and crafts. Required participant qualifications: aptitude, not necessarily competency, in drawing; willingness and capacity for hard work, long hours (i.e., more than eight per day), and tent living. Although participants will live in a house near Kyparissia on the west coast of Greece, tent camping in remote areas will be required periodically. All accommodations are shared. Volunteers accepted into this project must enroll in Field Research in Archaeology (Clas 5120), which will meet approximately six hours on Saturdays beginning in April and teach skills and information needed for the summer's work. Project leaders are Fred Cooper, professor, Department of Classical and Near Eastern Studies; and Joseph Alcherms, assistant professor, Department of Classical and Near Eastern Studies. Location: Greece. **Call 625-9001 for registration information and an application form.**

REX 0225 ARCHAEOLOGICAL APPLICATIONS OF SPACE-AGE TECHNOLOGY.

Dates: minimum commitment of three months; flexible schedule arranged.
Contribution: \$150.

The Departments of Classical and Near Eastern Studies and Art History currently sponsor four major archaeological projects in Greece. Preparation for field activities and the analysis of acquired data are carried out on the University of Minnesota campus. REX volunteers will assist this project through data base entry, computer processing, and analysis of archaeological and satellite data. The researchers use work stations running Computer Aided Design (CAD) and Geographic Information Systems (GIS) software to process different forms of data, including LANDSAT scenes of their sites, Global Positioning Systems (GPS) waypoints and geodetic information. After a training stage, volunteers will work independently and with a team. A sense of geometry and color analysis are all that are required, although elementary knowledge of PCs and DOS would be helpful. Project leaders are Frederick A. Cooper, professor, Department of Classical and Near Eastern Studies; Joseph D. Alcherms, assistant professor, Department of Classical and Near Eastern Studies; and Mark Nelson, professor, Department of Art History. Location: Minneapolis and St. Paul campuses. **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 transcribe and translate these Spanish documents about early colonial life of the Honduran Indians and the Mercedarian Order mission system. Fluency in the Spanish language is required, and academic credit may be available through directed study. Limited to one volunteer. Project leader is John Weeks, professor, Humanities and Social Sciences libraries, and adjunct faculty, Department of Anthropology and Latin American Studies program. Location: Wilson Library 5, Minneapolis campus. **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 30; abbreviations, page 138; and maps on pages 139-145.

REX 0242 HISTORY OF GERMAN SETTLEMENTS IN EASTERN EUROPE. *Dates:* to be arranged. *Contribution:* \$150.

Seeking to identify, locate, and annotate publications about German settlements in Eastern Europe which are available in the U.S., the project leader researched the subject in Europe during the summer of 1991. Now REX volunteers are needed to check which works are available in North America and where they are located, and to annotate them. Some knowledge of German is needed for those who would work as bibliographers and word processors, while annotators must have a strong knowledge of German. Project leader is Edward R. Brandt, assistant professor, Division of Social Sciences, University of Minnesota, Morris. Location: various libraries in the Twin Cities area. **Call 625-9001 for registration information and an application form.**

REX 0243 NATIVE AMERICAN MYTH BUSTING IN AMERICAN HISTORY. *Dates:* to be arranged; flexible schedule. *Contribution:* \$150.

The goal of this project is to produce an article, and possibly a teachers manual, detailing specific facts, narratives of incidents, and outlines of discussions designed to counter commonly held assumptions about Native Americans. REX volunteers will do historical research to find the answers to specific questions provided by the project leader and cite sources of all information. Project leader is David L. Ghery, assistant professor, General College. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0250 COMPUTER SIMULATIONS OF NEW STATISTICAL ESTIMATORS IN ECONOMETRICS. *Dates:* minimum commitment of two months; flexible schedule arranged. *Contribution:* \$150.

Recently, many new statistical procedures have been developed in econometrics and their asymptotic properties are being investigated. While the theoretical results are useful, those results are confined to analyzing the properties of estimators when sample sizes grow large. Researchers would like to examine the properties of the estimators in a finite, small sample. A REX volunteer with FORTRAN programming experience (or high motivation) is being sought to provide computer programming for this project. Project leader is Hidehiko Ichimura, assistant professor, Department of Economics. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0252 SOURCE, PRESENTATION, AND RETAIL PRICING OF FRESH VEGETABLES. *Dates:* minimum commitment of two months between late May and early Aug. 1992; flexible schedule arranged. *Contribution:* \$150.

Summer sources and retail prices of fresh vegetables are unstable, especially with highly perishable products like greens. In the Twin Cities metropolitan area this is not well understood nor appreciated. As highly nutritious vegetables like greens are realizing an increase in interest and demand, this project seeks greater knowledge of the variables affecting May to September sourcing, presentation, and pricing structure of selected fresh vegetables at various types of retail outlets. This information would be useful in advising potential growers and in teaching. REX volunteers will conduct interviews, visit retail outlets and growers, evaluate product quality, determine prices and stability of prices, estimate product losses, and document product presentation methods. Effective communications skills and the ability to drive a car are required. Project leader is David W. Davis, professor, Department of Horticultural Science. Location: Twin Cities area and surrounding counties. **Call 625-9001 for registration information and an application form.**

Read about symbols, page 30; abbreviations, page 138; and maps on pages 139-145.

noncredit courses

REX 0260 IMPACT OF SEXUAL ABUSE TREATMENT ON FAMILY FUNCTIONING.

Dates: to be arranged. *Contribution:* \$150.

Working with project staff, REX volunteers will accompany interviewers to meetings with family members at homes or agencies to evaluate the impact of child sexual abuse treatment on family functioning. This evaluation method has been implemented as a regular part of the evaluations of three clinical treatment programs in the Twin Cities. In addition to the interviews, volunteers will also participate in data management procedures. Required participant qualifications: interpersonal skills; basic computer skills would be very helpful (speed not an issue). Project leader is James W. Maddock, associate professor, Department of Family Social Science. Location: St. Paul campus, agencies, and family homes. **Call 625-9001 for registration information and an application form.**

REX 0261 RELATIONSHIPS IN ADOPTIVE FAMILIES. *Dates:* to be arranged. *Contribution:* \$150.

The purpose of this study is to examine variations in openness in adoptive family relationships and the consequences of contact between the adoptive and birth parents for the adopted child, the adoptive parents, and the birth mother. Data from over 150 adoptive families have been collected and interviews are being examined to address issues relating to self-concept and relationship development. In a team that works closely together, REX volunteers will participate in a variety of activities: coding of data from interviews with parents, children, or birth mothers; data entry; maintenance of a computerized data base bibliography; and data analysis. Required participant qualifications: interest in research; ability to work both independently and with small groups; willingness to participate in a variety of project roles. Project leader is Harold D. Grotevant, professor, Department of Family Social Science. Location: McNeal Hall, St. Paul campus. **Call 625-9001 for registration information and an application form.**

REX 0262 SPATIALLY COORDINATED BEHAVIOR. *Dates:* six-month commitment; schedule arranged. *Contribution:* \$150.

Working with a research group, REX volunteers can work on this project concerned with the guidance of spatial behavior, ranging from how visual information is used by infants and toddlers to guide locomotion to how adult professionals use topographic maps to find their way in outdoor environments. Volunteers will help design and carry out behavioral psychological experiments on spatial behavior. Weekly meetings will be held with the whole research group, including REX volunteers. The ability to work well with others—both with research subjects and other members of the research group—is required. Project leader is Herbert L. Pick, professor, Institute of Child Development. Location: Minneapolis campus and field settings. **Call 625-9001 for registration information and an application form.**

REX 0270 NEGOTIATING THE COMPLEXITIES OF NATURAL RESOURCE MANAGEMENT. *Dates:* to be arranged. *Contribution:* \$150.

This project consists of a number of case studies which explore the ways in which people across a broad spectrum—government, voluntary associations, grassroots organizations, and others—are seeking to turn the challenge of conflict into opportunity for cooperation in managing critical environmental resources. In collaboration with the project team, REX volunteers will observe events such as public hearings, organizations' meetings, or government meetings; participate in information gathering regarding environmental issues; and perhaps conduct searches for literature such as mailing lists and brochures. Required participant qualifications: good written and oral communication skills, self-motivation, curiosity, basic

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library skills, and the ability to organize and synthesize data. Project leader is Luther P. Gerlach, professor, Department of Anthropology. Location: primarily the Twin Cities. Call 625-9001 for registration information and an application form.

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. Limited to 6 volunteers. Project leader is Dr. Nelson Rhodus, research professor, Division of Oral Diagnosis and Radiology. Location: Moos Tower 7-536, Minneapolis Campus. Call 625-9001 for registration information and an application form.

REX 0302 BETTER HEALTH AT LOWER COST. *Dates:* to be arranged. *Contribution:* \$150.

This project attempts to improve the quality of life for frail elderly people and reduce their need for expensive care in hospitals and nursing homes. The research team hopes to achieve this goal by screening home-dwelling elders and then providing the most frail elders with intensive interdisciplinary care to address their major health-related problems. REX volunteers will contact community agencies to arrange services for the patients as well as providing information, counseling, and transportation within University hospital buildings. Some data management may be included. Required participant qualifications: good interpersonal and communication skills and computer literacy. Project leader is Chad Boulton, professor, Department of Family Practice and Community Health. Location: Minneapolis campus and medical offices. Call 625-9001 for registration information and an application form.

REX 0315 DIET AND CANCER: HORMONAL AND DIETARY REGULATION OF METABOLISM IN HEALTH AND DISEASE. *Dates:* flexible schedule arranged. *Contribution:* \$150.

This project focuses on the effects of diet on normal cell growth and differentiation. The effects of diet components in changing normal cells to cancer cells is a central question in this research. Responding to this question requires work in more than one area: investigators are involved in food science, nutrition, molecular biology, and cell biology. REX volunteers can participate in a variety of activities, depending on skills and interest. These activities include cell culture maintenance, experiments to determine effects of fats and drugs on cells, and growing bacterial cultures. Required qualifications: high level of motivation; basic biology and chemistry. Project leader is Linda Brady, associate professor, Department of Food Science and Nutrition. Location: Andrew Boss Labs, St. Paul campus. 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 affecting children with multiple life-threatening problems for the rest of their lives. This work attempts to uncover latent damage in children which later would lead to overt and irreversible diabetes. Once prediabetic children have been identified, researchers hope (through new treat-

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noncredit courses

ments becoming available) to reverse or stop this latent, ongoing damage and prevent the onset of diabetes. 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. Medical, nursing, or public health background preferred but not required; volunteers should possess effective communication skills. Limited to one volunteer. Project leader is Dr. Jose Barbosa, professor, Department of Internal Medicine. Location: Phillips-Wangensteen Building 6-150, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0324 ALCOHOL AND DEGENERATIVE DISEASES. *Dates:* to be arranged. *Contribution:* \$150.

Alcohol consumption may have a role in the etiology and/or prognosis of various degenerative diseases such as coronary heart disease. The purpose of this study is to develop lab tests for quantification of long-term alcohol consumption. Research volunteers may be involved in lab work using computer software on protein analysis; they may also input crucial data into a computer data bank. Some familiarity with basic laboratory procedures and equipment would be helpful. Limited to one volunteer. Project leader is Dr. Myron Gross, research associate, Division of Epidemiology. Location: Health Sciences Unit A, Room 1-144, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0333 QUALITY OF LIFE AFTER HEART SURGERY. *Dates:* to be arranged. *Contribution:* \$150.

This large five-site National Institutes of Health-funded study evaluates factors contributing to recovery and quality of life after heart surgery. Patients are interviewed before surgery and after surgery, first at six weeks, then six months, and annually at five years. From this study, knowledge and understanding of the process of recovery from heart surgery 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. Required participant qualification: good communication skills. Project leader is Ruth Lindquist, assistant professor, School of Nursing. Location: Minneapolis campus and the Minneapolis Heart Institute. **Call 625-9001 for registration information and an application form.**

REX 0334 THE INFLUENCE OF ALUMINUM UPON EMBRYONIC BONE DEVELOPMENT. *Dates:* to be arranged. *Contribution:* \$150.

Elevated levels of aluminum have been associated with a serious bone disorder, osteomalacia. 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 upon 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. Completion of basic course work in inorganic and organic chemistry along with one to two years of course work in the biological sciences are required. 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 0337 DETERMINATION OF INCOMPETENCY. *Dates:* to be arranged; six-month commitment preferred. *Contribution:* \$150.

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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: Health Sciences Unit F, Room 6-101, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

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. **Call 625-9001 for registration information and an application form.**

REX 0343 ISOLATION AND CHARACTERIZATION OF PANCREAS ENZYME. *Dates:* to be arranged. *Contribution:* \$150.

Both kidney and pancreas transaminidase activities are controlled by creatine in the diet and by growth hormone. The kidney enzyme, but not the pancreas enzyme, has been purified and characterized. Both purified enzymes are needed for investigations on the nature of the regulation of their activities by creatine and growth hormone. REX volunteers will help improve a procedure already developed by the researchers to isolate and characterize the pancreas enzyme. Participant qualifications: some previous lab experience helpful but not necessary; project leader will teach all necessary skills. Project leader is John F. Van Pilsom, professor, Department of Biochemistry. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0344 BIOMEDICAL RESEARCH ON DISEASES OF MUSCLE. *Dates:* minimum of four weeks, six to eight hours a day, three to five days a week; to be arranged. *Contribution:* \$150.

Working closely with the project leader and research staff, join this research related to muscle diseases (myotonia and malignant hyperthermia) and muscle physiology. Participate in laboratory work, including preparation of solutions and electrodes, dissection of biopsy specimens (human and pig skeletal muscle), and data collection and analysis. REX volunteers must have patience, an open-minded attitude toward animal utilization for research, and an interest in science. Project leader is Paul Iuzzo, assistant professor, Department of Anesthesiology. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0345 THE BRAIN AND AGING: ENDOGENOUS RECEPTOR ANTAGONISTS. *Dates:* to be arranged. *Contribution:* \$150.

Understanding the brain in the process of aging and in Alzheimer's disease is the focus of this project. Brain neurotransmitter receptors and the identification of naturally occurring peptides which have the ability to modulate the function of neuro-

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transmitter receptors in the mammalian brain are of particular interest. Preliminary data suggest the existence of such modulators. Currently, efforts are directed to the study of effects of endogenous peptides on the binding of ligands to neurotransmitter receptors in the rat brain in addition to their effects on the function of these receptors. This work involves measurements of second messengers (e.g., cyclic AMP). As work progresses, the particular activities may change, although the focus of the project will continue to be the brain and aging. REX volunteers will gain significant experience in techniques related to cell biology, particularly in relation to neuronal receptors and second messenger signal transduction mechanisms. Required participant qualifications: basic chemistry and mathematical capabilities. Project leader is Esam E. El-Fakahany, associate professor, Division of Neuroscience Research, Department of Psychiatry. Location: Diehl Hall, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0346 RAPID DETECTION OF TUMOR CELLS IN MICROGRAPHIC SURGERY.

Dates: to be arranged. *Contribution:* \$150.

Mohs micrographic surgery, a procedure used to remove skin cancer, relies on the examination of rapidly stained tissue sections for tumor-free margins. Squamous cell carcinoma often eludes conventional detection methods. REX volunteers will help devise a rapid antibody-based assay for the reliable detection of residual tumor. Actual work includes: cryostat sectioning of skin specimens, composing buffers, diluting antibodies, immunostaining tissue sections, and photomicrography. Required participant qualifications include basic college-level knowledge of chemistry and elementary biology as well as two quarters of lab or equivalent employment experience. Project leader is Christopher B. Zachary, assistant professor, Department of Dermatology. Location: Phillips-Wangensteen Building, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0347 MEASUREMENT OF O² AND pH IN MUSCLE. *Dates:* to be arranged. *Contribution:* \$150.

Seeking to ultimately measure O² and pH in the muscle of humans suffering from chronic pain of muscular origin, researchers are first measuring these parameters in the muscles of rats with the use of microelectrodes. Initial experiments are designed to determine the reproducibility of these measurements. In addition, researchers want to know what interventions will alter O² and pH. Using microelectrodes, volunteers will measure levels of O² and pH in the muscles of anesthetized rats and work to develop innovative approaches to making these measurements. Participants are required to have a basic background in college biology and chemistry. Project leader is Keith C. Kajander, assistant professor, Department of Oral Sciences. Location: Moos Tower, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0360 REGIONAL RURAL INJURY STUDY. *Dates:* minimum commitment of four weeks; to be arranged. *Contribution:* \$150.

Funded by the Centers for Disease Control, the primary purpose of this project is to identify the magnitude and potential risk factors of the injury problem in rural populations in a five-state region representative of the major types of agricultural production in the United States. The ultimate goal is to use the results to develop agricultural and other injury prevention and control programs in rural areas. REX volunteers will assist with the development of papers, including literature searches; work with co-investigators as they finalize analysis and do interpreta-

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tion; assist in writing drafts; and become involved in a major regional workshop to disseminate information. Excellent organizational and writing skills and basic math skills are required. Project leader is Susan Gerberich, associate professor, Division of Environmental and Occupational Health. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0370 ATTENTION DEFICIT DISORDER: DISCOVERING NORMS FOR TESTING.

Dates: to be arranged; minimum commitment of three months preferred. *Contribution:* \$150.

The T.O.V.A.TM is a 22-minute computer "game" that measures speed and accuracy of visual information processing. It has been shown to be valuable in assessing attention deficit disorders in children and adults. However, more extensive norms are needed. Using portable laptop computers provided by the research project, two REX volunteers can help move this project forward as they test children, teenagers, and/or adults. Volunteers must provide their own transportation and possess good interpersonal skills, but knowledge of computers is not necessary. Project leader is Lawrence M. Greenberg, professor, Department of Psychiatry. Location: subjects' homes or community organizations where they gather. **Call 625-9001 for registration information and an application form.**

REX 0390 COMPENSATORY EYE MOVEMENTS IN INFANTS.

Dates: July through Aug. 1992; two-month commitment required; schedule arranged. *Contribution:* \$150.

Building on previous work, this project will quantify eye movement characteristics (phase and gain) in two-month-old infants. This is a topic about which there is almost no information. A REX volunteer is sought to work with the project leader. Responsibilities include assisting in applying electrodes to forehead and temples, placing infant in a special seat, holding the head of the infant still while cradle gently rocks, and activating switches on equipment. The volunteer must be calm and effective with infants and parents while remaining focused on the goals of the project. A certain amount of coordination is also necessary to operate switches while stabilizing an infant's head in the cradle. Project leader is Judith Reisman, assistant professor, Department of Physical Medicine and Rehabilitation. Location: Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0407 HISTORICAL ATLAS OF THE ST. PAUL CENTRAL BUSINESS DISTRICT.

Dates: to be arranged. *Contribution:* \$150.

Using Geographic Information System (GIS) technology, a series of maps showing the development of the central business district of St. Paul is being created. After learning basic GIS techniques, REX volunteers will acquire information from a variety of sources (e.g., Minnesota Historical Society, St. Paul Public Works Department) and, using one of the most advanced GIS packages available, add information to a computerized digital base map being developed for 1884. This map can then be manipulated to highlight different aspects of land use, infrastructure, and socioeconomic development. Required participant qualifications: ability to work with systematic records; computer knowledge helpful but not required. Project leader is Roger Miller, associate professor, Department of Geography. Location: Minneapolis campus and city and state offices. **Call 625-9001 for registration information and an application form.**

REX 0433 1, 3-DIMETHYL-2-PHENYLBENZIMIDAZOLINE; AN NADH ANALOGUE?

Dates: to be arranged. *Contribution:* \$150.

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The title compound will be prepared by known methods and tested as a reducing agent for a range of oxidizing agents (NAD⁺ analogues). When a suitable oxidizing agent is found, the rate and equilibrium constants will be measured for the hydride transfer. REX participants will do synthesis and characterization of the title compound and precursors, and, if time permits, oxidation reactions. Required participant qualification: freshman chemistry, including some very elementary organic chemistry. Project leader is Maurice M. Kreevoy, professor, Department of Chemistry. Location: Kohlhoff Hall, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0434 MECHANISTIC ORGANIC CHEMISTRY. Dates: to be arranged. Contribution: \$150.

Fundamental reactivity of charged species and learning about the relationship between structure and reactivity is the focus of this project. This is reflected in mechanistic studies and the investigation of theoretically interesting compounds (e.g., antiaromatic ions). REX volunteers will make organic compounds using modern spectroscopic tools. Required participant qualification: at least one year of college organic chemistry. Project leader is Steven Kass, assistant professor, Department of Chemistry. Location: Kolthoff Hall, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0435 STRUCTURE AND FUNCTION ANALYSIS OF MACROMOLECULES. Dates: to be arranged. Contribution: \$150.

This project studies the structure and function of proteins in order to perform protein engineering. Two approaches to the analysis of biochemical mechanisms are used. One approach is structural biology, in which proteins are isolated, crystallized, and their three-dimensional structures determined. The second approach is molecular biology, in which genes are cloned, sequenced, and analyzed through site directed mutagenesis. The ultimate goal is to design molecules. Because a variety of activities are underway simultaneously, REX volunteers can participate in different ways depending on their skills and interests. Required participant qualifications: first-year college chemistry or comparable experience. Project leader is Douglas H. Ohlendorf, associate professor, Department of Biochemistry. Location: Moos Tower, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0451 COMPUTER SIMULATIONS OF SOLIDS AND LIQUIDS. Dates: to be arranged. Contribution: \$150.

Computers are used to describe solids and liquids at the atomic level. Vivid graphics images of the motion of atoms can be obtained. Results provide new research insights into properties of solids and liquids and are also good teaching tools. Programs adaptable to microcomputers. REX volunteers will run developed codes on supercomputers and develop new codes as abilities and time allow. They will gain knowledge about solid and fluid state physics and the use of supercomputers. Required participant qualifications: first-year college calculus-based physics; some knowledge of FORTRAN computer language. Project leader is J.W. Halley, professor, Department of Physics. Location: Physics Building, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0470 PHOTOREFLECTANCE STUDIES OF COPLANAR STRUCTURES ON SEMICONDUCTOR SUBSTRATES. Dates: to be arranged. Contribution: \$150.

Photoreflectance (PR) is widely used as a tool to probe the electric fields at the sur-

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faces and interfaces of semiconductors. The advantages of using PR is that it is contactless and can be done at room temperature. In PR the reflectance of a sample (in this case, a semiconductor material, gallium arsenide) is modulated by a laser beam; the change in the reflectance of the sample is then detected by a photodetector when it is probed by another beam of variable wavelength at a weaker intensity. By analyzing the change in the reflectance from the sample, information about the strength of the electric field can be determined. This project is to develop PR as a tool to measure the electric field profile of the semiconductor substrates such as GaAs. The field profile is important for the following reasons: it affects the performance and speed of the device fabricated from the material, and it determines the speed of propagation of signals travelling on transmission lines (such as microstrip lines or coplanar waveguides) fabricated on these substrates. The REX volunteer will be involved in running the experiments or setting up the experiment for measurement. The volunteer can also improve the instrumentation. Required participant qualifications: a willingness to learn; some experience with computers; an interest in physics or physical chemistry. Project leader is Philip Cheung, assistant professor, Department of Computer Engineering, University of Minnesota, Duluth. Location: University of Minnesota, Duluth. **Call 625-9001 for registration information and an application form.**

REX 0495 MAKING A VIDEOTAPE DEMONSTRATION OF REAL-TIME IMAGING TECHNOLOGY FOR CHARACTERIZING INTERFACIAL PHENOMENA.

Dates: minimum commitment of four weeks; Feb.-July 1992; to be arranged.
Contribution: \$150.

Real-time imaging provides researchers with unique ways to study interfacial phenomena. The Center for Interfacial Engineering is preparing to initiate a summer research experience for high school students and teachers that will marry powerful "desktop" video technology with state-of-the-art instruments that can reveal the molecular structure of the surfaces. In this program teams of students and teachers will explore a particular instrument and create a videotape to show how and what it can "see." By involving high school teachers in a pilot project for this program, we can take advantage of their understanding of high school curricular and student needs while offering them an opportunity to become acquainted with advanced research in a new field and to explore the revolutionary "video toaster" as a communication tool. The REX volunteer will create a short videotape appropriate for use with high school students and in the process test the design of the summer research experience planned for high school teachers and students. Required qualifications: college-level laboratory experience in chemistry or physics; computer literacy; high school teaching experience in science. Project leaders are Mario Errico, research associate, Center for Interfacial Engineering; and Barry Carter, professor and associate director, Characterization Facility, Center for Interfacial Engineering. Location: Shepherd Labs, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0603 EDUCATORS WHO HAVE DISABILITIES. *Dates:* once a week for a minimum five-week period between Sept. 1, 1992, and Aug. 31, 1993; to be arranged.
Contribution: \$150.

Purpose is to examine the lives of persons with disabilities who are, or are training to become, educators. 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 educators. Volunteers will also prepare interview transcripts and analyze interview data. Volunteers need strong interpersonal skills and adequate typing skills.

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Experience with persons with disabilities and familiarity with Macintosh computers helpful but not necessary. Project leaders are Clayton Keller, assistant professor, Department of Child and Family Development; and Vern Simula, professor, Department of Child and Family Development. Location: Montague Hall 120, University of Minnesota, Duluth. Arrangements to conduct this research outside of the Duluth area can be made. Call 625-9001 for registration information and an application form.

REX 0605 THE RESOLUTION OF SCHOOL-BASED CONFLICT. *Dates:* to be arranged. *Contribution:* \$150.

Little study has been done to identify the nature of school-based conflict or the effectiveness of existing programs. This project will study the nature of school-based conflict, the implementation of a resolution program, and the evaluation of its effects. REX volunteers will be trained in the field of conflict resolution, use their skills in gathering data to perform systematic observations of student interaction, and conduct student and teacher interviews. Good communications skills are necessary along with a desire to work with children. Project leader is David W. Johnson, professor, Department of Educational Psychology. Location: Twin Cities suburban elementary schools. Call 625-9001 for registration information and an application form.

REX 0606 MINNESOTA HANDWRITING TEST. *Dates:* Jan. through Aug. 1992; flexible schedule to be arranged. *Contribution:* \$150.

This new quantitative test of first- and second-grade printing is being normed on a nationwide sample. In support of this project, a REX volunteer will enter data into computer files (training provided) and conduct literature searches. Project leader is Judith Reisman, professor, Department of Physical Medicine and Rehabilitation. Location: Minneapolis campus. Call 625-9001 for registration information and an application form.

REX 0607 WOMEN IN SCIENCE, ENGINEERING, AND MATHEMATICS MAJORS.

Dates: flexible schedule to be arranged; two to four weeks in summer 1992 preferred. *Contribution:* \$150.

After examining the retention rates of both male and female students majoring in science, engineering, and mathematics at the University of Minnesota, Duluth, the goal of this project is to determine whether these rates are different for men and women and whether a recently established mentoring program for women has any impact on the rates. A REX volunteer will establish hypotheses to be tested, design experiments to test the hypotheses, gather and analyze data, and draw conclusions. A solid background in statistics or mathematics is required. Project leader is Linda Deneen, associate professor, Department of Computer Science, University of Minnesota, Duluth. Location: Department of Computer Science, University of Minnesota, Duluth. Call 625-9001 for registration information and an application form.

REX 0608 ADVENTURES IN VOICE EDUCATION. *Dates:* minimum four-week commitment; schedule to be arranged between Aug. 1992 and Aug. 1993. *Contribution:* \$150.

Are you interested in the voice and how it functions? Learn more about this topic as you assist the project leader in researching, collecting data, compiling materials, and processing information about singing and teaching voice. The ultimate goal is production of a college text and video about singing and voice education. Required participant qualifications: library research skills and ability to use Macintosh SE30.

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Project leader is Clifton Ware, associate professor, Department of Music. Location: School of Music library and Ferguson Hall, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0802 ARTISTIC DISCOVERY ABOUT 17TH-CENTURY NAPLES. *Dates:* schedule to be arranged. *Contribution:* \$150.

Although Caravaggio, an Italian Baroque painter, has become familiar to many today, Caracciolo, another artist greatly influenced by Caravaggio, still 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. Limited to one volunteer. Project leader is Michael Stoughton, professor, Department of Art History. Location: Jones Hall 107, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0902 THE ORIGIN OF ENGLISH WORDS. *Dates:* starting and ending dates arranged; flexible schedule. *Contribution:* \$150.

The history of words is as hard to trace and as interesting to study as the rise and fall of old kingdoms or the origins of planets. Some words have existed in English for more than 1,000 years and still no one knows from where they came. Even when the origins of words are known, vigorous debate about the details often continues. This project is part of a University of Minnesota effort to compile a new etymological dictionary of English. Volunteers will study bibliographies and journals and contribute to the files of the dictionary. Their contribution will be mentioned in the final product; individual scholarly projects (with or without academic credit) are possible. Project leader is Anatoly Liberman, professor, Department of German. Location: Wilson and Walter Libraries, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0903 THE PRAGMATICS OF WORD ORDER IN SPOKEN SPANISH. *Dates:* to be arranged. *Contribution:* \$150.

Study the motivation of word order variation in three-constituent constructions. After training, REX volunteers will search transcriptions of recorded conversations in order to identify these constructions and classify them. Project leader is Francisco Ocampo, assistant professor, Department of Spanish and Portuguese. Location: Folwell Hall, Minneapolis campus. **Call 625-9001 for registration information and an application form.**

REX 0904 THE GERMAN LANGUAGE IN MINNESOTA. *Dates:* flexible schedule to be arranged. *Contribution:* \$150.

In an ongoing study, the project leader is recording the speech of natives of Minnesota who speak German for a linguistic analysis of the changes that have taken place in the language since it was imported into Minnesota. REX volunteers will conduct interviews of Minnesota-born German speakers from regions around the state where such speakers are still found. Knowledge of German is required. Project leader is Evelyn S. Firchow, professor, Department of German. Location: various counties in Minnesota. **Call 625-9001 for registration information and an application form.**

REX 0905 FRENCH/AMERICAN CROSS-CULTURAL CONVERSATION. *Dates:* through June 1992; schedule to be arranged. *Contribution:* \$150.

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Do misunderstandings arise as a result of cross-cultural differences in conversations between native speakers of French and advanced American learners of French? REX volunteers can help study audio-recorded dinner conversations between such speakers as this research team identifies and interprets differences in the production and interpretation of politeness in these conversations. Volunteers will transcribe audio-recorded data and assist in the coding, analysis, and interpretation of the data. Native or near-native competence in French is required. Project leader is Molly Wieland, assistant professor, Department of French and Italian. Location: Minneapolis campus. **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 15th year in Minnesota, Elderhostel is part of a national network that began 18 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 \$290 for food, lodging, and class instruction.

May 24-30, Itasca State Park: **Deep in the Virgin Forest—Spring in the Mississippi Headwaters Country.**

July 21-27 and July 23-29, Minneapolis Campus: **Sommerfest '92—A Viennese Music Festival.**

Oct. 4-10, 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, 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 Benefits 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 Benefits Plan is: 10-week term plus 4-week interim, \$110; first 5-week term, \$37; second 5-week term plus 4-week interim, \$73; interim only, \$37. 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 22 for first summer term or July 29 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 Benefits 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 Benefits Plan, call 624-1471. For insurance questions, call 624-0627.

Boynton Health Service is located on the East Bank of the Minneapolis campus 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 Benefits 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, 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 625-6009. 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 disabled parking, call 626-PARK or 625-6566. Call 625-0357 to request parking maps.

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
Police administration	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 633 in the 1991-92 Extension Classes Bulletin.

Degrees

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.)
Master of Education in Leadership
Master of Education in Second Languages and Cultures
Graduate Minor Program in Gerontology

Certificates

Check the list in the 1991-92 Extension Classes Bulletin, page 656.

For free academic advising, telephone 625-2500

Campus Buildings

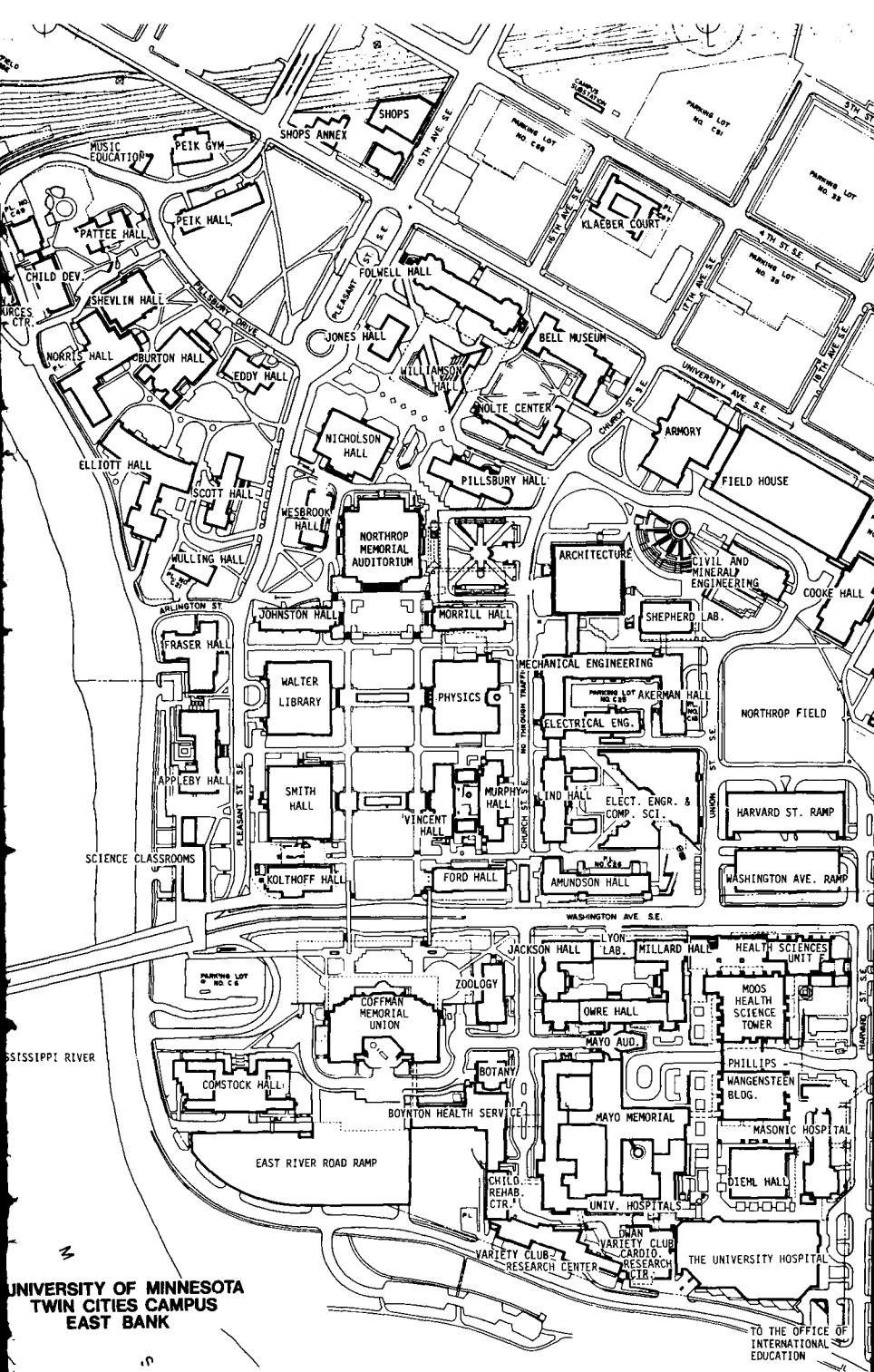
AmundH, *Amundson Hall*
 AndH, *Anderson Hall (West Bank)*
 ApH, *Appleby Hall*
 Arch, *Architecture*
 ArtB, *Art Building (West Bank)*
 BellMus, *Bell Museum of Natural History*
 BFAB, *Bierman Field Athletic Building*
 BioSci, *Biological Sciences Center (St. Paul)*
 BlegH, *Blegen Hall (West Bank)*
 BorH, *Borlaug Hall (St. Paul)*
 BuH, *Burton Hall*
 CentLib, *Central Library (St. Paul)*
 ChDev, *Child Development*
 CrstnL, *Christensen Laboratory Building (St. Paul)*
 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*
 EllH, *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*
 MurH, *Murphy Hall*
 NichH, *Nicholson Hall*
 NCCE, *Nolte Center for Continuing Education*
 NorrisH, *Norris Hall*
 NorH, *North Hall (St. Paul)*
 PatH, *Pattee Hall*
 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*
 WullH, *Wulling Hall*

Departments, Course Designators

Acct, *Accounting*
 Afro, *Afro-American and African Studies*
 AmIn, *American Indian Studies*
 ASL, *American Sign Language*
 AmSt, *American Studies*
 AnSt, *Ancient Studies*
 Anth, *Anthropology*
 Arab, *Arabic*
 Arch, *Architecture*
 ArtH, *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*
 CDis, *Communication Disorders*
 CSci, *Computer Science*
 Dnce, *Dance*
 Dsgn, *Design*
 EAS, *East Asian Studies*
 Econ, *Economics*
 EPsy, *Educational Psychology*
 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*
 Hum, *Humanities*
 IEOR, *Industrial Engineering/Operations Research*
 IR, *Industrial Relations*
 IDSc, *Information and Decision Sciences*

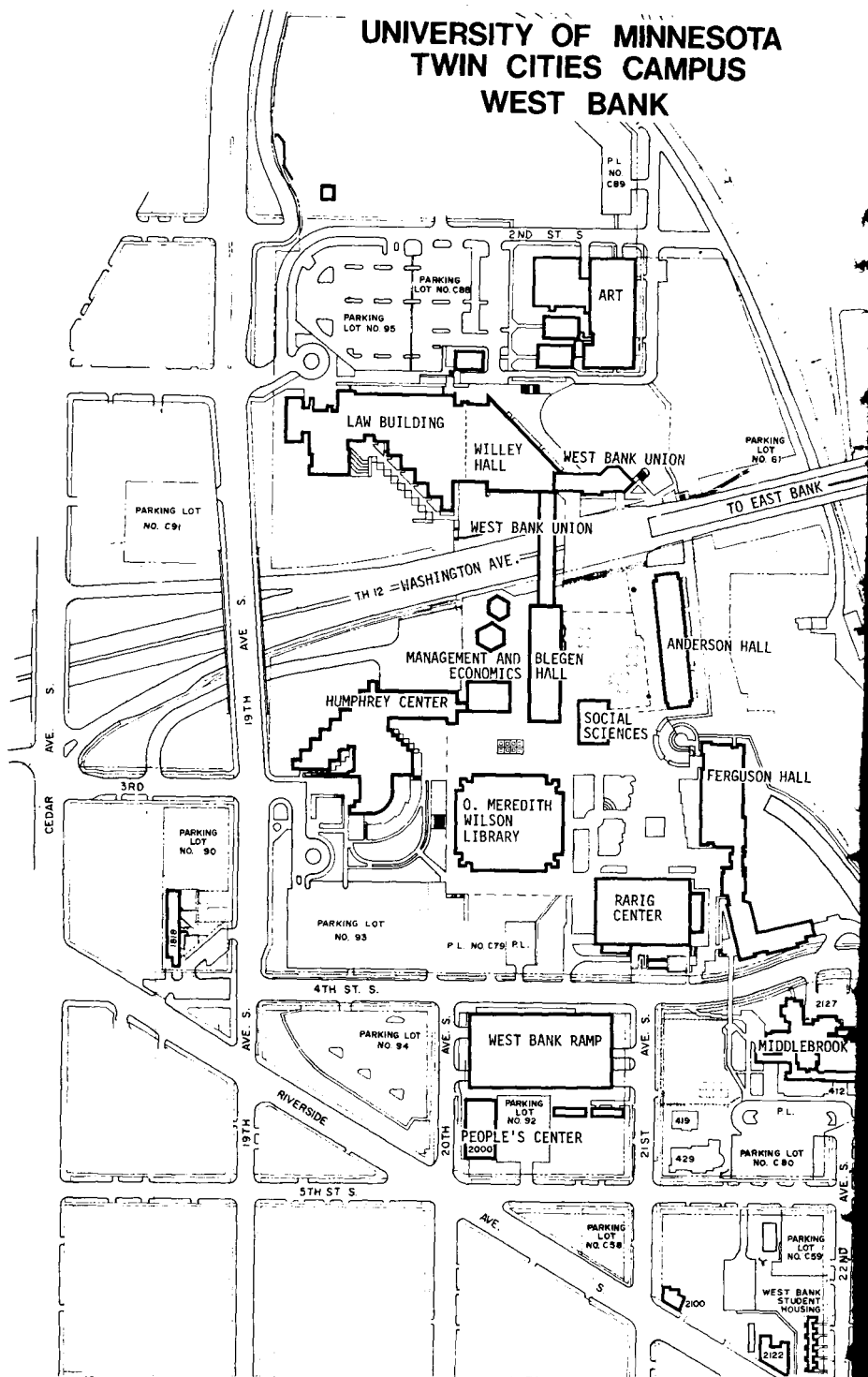
ID, *Interdepartmental Study*
 Ins, *Insurance and Risk Management*
 IntR, *International Relations*
 Jpn, *Japanese*
 Jour, *Journalism and Mass Communication*
 LA, *Landscape Architecture*
 Lat, *Latin*
 LAS, *Latin American Studies*
 LASK, *Learning and Academic Skills*
 Ling, *Linguistics*
 Mgmt, *Management*
 Mktg, *Marketing*
 Math, *Mathematics*
 ME, *Mechanical Engineering*
 MidE, *Middle Eastern Studies*
 Mus, *Music*
 NRES, *Natural Resources and Environmental Studies*
 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*
 SoAS, *South Asian Studies*
 Span, *Spanish*
 Spch, *Speech-Communication*
 Stat, *Statistics*
 TexC, *Textiles and Clothing*
 VoEd, *Vocational Education*
 WoSt, *Women's Studies*
 YoSt, *Youth Development and Research*

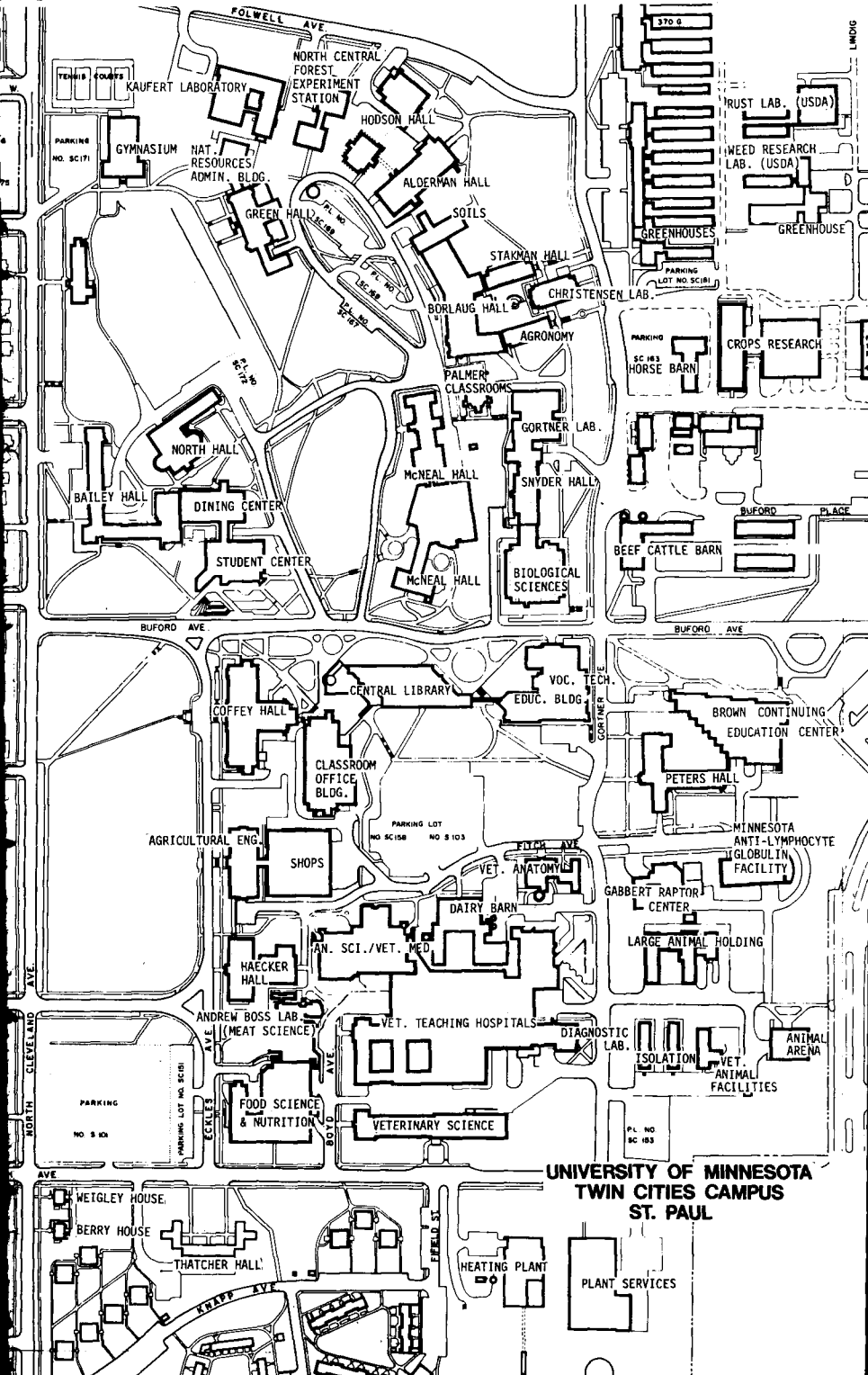


**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
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TO THE OFFICE OF
INTERNATIONAL
EDUCATION

UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS WEST BANK

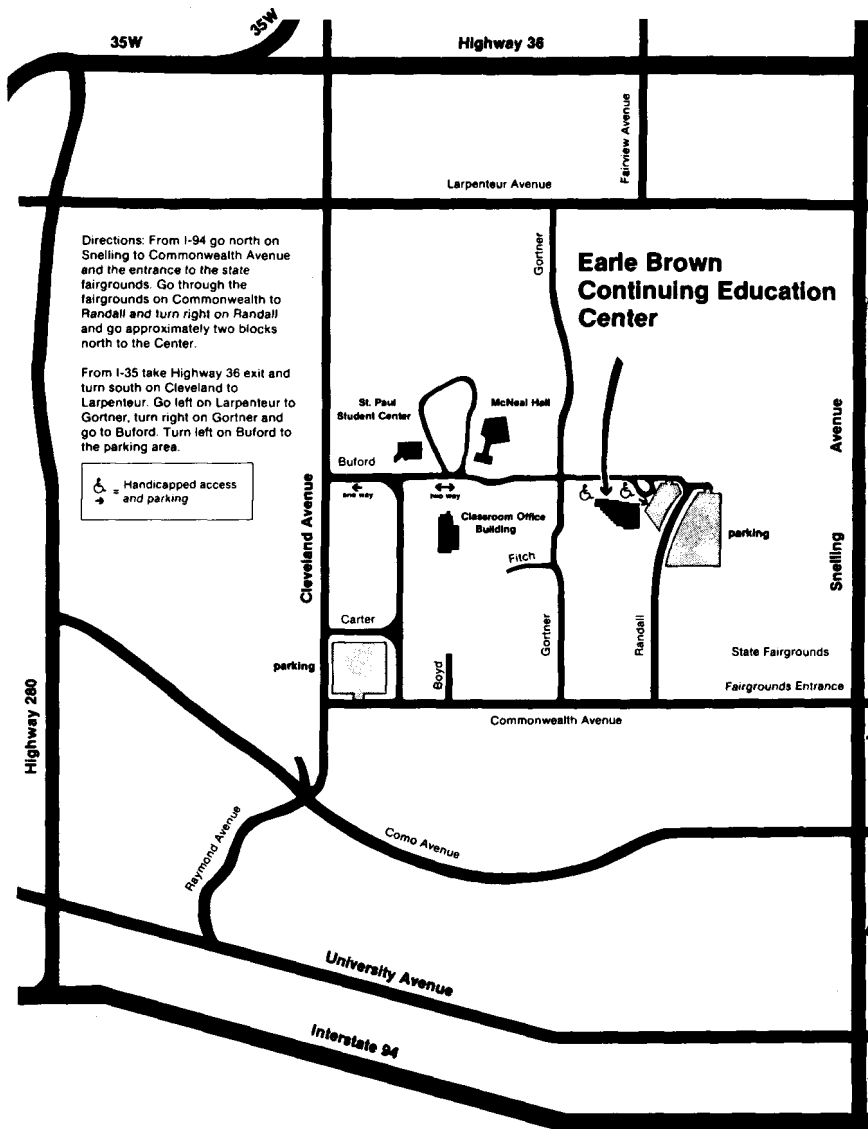




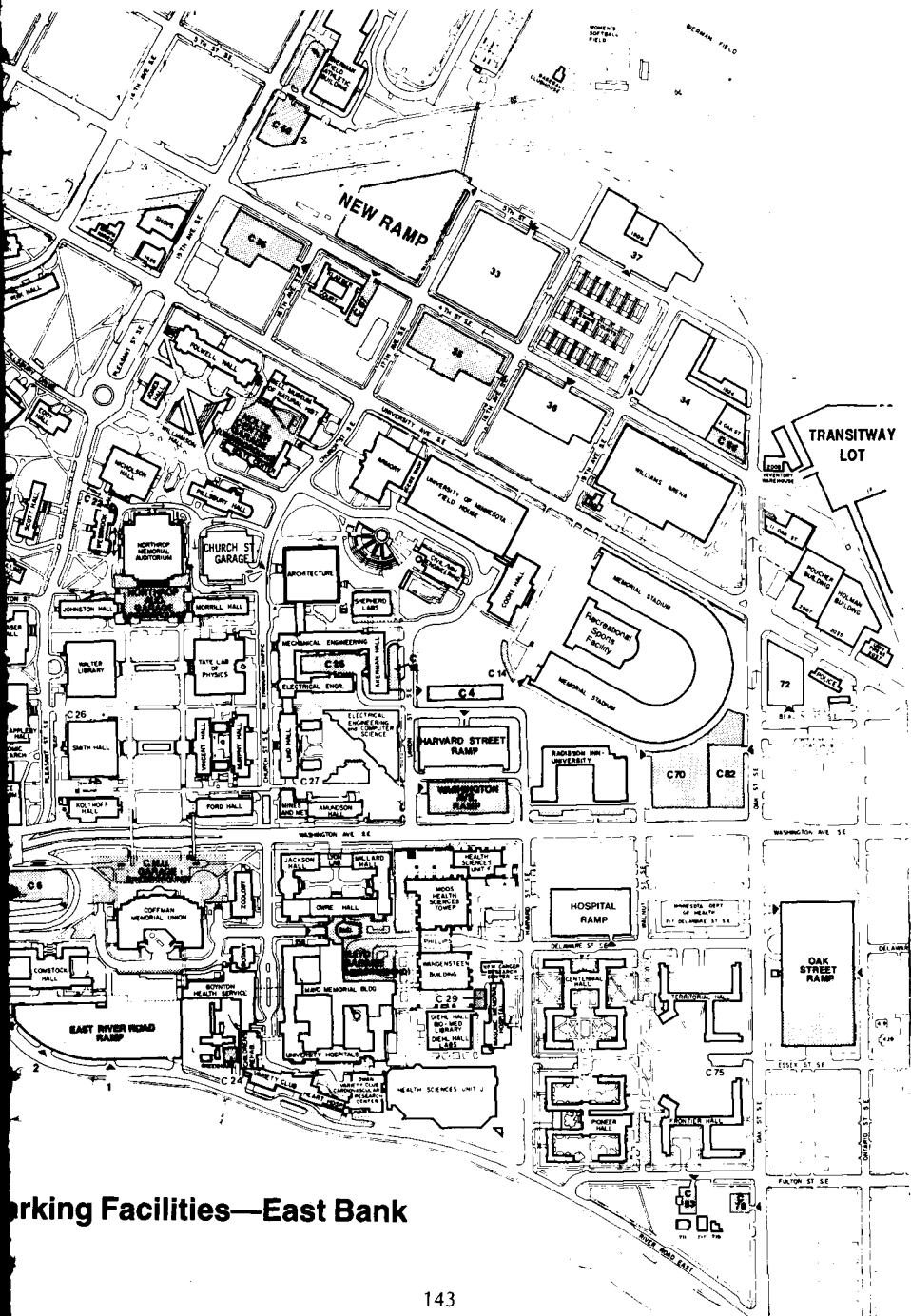
**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
ST. PAUL**

ACCESS ROUTES TO EARLE BROWN CONTINUING EDUCATION CENTER—ST. PAUL CAMPUS

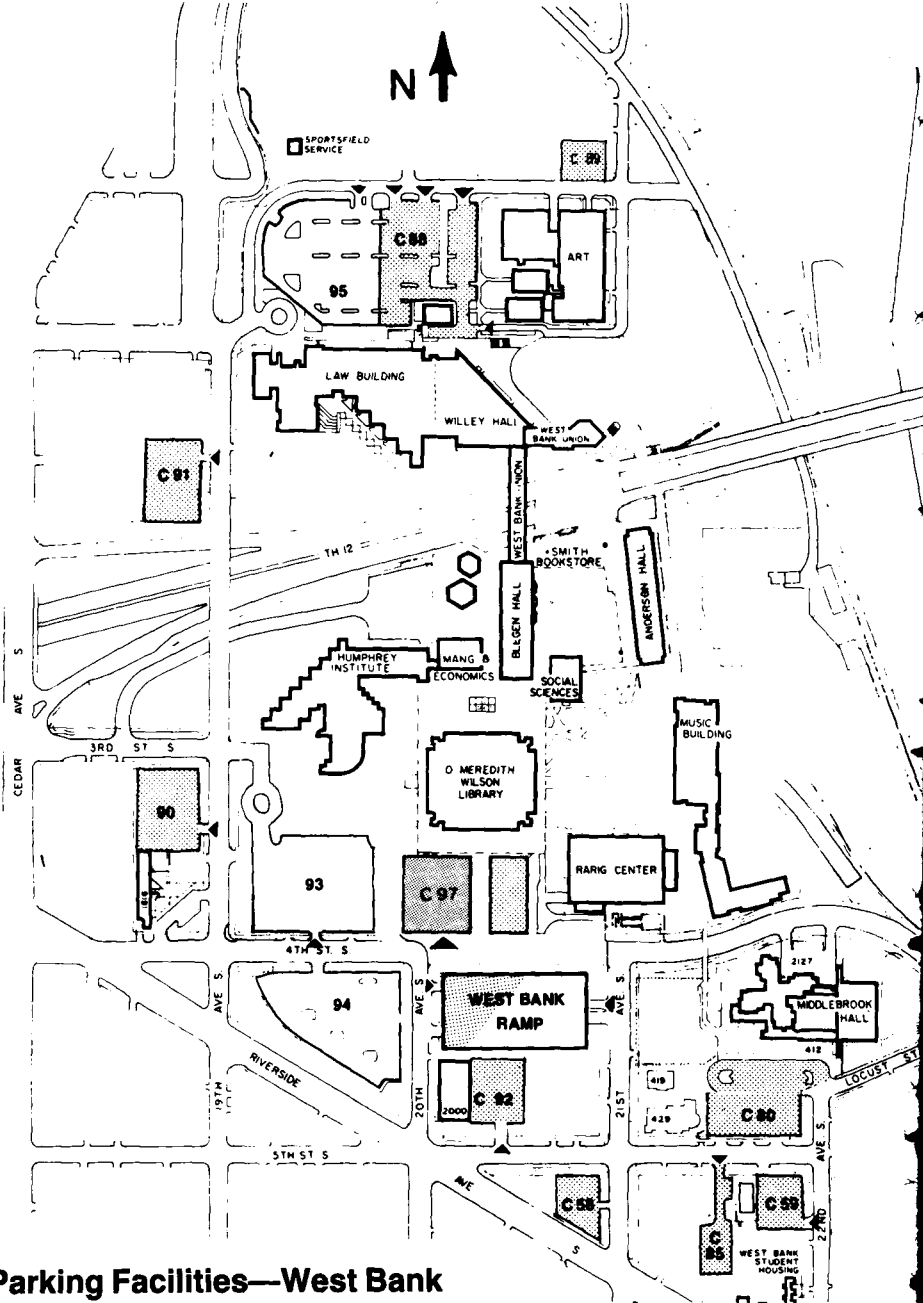
Parking Map



- Public lots
- Contract lots



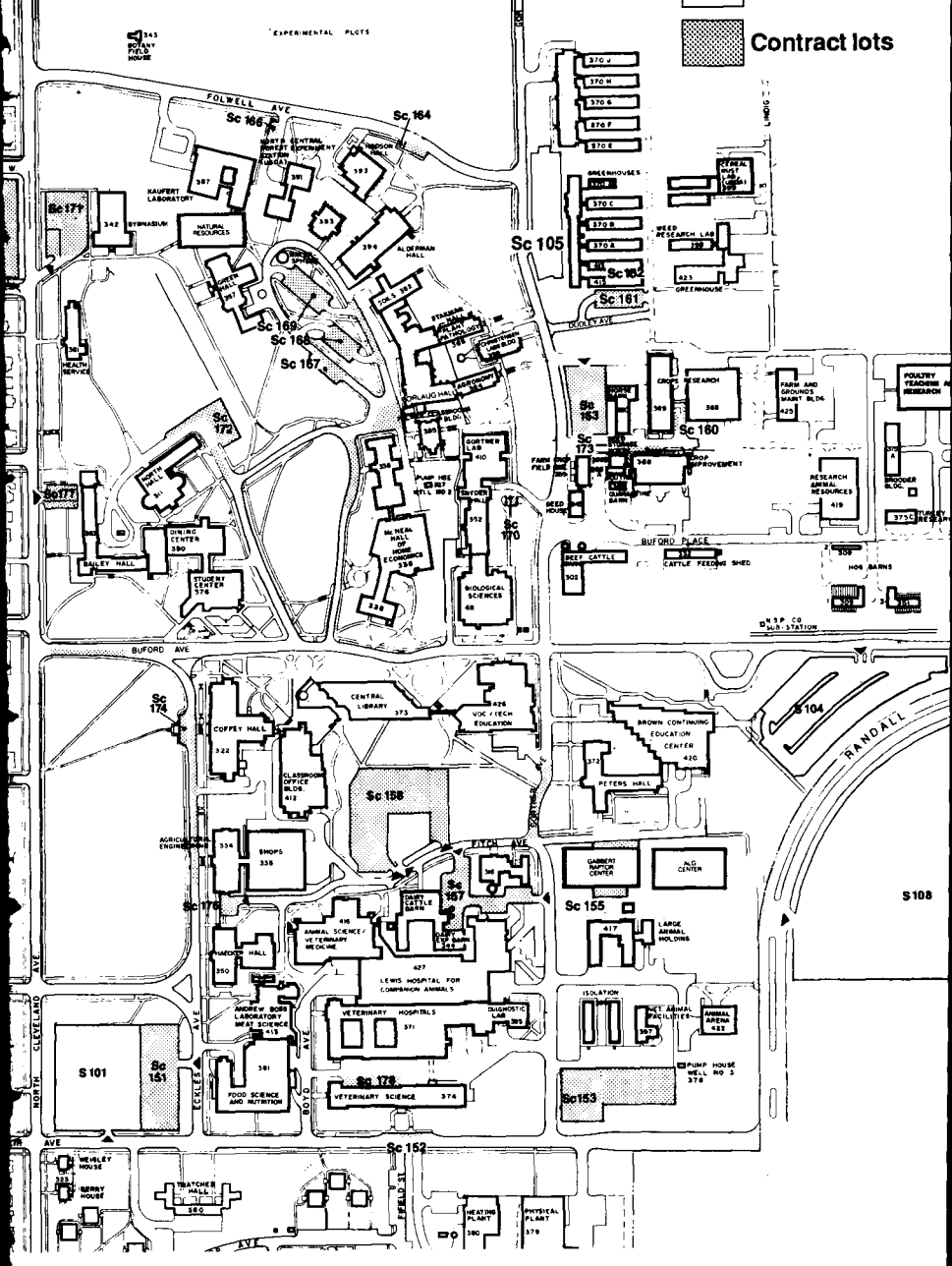
Parking Facilities—East Bank



Parking Facilities—West Bank

Parking Facilities—St. Paul Campus

- Public lots
- Contract lots



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Calendar

1992

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- Spanish in Mérida, Venezuela
- International Program in Toledo, Spain
- Quincentennial Summer Program for Teachers of Spanish

Theme Programs

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- Interior Design in Europe

Internship Program

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For more information, contact the Global Campus at (612) 625-3379; or write The Global Campus, University of Minnesota, 106 Nicholson Hall, 216 Pillsbury Drive S.E., Minneapolis, MN 55455.

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University of Minnesota

101 Wesbrook Hall

77 Pleasant Street S.E.

Minneapolis, MN 55455

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INDEPENDENT
STUDY

About the Cover

This year's original cover was created by Nashville illustrator Tony Novak, 27. Novak, who graduated from Middle Tennessee State University in 1986 with a B.F.A. in commercial art and design, spent seven months as an art director for a small marketing company before he decided to pursue his art as a freelance illustrator. He developed the technique used on the cover, which combines airbrushing with sponge and brush painting, after much experimentation and training. Novak says this technique gives the "look of a relief sculpture—the illusion of shallow depth on a surface; a sculpted, textured look." He explained that his philosophy of art is to discover the potential for illustration through his many areas of interest, such as anthropology, archaeology, and American Indian culture, and feels he has been most influenced by artists Paul Klee, Marshall Arisman, and Picasso. Novak also created five additional cover illustrations that will be used on the other 1992-93 CEE bulletins.

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UNIVERSITY OF MINNESOTA

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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.

Equal Opportunity

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420 S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

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

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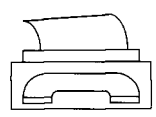


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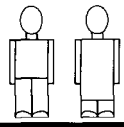
- by mail



- by FAX



- in person



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 CEE Counseling Office:

612/625-2500

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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 nearly 350 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
Continuing Education and Extension

University of Minnesota

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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

Many Independent Study courses 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 (Tapes, Audio) 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 or copy them (using your own blank tapes) 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.

General Information

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:

- 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; Videocassette Courses*

Counseling and Advising Services

The CEE Counseling office offers career 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 (Visa and MasterCard available), 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 or counselor 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 may 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.

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 lines labeled Full Payment Plan and the lines labeled Credit Card Payment on the registration form. When you fill in the Credit Card Payment information, 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 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 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 payment of the full amount of 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

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 University of Minnesota Twin Cities 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 Wesbrook 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 a 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. 341
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 or 851 SE 30th Avenue, Highway 14 East, 507/224-3106
and 612/624-2263

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.

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.

FAX Registration

If you prefer, you can now fax your registration form to Independent Study. The fax number is **612/626-7900**. Be sure to fax both sides of the registration form. If you use this registration option, you must make full payment for tuition (and supplies, if you choose to order them when you register) and supply credit card information. Fill in both the full payment lines and the credit card payment lines on the registration form.

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 three to five credits per quarter. (Students registered for 6-14 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 federal-adjusted gross income (1991 income for the 1992-93 academic year or, under some circumstances, on the present year's estimated income).

Awards are contingent on state funding. MPTSGP funds will be credited to a student's account through the Student Accounts Receivable System (STARS). 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 Minnesota State Grant (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 6-14 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 more than 180 credits or four years of education on a full-time basis beyond high school. MSG funds will be credited to a student's account through the Student Accounts Receivable System (STARS). 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 16, 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.

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 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 you are not able to pay your tuition and fees prior to disbursement of your Minnesota State Grant (MSG) check, 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 1992 requests will be taken from August 27 through October 9.

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:

6/15/92 through 8/26/92—summer
 8/27/92 through 12/11/92—fall
 12/14/92 through 3/19/93—winter
 3/22/93 through 6/11/93—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 offered throughout the year.

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.

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 letter 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 attempted. 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 called the **ISP Executive Study Programs for Healthcare Administrators**. These programs offer combined independent and on-campus study (two weeks beginning in July) that leads to a master's degree (MPH or MHA). Qualified individuals are those currently working in executive positions in health care institutions. The director of these programs is Vernon E. Weckwerth, Ph.D.

The programs include Ambulatory Care Administration, Hospital Administration, Patient Care Administration, and Special Interest Groups in Long Term Care and Mental Health/Chemical Dependency.

For more information, call or write: Program Associate, ISP, 420 Delaware St. SE, D305 Box 97 Mayo, Minneapolis, MN 55455; telephone 612/624-1411; FAX 612/626-1186.

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.

Incompletes

See *Reinstatements*

Immunization

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

Two years ago 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.

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 may 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 a lesson assignment—along with the correct computerized submission form—to Independent Study, which forwards it to the instructor. The instructor evaluates the assignment and returns it to Independent Study with a letter grade and comments. Then the assignment is 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 an assignment 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. 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 or can make copies of its audiocassettes. 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.

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 (N.U.C.E.A.). 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., P.O. 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 Westbrook 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 Wesbrook Hall until 8 p.m., with minimal service after 4:30 p.m. During the extended hours staff members will accept registrations, assignment 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 registration office will also be open from 9 a.m. to 1 p.m. one Saturday before each quarter: September 12, December 12, and March 13. On those three Saturdays, CEE counselors will be available in Wesbrook Hall to answer student questions.

The department does not observe regular academic holidays except for the following:

July 3, 1992	Independence Day holiday
September 7, 1992	Labor Day
November 26, 1992	Thanksgiving Day
November 27, 1992	Friday After Thanksgiving
December 23, 1992	Christmas holiday
December 24, 1992	Christmas holiday
December 25, 1992	Christmas
January 1, 1993	New Year's Day
January 18, 1993	Martin Luther King holiday
May 31, 1993	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 without difficulty.

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 and/or the office for Student Judicial Affairs.

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, and 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 Clusters

Program clusters are non-certificate interdisciplinary groups of courses with related subject matter. The clusters were designed to enable you to bridge courses and disciplines and to see the interdependence of different bodies of knowledge. For more information see the *Program Clusters* section.

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 purple 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 1992-93 tuition rates, buy the current required texts/supplies, and complete all the assignments and exams in the newest version of the course study guide.

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 for tuition 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 \$40. 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*).

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 one 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 Department of Independent Study for price and availability.

Tapes

See *Audiocassette Courses; Videocassette Courses*

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
- computer disks

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) 1-800-829-1040.

Teacher Certification

See *University Degree Programs, 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 purple 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 included with 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 may 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 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, the 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 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 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 (U of M student ID or driver's license) to receive over-the-counter rush service.

General Information

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 Office of the Registrar, University of Minnesota, 150 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 visiting the quick-service window in 150 Williamson Hall. A picture ID is required. 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 on undergraduates' University of Minnesota transcripts. 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.

A grade slip is sent to you when you complete an 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.

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 University campuses. 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 \$68.50 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 for specified broadcast television courses (see *University Degree Programs, Graduate School*) pay graduate tuition rates. That rate is given with the course description.

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 by mail through Independent Study (including the correct postage; see *Postage*) must be **paid in full** at the time of purchase.

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)
\$205.50 (3 cr @ \$68.50/cr)	\$ 76.50	\$ 68.50	\$ 68.50
\$274.00 (4 cr @ \$68.50/cr)	\$100.00	\$ 91.00	\$ 91.00
\$342.50 (5 cr @ \$68.50/cr)	\$122.50	\$114.00	\$114.00

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

A number of courses require students to view videocassettes. Descriptions of these courses are given in the Course Descriptions section of this bulletin. A list of videocassette courses is given in the purple section.

Videocassettes are available on VHS cassettes for home use. To rent videocassettes from Independent Study, fill in the appropriate space (Tapes, Video) 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). Videocassette courses are available only within the continental United States.

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 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 its open hours and videocassette availability. 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	851 SE 30th Avenue
	Rochester, Minnesota	Highway 14 East
	507/288-4584	612/624-2263; 507/224-3106

Withdrawals

See *Cancellations*



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 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 specified broadcast television 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.

How to Register

- The description below indicates the information that is found in all college course descriptions in this bulletin.

1	2	3			
Engl 5363 James Joyce (A371)					
4	5	6	7		
Audiocassette Course—3 assignments—1 exam—\$284/\$640 (grad rate, if applicable)— 4 degree credits—text price \$73—study guide \$10—10 audiocassettes \$26.50—C. Anderson					
8	9	10	11	12	
An introduction to the life and works of Joyce, including the epiphanies, the poems, the play <i>Dubliners</i> , <i>A Portrait of the Artist as a Young Man</i> , <i>Ulysses</i> , and bits of <i>Finnigan's Wake</i> .					

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1. Department designation and course number
2. Course title
3. Department of Independent Study (DIS) reference number
4. Type of course (if audiocassette, videocassette, radio, or television)
5. Number of assignments*
6. Number of exams
7. Tuition (undergraduate rate/graduate rate [if applicable])
8. Number and kind of credits offered (i.e., degree or certificate)
9. Price of texts
10. Price of study guide (if applicable)
11. Price of audiocassettes, lab kits, or other special materials
12. Author/instructor's last name (faculty are listed after each department or subject heading)
13. Course content and prerequisites, if any

* If a course lists a small number of assignments, they usually require more preparation.

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.
- 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 at the end of this bulletin (a sample is shown below). Some of the information on the back of the registration form 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.

UNIVERSITY OF MINNESOTA
 Continuing Education and Extension
 Department of Independent Study

45 Wesbrook Hall
 77 Pleasant Street Southeast
 Minneapolis, MN 55455
 (612) 624-0000
 Fax: (612) 626-7900

REGISTRATION FORM Please Print

Social Security Number 0000-12-3456 University ID 0102030
 Last Name Stude Middle Initial E
 First Name Ann Title (Mr Ms Mrs Miss Dr) Ms

MAILING ADDRESS: Address 123 Fourth St.
Apt. 101
 City Anytowne
 State MN Zip Code 00000
 County Fifth Country USA
 Home Phone # (123) 555-1234
 Fax Number () -
 Birthdate 02 / 03 / 56

PERMANENT ADDRESS: Address 123 Fourth St.
Apt. 101
 City Anytowne
 State MN Zip Code 00000
 County Fifth Country USA
 Work Phone # (123) 555-5678
 Gender Male Female

Use the Independent Study bulletin to complete the following. High school courses can be taken A-F grading only.

(DIS NO.)	DEPT.	COURSE NO.	COURSE TITLE	CREDITS	A-F OR S-N	TUITION
A371	Engl	5363	James Joyce	4	A-F	\$ 284
						\$
						\$

Have you completed the prerequisites? Yes No G.I. Bill Registration? Yes No

TYPE OF PAYMENT **AMOUNT DUE**

Full Payment Tuition \$ 284.00
 Textbooks \$ 73.00
 Partial Pay Serv Chg \$ _____
 Partial Payment Study Guide \$ 10.00
 (1/3 tuition + \$8 Tapes, Audio* \$ 26.50
 service charge Tapes, Video \$ _____
 per course) Other, Supplies* \$ _____
 Postage \$ 8.00
 Taxable items at 5%. Tax \$ 1.72
 Mpls. residents pay 7% TOTAL \$ 403.22

BILL TO DEPT/COMPANY: (Full Payment Only) (attach authorization)
 Name _____
 Addr _____
 City _____
 State _____ Zip Code _____

CREDIT CARD INFORMATION (Full Payment Only)
 Visa Exp. Date 12/94
 MasterCard Card # 123-456-789-101
 Name on Card Ann E. Student
 Signature Ann E. Student

To register by FAX: Full payment only. Provide Visa or MasterCard information. ↗

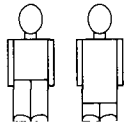
APPROVAL FOR REGISTRATION FOR HIGH SCHOOL STUDENTS (to be signed by counselor, principal, or superintendent). Not to be used for PSEDA registration.
 Signature _____ Title _____
 School _____

You are responsible for all policies in the Independent Study bulletin.

Student's Signature Ann E. Student Date 6/2/92 →

How to Register

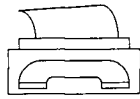
- Mail or bring your completed registration form with full or partial-payment tuition to Independent Study. Students registering by FAX must fill in the full payment lines and supply credit card information, and FAX both sides of the registration form.



In person: 45 Wesbrook Hall, Minneapolis campus of the University



By mail: Department of Independent Study
University of Minnesota
45 Wesbrook Hall
77 Pleasant St. SE
Minneapolis, MN 55455



By FAX: 612/626-7900

- 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 lines on the registration form.
- If you are registering for a videocassette course, indicate this on the registration form (Tapes, Video) and include the \$50 rental fee (\$25 refundable).
- If you are registering under the G.I. Bill, please indicate this on the registration form.
- 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.



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 1050 Introduction to Financial Reporting (1533)

14 assignments—2 exams—5 degree credits—\$342.50 (plus texts)—Heslop

NEW Introduction to basic concepts of measurement and valuation that 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 this course. (Prerequisite: 40 credits completed).

Acct 3001 Introduction to Management Accounting (1540)

14 assignments—2 exams—\$308—4 degree credits—text price \$60—Heslop

NEW 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)

Acct 5135 Income Tax Accounting (1584)

16 assignments—1 exam—\$308—4 degree credits—text price \$58—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 then given to business deductions, personal deductions, gains and losses, nontaxable exchanges, deferred compensation, and taxation of business entities. Covers recent tax laws, including those enacted through the end of 1991. 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)

Thea Petchler, Teaching Assistant, Afro-American and African Studies

Charles Pike, Ph.D., Assistant Professor, Afro-American and African Studies

John Wright, Ph.D., Associate Professor, Afro-American and African Studies

New courses or those that require the use of a computer are marked with icons:

NEW



Afro 3601 Introduction to African Literature (A376)

Audiocassette course—11 assignments—2 exams—\$284—4 degree credits—text price \$60—study guide and supplement \$20—11 audiocassettes \$29—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 5597 Harlem Renaissance: Afro-American Art and Culture in the 1920s (3620)

\$284 (plus texts)—4 degree credits—Wright/Petchler

NEW

Multidisciplinary review of the Jazz Age's Harlem Renaissance: literature, popular culture, visual arts, political journalism, and such people as Jean Toomer, Claude McKay, Langston Hughes, Bessie Smith, DuBose Heyward, Carl VanVechten, Eugene O'Neill, Marcus Garvey. **This course is now in preparation; please inquire before enrolling.**

Agricultural and Applied Economics (Agriculture)

Jay S. Coggins, Ph.D., Assistant Professor, Montana State University

Charles C. Lyon, Research Assistant and Ph.D. candidate, Agricultural and Applied Economics

AgEc 1400 Agricultural Markets and Prices (1082)

14 assignments—2 exams—\$274—4 degree credits—text price \$49—Coggins/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 1101 or equivalent)

Agriculture

See *Animal Science; Entomology; Food Science and Nutrition; Horticultural Science*

American Studies (CLA)

Roger Clemence, MLA and M. Arch., Professor and Associate Dean, College of Architecture and Landscape Architecture

J. Randolph Cox, M.A., Professor and Reference Librarian, St. Olaf College

Judith Martin, Ph.D., Associate Professor, Geography and Urban Studies, 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—\$274—4 degree credits—text price \$48—study guide \$10—10 audiocassettes \$26.50—Cox

Surveys American detective fiction, both classic and hard-boiled, to suggest reasons for its continued popularity. Novels and stories by the major writers (Poe, Hammett, Ellery Queen, Rex Stout, and others) will be assigned for reading and discussion. Audiocassettes focus on Ellery Queen as an example of the changing style of the genre.

**AmSt 3920/5920 Topics in American Studies:
The Meanings of Place (V143/V143.1)**

Videocassette course—6 assignments—no exams—\$284—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 on their HomeVCR or at a University media center (see General Information, Videocassette Courses).**

**AmSt 3920/5920 Topics in American Studies:
The Meanings of Place (T143/T143.1)**

Television course—6 assignments—no exams—\$284/\$640 (grad rate, if applicable)—4 degree credits—text price \$56—study guide \$20—Clemence and Martin

See above. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: spring 1993 on KTCI (Channel 17) and KWCM (Channel 10) (see the purple section).**

AmSt 3970 Directed Study: American Architecture to 1860 (1408)

11 assignments—no exams—\$284—4 degree credits—text price \$60—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—\$274—4 degree credits—text price \$48—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.

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—\$342.50—5 degree credits—text price \$63—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—\$342.50—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.

For more information about a course, call or write for a free copy of the study guide introduction: 612/624-0000 or page 127.

Anth 1102 Introduction to Social and Cultural Anthropology (V112)

Videocassette course—2 assignments—1 exam—\$342.50—5 degree credits—text price \$57—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Anth 5141 Culture and Personality (1197)

1 assignment—2 exams—\$284—4 degree credits—text price \$45—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 and Associate Dean, College of Architecture and Landscape Architecture

Judith Martin, Ph.D., Associate Professor, Geography and Urban Studies, 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 (1408.1)

11 assignments—no exams—\$308—4 degree credits—text price \$60—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—\$308—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Arch 5956 The Meanings and Messages of Place: City, Town, and Countryside (T143.2)

Television course—6 assignments—no exams—\$308/\$640 (grad rate, if applicable)—4 degree credits—text price \$56—study guide \$20—Clemence and Martin

See AmSt 3920/5920. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: spring 1993 on KTCI (Channel 17) and KWCM (Channel 10) (see the purple section).**

Art (CLA)

Sheila McNally, Ph.D., Professor of Art History

Arth 1001 Introduction to the Visual Arts (V121)

Videocassette course—2 assignments—2 exams—\$274—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 on their Home VCR or a University media center (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—\$342.50—5 degree credits—text price \$38—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 the astronomer. Observations of the night sky included. Elementary algebra suggested.

GC 1162 Physical Science: Stellar Astronomy (1315)

16 lessons—3 exams—\$342.50—5 degree credits—text price \$49—Policoff

NEW 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.

Robert J. Brooker, Ph.D.
Associate Professor, Biological Process Technology Institute
 Biol 1009—General Biology
 Biol 5004—Cell Biology
 GCB 3002—Genetics

Brooker received his Ph.D. in genetics from Yale, followed by post-doctoral work at Harvard that involved the study of lactose transport across the bacterial cell membrane. Brooker has continued this work at the University, where he supervises an active research laboratory as well as teaching several biology, cell biology, and genetics courses.

Beekeeping

See Entomology

Biology (Biological Sciences)

Robert Brooker, Ph.D., Associate Professor, Biological Process Technology Institute
William Cunningham, Ph.D., Professor, Genetics and Cell Biology
Val Woodward, Ph.D., Professor, Genetics and Cell Biology

Biol 1009 General Biology (1601)

15 assignments—2 exams—\$342.50—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 1101 Heredity and Human Society (A815)

Audiocassette course—\$274 (plus texts and tapes)—4 degree credits—study guide \$10—Woodward

NEW Principles of heredity and their social and cultural implications. **This course is now in preparation; please inquire before enrolling.**



Biol 3051 Biology and the Future of the Earth (1604)

12 lessons—2 exams—\$322 (plus texts)—4 degree credits—Cunningham

NEW Nontechnical discussion of current environmental issues, including air and water pollution, human population growth, toxic and hazardous wastes, urbanization, resource economics, biological diversity, energy, health, and environmental ethics. **This course is now in preparation; please inquire before enrolling.**

Biol 5004 Cell Biology (1603)

11 assignments—2 exams—\$241.50—3 degree credits—text price \$60—Brooker

NEW 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. (Prerequisites: Biol 1009; Biol 5001 recommended)

GCB 3022 Genetics (1605)

12 assignments—2 exams—\$322 (plus texts)—4 degree credits—Brooker

NEW Mechanisms of heredity, their implications for biological populations, and applications to practical problems. Not intended for biology majors. (Prerequisite: Biol 1009) **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
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, Ph.D., J.D., Assistant Professor of Management, University of Wisconsin, LaCrosse

BGS 3002 Business and Society: Ethics and Stockholder Management (1594)

12 assignments—2 exams—\$308—4 degree credits—text price \$49—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—\$308—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 R. 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—\$308—4 degree credits—text price \$75—Hower

Study of the origin of law, its place in and affect on 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—\$308—4 degree credits—text price \$75—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—\$308—4 degree credits—text price \$75—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)

Business Studies (GC)

Dennis R. 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 A. Larson, Ph.D., Professor, Science, Business, and Mathematics Division, General College

Shari L. Peterson, M. Ed., Assistant Professor, Science, Business, and Mathematics Division, General College

GC 1235 United States: Law in Society (1615)

14 assignments—2 exams—\$274—4 degree credits—text price \$57—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—\$342.50—5 degree credits—text price \$44—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)

\$342.50 (plus texts)—5 degree credits—Kroll

The importance of small business in the United States, and the challenges, pitfall, 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. **This course is now in preparation; please inquire before enrolling.**

GC 1534 Practical Law (1620)

15 assignments—1 exam—\$274—4 degree credits—text price \$88—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—\$274—4 degree credits—text price \$78—Larson

The first of a two-part introductory course in college accounting, 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—\$274—4 degree credits—text price \$96—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—\$342.50—5 degree credits—text price \$35—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—\$342.50—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

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—\$342.50—5 degree credits—text price \$35—Uthe

Fundamental principles and laws of chemistry, stressing the development and application of

To be admitted to a certificate or degree program, see pages 107–120.

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*

Daniel Ashmead, Ph.D., Assistant Professor, Vanderbilt University

W. Andrew Collins, Ph.D., Professor, Child Psychology

Kim Gale Dolgin, Ph.D., Associate Professor, Ohio Wesleyan University

Ann E. Ellis, M.A., Ph.D., Lecturer, Child Development

Sander M. Latts, Ph.D., Associate Professor, Social and Behavioral Sciences Division, General College

Nancy Leffert, Ph.D., Lecturer, Institute of Child Development

Alexander A. Muller, Ph.D. in Psychology
Catherine Sullivan, M.A., Teaching Assistant, Institute for Child Development

CPsy 1301 Introductory Child Psychology (8283)

13 assignments—2 exams—\$274—4 degree credits—text price \$55—Ashmead/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—\$308—4 degree credits—text price \$61—Ashmead/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—\$308—4 degree credits—text price \$50—Muller/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—\$308—4 degree credits—text price \$51—Dolgin/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—\$308—4 degree credits—text price \$63—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)

Some courses are broadcast on television or radio. See the purple pages for listings.

GC 1284 Behavior Problems of Children (8288)

13 assignments—2 exams—\$274—4 degree credits—text price \$58—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—\$205.50—3 certificate credits—text price \$72—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., Teaching Assistant and Ph.D. candidate, Classical and Near Eastern Studies
Gerald Erickson, Ph.D., Professor of Classical Studies

R.A. Swanson, Ph.D., Classical Studies

Clas 1019 Magic, Witchcraft, and the Occult in Greece and Rome (A524)

Audiocassette course—3 assignments—1 exam—\$274—4 degree credits—text price \$20—study guide \$10—10 audiocassettes \$26.50—Erickson

Magic and witchcraft in classical literature and mythology, the practice of magic as observed from 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—\$137—2 degree credits—no required texts—Swanson/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—\$284—4 degree credits—text price \$64—study guide \$10—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$79—study guide and supplement \$20—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$26—study guide \$20—15 audiocassettes \$39.50—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.

Lillian Bridwell-Bowles, Ed.D.
Associate Professor, English,
Director, Center for Interdisciplinary Studies of Writing
Engl 3851—The English Language

In the introduction to her study guide, Bridwell-Bowles explains that she inherited her love of language from her grandmother, a legendary storyteller in eastern North Carolina. She also says that teaching is the favorite part of her career as a professor. She has learned how to combine teaching with research and scholarship by asking her students to answer tough questions, the same ones she asks herself as she is reading, writing, conducting research: How do we learn language? How do we write? What are the connections between language and thought? How do individuals communicate in a complex social structure?

Comparative Literature

See *English*

Composition and Communication (CLA and GC)

Also see *English, Creative and Professional Writing*

Harold J. Alford, Ph.D., English
Elin Anderson, M.A., Teaching Associate, English/Program in Composition and Communication
Richard Carr, M.A., Teaching Assistant and Ph.D. candidate, English
Barry Edwards, Teaching Assistant and Ph.D. candidate, English
Martha Edwards, B.A., Teaching Assistant and Ph.D. candidate, History
Sonia Feder-Lewis, Teaching Assistant and Ph.D. candidate, English
Katherine Guenther, Teaching Assistant and Ph.D. candidate in English
Janet Drake Hamilton, M.A., Instructor, Composition and Geography
Justin J. O'Connell, B.A., English, Continuing Education and Extension



Course Descriptions

Lela Porter, Lecturer, English/Program in Composition and Communication
Mark Reschke, Teaching Assistant and Ph.D. candidate, English
Donald Ross, Jr., Ph.D., Professor, English
Colette Wanless-Sobel, Ph.D., Lecturer in Composition and Communication

GC 0402 Grammar and Usage Review (3505)

11 assignments—1 exam—\$205.50—no credit—text price \$16—Alford/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.

Comp 0011 Preparation for Writing Practice (3517)

12 assignments—no exams—\$205.50—no credit—no required text—Guenther/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—\$342.50—5 degree credits—text price \$30—Ross/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—\$137—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).

Comp 3011 Writing About Literature (3535)

9 assignments—1 exam—\$284—4 degree credits—text price \$64—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—\$284—4 degree credits—text price \$59—Carr

The major emphasis will be writing about the kind of texts ordinarily encountered in philosophy, history, cultural anthropology, social work, and interdisciplinary 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. 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—\$284—4 degree credits—text price \$31—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—\$284—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—\$284—4 degree credits—text price \$23—Reschke

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 3022 Critical Reading and Writing for Management (3545)

3 assignments—no exams—\$284 (plus texts)—4 degree credits—Edwards

NEW This course develops general strategies for engaging texts critically, both as a reader and as a writer. The three major assignments—abstract, critique, and synthesis—gradually teach the skills needed for precise understanding of texts, critical analyses of texts, and sophisticated use of them.

Comp 3031 Technical Writing for Engineers (3541)

12 assignments—no exams—\$284—4 degree credits—text price \$57—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)

8 assignments—no exams—\$284—4 degree credits—no required texts—Ross



See above. Students must have access to an Apple Macintosh with Hypercard or be able to use the microcomputers in one of the University's computer labs.

Comp 3032 Preprofessional Writing for Business (3542)

12 assignments—no exams—\$284—4 degree credits—text price \$69—Feder-Lewis

Focus on rhetoric, form, and style of business writing in reports, case studies, and correspondence. Practical examples. Management School students must take this course A-F. (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

Gang Wang, Teaching Assistant and Ph.D. candidate, Computer Science

CSci 3001 Perspectives on Computers and Society (1902)


11 assignments—1 exam—\$308—4 degree credits—text price \$66—Slagle/Wang

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—\$342.50 (plus text)—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. Several disks are included with the course materials; students must indicate whether they want 5.25 or 3.5 inch disks. 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's computer labs. (Prerequisite: elementary algebra)

GC 1572 Introduction to Computer Programming (1979)

9 assignments—3 exams—\$342.50—5 degree credits—text price \$37—Robertson

NEW  Experience in using the microcomputer as a problem-solving tool. Students design, write, code, and run computer programs written in the BASIC computer language. Emphasizes writing properly structured and documented programs to solve problems from the social and natural sciences. Topics: problem-solving techniques as applied to computing, elements of BASIC, external data file manipulation, writing structured programs, and integration of programming with data created by other applications. Gives background for further programming courses.

Students must have access to an IBM or IBM-compatible computer with a BASIC interpreter or be able to use the microcomputers in one of the University's computer labs. Two disks are included with the course materials; students must indicate whether they want 5.25 or 3.5 inch disks. (Prerequisites: GC 1571 or microcomputer experience and elementary algebra) **This course is now in preparation; please inquire before enrolling.**

Danish (CLA)

Torben Staur, Teaching Assistant and Ph.D. candidate, Scandinavian Studies

Dan 1101 Beginning Danish I (6350)

15 assignments—\$342.50 (plus texts)—5 degree credits—Staur

NEW Development of reading, writing, and speaking skills. **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—\$322—4 degree credits—text price \$27—study guide \$10—10 audiocassettes \$26.50—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.

You can charge your tuition (full payment only) and supplies using Visa or MasterCard.

East Asian Studies (CLA)

Chun-Jo Liu, Ph.D., Professor, East Asian Studies

Wenying Zhang, M.A., Teaching Assistant and Ph.D. candidate, East Asian Studies

Chn 3165 Introduction to Chinese Literature (5507)

14 assignments—no exams—\$284—4 degree credits—text price \$28—Liu/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 *Forest Resources*

William Lamberts, B.S., Graduate Teaching Assistant, Ecology, Evolution, and Behavior
Catherine Zabinski, Ph.D., Ecology, Evolution, and Behavior

EEB 3001 Introduction to Ecology (2011)

10 assignments—2 exams—\$322—4 degree credits—text price \$48—Zabinski/Lamberts

Ecology is the science that investigates the interactions of living things with each other and their environments. Students will learn how ecologists explore these interactions as they take place between individuals and within ecosystems, communities, and populations of organisms. Attention is given to the importance of evolution in shaping ecological relationships, as well as to the impact of humans on natural systems.

Economics (CLA)

Also see *Agricultural and Applied Economics*

Shamall Gupta, M.S., M.A., Lecturer, Continuing Education and Extension
Harlan Smith, Ph.D., Professor Emeritus of Economics

Econ 1101 Principles of Microeconomics (2103)

14 assignments—2 exams—\$274—4 degree credits—text price \$72—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 this course.

Econ 1102 Principles of Macroeconomics (2104)

14 assignments—2 exams—\$274—4 degree credits—text price \$72—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—\$284—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—\$284—4 degree credits—text price \$57—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)

You can order all course supplies by mail. See pages 19 and 22-23.

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—
\$308—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 on their Home VCR or at a University media center (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—
\$308/\$376 (grad rate, if applicable)—4 degree
credits—study guide \$20—Harkins

See above. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: fall 1992 on KTCI (Channel 17) and KWCM (Channel 10) (see the purple section).**

EdPA 5110 Personal Time Management and Effective Administration (2681.1)

10 assignments—no exams—\$154—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 you really want to do, but don't have time for.

Elementary Education

*Helen L. Jorstad, Ph.D., Associate Professor,
Curriculum and Instruction*
*Skip Wenda, Ph.D., Teaching Assistant,
Curriculum and Instruction*

Elem 5321 Second Language Programs for Young Children: Like Child's Play (V266)

Videocassette course—7 assignments—no exams—
\$308—4 degree credits—text price \$31—study guide
and supplement \$20—video rental \$50 (\$25
refund)—Jorstad/Wenda

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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Elem 5321 Second Language Programs for Young Children: Like Child's Play (T266)

Television course—7 assignments—no exams—\$308/\$376 (grad rate, if applicable)—4 degree credits—text price \$31—study guide and supplement \$20—Jorstad/Wenda

See above. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: spring 1993 on KTCI (Channel 17), KWCM (Channel 10), KWSQ (Channel 15), and WDSE (Channel 8) (see the purple section).**

Educational Psychology

L. Sunny Hansen, Ph.D., Professor, Educational Psychology

Karen Rogers, Ph.D., Assistant Professor, University of St. Thomas

S. Jay Samuels, Ph.D., Professor, Educational Psychology

EPsy 5112 Knowing, Learning, and Thinking (2694)

\$308 (plus texts)—4 degree credits—Samuels

NEW Principles of human information processing; issues in memory and thought; discussion of mental operations in comprehension and understanding; analysis of intellectual structures supporting problem solving in applied settings. **This course is now in preparation; please inquire before enrolling.**

EPsy 5400 Workshop: Counseling Psychology: Career Development and Planning (V263)

Videocassette course—1 assignment—1 exam—\$308—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

EPsy 5690 Education of the Gifted and Talented (V264)

Videocassette course—4 assignments—\$231—3 degree credits—text price \$49—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

EPsy 5690 Education of the Gifted and Talented (T264)

Television course—4 assignments—\$231/\$282 (grad rate, if applicable)—3 degree credits—text price \$49—study guide \$10—Rogers

See above. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: winter 1993 on KTCI (Channel 17), KWCM (Channel 10), WDSE (Channel 8), and KSMQ (Channel 15) (see the purple section).**

Engineering

Also see *Civil Engineering and Mechanical Engineering*.

Michael McDonald, Ph.D., Assistant Professor, Chemical Engineering, University of Minnesota Duluth

John S. Patten, Ph.D. in Chemical Engineering

**Engr 3016 Deformable Body Mechanics (3238.1)
(U of M Duluth)**

8 assignments—3 exams—\$308—4 degree credits—
text price \$62—Patten/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* 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
Lillian Bridwell-Bowles, Ed.D., Associate Professor, English
Philip Furia, Ph.D., Professor of English
Jill Gidmark, Ph.D., Professor, Arts, Communication, and Philosophy Division, General College
Edward Griffen, Ph.D., Professor, English
Maureen Heacock, Teaching Assistant and Ph.D. candidate, English
Patricia Hodgell, Ph.D., English, Continuing Education and Extension
John D. Hurrell, Ph.D., Professor Emeritus, English
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

Lynette Reini-Grandell, Ph.D., English

Amanda Roll-Kuhne, Teaching Assistant and Ph.D. candidate, 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 and Ph.D. candidate, English

**Engl 1016 Introduction to American Literature:
Some Major Figures and Themes (A366)**

Audiocassette course—9 assignments—1 exam—
\$274—4 degree credits—text price \$62—study guide
\$10—10 audiocassettes \$26.50—Griffen/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 Griffen. 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)

5 assignments—1 exam—\$274—4 degree credits—
text price \$29—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 1017 Introduction to Modern Poetry (K380)

Radio course—5 assignments—1 exam—\$274—4
degree credits—text price \$29—study guide \$10—
Furia/Reini-Grandell

NEW See above. **Broadcast: fall 1992 on
KUOM radio, 770 AM (see the
purple section).**

Minnesota high school students may be eligible for enrollment under the Post-Secondary Enrollment Options Act. Call 612/626-1666 for information.

Engl 1019 Introduction to Modern Drama (3677)

10 assignments—2 exams—\$274—4 degree credits—text price \$48—Hurrell/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—\$274—4 degree credits—text price \$53—study guide \$10—10 audiocassettes \$26.50—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 1591 Literature of American Minorities (K379)

Radio course—\$274 (plus texts and study guide)—4 degree credits—Roll-Kuhne and Heacock

NEW

Representative works by Afro-American, American Indian, Asian American, and Chicano/Chicana writers.

Examination of relevant social factors. **Broadcast: spring 1993 on KUOM radio, 770 AM (see the purple section).**

Engl 1591 Literature of American Minorities (3614)

\$274 (plus texts)—4 degree credits—Roll-Kuhne and Heacock

NEW

See above. **This course is now in preparation; please inquire before enrolling.**

Engl 3111 Survey of English Literature I (3657)

12 assignments—1 exam—\$284—4 degree credits—text price \$41—1 audiocassette \$3.75—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.

Engl 3112 Survey of English Literature II (3658)

12 assignments—1 exam—\$284—4 degree credits—text price \$46—McNaron

A continuation of Engl 3111, this course deals with Milton, Johnson, Dryden, Swift, Austen, and Pope.

Engl 3113 Survey of English Literature III (3659)

15 assignments—no exams—\$284—4 degree credits—text price \$47—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 (A378)

Audiocassette course—12 assignments—2 exams—\$284—4 degree credits—text price \$37—study guide \$10—10 audiocassettes \$26.50—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*, *Richard II*, *Henry IV, Part I*, *Henry V*, *Much Ado About Nothing*, *Julius Caesar*, *Comedy of Errors*, *Othello*, and *Hamlet*. The same audiocassettes are used for Engl 3241 and Engl 3242.

Engl 3242 Shakespeare II (A377)

Audiocassette course—12 assignments—2 exams—\$284—4 degree credits—text price \$28—study guide \$10—10 audiocassettes \$26.50—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; both courses contain introductory materials. The same audiocassettes are used for Engl 3241 and Engl 3242.

If quarter of registration is important for financial aid or other reasons, see page 13 for term dates.

Engl 3410 Major American Writers: Fitzgerald and Hemingway (A365)

Audiocassette course—2 assignments—2 exams—\$284—4 degree credits—text price \$73—study guide \$10—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$27—study guide \$10—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—\$284—4 degree credits—text price \$41—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—1 exam—\$284—4 degree credits—text price \$75—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—\$284—4 degree credits—text price \$58—study guide \$10—10 audiocassettes \$26.50—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 3455 American Short Story (3684)

14 assignments—1 exam—\$284—4 degree credits—text price \$23—Furia

Students will study the works of Irving, Poe, Melville, Crane, Cather, Hemingway, Updike, Cheever, and other authors.

Philip Furia, Ph.D.

Professor, English and American Studies

Engl 1017—Introduction to Modern Poetry

Engl 3410—Fitzgerald and Hemingway; Voices and Visions in American Poetry

Engl 3455—American Short Story

Engl 5432—American Poetry

Furia, a professor at the University since 1970, has taught a wide range of courses. His special interest is modern American literature and the relationships between literature and the other arts. Furia has published numerous articles and several books, including *The Poets of Tin Pan Alley: A History of America's Great Lyricists*. In that book's preface, Furia acknowledges his debt to "my students at the University, particularly the diverse students I have had the opportunity to teach through CEE, for helping me develop my ideas." In 1989 Furia was awarded a distinguished teaching award.



Engl 3851 The English Language (V360)

Videocassette course—10 assignments—no exams—\$284—4 degree credits—text price \$34—study guide \$10—video rental \$50 (\$25 refund)—Bridwell-Bowles/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—1 assignment—1 exam—\$284—4 degree credits—text price \$48—study guide \$10—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$66—study guide \$10—10 audiocassettes \$26.50—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.

Engl 3920 Topics in English and American Literature: Modern Women Writers (3685)

12 assignments—2 exams—\$284—4 degree credits—text price \$50—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—\$284—4 degree credits—text price \$35—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—\$284—4 degree credits—text price \$25—study guide \$10—Solotoff

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)

2 assignments—2 exams—\$284—4 degree credits—text price \$68—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, Cary, Amis, Sillitoe, and Murdoch. (Prerequisite: Comp 1011 or equivalent and 5 additional credits in either English or Humanities)

Course Descriptions

Engl 5175 Modern Drama to 1920: Pirandello to Pinter (3661)

3 assignments—4 exams—\$284—4 degree credits—text price \$78—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, Giradoux, O’Neill, Miller, Lorca, Williams, Brecht, Beckett, and Pinter.

Engl 5363 James Joyce (A371)

Audiocassette course—3 assignments—1 exam—\$284—4 degree credits—text price \$73—study guide \$10—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$76—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—\$274—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—\$274—4 degree credits—text price \$25—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—\$274—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.

GC 1836 Asian-American Literature (3613)

10 assignments—1 exam—\$274—4 degree credits—text price \$61—Gidmark

NEW The challenges presented to Asian immigrants and their children are examined, with attention to the clash between ethnic identity and American situation. Students will analyze both historical and contemporary works produced by writers such as Carlos Bulosan, Louis Chu, Joy Kogawa, and Amy Tan.

CLit 5414 European Folk Tales (A362)

Audiocassette course—1 assignment—2 exams—\$284—4 degree credits—text price \$53—study guide \$10—10 audiocassettes \$26.50—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

Michael Dennis Browne, M.A., Professor, English

Alan Burns, Barrister-at-Law, Professor, English

Judith Daniel, Graduate Student, Creative Writing

Margot Fortunato Galt, Ph.D., English, Continuing Education and Extension

Patricia Hampl, M.F.A., Professor, English

EngW 3102 Intermediate Fiction Writing (A353)

Audiocassette course—5 assignments—no exams—\$284—4 degree credits—text price \$19—study guide \$10—10 audiocassettes \$26.50—Burns/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.

EngW 3103 Intermediate Poetry Writing (A350)

Audiocassette course—5 assignments—no exams—\$284—4 degree credits—text price \$45—study guide \$10—10 audiocassettes \$26.50—Browne

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—\$284—4 degree credits—text price \$17—study guide \$10—10 audiocassettes \$26.50—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—\$284—4 degree credits—text price \$43—study guide \$10—10 audiocassettes \$26.50—Hamp/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, Entomology
Marla Spivak, Ph.D., Assistant Professor, Entomology

Ent 3020 Principles of Beekeeping (1005)

12 assignments—2 exams—\$322—4 degree credits—text price \$20—Furgala/Spivak

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 Burkett, Ph.D., Licensed Consulting Psychologist, St. Paul

William Doherty, Ph.D., Associate Professor, Family Social Science

David C. Dollahite, Ph.D., Family Social Science

John Engel, Ph.D., Professor of Family Resources, University of Hawaii

Sander M. Latts, Ph.D., Associate Professor, Social and Behavioral Sciences Division, General College

Marilyn M. Rossmann, Ph.D., Associate Professor of Home Economics

Mary Seabloom, Research Assistant and Ph.D. candidate, Family Social Science

FSoS 5001 Human Sexual Behavior (4103)

16 assignments—2 exams—\$402.50—5 degree credits—text price \$49—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 (V417)

Videocassette course—1 assignment—2 exams—\$402.50—5 degree credits—text price \$72—study guide \$10—video rental \$50 (\$25 refund)—Dollahite and Doherty/Seabloom

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. (Prerequisites: Soc 1001 and Psy 1001 or equivalents) **Students view the cassettes on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

FSoS 5200 Family Relationships (T417)

Television course—1 assignment—2 exams—\$402.50/\$800 (grad rate, if applicable)—5 degree credits—text price \$72—study guide \$10—Dollahite and Doherty/Seabloom

See above. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. **Broadcast: winter 1993 on KTCI (Channel 17) and KWCM (Channel 10) (see the purple section).**

FSoS 5240 Special Topics: Violence in the Family (4113)

11 assignments—2 exams—\$322—4 degree credits—text price \$43—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 5240 Special Topics: American Families in Transition (A416)

Audiocassette course—no assignments—2 exams—\$322—4 degree credits—text price \$47—study guide \$10—10 audiocassettes \$26.50—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.

FSoS 5240 Special Topics: American Families in Transition (K416)

Radio course—no assignments—2 exams—\$322—4 degree credits—text price \$47—study guide \$10—Rossmann

See above. **Broadcast: winter 1993 on KUOM radio, 770 AM (see the purple section).**

FSoS 5500 Racial and Ethnic Minority Families (4115)

9 assignments—no exams—\$322—4 degree credits—text price \$35—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.

Many courses fulfill requirements for CEE certificates. See pages 107-116.

GC 1722 Home Life: Parent-Child Relationships (4109)

10 assignments—2 exams—\$274—4 degree credits—text price \$72—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.

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 W. Reik, M.B.A., J.D., Finance, Continuing Education and Extension

BFin 3000 Finance Fundamentals (1797)

no assignments—2 exams—\$308—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)

Finnish (CLA)

Börje Vähämäki, Ph.D., University of Toronto

Fin 1001 Beginning Finnish I (5617)

13 assignments—no exams—\$342.50—5 degree credits—text price \$59—Vähämäki

NEW

An introduction to written and spoken Finnish through basic grammar, workbook exercises, cassette tapes,

and easy composition. Vocabulary useful to everyday situations is covered. **This course is now in preparation; please inquire before enrolling.**

Food Science and Nutrition (Agriculture and Human Ecology)

David Smith, Ph.D., Associate Professor, Food Science and Nutrition

Edmund A. Zottola, Ph.D., Professor of Food Science and Nutrition

FScN 1102 Technology of Food Processing (4304)

14 assignments—3 exams—\$274—4 degree credits—text price \$63—Zottola/Smith

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)

For financial aid information, see pages 11-14 or call CEE Counseling (612/625-2500).

Forest Resources (Natural Resources)

Harold Scholten, Ph.D., Professor of Forest Resources

FR 1201 Conservation of Natural Resources (4203)

11 assignments—2 exams—\$205.50—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., Teaching Assistant and
Ph.D. candidate, French and Italian
Peter W. Lock, Ph.D., Professor Emeritus of
French and Italian

Fren 0001 Reading French (5718)

17 assignments—1 exam—\$274—no credit—text price \$29—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—\$342.50—5 degree credits—text price \$70—8 audiocassettes \$21.50—Akehurst/Alcaya

An audio-lingual approach to elementary French, adapted for home use.

Fren 1102 Beginning French II (5712)

7 assignments—1 exam—\$342.50—5 degree credits—text price \$70—5 audiocassettes \$13.75—Akehurst/Alcaya

Continuation of French 1101. (Prerequisite: Fren 1101 or 1 year high school French)

Fren 1103 Beginning French III (5713)

7 assignments—1 exam—\$342.50—5 degree credits—text price \$70—5 audiocassettes \$13.75—Akehurst/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—\$284—4 degree credits—text price \$30—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—\$284—4 degree credits—text price \$39—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. 42

GC 1355—Ethics, p. 75

GC 1365—Literatures of the United States, p. 52

GC 1371—Literature: Reading Short Stories, p. 52

GC 1816—Afro-American Literature, p. 52

GC 1836—Asian-American Literature, p. 52

Science, Business, and Mathematics Division

GC 0611—Mathematics Skills Review, p. 71

GC 0621—Elementary Algebra, p. 71

GC 0625—Intermediate Algebra, Part I, p. 71

GC 0631—Intermediate Algebra, Part II, p. 71

GC 1161—Solar System Astronomy, p. 35

GC 1162—Stellar Astronomy, p. 35

GC 1166—Principles of Chemistry, p. 38

GC 1235—Law in Society, p. 37

GC 1454—Statistics, p. 84

GC 1511—Introduction to Modern Business, p. 38

GC 1513—Principles of Small Business Operations, p. 38

GC 1534—Practical Law, p. 38

GC 1540—Accounting Fundamentals I, p. 38

GC 1542—Accounting Fundamentals II, p. 38

GC 1551—Marketing: Introduction, p. 38

GC 1553—Marketing: Principles of Management, p. 38

- GC 1571—Introduction to Microcomputer Applications, p. 44
 GC 1572—Introduction to Computer Programming, p. 44

Social and Behavioral Science Division

- GC 1283—Psychology of Human Development, p. 79
 GC 1284—Behavior Problems of Children, p. 40
 GC 1722—Parent-Child Relationships, p. 55

Genetics

See *Biology*

Geography (CLA)

Eric Anderson, Teaching Assistant, Geography
John Borchert, Ph.D., Regents' Professor Emeritus, Geography
Philip Gersmehl, Ph.D., Professor of Geography
Daniel Hammel, M.A., Teaching Assistant, Geography
Kathleen Schroeder, Teaching Assistant and Ph.D. candidate, Geography
Roderick H. Squires, Ph.D., Associate Professor of Geography
James E. Young, Ph.D., Geography
Barbara VanDrasek, M.A., Teaching Assistant and Ph.D. candidate, Geography

Geog 1501 The Language of Maps (4409)

13 assignments—4 exams—\$342.50—5 degree credits—text price \$24—Gersmehl/Hammel

NEW 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)

\$284 (plus texts)—4 degree credits—Anderson

NEW Interaction of the aspirations and abilities of different groups of people with the complexities of the natural environment to produce regional differentiation of the United States and Canada. **This course is now in preparation; please inquire before enrolling.**

Geog 3111 Geography of Minnesota (V443)

Videocassette course—10 assignments—2 exams—\$284—4 degree credits—text price \$38—study guide \$10—video rental \$50 (\$25 refund)—Borchert

NEW 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. **Students view the cassettes on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Geog 3111 Geography of Minnesota (T443)

Television course—10 assignments—2 exams—\$284—4 degree credits—text price \$38—study guide \$10—Borchert

See above. **Broadcast: fall 1992 on KTCI (Channel 17), KWCM (Channel 10), KSMQ (Channel 15) and WDSE (Channel 8) (see the purple section).**

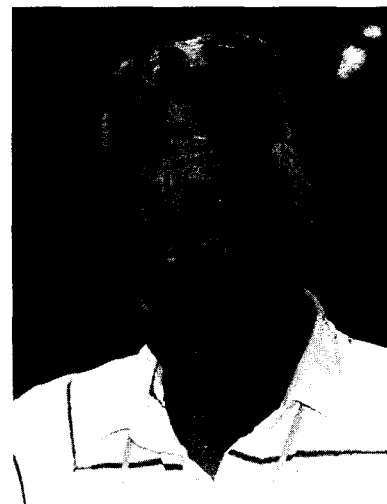
Geog 3121 Geography of Latin America (4450)

14 assignments—2 exams—\$284—4 degree credits—text price \$63—Schroeder

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 on people and their use of the land is emphasized. Problems are considered on both a national and regional basis.

John R. Borchert, Ph.D.
Regents Professor Emeritus, Geography
Geog 3111—Geography of Minnesota

John Borchert first taught Geography of Minnesota in 1950. Since then, he's conducted a lifetime of research and teaching on the geography of land use and development in Minnesota, in their setting within the American and world systems. In addition to teaching, Borchert has served in a research and advisory capacity with legislative committees, the state departments of transportation and education, the Planning Agency, local governments, and private economic development, utility, and financial organizations. He also served as a member of the Twin Cities Metropolitan Planning Commission and on the board of the Minnesota Pollution Control Agency.



Geog 3181 Geography of the Former Soviet Union (4452)

12 assignments—2 exams—\$284—4 degree credits—text price \$63—Young/VanDrasek

An introduction to the diverse characteristics and regions of the former 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—\$284—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—\$274—4 degree credits—text price \$57—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—\$274—4 degree credits—text price \$50—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
Stephanie Cain Van D'Elden, Ph.D., Associate Director, Independent Study

Ger 1101 Beginning German I (5805)

15 assignments—1 exam—\$342.50—5 degree credits—text price \$47—2 audiocassettes \$6.75—Peters/Van D'Elden

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—\$342.50—5 degree credits—text price \$60—2 audiocassettes \$6.75—Peters/Van D'Elden

Continuation of Ger 1101. (Prerequisite: Ger 1101 or 1 year of high school German)

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—\$284—4 degree credits—text price \$24—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. **Students must have access to a large library to obtain some of the required texts.**

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—\$342.50—5 degree credits—text price \$23—1 audiocassette \$3.75—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.

Hebrew (CLA)

Tzvee Zahavy, Ph.D., Professor of Classical and Near Eastern Studies

Hebr 1104 Introduction to Classical Hebrew I (6004)

12 lessons—2 exams—\$342.50—5 degree credits—text price \$64—1 audiocassette \$11—Zahavy

NEW

Hebrew alphabet, basic grammar, and vocabulary needed to read narratives and legal portions of the Hebrew Bible and of the middle Hebrew texts of Mishnah, Tosefta, Midrash, and the Talmud. Also introduces the civilization and religion of classical Hebrew culture. For students without previous knowledge of Hebrew.

Hebr 1105 Introduction to Classical Hebrew II (6005)

\$342.50 (plus texts and tapes)—5 degree credits—Zahavy

Continuation of Hebr 1104. (Prerequisite: Hebr 1104) **This course is now in preparation; please inquire before enrolling.**

NEW**Hebr 1106 Introduction to Classical Hebrew III (6006)**

\$342.50 (plus texts and tapes)—5 degree credits—Zahavy

Continuation of Hebr 1105. (Prerequisite: Hebr 1105) **This course is now in preparation; please inquire before enrolling.**

NEW**History (CLA)**

Sheldon Anderson, Ph.D., History
Deborah Bachrach, Ph.D., History, Continuing Education and Extension
Hyman Berman, Ph.D., Professor, History
Edward Farmer, Ph.D., Professor, History
George D. Green, Ph.D., Associate Professor, History
Mary Ann Hedberg, Research Assistant, History
Timothy Hoogland, Teaching Assistant and Ph.D. candidate, History
Calvin Hoovestol, J.D., Ph.D. candidate, History
Courtney Jaren, J.D., Research Assistant and Ph.D. candidate, History
Tom B. Jones, Ph.D., Regents' Professor Emeritus, History

Anna Kirchmann, Research Assistant and Ph.D. candidate, History

David Kopf, Ph.D., Professor, History

Joy Lintelman, Ph.D., History

Russell Menard, Ph.D., Professor, History

Michael Metcalf, Fil. dr., Professor, History and Scandinavian Studies

Paul L. Murphy, Ph.D., Professor, History

Thomas Noonan, Ph.D., Professor, History

Carla Rahn Phillips, Ph.D., Professor, History

William D. Phillips, Ph.D., Professor, History

Susannah Smith, M.A., Teaching Assistant and Ph.D. candidate, History

Edward Tebbenhoff, M.A., Teaching Assistant, History

Ruth Townsend, M.A., Research Assistant, History

Rudolph Vecoli, Ph.D., Professor, History

David Woodard, M.A., Instructor and Ph.D. candidate, History

Robert Wolff, Teaching Assistant, History

Hist 1001 Introduction to Modern European History Since the Middle Ages (4737)

12 assignments—2 exams—\$274—4 degree credits—text price \$67—Anderson/Smith

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—\$274—4 degree credits—text price \$67—Anderson/Smith

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—\$274—4 degree credits—text price \$67—Anderson/Smith

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 1011 Introduction to World History I (4821)

5 assignments—2 exams—\$342.50 (plus texts)—5 degree credits—Farmer

NEW General introduction to world history approached from a comparative perspective. Includes material from Asia, Africa, and Latin America, as well as the West. Themes of livelihood and identity explore the impact of historical change on ordinary people. Covers the 5000 years to A.D. 1450. **This course is now in preparation; please inquire before enrolling.**

Hist 1012 Introduction to World History II (4822)

5 assignments—2 exams—\$342.50 (plus texts)—5 degree credits—Farmer

NEW Continuation of Hist 1011. Covers the 500 years from 1450 to 1950. **This course is now in preparation; please inquire before enrolling.**

Hist 1013 Introduction to World History III (4823)

5 assignments—2 exams—\$342.50 (plus texts)—5 degree credits—Farmer

NEW Continuation of Hist 1012. Covers the 50 years since World War II. **This course is now in preparation; please inquire before enrolling.**

Hist 1051 Ancient Civilization I (4761)

12 assignments—2 exams—\$274—4 degree credits—text price \$32—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—\$274—4 degree credits—text price \$43—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—\$274—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—\$274/\$284—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.

Ruth Townsend, M.A.

Research Assistant and Ph.D. candidate, History

Hist 1305—Cultural Pluralism in American History

Townsend is a doctoral candidate in American history, currently completing her dissertation on the Native American rights movement of the 1920s and 1930s. In the introduction to her study guide, she writes that she is "particularly interested in how those who advocated the protection of Native American cultures also developed political ideas and strategies critical of Euro-American 'melting pot' ideals." She has taught Hist 1305 for three years and also is the coeditor of *Survival and Struggle: Racial Minorities in American History*.

Hist 1152/3152 English History From the 17th Century to the Present (4711/4712)

12 assignments—2 exams—\$274/\$284—4 degree credits—text price \$65—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 (4767)

12 assignments—no exams—\$274 (plus texts)—4 degree credits—video rental \$50 (\$25 refund)—Menard and Tebbenhoff/Wolff

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.**

Hist 1302 American History II (4729)

11 assignments—1 exam—\$274—4 degree credits—text price \$83—video rental \$50 (\$25 refund)—Green and Hoovestol/Woodard

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 (A476)

Audiocassette course—7 assignments—3 exams—\$274—4 degree credits—text price \$70—study guide \$10—10 audiocassettes \$26.50—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—7 assignments—3 exams—\$274—4 degree credits—text price \$70—study guide \$10—Townsend

See above. **Broadcast: winter 1993 on KUOM radio, 770 AM (see the purple section).**

Hist 1451/3451 Survey of Civilizations in Ancient Asia (4741/4744)

15 assignments—1 exam—\$274/\$284—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—\$274/\$284—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—\$274/\$284—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 3700 Topics in European History: Columbus and the New World (4758)

3 assignments—no exams—\$284—4 degree credits—text price \$44—study guide \$10—Phillips and Phillips/Hedberg

This course places the familiar figure of Christopher Columbus in the context of the world of the

late 15th century. Readings examine Europe and the rest of the known world, the New World of the Western Hemisphere, the motives and means through which Europeans expanded their interests around the globe, and the far-reaching consequences of Columbus's voyages.

Hist 3700 Topics in European History: The Life and Times of Peter the Great (4787)

6 assignments—no exams—\$284—4 degree credits—text price \$27—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—\$284—4 degree credits—text price \$39—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 3812 Civil War and Reconstruction (4755)

4 assignments—no exams—\$284—4 degree credits—text price \$52—Miller/Woodard

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 assignments—2 exams—\$284—4 degree credits—text price \$54—study guide \$10—video rental \$50 (\$25 refund)—Berman/Woodard

NEW 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 cassette at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Hist 3841 American Business History (V476)

Videocassette course—3 assignments—2 exams—\$284—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Hist 3881 American Foreign Relations (4770)

12 assignments—2 exams—\$284—4 degree credits—text price \$62—Hoogland/Woodard

Foreign policy and diplomacy during the period America sought independence through territorial expansion, 1760-1865.

Hist 3883 History of American Foreign Relations 1945-1990 (4708)

Videocassette course—12 assignments—2 exams—\$284—4 degree credits—text price \$63—video rental \$50 (\$25 refund)—Anderson/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—\$284—4 degree credits—text price \$44—Lintelman and Vicoli/Kirchmann

This course presents a history of a century of American immigration. Considers 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—\$284—4 degree credits—text price \$42—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—\$284—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 I (4804)

2 assignments—1 exam—\$284—4 degree credits—text price \$42—Murphy/Jaren

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 II (4805)

2 assignments—1 exam—\$284—4 degree credits—text price \$52—video rental \$50 (\$25 refund)—Murphy/Jaren

NEW

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.

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 (A515)

Audiocassette course—14 assignments—no exams—\$274—4 degree credits—text price \$40—study guide \$10—10 audiocassettes \$26.50—Hard

NEW

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, syllabus, and home projects with plants for the garden are 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—14 assignments—no exams—\$274—4 degree credits—text price \$40—study guide \$10—Hard

See above. **Broadcast: spring 1993 on KUOM radio, 770 AM (see the purple 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—\$274—4 degree credits—text price \$59—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.

Hum 1002 Humanites in the Modern World II (5202)

15 assignments—2 exams—\$274—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—\$274—4 degree credits—text price \$50—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.

Parking and building maps are on page 128 and the inside back cover.

Hum 1004 Humanities in the Modern World IV (5208)

16 assignments—no exams—\$274—4 degree credits—text price \$59—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 Dürrenmatt.

Hum 1111 European Heritage: Greece (5209)

15 assignments—no exams—\$274—4 degree credits—text price \$53—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—\$274—4 degree credits—text price \$45—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)

\$274 (plus texts)—4 degree credits—video rental \$50 (\$25 refund)—Bassewitz

NEW 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 cassettes 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)

Videocassette course—9 assignments—2 exams—\$274—4 degree credits—text price \$81—video rental \$50 (\$25 refund)—Crawford

NEW 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).**

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—\$205.50—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.

High school courses are listed on page 101-106.

IR 3000 Topics in Industrial Relations: Teaching Labor Relations in the Schools (2250)

10 assignments—no exams—\$308—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—\$308—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 United States, 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)

\$274 (plus texts)—4 degree credits—Adams

NEW  Explores the concepts and skills 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 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)

\$342.50—5 degree credits—text price \$86—5 audiocassettes \$13.75—Carlone

NEW 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.

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—\$284—4 degree credits—text price \$77—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 RelS 3034.

Students may obtain credit for this course either as JwSt or RelS, but not both. **Students view the cassettes at Walter Library or on their Home VCR (see General Information, Videocassette Courses).**

Tzvee Zahavy, Ph.D.

Professor, Classical and Near Eastern Studies

Hebr 1104-1105-1106—Introduction to Classical Hebrew

JwSt 3034/ReIS 3034—Introduction to Judaism

JwSt 3126—Modern Judaism

Zahavy has been a faculty member at the University since 1976, where he has taught courses in Talmud and Midrash translations, medieval Hebrew literature, rabbinic literature, and Judaism. He has also taught at Brown University, the University of California, Berkeley, and the College of William and Mary. He is the author of several books, articles, and software for computer-aided instruction. In 1985 Zahavy received the CLA distinguished teaching award.



JwSt 3126 Modern Judaism (8610)

12 assignments—2 exams—\$284—4 degree credits—text price \$52—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—\$284—4 degree credits—text price \$36—study guide \$10—10 audiocassettes \$26.50—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)

20 assignments—no exams—\$284—4 degree credits—text price \$38—10 optional audiocassettes \$26.50—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 3173 Magazine Writing (K372)

Radio course—20 assignments—no exams—\$284—4 degree credits—text price \$38—study guide \$10—Roberts

See above. **Broadcast: fall 1992 on KUOM radio, 770 AM (see the purple section).**

Jour 5501 Communication and Public Opinion I (3792)

13 assignments—1 exam—\$284—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—\$284—4 degree credits—text price \$50—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., Teaching Assistant and Ph.D. candidate, Classical and Near Eastern Studies

Lat 1101 Beginning Latin I (6201)

15 assignments—1 exam—\$342.50—5 degree credits—text price \$24—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—\$342.50—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)

Lat 1103 Beginning Latin III (6208)

11 assignments—1 exam—\$342.50—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 pas-

sages 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—\$342.50—5 degree credits—text price \$19—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—\$355 (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) with Hypercard or be able to use the computers in the University's computer labs to use the 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—\$355—5 degree credits—text price \$26—Rocheffort/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)

New courses or those that require the use of a computer are marked with icons:

NEW



Law

See *Business Law*

Linguistics (CLA)

Cynthia Robb Clamons, M.A., Teaching Assistant, Linguistics

George Yule, Ph.D., Associate Professor, Louisiana State University

Ling 1001 The Nature of Human Language (V352)

Videocassette course—4 assignments—1 exam—\$274—4 degree credits—text price \$19—video rental \$50 (\$25 refund)—Yule/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 on their Home VCR or at a University media center (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

Richard O. Sielaff, M.B.A., Ph.D., Professor of Marketing, School of Business and Economics, University of Minnesota Duluth

Mark Weber, Ph.D., J.D., Assistant Professor of Management, University of Wisconsin, LaCrosse

Robert M. Wiseman, M.B.A., Ph.D., Assistant Professor, Department of Management, Arizona State University

Mgmt 3001 Fundamentals of Management (2280)

14 assignments—2 exams—\$308—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)

10 assignments—1 exam—\$308—4 degree credits—text price \$34—Wiseman/Sielaff

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 assignments—no exams—\$385—5 degree credits—text price \$57—Majumdar/Sielaff

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)

You can listen to
(or copy) course
audiocassettes at
the Learning
Resources Center,
15 Walter Library.

Mgmt 3008 Entrepreneurship and the Smaller Enterprise (2285)

\$308 (plus texts)—4 degree credits—Weber

NEW

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.**

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—\$308—4 degree credits—text price \$57—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., Lecturer, Continuing Education and Extension

Laura L. Koch, Ph.D., Assistant Professor, Science, Business, and Mathematics Division, General College

Thomas Ressler, Ph.D., Professor, Graduate Program—Management, University of St. Thomas

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—\$274—no credit—text price \$44—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—\$274—no credit—text price \$45—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—\$274—no credit—text price \$63—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)

Aparna Ganguli, Ph.D.**Assistant Professor, General College**

GC 0625—Intermediate Algebra, Part I

Ganguli earned her B.S. and Ph.D. degrees from the University of Minnesota, and her M.S. from the University of Burdwan, West Bengal, India. She has been teaching math in General College since 1985. Her research interests include the role of the computer in direct teaching, computer-based teaching, the effect of microcomputer graphic displays on abstract math learning, the integration of writing with teaching math, and the learning styles of students who take developmental math courses.

GC 0631 Intermediate Algebra, Part II (7205)

\$342.50 (plus texts)—no credit—Giese

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. (Prerequisite: GC 0625 with a grade of C better) **This course is now in preparation; please inquire before enrolling.**

Math 1008 Trigonometry (7218)

12 assignments—2 exams—\$274—4 degree credits—text price \$44—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—\$342.50—5 degree credits—text price \$54—Ressler

Functions, graphs, quadratic equations, inequalities, complex numbers, theory of equations, permutations and combinations,



Course Descriptions

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—\$342.50—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—\$342.50—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—\$342.50—5 degree credits—text price \$55—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—\$342.50—5 degree credits—text price \$55—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).

Math 1251 One-Variable Differential and Integral Calculus I (7228)

\$274 (plus texts)—4 degree credits—Varadachari

NEW Calculus of functions of one variable and related geometry and applications. (Prerequisites: 4 years of high school math, including trigonometry, or a grade of C or better in Math 1201 or 1008 and 1111, or equivalent)

Math 1252 One-Variable Differential and Integral Calculus II (7229)

\$274 (plus texts)—4 degree credits—Varadachari

NEW Calculus of functions of one variable and related geometry and applications. (Prerequisites: Math 1251 with a grade of C or better) **This course is now in preparation; please inquire before enrolling.**

Math 3066 Elementary Differential Equations (7296)

16 assignments—3 exams—\$308—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, or equivalent, with grade of C or better)

Math 3221 Introduction to Linear Algebra and Linear Differential Equations (7236)

16 assignments—3 exams—\$385—5 degree credits—text price \$50—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, or equivalent, with grade of C or better)

Mechanical Engineering (IT)

Tesfahun Berhe, Ph.D., Lecturer in Mechanical Engineering

ME 1025 Engineering Graphics (3026)

12 assignments—3 exams—\$274—4 degree credits—text and materials \$97—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 (7311.2)

11 assignments—1 exam—\$205.50—3 degree credits—text price \$44—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 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)

\$68.50—1 degree credit—9 audiocassettes \$24—Vandervelde

See above. **Must be taken concurrently with Mus 1531, for a total of 4 credits.**

Mus 3011 Music Appreciation (A732)

Audiocassette course—7 assignments—2 exams—\$284—4 degree credits—no required text—14 audiocassettes \$37—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.

Mus 5702 American Music: Twentieth-Century American Music (A731)

Audiocassette course—6 assignments—1 exam—\$284—4 degree credits—text price \$35—study guide \$10—10 audiocassettes \$26.50—Riedel

Analysis of American music during this century: folk, popular and classical, black and Chicano, opera and symphony, contemporary music.

Norwegian (CLA)

William Solheim, Ph.D., Lecturer, Continuing Education and Extension

Nor 1101 Beginning Norwegian I (6303)

10 assignments—no exams—\$342.50 (plus texts and tapes)—5 degree credits—Solheim

NEW

An introduction to basic Norwegian grammar, pronunciation, sentence structure, reading, and writing. Emphasis placed on vocabulary and expressions used in everyday situations, while providing a foundation for further study.

Nor 1102 Beginning Norwegian II (6304)

12 assignments—no exams—\$342.50 (plus texts and tapes)—5 degree credits—Solheim

NEW Continuation of Nor 1101. (Prerequisite: Nor 1101 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Nor 1103 Beginning Norwegian III (6305)

12 assignments—no exams—\$342.50 (plus texts and tapes)—5 degree credits—Solheim

NEW Continuation of Nor 1102 with increased emphasis on reading and writing skills. (Prerequisite: Nor 1102 or equivalent) **This course is now in preparation; please inquire before enrolling.**

Nursing (Nursing)

Karen Alaniz, Ph.D., Assistant Professor, School of Nursing
Sara DeHart, Ph.D., Associate Professor, School of Nursing

N 3690/5690 Life Span Growth and Development I (8412/8413)

Videocassette/Audiocassette course—5 assignments—1 exam—\$161/\$320 (grad rate, if applicable) (plus texts)—2 degree credits—8 audiocassettes \$21.50—study guide \$10—video rental \$50 (\$25 refund)—Alaniz and DeHart

NEW Introductory course that incorporates biological, sociological, and psychological perspectives of human life span development from conception through adolescence. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. (Prerequisites: general psychology and general biology) **Students view the videocassettes at the Bio-Med Library LRC, Walter Library, or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

N 3691/5691 Life Span Growth and Development II (8414/8415)

Videocassette/Audiocassette course—5 assignments—1 exam—\$161/\$320 (grad rate, if applicable) (plus texts)—2 degree credits—5 audiocassettes \$13.75—study guide \$10—video rental \$50 (\$25 refund)—Alaniz and DeHart

NEW Introductory course that incorporates biological, sociological, and psychological perspectives of human life span development from young adulthood through aging and the death experience. Graduate School approval was pending when this bulletin was printed. Call 612/624-4393 for current information. If registering for graduate credit, enclose the higher tuition payment. (Prerequisites: general psychology and general biology, N 3690/5690 or equivalent, or consent of instructor) **Students view the videocassettes at the Bio-Med Library LRC, Walter Library, or on their Home VCR (see General Information, Videocassette Courses). This course is now in preparation; please inquire before enrolling.**

Philosophy (CLA and GC)

Joseph Bessie, Ph.D., Philosophy
Daniel Flory, M.A., Instructor, Composition, and Ph.D. candidate, Philosophy
Candido P. Zanoni, Ph.D., Professor, Arts, Communication, and Philosophy Division, General College

Phil 1001 Introduction to Logic (7608)

\$342.50 (plus texts)—5 degree credits—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.

Check the new
Program Clusters
on pages 87-90.

Phil 1002 Introduction to Philosophy (7600)

15 assignments—2 exams—\$342.50—5 degree credits—text price \$30—Bessie/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—\$274—4 degree credits—text price \$27—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.

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—\$274—4 degree credits—text price \$58—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—\$274—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Phys 1041 Introductory Physics I (7741)

18 assignments—3 exams—\$274—4 degree credits—text price \$54—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; concurrent registration in Phys 1045 required)

Phys 1042 Introductory Physics II (7742)

16 assignments—3 exams—\$274—4 degree credits—text price \$54—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; concurrent registration in Phys 1046 required)

**Independent Study
now accepts
registrations by
FAX (full payment;
credit card):
612/626-7900.**

Phys 1045 Introductory Physics Laboratory I (7718)

8 assignments—no exams—\$68.50—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. (Concurrent registration in Phys 1041 required)

Phys 1046 Introductory Physics Laboratory II (7720)

6 assignments—no exams—\$68.50—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. (Concurrent registration in Phys 1042 required)

Phys 1104 General Physics (7733)

16 assignments—3 exams—\$274—4 degree credits—text price \$61—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—\$274—4 degree credits—text price \$61—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—\$274—4 degree credits—text price \$61—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 1311 Comprehensive Introductory Physics with Calculus I (7743)

15 assignments—3 exams—\$274—4 degree credits—text price \$60—Cassola

NEW Calculus-level general physics stressing the use of fundamental principles. General topic: mechanics. This course does *not* include a lab, and the Physics Department does not offer a separate lab. (Prerequisite: completion of or concurrent registration in introductory calculus course)

Phys 1321 Comprehensive Introductory Physics with Calculus II (7744)

15 assignments—3 exams—\$274—4 degree credits—text price \$60—Cassola

NEW Calculus-level general physics stressing the use of fundamental principles. General topics: mechanics and waves. This course does *not* include a lab, and the Physics Department does not offer a separate lab. (Prerequisite: Phys 1311 or equivalent)

Phys 1331 Comprehensive Introductory Physics with Calculus III (7745)

15 assignments—3 exams—\$274—4 degree credits—text price \$60—Cassola

NEW Calculus-level general physics stressing the use of fundamental principles. General topics: electricity and magnetism. This course does *not* include a lab, and the Physics Department does not offer a separate lab. (Prerequisite: Phys 1321 or equivalent)

Phys 1341 Comprehensive Introductory Physics with Calculus IV (7746)

14 assignments—3 exams—\$274—4 degree credits—text price \$60—Cassola

NEW Calculus-level general physics stressing the use of fundamental principles. General topics: 20th-century physics and the structure of matter. This course does *not* include a lab, and the Physics Department does not offer a separate lab. (Prerequisite: Phys 1321 or equivalent)

Phys 3501 Modern Physics (7704)

17 assignments—3 exams—\$308—4 degree credits—text price \$60—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: Phys 1291 or 1106)

Political Science (CLA)

Terence Ball, Ph.D., Professor of Political Science

Sara Binder, Teaching Assistant and Ph.D. candidate, Political Science

Evelyn Davidheiser, Ph.D., Assistant Professor, Political Science

Dorothy Dodge, Ph.D., Professor of Political Science, Macalester College

Sandra Healy, Teaching Assistant and Ph.D. candidate, Political Science

Brian Job, Ph.D., Political Science

Mark Laffery, Teaching Assistant and Ph.D. candidate, Political Science

Pol 1001 American Government and Politics (7903)

\$342.50 (plus texts)—5 degree credits—Binder

Analysis of principles and processes of national, state, and local government in the United States. The relationships of political forces and philosophies. Topics: the Constitution, civil liberties, public opinion, interest groups and political parties, Congress, the judiciary, and the president.

Pol 1041 Contemporary Political Ideologies (V796)

Videocassette course—4 assignments—2 exams—\$274—4 degree credits—text price \$51—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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Pol 3308 The United States Congress (7932)

12 assignments—2 exams—\$284—4 degree credits—text price \$85—Binder

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—\$284—4 degree credits—text price \$66—reading supplements \$30—Healy

NEW

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—\$284—4 degree credits—text price \$90—study guide \$10—Job/Laffery

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 Former Soviet Union (7955)

12 assignments—2 exams—\$284—4 degree credits—text price \$100—Davidheiser

Analysis of politics in the USSR, including the Soviet political heritage, the impact of Marxism-Leninism, principal institutions, historical developments since 1917, foreign policy, political elites, the decision-making process, political socialization, democratization, and selected economic and political issues.

Pol 5473 Chinese Government and Politics (7954)

12 assignments—2 exams—\$284—4 degree credits—text price \$53—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

Evelyn B. Davidheiser, Ph.D.

Assistant Professor, Political Science

Pol 5471—Government and Politics of the Former Soviet Union

Davidheiser received her Ph.D. in political science from Duke University; her dissertation was on "The World Economy and Mobilizational Dictatorship: Russia's Transition, 1846-1917." She is currently working on research linking international economic change to trends in democratization in the former Soviet Union and Eastern Europe.



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—\$284—4 degree credits—text price \$48—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)

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—\$284—4 degree credits—study guide \$10—11 audiocassettes \$29—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 and GC)

Also see *Child Psychology*

Sander M. 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—\$342.50—5 degree credits—text price \$47—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)

11 assignments—2 exams—\$284—4 degree credits—text price \$50—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—\$284—4 degree credits—text price \$57—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—\$284—4 degree credits—text price \$32—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—\$274—4 degree credits—text price \$49—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—\$284—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 Bense, 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

Sara Brenner, M.P.H., Teaching Assistant, School of Public Health

PubH 5609 Toward an Understanding of Child Sexual Abuse (V467)

Videocassette course—11 assignments—no exams—\$360—4 degree credits—text price \$39—study guide \$10—video rental \$50 (\$25 refund)—ten Bense/Brenner

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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

PubH 5642 Child Abuse and Neglect (V465)

Videocassette course—11 assignments—no exams—\$270—3 degree credits—text price \$19—study guide \$10—video rental \$50 (\$25 refund)—ten Bensel/Brenner

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 on their Home VCR or at a University media center (see General Information, Videocassette Courses).**

Religious Studies (CLA)

William W. Malandra, Ph.D., Associate Professor, Classical and Near Eastern Studies
Tzvee Zahavy, Ph.D., Professor, Classical and Near Eastern Studies

RelS 1031 Religions of South Asia (5523)

11 assignments—2 exams—\$274—4 degree credits—text price \$48—study guide supplement \$10—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).**

RelS 3034 Introduction to Judaism (V553)

Videocassette course—10 assignments—2 exams—\$284—4 degree credits—text price \$77—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—\$322—4 degree credits—text and tape \$38—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


Russ 1101 Beginning Russian I (6603)

9 assignments—2 exams—\$342.50—5 degree credits—text price \$20—15 audiocassettes \$39.50—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 in IBM or Macintosh format** (please call for information).

Russ 1102 Beginning Russian II (6604)


17 assignments—2 exams—\$342.50—5 degree credits—text price \$20—16 audiocassettes \$42—Jahn

 Continuation of Russ 1101. **Optional use of computer materials in IBM or Macintosh format** (please call for information). (Prerequisite: Russ 1101)

You can earn a
Liberal Arts
Certificate entirely
through Independent
Study (see
pages 108–109).

Russ 1103 Beginning Russian III (6605)

17 assignments—2 exams—\$342.50—5 degree credits—text price \$20—20 audiocassettes \$53.50—Jahn

 Continuation of Russ 1102. **Optional use of computer materials in IBM or Macintosh format** (please call for information.) (Prerequisite: Russ 1102)

Russ 3421 Russian Literature: Middle Ages to Dostoevsky (6650)

9 assignments—1 exam—\$284—4 degree credits—text price \$66—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—\$284—4 degree credits—text price \$55—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 six optional writings about the works read.

Scandinavian (CLA)

Also see *Norwegian; Swedish; Danish*

William E. Mishler, Ph.D., Associate Professor of Scandinavian

Scan 3602 The Scandinavian Fairy Tale as Literature (A631)

Audiocassette Course—4 assignments—no exams—\$284—4 degree credits—text price \$21—study guide \$10—10 audiocassettes \$26.50—Mishler

An exploration of Hans Christian Andersen's stories and tales (in English).

Slavic and East European Languages

See *Russian*

Social Work (Human Ecology)

Robert W. ten Bensele, 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

Sara Brenner, M.P.H., School of Public Health Allister Butler, Teaching Assistant, Social Work
George Hoshino, Ph.D., D.S.W., Social Work, Emeritus

SW 1001 Introduction to American Social Welfare and Community Services (8692)

16 assignments—1 exam—\$342.50—5 degree credits—text price \$52—Hoshino/Butler

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—\$322—4 degree credits—text price \$35—study guide \$10—video rental \$50 (\$25 refund)—ten Bensele/Brenner

See PubH 5609. Students may not receive credit for both PubH 5609 and SW 5010.

A ramp and elevator were recently added to Wesbrook Hall to make it more accessible.

Sociology (CLA)

Hyo-Sook Hwang, M.S., Instructor, Sociology
Greg Owen, Ph.D., Teaching Associate II,
Sociology

Joel Samaha, Ph.D., Professor of History
David M. Tavakoli, Ph.D., Associate Professor,
Sociology, Kutztown University
Stephen G. Wieting, Ph.D., Sociology
Nancy Wisely, Teaching Assistant and Ph.D.
candidate, Sociology

Soc 1001 Introduction to Sociology (8605)

12 assignments—2 exams—\$274 (plus texts)—4 degree credits—Staff

The scientific study of social behavior. Overview of major theories, methods, concepts, and research findings. Characteristics of basic social units (social relations, groups, organizations, institutions, society) and their patterns of interrelation and processes of change. **This course is now in preparation; please inquire before enrolling.**

Soc 3101 Introduction to American Criminal Justice (A866)

Audiocassette course—3 assignments—no exams—\$284—4 degree credits—text price \$46—study guide \$10—10 audiocassettes \$26.50—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 3501 The Family System (8675)

6 assignments—2 exams—\$284—4 degree credits—text price \$49—Wieting/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)

Soc 3551 World Population Problems (8672)

15 assignments—2 exams—\$284—4 degree credits—text price \$53—Tavakoli

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 5201 Introduction to Social Psychology (8676)

\$284 (plus texts)—4 degree credits—Wisely

NEW An intensive examination of the major issues in social psychology. Covers substantive areas of self, personality, person perception, interpersonal attraction, attitudes, social influence, prosocial behavior and aggression, small groups, and collective behavior. Emphasis on application of theories and concepts to everyday life.

Soc 5960 Topics in Sociology: Death and Dying (8691)

no assignments—2 exams—\$284—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

Joanna O'Connell, Ph.D., Assistant Professor, Spanish and Portuguese

Angel Sánchez, Ph.D., Assistant Professor, Spanish, Arizona State University

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—\$274—no credit—text price \$32—Sánchez/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—\$342.50—5 degree credits—text price \$80—8 audiocassettes \$21.50—Sánchez/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—\$342.50—5 degree credits—text price \$80—7 audiocassettes \$19—Sánchez/Tan

Continuation of Span 1101. (Prerequisite: Span 1101 or equivalent)

Span 1103 Beginning Spanish III (6808)

15 assignments—2 exams—\$342.50—5 degree credits—text price \$80—7 audiocassettes \$19—Tan

Continuation of Span 1102. (Prerequisite: Span 1102 or equivalent)

Span 1104 Intermediate Spanish I (6809)

10 assignments—2 exams—\$342.50—5 degree credits—text price \$89—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—\$342.50—5 degree credits—text price \$89—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—\$274—4 degree credits—text price \$22—Jara/O'Connell

This course focuses on the cultures and civilizations of Latin American before and after 1492. Emphasis on indigenous cultures before the European invasion, the process of Spanish and Portuguese colonization, and the complex interactions between indigenous, European, and African peoples during the three centuries of European colonial rule. In English. 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—\$284—4 degree credits—text price \$35—11 audiocassettes \$29—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—\$284—4 degree credits—study guide \$10—11 audiocassettes \$29—Sousa

See SpPt 3610. 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—\$274—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; testing hypotheses. Applications in business decision making, sports, medicine, and in the physical and social sciences. (Prerequisite: high school algebra)

Stat 1001 Introduction to the Ideas of Statistics (7274)

9 assignments—no exams—\$274 (plus computer software)—4 degree credits—no required texts—Berry

NEW  See above. Students must have access to a Macintosh computer or be able to use the microcomputers in the University's computer labs. **This course is now in preparation; please inquire before enrolling.**

GC 1454 Statistics (7273)

16 assignments—2 exams—\$342.50—5 degree credits—text price \$50—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)

Gören Stockenström, Ph.D., Professor, Scandinavian Studies

Gunnar Thander, M.A., Teaching Assistant and Ph.D. candidate, Department of Scandinavian Studies



Donald A. Berry, Ph.D.
Professor, School of Statistics

Stat 1001—Introduction to the Ideas of Statistics

Donald Berry earned his bachelor's degree in math at Dartmouth College and his doctorate in statistics at Yale University. He is especially interested in the application of statistics to medical problems and has tried to combine his academic pursuits with his interest in sports.

Swed 1101 Beginning Swedish I (6900)

17 assignments—no exams—\$342.50—5 degree credits—text price \$73—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—\$342.50—5 degree credits—text price \$73—2 audiocassettes \$6.75—Thander

Continued development of basic skills in reading, writing, and speaking. Exercises also include grammar and oral assignments. (Prerequisite: Swed 1101).

Swed 1103 Beginning Swedish III (6903)

20 assignments—no exams—\$342.50—5 degree credits—text price \$73—1 audiocassette \$3.75—Thander

A continuation of foundation skills in reading, writing, and listening. (Prerequisite: Swed 1102).

Swed 1104 Intermediate Swedish I (6904)

22 assignments—no exams—\$342.50—5 degree credits—text price \$73—1 audiocassette \$3.75—Thander

Further development of reading, writing, and listening skills; grammar review; composition. (Prerequisite: Swed 1103)

Swed 1105 Intermediate Swedish II (6905)

8 assignments—no exams—\$342.50—5 degree credits—text price \$127—4 audiocassettes \$11.50—Thander

Intended to allow the student to gradually begin to master Swedish in advanced contexts. Texts by various Swedish writers. Grammar exercises cover a systematic overview of prepositions, word order, and sentence structure. Texts include two dictionaries. (Prerequisite: Swed 1104)

Swed 1106 Intermediate Swedish III (6906)

\$342.50 (plus texts)—5 degree credits—Thander

NEW

Advanced texts focusing on four themes: Swedish history, Swedish

culture, modern Sweden, and Swedish-American immigration. Systematic review of grammar, as well as advanced points of grammar. (Prerequisite: Swed 1105) **This course is now in preparation; please inquire before enrolling.**

Swed 3670 Readings in Swedish Literary Texts (6907)

\$284 (plus texts and tapes)—4 degree credits—Stöckenström

NEW

Transcribed oral histories by Swedish immigrants and criticism of Swedes in America will be used to develop reading and writing skills. Samples from the taped interviews will be available on audiocassette. (Prerequisite: Swed 1106 or equivalent) **This course is now in preparation; please inquire before enrolling.**

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—\$205.50—3 degree credits—text price \$58—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 Merchandising (2205)

3 assignments—no exams—\$68.50—1 degree credit—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
William Sonnega, M.F.A., Teaching Assistant and Ph.D. candidate, Theatre Arts

Th 1101 Introduction to the Theatre (V406)

Videocassette course—3 assignments—1 exam—\$274—4 degree credits—text price \$66—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—\$284—4 degree credits—text price \$35—study guide \$10—10 audiocassettes \$26.50—Nolte/Sonnega

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—\$284—4 degree credits—text price \$65—study guide \$10—11 audiocassettes \$29—Nolte/Sonnega

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.

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—\$238—2 degree credits—text price \$21—study guide \$10—10 audiocassettes \$26.50—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, M.A., Teaching Assistant and Graduate Student, History

WS 1990 Northern Minnesota Women: Myths and Realities (A882) (U of M Duluth)

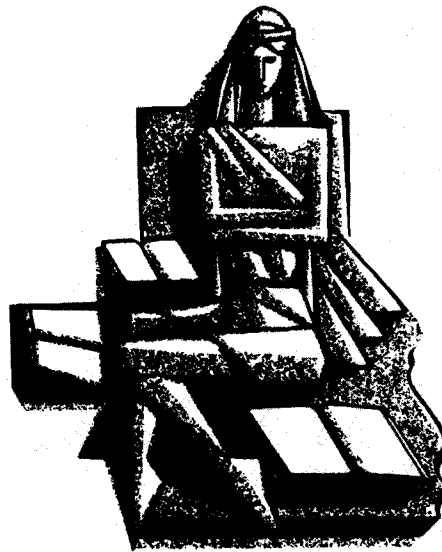
Audiocassette course—9 assignments—1 exam—\$205.50—3 degree credits—text price \$28—study guide \$20—10 audiocassettes \$26.50—Martin

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—\$284—4 degree credits—text price \$49—Mouton

This course explores 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.



Program clusters are non-certificate interdisciplinary groups of courses with related subject matter. We designed them to enable you to bridge courses and disciplines and to see the interdependence of different bodies of knowledge. You might want to think of program clusters as building blocks in the completion of a certificate program, a minor, or a major. Call the CEE Counseling office (612/625-2500), or consult with your academic advisor, to see if a cluster that you find interesting can also serve as a building block.

Ethics and Society

For several reasons (degradation of the environment, the collapse of many of our financial institutions, the disintegration of our communities), students are becoming more interested in the study of ethics in relationship to modern society. The courses in this cluster focus attention on the ethics of government, business, management, and science. (For courses dealing with the development of moral thought in the West and the East, see *Religious Studies and Philosophy*).

Biol 1101—Heredity and Human Society (in preparation)
Biol 3051—Biology and the Future of the Earth (in preparation)
BGS 3002—Business and Society: Ethics and Stockholder Management
CSci 3001—Perspectives on Computers and Society
EEB 3001—Introduction to Ecology
Mgmt 3002—Psychology of Management
Mgmt 3004—Business Policy: Strategy Formulation and Implementation
Mktg 3000—Principles of Marketing
CVM 3100—Perspectives: Interrelationships of People and Animals in Society Today

Science, Technology, and Society

Science and technology influence every aspect of modern society and are in turn structured by social, political, and economic forces. Courses in this cluster draw attention to some of these complex interactions.

Biol 1101—Heredity and Human Society (in preparation)
Biol 3051—Biology and the Future of the Earth (in preparation)
CSci 3001—Perspectives on Computers and Society
EEB 3001—Introduction to Ecology
Geog 3355—Environmental Problems
N 3690/5690—Life Span Growth and Development I (in preparation)
N 3691/5691—Life Span Growth and Development II (in preparation)
Phys 1003—The Changing Physical World

Cultural Diversity in the United States

Our society has become more aware of the need for all of its members to appreciate the diversity within our culture. Courses in this cluster will enable you to better appreciate the cultural diversity of society in the United States. Courses marked with asterisks satisfy the University's U.S. cultural pluralism requirement.

Afro 5597—Harlem Renaissance: Afro-American Art and Culture in the 1920s (in preparation)
Engl 1591—Literature of American Minorities* (spring radio course)
FSoS 5500—Racial and Ethnic Minority Families
GC 1816—Afro-American Literature
Geog 3101—Geography of the United States and Canada* (in preparation)
Hist 1305—Cultural Pluralism in American History*
Hist 3812—Civil War and Reconstruction*
Hist 3910—A Century of American Immigration: 1884-1984
WS 1990—Northern Minnesota Women: Myths and Realities

Cultural Diversity in the Post-Colonial World

Courses in this cluster will enable you to better appreciate the cultural diversity of modern societies in other countries. Students who want to enhance their understanding of cultural diversity should also consider studying a foreign language. (Independent Study offers courses in Danish, Finnish, French, German, Greek, Hebrew, Italian, Norwegian, Russian, Spanish, and Swedish.)

Afro 3601—Introduction to African Literature
Geog 3121—Geography of Latin America
Geog 3183—Geography of the Former Soviet Union
Span 1502—Cultures and Civilizations of Latin America: Indian, European-Colonial, African Roots
WoSt 3910—Women Between Victorianism and Emancipation

Health and Human Services

This cluster is designed for students who are planning—or have already started—a career in Health and Human Services.

CPsy 1301—Introductory Child Psychology
CPsy 3302—Infancy
CPsy 5303—Adolescent Psychology
CPsy 5331—Processes of Social Development
EPsy 5400—Career Development and Planning
FSoS 5001—Human Sexual Behavior
FSoS 5200—Family Relationships
FSoS 5240—Violence in the Family
FSoS 5240—American Families in Transition
N 3690/5690—Life Span Growth and Development I (in preparation)
N 3691/5691—Life Span Growth and Development II (in preparation)
Psy 1001—Introduction to Psychology
Psy 3101—Introduction to Personality
Psy 3604—Introduction to Abnormal Psychology
Psy 3970—Stress Management
PubH 5609—Toward an Understanding of Child Sexual Abuse
PubH 5642—Child Abuse and Neglect
Soc 3101—Introduction to American Criminal Justice
Soc 3501—The Family System
Soc 3551—World Population Problems
Soc 5960—Death and Dying
SW 1001—Introduction to American Social Welfare and Community Services
SW 5010—Toward an Understanding of Child Sexual Abuse

Parents, Children, and Teenagers

Perhaps nothing has changed more in our society over the last two decades than the family. Courses in this program cluster respond to the desire and the need of parents, young adults, teachers, counselors, therapists, and policy planners to better understand the dynamics of the modern family.

CPsy 1301—Introductory Child Psychology
CPsy 3302—Infancy
CPsy 5303—Adolescent Psychology
CPsy 5331—Processes of Social Development
FSoS 5001—Human Sexual Behavior
FSoS 5200—Family Relationships
FSoS 5240—Violence in the Family
FSoS 5240—American Families in Transition
FSoS 5500—Racial and Ethnic Minority Families
GC 1283—Psychology of Human Development
GC 1284—Behavior Problems of Children
GC 1722—Home Life: Parent-Child Relationships
PubH 5609—Toward an Understanding of Child Sexual Abuse
Pub 5642—Child Abuse and Neglect
Soc 3501—The Family System

The Master Teacher

This program cluster includes several courses that can be counted toward a Master of Education degree at the University of Minnesota. Consult the current bulletin from the College of Education to determine which courses might be appropriate for your career objectives. (If you are interested in applying for the Master Teacher Program in Extension Classes, which is not a program cluster, call CEE Counseling at 612/625-2500.)

CPsy 5303—Adolescent Psychology
CPsy 5331—Processes of Social Development
EdPA 5099—Inventing the Future—Living, Learning, and Working in the 1990s
EdPA 5110—Personal Time Management and Effective Administration
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

Management, Business, and Industry

About 20 percent of the people who enroll in Independent Study seek to become more proficient in this area. If you are among them, then this program cluster is designed to serve your needs and interests.

Acct 1050—Introduction to Financial Reporting
Acct 3001—Introduction to Management Accounting
Acct 5135—Income Tax Accounting
BGS 3002—Business and Society: Ethics and Stockholder Management
BGS 3004—International Business
BLaw 3058—Introduction to Law, and the Law of Contracts and Sales Contracts
BLaw 3078—Agency, Partnerships, Corporations, and Commercial Paper
BLaw 3088—Law of Personal Property, Real Property, Wills and Estates
BFin 3000—Finance Fundamentals
Comp 3032—Preprofessional Writing for Business
GC 1511—Introduction to Modern Business
GC 1540—Accounting Fundamentals I
GC 1542—Accounting Fundamentals II
GC 1551—Marketing: Introduction
GC 1553—Marketing: Principles of Management
IDSc 1010—Fundamentals of Information Development and Use (in preparation)
IR 0001—Supervision I: Elements of Supervision
IR 3000—Teaching Labor Relations in the Schools
IR 3007—Collective Bargaining and Labor Relations
Mgmt 3001—Fundamentals of Management
Mgmt 3002—Psychology of Management
Mgmt 3004—Business Policy: Strategy Formulation and Implementation
Mgmt 3008—Entrepreneurship and the Smaller Enterprise (in preparation)
Mktg 3000—Principles of Marketing



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 following 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. **The 5000-level television courses (marked with asterisks) may be available for graduate credit.** Graduate school approval was pending at the time this bulletin was printed. Call 612/624-4393 for current information. If you register for graduate credit, pay the higher tuition rate given with the course description.

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

Duluth: Media Services Center
248 Library
Duluth campus
218/726-6121

Morris: Regional Advising Center
232 Community Services Building
Morris campus
612/589-2211, ext. 6456

Rochester: Rochester Center
1200 South Broadway
Rochester, MN
507/288-4584
851 SE 30th Avenue
Highway 14 East
507/224-3106; 612/624-2263

Fall 1992

Registration dates: August 31—October 30

Special notes: If you are registering for a course broadcast in Duluth, you may register starting August 10. If quarter of registration is important because of financial aid, be sure to register according to the dates specified in the University's academic calendar, given on page 13.

Radio courses

Introduction to Modern Poetry, Eng 1017

KUOM: Thursdays, 12–1 p.m., Oct. 1–Dec. 10
(repeats) Saturdays, 12–1 p.m., Oct. 3–Dec. 12
no broadcasts Thanksgiving week

Magazine Writing, Jour 3173

KUOM: Saturdays, 1–2 p.m., Oct. 3–Dec. 5

Television courses

Geography of Minnesota, Geog 3111

KTCI: Tuesdays, 9–9:30 p.m., Sept. 29–Dec. 1
(repeats) Thursdays, 9–9:30 p.m., Oct. 1–Dec. 3
KWCM: Tuesdays, 7–7:30 a.m., Sept. 29–Dec. 1
KSMQ: Wednesdays, 5:30–6 p.m., Sept. 30–Dec. 2
(repeats) Thursdays, 2–2:30 p.m., Oct. 1–Dec. 3
WDSE: Wednesdays, 6:15–6:45 a.m., Sept. 9–Nov. 11
(repeats) Saturdays, 7:30–8 a.m., Sept. 12–Nov. 14

Inventing the Future: Living, Learning, and Working in the 1990s, EdPA 5099*

KTCI: Tuesdays, 9:30–10 p.m., Sept. 29–Dec. 1
(repeats) Thursdays, 9:30–10 p.m., Oct. 1–Dec. 3
KWCM: Thursdays, 7–7:30 a.m., Oct. 1–Dec. 3

Winter 1993

Registration dates: Dec. 7—Feb. 5

Special notes: If you are registering for a course broadcast in Duluth, you may register starting October 26. If quarter of registration is important because of financial aid, be sure to register according to the dates specified in the University's academic calendar, given on page 13.

Radio courses

American Families in Transition, FSoS 5240

KUOM: Mondays, 12–1 p.m., Jan. 4–March 15
(repeats) Saturdays, 12–1 p.m., Jan. 9–March 20
no broadcasts the week of Jan. 18

Cultural Pluralism in American History, Hist 1305

KUOM: Saturdays, 1–2 p.m., Jan. 9–March 13

Television Courses

Family Relationships, FSoS 5200*

KTCI: Tuesdays, 9–9:30 p.m., Jan. 5–March 9
(repeats) Thursdays, 9–9:30 p.m., Jan. 7–March 11
KWCM: Tuesdays, 7–7:30 a.m., Jan. 5–March 9

Education of the Gifted and Talented, EPsy 5690*

KTCI: Tuesdays, 9:30–10 p.m., Jan. 5–March 9
(repeats) Thursdays, 9:30–10 p.m., Jan. 7–March 11
KWCM: Thursdays, 7–7:30 a.m., Jan. 7–March 11
KSMQ: Wednesdays, 5:30–6 p.m., Jan. 6–March 10
(repeats) Thursdays, 2–2:30 p.m., Jan. 7–March 11
WDSE: Wednesdays, 6:15–6:45 a.m., Dec. 2–Feb. 3
(repeats) Saturdays, 7:30–8 a.m., Dec. 5–Feb. 6

Spring 1993

Registration dates: March 1–April 30

Special notes: If you are registering for a course broadcast in Duluth, you may register starting February 8. If quarter of registration is important because of financial aid, be sure to register according to the dates specified in the University's academic calendar, given on page 13.

Radio courses

Literature of American Minorities, Engl 1591

KUOM: Mondays, 12–1 p.m., March 29–May 31
(repeats) Saturdays, 12–1 p.m., April 3–June 5

Home Horticulture, Hort 1010

KUOM: Saturdays, 1–2 p.m., April 3–June 5

Television courses

Meanings of Place, AmSt 3920/AmSt 5920*, Arch 5956*

KTCI: Tuesdays, 9–9:30 p.m., March 30–June 1
(repeats) Thursdays, 9–9:30 p.m., April 1–June 3
KWCM: Tuesdays, 7–7:30 a.m., March 30–June 1

Second Language Programs for Young Children: Like Child's Play, Elem 5321*

KTCI: Tuesdays, 9:30–10 pm, March 30–June 1
(repeats) Thursdays, 9:30–10 pm, April 1–June 3
KWCM: Thursdays, 7–7:30 a.m., April 1–June 3
KSMQ: Wednesdays, 5:30–6 p.m., March 31–June 2
(repeats) Thursdays, 2–2:30 p.m., April 1–June 3
WDSE: Wednesdays, 6:15–6:45 a.m., March 10–May 12
(repeats) Saturdays, 7:30–8 a.m., March 13–May 15

Audiocassette Courses

Many Independent Study courses use audiocassettes as part of the course learning materials. These courses are currently offered in more than 30 departments. Some audiocassette courses were originally radio courses broadcast over the University's public radio station, KUOM; other courses (in foreign languages or music) use taped exercises. You can purchase audiocassettes from Independent Study when you register and order your course materials. Or, you can listen to the audiocassettes for a course at the Learning Resources Center, 15 Walter Library, Minneapolis campus. This center has copies of all Independent Study audiocassettes on file. You can either listen to the audiocassettes there or make copies of them (using your own blank tapes).

See the *Course Descriptions* section of this bulletin under the following department headings for more information about specific audiocassette courses.

Afro-American and African Studies
American Studies
Biology
Classics
Danish
Design, Housing, and Apparel
English
Comparative Literature
Creative and Professional Writing (Composition)
Family Studies
Finnish
French
German
Greek
Hebrew
History
Horticulture
Jewish Studies
Journalism
Latin
Music
Nursing
Portuguese
Russian
Scandinavian
Sociology
Spanish
Swedish
Theatre
Veterinary Medicine
Women's Studies

Videocassette Courses

See *Videocassette Courses* in the *General Information* section

The following courses use videos extensively, and the videos are available for home rental. 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
Arth 1001, Introduction to the Visual Arts
Comp 1031, Introduction to Technical and Business 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
Hist 3822, The United States in the 20th Century: 1932-1960
Hist 3841, American Business History
JwSt 3034/RelS 3034, Introduction to Judaism
Ling 1001, Nature of Human Language
Math 1211, Calculus I
N 3690/5690, Life Span Growth and Development I (in preparation)
N 3691/5691, Life Span Growth and Development II (in preparation)
Phys 1003, The Changing Physical World
Pol 1041, Contemporary Political Ideologies
PubH 5609/SW 5010, Toward an Understanding of Child Sexual Abuse
PubH 5642, Child Abuse and Neglect
Th 1101, Introduction to the Theatre



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 who wants to study for 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).

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 credits 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 PSEO 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

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 quarter and 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.*)

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 Wesbrook 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.

Other Information

In addition to reading this section of the bulletin, refer to the *General Information* section for details on the following:

Cancel/Add	Postage
Cancellations	Reenrollment
Course Completion	Refunds
Credit Card Payment Plan	Reinstatements
Examinations	Taxable Items
Lesson Service	Textbooks and Supplies
N.U.C.E.A.	

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 or to FAX registrations. Texts and supplies ordered by mail through Independent Study (including the correct postage; see *Postage*) 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 below.

Tuition	1st payment	2nd payment	3rd payment
\$40 (quarter credit)	\$21	\$13.50	\$13.50
\$80 (semester credit)	\$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.

Tuition

Also see *How to Enroll*

Tuition is \$40 per quarter credit and \$80 per semester credit (**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).

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 semester credit—11 assignments—2 exams—text price \$50—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 semester credit—10 assignments—2 exams—text price \$28—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 semester credit—10 assignments—2 exams—text price \$28—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 semester credit—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, Minneapolis Public Schools

Robert C. Erickson, M.A., Director, Global Studies Resource Center

Ninth Grade English, Part A (9831)

1 semester credit—10 assignments—1 exam—text price \$39—Hoke

A review of short story elements, emphasizing plot, character, setting, point of view, theme and unity; an introduction to the epic, focusing on themes and patterns in Homer's *Odyssey*; course concludes with an open-book final exam project (making up your own story).

Ninth Grade English, Part B (9832)

1 semester credit—10 assignments—1 exam—text price \$39—Hoke

This course includes reading and writing about poetry, nonfiction (such as biography and articles), and drama (*Romeo and Juliet*); course concludes with an open-book final exam project (report on a novel of the student's choice).

Tenth Grade English, Part A (9833)

1 semester credit—10 assignments—1 exam—text price \$47—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.

New courses or those that require the use of a computer are marked with icons:

NEW



Tenth Grade English, Part B (9834)

1 semester credit—10 assignments—1 exam—text price \$46—Hoke

A continuation of Part A.

Eleventh Grade English, Part A (9835)

1 semester credit—9 assignments—1 exam—text price \$47—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 semester credit—9 assignments—1 exam—text price \$47—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 semester credit—10 assignments—1 exam—text price \$43—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 semester credit—10 assignments—1 exam—text price \$48—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 quarter credit—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 quarter credit—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 quarter credit—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 quarter credit—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 semester credit—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 semester credit—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 will write a longer final paper.

Contemporary Literature/Contemporary Problems (9843)

1 semester credit—8 assignments—1 exam—text price \$51—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 semester credit—10 assignments—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 semester credit—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 winemaker who needs a bride, black people reaching for wealth, and contemporary alienation.

Contemporary Global Problems (9925)

1 semester credit—10 assignments—no exams—text price \$19—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.

Danish
Finnish
French
German
Greek (Classical)
Hebrew
Italian
Latin
Norwegian
Russian
Spanish
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 semester credit—10 assignments—2 exams—text price \$22—3 audiocassettes \$9—Donchenko

Reading, writing, translation, and grammar of the Russian language.

Beginning Russian, Part B (9962)

1 semester credit—10 assignments—2 exams—text price \$22—3 audiocassettes \$9—Donchenko

Continuation of Part A. (Prerequisite: Beginning Russian, Part A, or equivalent)

For more information about a course, call or write for a free copy of the study guide introduction: 612/624-0000 or page 127.

Beginning German, Part A (9963)

1 semester credit—10 assignments—2 exams—text price \$48—8 audiocassettes \$21.50—Buth and Sorheim

NEW This is the course for you if German is not offered in your high school. Discover for yourself how easily you can ask and answer basic questions about yourself, your friends and family, count, and tell time in German. Using the study guide, text, and tapes, you can complete the equivalent of the first half year of German.

Beginning German, Part B (9964)

1 semester credit—9 assignments—2 exams—Buth and Sorheim

NEW 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 semester credit—12 assignments—2 exams—text price \$45—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 semester credit—12 assignments—2 exams—text price \$45—Ekstrand

A continuation of Part A. (Prerequisite: Elementary Algebra, Part A, or equivalent)

Plane Geometry, Part A (9887)

1 semester credit—13 assignments—2 exams—text price \$46—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 semester credit—13 assignments—2 exams—text price \$46—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 semester credit—12 assignments—2 exams—text price \$42—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 semester credit—10 assignments—2 exams—text price \$48—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 semester credit—10 assignments—2 exams—text price \$48—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 semester credit—10 assignments—1 exam—text price \$42—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 semester credit—10 assignments—1 exam—text price \$42—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 semester credit—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 semester credit—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,
Minneapolis Public Schools*

Minnesota high school students may be eligible for college enrollment under the Post-Secondary Enrollment Options Act. See pages 98–99 for information.

Problems of American Democracy, Part A (9911)

1 semester credit—12 assignments—2 exams—text price \$37—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 semester credit—12 assignments—2 exams—text price \$52—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 semester credit—12 assignments—2 exams—text price \$39—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 semester credit—12 assignments—2 exams—text price \$43—Jasper

A continuation of Part A, this course covers the history of the period following Reconstruction through the 1970s.

Project Self-Discovery (9943)

1 semester credit—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.

General Psychology, Part A (9941)

1 semester credit—10 assignments—1 exam—text price \$43—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 semester credit—10 assignments—1 exam—text price \$43—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)

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 a 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 classes, or summer session classes.

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 on approval, although a minimum of 25 percent of the credits required for any certificate must be earned through the University of Minnesota, Twin Cities campus. The residency requirement cannot be met by repeating courses at the University of Minnesota 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 adviser at 612/625-2500.

Certificate Programs

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 \$20 application fee (Visa and MasterCard available) 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.

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 \$20 nonrefundable certificate fee (Visa and MasterCard available) is required at the time the Certificate Completion form is filed. There is a quarterly deadline for filing this form. When a student completes 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 ().*

The Liberal Arts Certificate can be earned entirely through Independent Study. The other certificates can be partially completed through Independent Study, but require additional credits from day school classes, Extension Classes, or approved transfer credits.

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.

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

English Requirement (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. With careful planning, 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.

Prerequisites: Two years of algebra and two years of geometry, including trigonometry.

Core Requirements (25-28 credits)

Comp 1011—Writing Practice I*

Math 1251 (formerly 1211)—One-Variable Differential and Integral Calculus I*

Math 1252 (formerly 1221)—One-Variable Differential and Integral Calculus II*

Math 1261 (formerly 1241)—Algebra and Geometry of Euclidean Space

Math 3251 (formerly 3211)—Vector Differential 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

**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 corporate 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 (60-64 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—Intermediate Financial Reporting
Acct 5102—Advanced Financial Reporting I
Acct 3201—Intermediate Management Accounting
Comp 1011—Writing Practice I*
Comp 3022—Critical Reading 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 1251—One-Variable Differential and Integral Calculus I*
OMS 1020—Data Analysis and Statistical Inference for Managers

Level II (88-92 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—Intermediate Financial Reporting
Acct 5102—Advanced Financial Reporting I
Acct 3201—Intermediate Management Accounting

Comp 1011—Writing Practice I*
 Comp 3022—Critical Reading 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 1251—One-Variable Differential and Integral Calculus I*
 OMS 1020—Data Analysis and Statistical Inference for Managers
 12 credits of upper division (3000- or 5000-level) 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 the Undergraduate Development Certificates in Business Administration programs are usually working toward a Bachelor of Science in Business degree or have already completed a bachelor's degree in another area. It is possible for a student to move from a course of study for a certificate into a planned program leading to a Bachelor of Science in Business degree. 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 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 1251—One-Variable Differential and Integral 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.

Important Note—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.

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 1251—One-Variable Differential and Integral 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 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 Carlson School courses. These should be selected in consultation with a CEE adviser.

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 CEE Counseling (612/625-2500) for a list of the pre-management courses offered through Independent Study that meet the requirements of the Carlson School of Management.

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 of Management*
Mktg 3000—Principles of Marketing*
Spch 1101—Fundamentals of Speech Communication: Oral Communication

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 3135—Introduction to 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.**

**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 broad 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 an engineering technician. All courses in the UDC in Engineering and Science—45 Credits carry degree credit and are applicable to a baccalaureate degree.

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

Prerequisites: 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 1251 (formerly 1211)—One-Variable Differential and Integral Calculus I*

Math 1252 (formerly 1221)—One-Variable Differential and Integral Calculus II*

Math 1261 (formerly 1241)—Algebra and Geometry of Euclidean Space

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 1251 or 1271/75, Phys 1252 or 1281/85—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. (Request the current bulletin of the Institute of Technology by calling 612/625-2008.)

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. **However, there are no degrees available entirely through Independent Study.** And, there are limitations 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 adviser in CEE Counseling (612/625-2500) 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 Admissions, University of Minnesota, 240 Williamson Hall, 231 Pillsbury Dr. SE, Minneapolis, MN 55455 or by calling 612/625-2008.

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 general 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 612/625-6501.

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).

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 5000-level, are available for graduate credit (information is given in the course study guide). The same courses, when taken as Videocassette courses, do not carry graduate credit. Independent Study courses may be used 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. With careful planning, it is possible to complete approximately 25 percent of an Institute of Technology degree through Independent Study.

Assistance in planning a course of study and an evaluation of transfer credits is available by appointment at CEE Counseling; 612/625-2500.

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. The Carlson School of Management will accept a maximum of 16 credits of 3000- and 5000-level business coursework completed through correspondence study toward the B.S.B. 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, or for a copy of "Pursuing a Bachelor's Degree Through Continuing Education and Extension," call or write 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. With careful planning, it is possible to complete approximately half of a CLA degree through Independent Study.

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.

Bachelor of Science (B.S.)

The Bachelor of Science degree is offered in CLA in six areas: Child Psychology, Speech and Hearing Science, Economics, Geography, Sociology, and Urban Studies. 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 Program (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. The 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.

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 more 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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UNIVERSITY OF MINNESOTA
 Continuing Education and Extension
 Department of Independent Study

45 Wesbrook Hall
 77 Pleasant Street Southeast
 Minneapolis, MN 55455
 (612) 624-0000
 Fax: (612) 626-7900

REGISTRATION FORM

Please Print

Social Security Number	<input type="text"/>	University ID	<input type="text"/>
Last Name	<input type="text"/>	Middle Initial	<input type="text"/>
First Name	<input type="text"/>	Title (Mr Ms Mrs Miss Dr)	<input type="text"/>
MAILING ADDRESS:		PERMANENT ADDRESS:	
Address _____		Address _____	
City _____		City _____	
State _____ Zip Code _____		State _____ Zip Code _____	
County _____ Country _____		County _____ Country _____	
Home Phone # () - _____		Work Phone # () - _____	
Fax Number () - _____		Gender <input type="checkbox"/> Male <input type="checkbox"/> Female	
Birthdate _____/_____/_____			

Use the Independent Study bulletin to complete the following. High school courses can be taken A-F grading only.

(DIS NO.)	DEPT.	COURSE NO.	COURSE TITLE	CREDITS	A-F OR S-N	TUITION
						\$
						\$
						\$
						\$

Have you completed the prerequisites? Yes No

G.I. Bill Registration? Yes No

TYPE OF PAYMENT <input type="checkbox"/> Full Payment <input type="checkbox"/> Partial Payment <small>(1/3 tuition + \$8 service charge per course)</small>	AMOUNT DUE Tuition \$ _____ Textbooks \$ _____ Partial Pay Serv Chg \$ _____ Study Guide \$ _____ Tapes, Audio* \$ _____ Tapes, Video \$ _____ Other, Supplies* \$ _____ Postage \$ _____ Tax* \$ _____ TOTAL \$ _____	BILL TO DEPT/COMPANY: (Full Payment Only) (attach authorization) Name _____ Addr _____ City _____ State _____ Zip Code _____
	<small>*Taxable items at 6.5%; Mpls. residents pay 7%</small>	CREDIT CARD INFORMATION (Full Payment Only) <input type="checkbox"/> Visa Exp. Date _____ <input type="checkbox"/> MasterCard Card # _____ Name on Card _____ Signature _____

To register by FAX: Full payment only. Provide Visa or MasterCard information. ▲

APPROVAL FOR REGISTRATION FOR HIGH SCHOOL STUDENTS (to be signed by counselor, principal, or superintendent). Not to be used for PSEO registration.

Signature _____ Title _____

School _____

You are responsible for all policies in the Independent Study bulletin.

Student's Signature _____ Date _____ →

Social Security Number - -
 University ID
 Last Name Middle Initial
 First Name Title (Mr Ms Mrs Miss Dr)

ALL STUDENTS: FILL OUT THE FOLLOWING* CHECK ONLY ONE BOX PER QUESTION

- 1) Are you currently enrolled as an International Student "Non-resident alien"?
- Yes
 No

- 2) Please check your predominant ethnic background. (Ethnic Code)
- A Black, non-Hispanic (African American)
 B American Indian or Alaskan Native
 C Asian or Pacific Islander
 D Hispanic—Puerto Rican, Cuban or Other Hispanic Origin
 E Hispanic—Chicano or Mexican American
 F White, non-Hispanic (Caucasian)

- 3) Please check your student status. (Student Status)
- 01 High School student
 02 U of M day school student (please specify college) _____
 03 U of M Extension student
 04 U of M day/Extension student
 05 Independent Study only
 06 Technical/Community College student
 07 Other Institution (please specify) _____
 08 Other _____

- 4) What is the highest level of education you have obtained? (Education Level)
- 01 Some high school
 02 High school diploma
 03 Vocational/technical training
 04 Some college
 05 2-year associate/certificate degree
 06 4-year college degree
 07 Some graduate school
 08 Graduate or professional degree
 09 Other (please specify) _____

- 5) How did you learn about Independent Study courses? (Market Source)
- 01 Friend/Relative
 02 Advisor/Counselor
 03 Employer
 04 Independent Study Bulletin
 05 Extension Classes Bulletin
 06 Brochure, newsletter or flyer
 07 Minnesota Daily ad
 08 Other Newspaper ad (please specify) _____
 09 Magazine ad (please specify) _____
 10 Television (please specify) _____
 11 Radio (please specify station) _____
 12 Other (please specify) _____
 13 Corresp. course directory (Peterson's, Bear's, etc.)

- 6) What is your main purpose for enrolling? (Source Code)
- 01 To earn credits toward a degree or certificate program
 02 For professional licensure or certification
 03 Encountered a class schedule problem
 04 Satisfy a personal interest
 05 Assist me in my current job/promotion
 06 Prepare me for a job/career change
 07 Other

- 7) What is your main occupation? (Occupation Code)
- 01 Agricultural worker
 02 Armed Services
 03 Clerical worker
 04 Crafts worker/repair worker
 05 Educator
 06 Homemaker
 07 Machine Operator/Laborer
 08 Manager, official, owner
 09 Professional/Technical
 10 Retired
 11 Sales/Marketing
 12 Student
 13 Other

- 8) During the next two years in which subject area are you most interested in taking courses? (Interest Area)
- 01 Arts/Humanities/Music
 02 Business/Industry/Management
 03 Communication/Writing
 04 Computers/Math
 05 Government/Public Affairs
 06 Health/Human Services
 07 History/Social Sciences
 08 Language/Literature
 09 Science/Technology/Engineering
 10 Other (please specify) _____

*Some of this information 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.

Request 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 request to:
Department of Independent Study
University of Minnesota
45 Wesbrook Hall
77 Pleasant Street SE
Minneapolis MN 55455

Please send me:

- | | |
|--|--|
| <input type="checkbox"/> Independent Study bulletin | <input type="checkbox"/> current radio/TV course listing |
| <input type="checkbox"/> bulletin for University College | <input type="checkbox"/> registration form |
| <input type="checkbox"/> introductions to the following course(s): | |

Name

Address

Street/RR#/P.O. Box#

Apt. #

City

State

Zip Code

Please send an Independent Study bulletin to:

Name

Address

Street/RR#/P.O. Box#

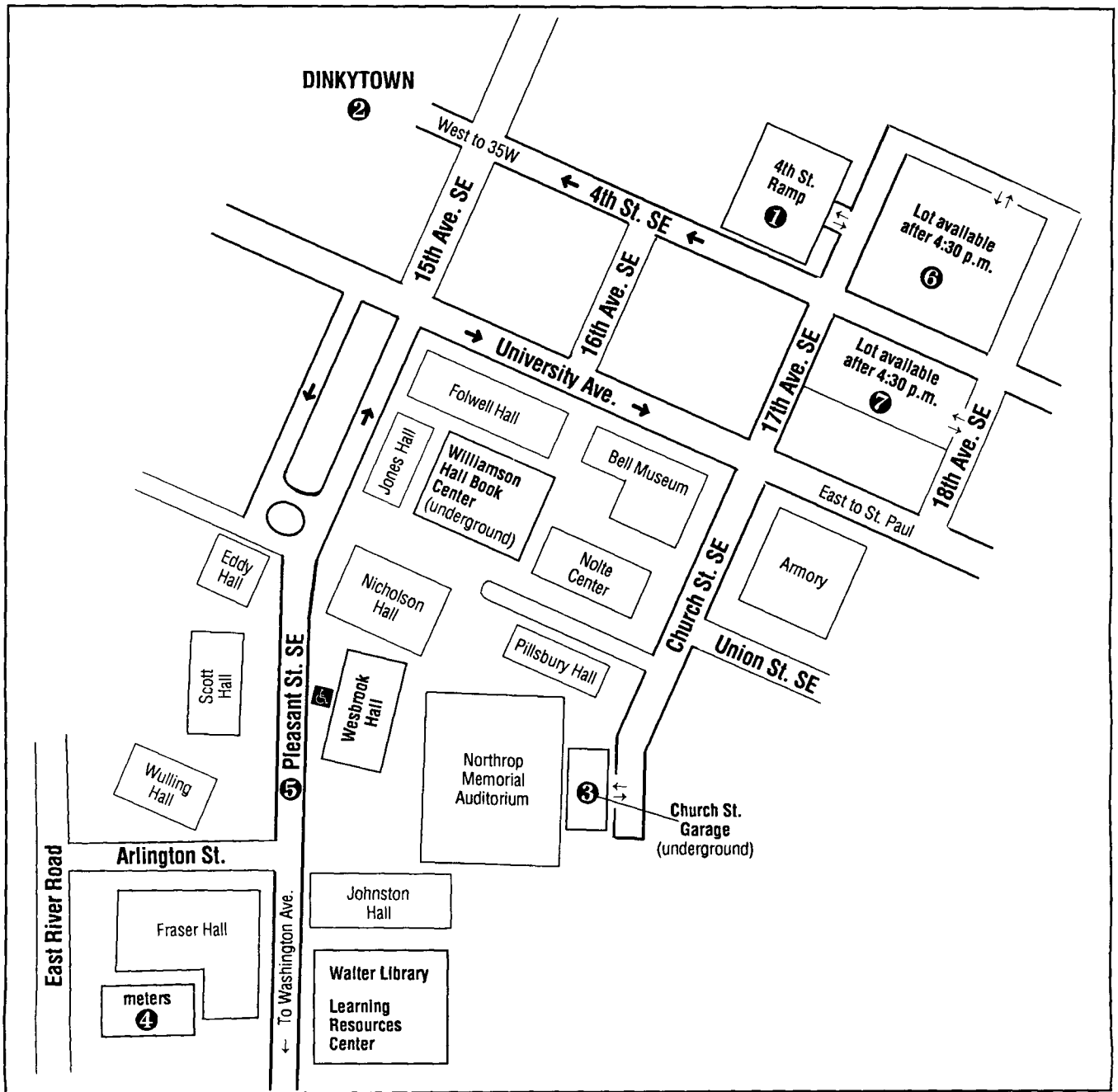
Apt. #

City

State

Zip Code

Parking Map



University of Minnesota Twin Cities Campus East Bank

