

College of Human Ecology

UNIVERSITY OF MINNESOTA

BULLETIN

1992-1994



On the cover:

SuAnn Hobl

is a CHE senior

studying costume

design. Sau M. Chu

is a graduate of the

applied design

program and is

pursuing a master's

degree in design.

**The College of
Human Ecology
empowers
students to
work creatively
and effectively
to improve the
human
condition.**



College of Human Ecology

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Introduction

Resources

Bulletins—This biennial bulletin, the basic source of information about the College of Human Ecology, should be kept handy for repeated reference. Its contents and the contents of other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes. In addition, students are expected to be aware of the following resources:

College Office—For more information about policies and program requirements, check with the College of Human Ecology.

Adviser—At your first registration, you will be assigned an adviser who will guide you in planning a course of study.

Class Schedule—Each quarter you may pick up a *Class Schedule* with other registration materials in the College of Human Ecology Office, 32 McNeal Hall. This publication lists University day school courses complete with hours, rooms, instructors, prerequisites, registration instructions, fees, maps, final exam schedules, grading definitions, and other valuable information.

Other Bulletins—Evening and summer courses are featured in the *Continuing Education and Extension Classes Bulletin* and *Summer Session Bulletin*, respectively. Separate bulletins are also published for other University colleges. Most may be obtained from the Office of Admissions and Records, 130 Coffey Hall.

Important Offices

College of Human Ecology (CHE)

Administration

32 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
612/624-1717

Admissions/Prospective

Student Services	612/624-1717
Career Services	612/624-6762
Student Services	612/624-4244
Transfer Credits	612/624-1717

Departments and Centers

Design, Housing, and Apparel	612/624-9700
Family Social Science	612/625-1900
Food Science and Nutrition	612/624-1290
Home Economics Education	612/624-3010
School of Social Work	612/624-5888

Office of Admissions

240 Williamson Hall
213 Pillsbury Drive S.E.
Minneapolis, MN 55455
612/625-2008

Housing Services

Comstock Hall—East
210 Delaware Street S.E.
Minneapolis, MN 55455
612/624-2994

Office for Minority and Special Student Affairs

Room 301
1901 University Avenue S.E.
Minneapolis, MN 55414
612/625-9556

Office of Student Financial Aid

210 Fraser Hall
106 Pleasant Street S.E.
Minneapolis, MN 55455
612/624-1665

Office for Students with Disabilities

16 Johnston Hall
101 Pleasant Street S.E.
Minneapolis, MN 55455
612/624-4037

Policies

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 Street S.E., Minneapolis, MN 55455 (612/624-9547).

It is College of Human Ecology policy that cultural diversity shall be welcomed and promoted among students, faculty, staff, and visitors.

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.

Extracurricular Events—No extracurricular events requiring student participation may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty that any exemption granted pursuant to this policy shall be honored and that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

Postal Statement

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Introduction

Greetings from the College of Human Ecology

You will find the College of Human Ecology an exciting place to study. Our programs are top ranked nationally, and our faculty and staff are knowledgeable and concerned about your learning environment.

Some of you will know exactly what you are interested in studying at the University of Minnesota in preparation for your future. Others of you may scan our programs hoping to find something of interest. Regardless, we hope our course offerings tempt you to join us for your academic preparation. Our programs require an inquiring mind, a concern about people, and an integrative approach involving information ranging from the artistic to the scientific.

We offer undergraduate degrees in the Department of Family Social Science; Department of Design, Housing, and Apparel; and joint programs in the Department of Food Science and Nutrition with the College of Agriculture. Faculty in the School of Social Work and Home Economics Education offer courses and collateral areas that support and enhance the major programs. Our departments are highly specialized, offering degrees at the undergraduate and graduate levels that are concerned with



how humans live and interact in their near environment.

We welcome you to the College of Human Ecology and the Twin Cities campus.

A handwritten signature in cursive script that reads "Mary E. Heltsley".

Mary E. Heltsley, Dean
College of Human Ecology

Mission

The College of Human Ecology is committed to the study of individual and family well-being, elements of their near environment such as food, clothing, shelter, and the community, and the interaction among them. Students are prepared for professional careers in related services and industries. Research efforts contribute to the body of knowledge in these areas and provide foundations for undergraduate and graduate education, informal educational outreach activities, policy formulation, and community leadership and service.

The work of the college encompasses several disciplines and encourages interaction among them in their application to teaching, research, and community service from local to international levels.

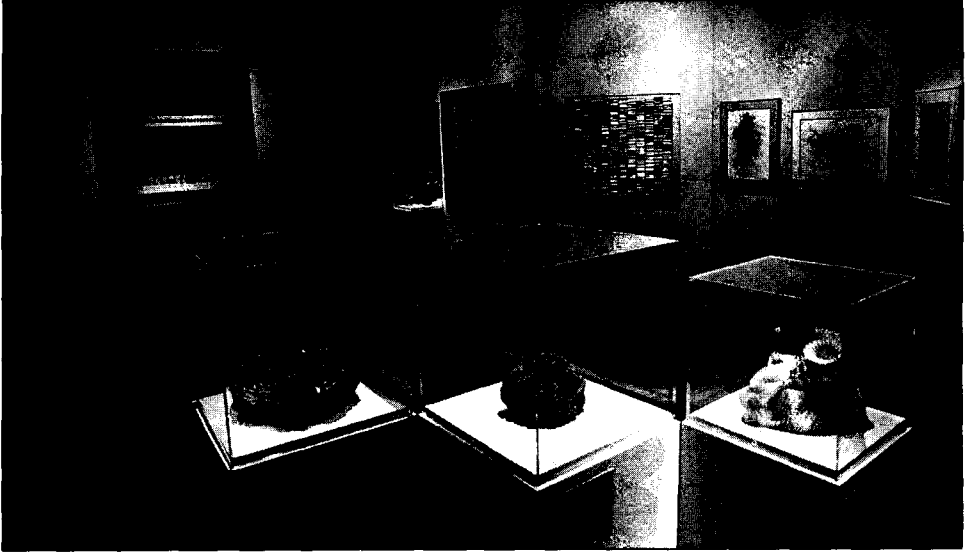
The mission of the college is implemented through resident teaching, research, and outreach. Members of the faculty provide instruction day or evening, on and off campus, to undergraduate, post-baccalaureate, and graduate students (B.S., M.Agric., M.Ed., M.S.W., M.S., M.A., and Ph.D.). Joint degrees and other programs link the college to every major unit of the University. The Minnesota Agricultural Experiment Station provides major assistance to the college's research program. Extension specialists in the departments support the field staff of the Minnesota Extension Service in research-based information dissemination.

College of Human Ecology

General Information



General Information



The College

The College of Human Ecology offers courses of study for undergraduate, graduate, and adult learners. Degree programs draw upon the broad resources of the University as well as metropolitan and statewide communities and reflect the college's commitment to experiential learning and problem solving to enhance human well-being. They prepare students to be skilled and knowledgeable professionals with the ability to participate as responsible members of society.

Research efforts in the college seek to identify and illuminate better ways to address the diverse, interconnected problems and opportunities confronting individuals, family groups, and the community. Faculty work closely with colleagues from a variety of disciplines, both within the college and throughout the University.

About 100 faculty members teach, conduct research, and engage in community outreach—including continuing education—in the area of their special expertise. Our undergraduate student enrollment during a typical fall quarter is about 950.

Through extension, continuing education, and research efforts resulting from its relationships with the Minnesota Extension Service and the Agricultural Experiment Station, the college serves statewide, national, and international audiences.

McNeal Hall, on the St. Paul campus, houses the administrative offices and provides outstanding facilities for the college's teaching and research programs. All department offices are located on the St. Paul campus with the exception of the School of Social Work which is located on the Minneapolis campus. All locations provide access and facilities for the disabled.

The Goldstein Gallery

The Goldstein Gallery is a design museum within the Department of Design, Housing, and Apparel. It was founded in 1976 to support the department's curriculum and to help meet the university's mission of teaching, research, and public service. As a museum, the gallery collects, preserves, documents, interprets, and exhibits designed objects. Its collections includes contemporary and historic costumes, textiles, and decorative arts—a resource unique to the Upper Midwest—used to enrich classroom

teaching, provide research opportunities, and develop exhibits. The gallery mounts four to five temporary exhibitions each academic year. Public lecture programs, symposia, workshops, and gallery tours are offered in conjunction with the exhibitions.

The Multicultural Student Center

The Multicultural Student Center offers a special place for the students and staff of the college, especially students of color and international students, where intercultural relations are accepted and encouraged. The center's goal is to raise awareness of all other cultures of the world. Peer advising; academic support; scholarship information; discussion groups on topics of culture, racism, education, race relations, etc.; and many other activities are offered that support a multicultural environment within the college.

Major Programs

The College of Human Ecology is organized into five major departments and schools that provide the courses and the faculty for the college's academic and professional programs.

- Design, Housing, and Apparel
- Family Social Science
- Food Science and Nutrition
- Home Economics Education
- School of Social Work

Based on the premise that human ecology is oriented toward solving problems and involves various areas of expertise, the curricula are organized into programs administered by committees composed primarily of faculty from one or more departments in the college. Programs focus on a major interest area but maintain an interdisciplinary approach, drawing from a variety of disciplines in communications, the natural sciences, the social sciences, and the humanities. They are unified by their unique focus on human needs and on improving the quality of life for all people.

- Apparel Sciences and Design:
 - Clothing Design
 - Merchandising and Consumer Science
 - Product Analysis
- Design Communication (formerly Applied Design and Visual Communication)
- Food Science
- Home Economics (Interdepartmental)
- Housing
- Human Relationships: Family, Youth, and Community
- Interior Design
- Nutrition

Collaterals

The collateral area of emphasis, part of the majority of programs offered by the college, makes each student's curriculum unique. It is a sequence of courses that acts as a supporting field for the major, enhances career opportunities, capitalizes on special interests or talents, and helps prepare students to respond to newly emerging societal needs with expertise. Some students have used the collateral to prepare for admission to graduate or professional schools.

College-Wide Collaterals

Three collateral areas are free-standing and available for students to incorporate into their chosen program in the college. These collaterals are:

- Education
- Foreign Studies
- Youth Studies

In addition, information about pre-kindergarten teacher licensure, parent education, or home economics extension is available in 325 Vocational and Technical Education Building (612/624-3010).

Degrees Offered

Baccalaureate Degrees—The major programs in human ecology all lead to the bachelor of science degree.

General Information

Postbaccalaureate Degrees and Programs—Professional nonresearch-oriented degree programs are open to persons who have completed baccalaureate programs and are interested in building additional professional competence and skills. Of special interest may be the master of education degree, offered by the College of Education and emphasizing home economics education, as well as the Vocational Human Ecology/Family Life Education post-baccalaureate program that prepares individuals to teach home economics in secondary schools, with an emphasis on family life education. This program replaces the licensure program of the baccalaureate degree. See the *College of Education Bulletin*.

Graduate Degrees—Through the Graduate School, the master of arts, master of science, and doctor of philosophy degrees are offered in design, housing, and apparel; family social science; food science; nutrition; and social work. For information about these programs, see the *Graduate School Bulletin*.

Admission

Send your undergraduate application to the Office of Admissions, 240 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, MN 55455. A \$25 nonrefundable application fee, payable to the University of Minnesota, must accompany your application. As a freshman, you may enroll fall or winter quarter to begin your college work; as a transfer student, you may enroll fall, winter, or spring quarter, although you must apply for a specific quarter.

The Office of Admissions will accept freshman applications for fall quarter beginning October 1 of the previous academic year. Students are encouraged to apply as early as possible and will be admitted as long as space is available. No applications for fall quarter admission will

be accepted after June 1. Applications must be received by October 15 for winter quarter admission. Transfer applications for spring must be received by January 15. International deadlines are April 1 for fall, October 1 for winter, and January 1 for spring. Earlier application is advised so you can be informed of the special orientation-registration programs available for new students.

It is College of Human Ecology policy that *cultural diversity shall be welcomed and promoted among students, faculty, staff, and visitors. Therefore, the faculty, students, and staff of the College of Human Ecology strongly encourage applications from those who have traditionally not found educational opportunities in our programs, including persons of color, older and male students, persons with a disability, and recent immigrants.*

English Proficiency—If English is not your native language, you may be required to take the Test of English as a Foreign Language (TOEFL) or the Michigan English Language Assessment Battery (MELAB). To register for the TOEFL, contact the agency that handles TOEFL registration in your country or write to the Educational Testing Service (Box 899, Princeton, NJ 08540 USA) at least 10 weeks before any scheduled test date. If you are an international student already in the Twin Cities area, you may register for the MELAB with the Minnesota English Center, 320 16th Ave. S.E., University of Minnesota, Minneapolis, MN 55455, or call (612) 624-1503. If you are a U.S. citizen, permanent resident, or refugee, you may sign up for the test in the Asian/Pacific American Learning Resource Center, 306 Walter Library, 117 Pleasant St. S.E., University of Minnesota, Minneapolis, MN 55455, or call (612) 624-2317. To register for the MELAB outside the Twin Cities area, contact the English Language Institute, Testing and Certification Division, University of Michigan, Ann Arbor, MI 48109 USA, or call (313) 764-2416.

Freshman Admission

Freshman applicants are expected to have completed as a minimum the following courses while in grades 9-12:

- **FOUR YEARS OF ENGLISH** with emphasis on writing, including instruction in reading and speaking skills and in literary understanding and appreciation;
- **TWO YEARS OF SOCIAL STUDIES**, including U.S. history;
- **THREE YEARS OF MATHEMATICS**, including one year each of elementary algebra, geometry, and intermediate algebra;
- **THREE YEARS OF SCIENCE**, including one year each of biological and physical science;
- **TWO YEARS OF A SINGLE SECOND LANGUAGE**.

Applicants who graduated from high school before 1987 will only be expected to meet the *math requirement*, although they are encouraged to meet as many of the remaining requirements as possible.

ACT scores are also required; they are used by the college as an aid for advising purposes as well as for making admission decisions.

The College of Human Ecology uses the following admission criteria:

<i>Formula</i>	<i>Minimum Score</i>
HSR Percentile + (2 x ACT Composite score)	110

You may seek exception to the above requirements if you can provide information indicating promise of academic success.

Tuition Deposit—If you are admitted to the College of Human Ecology as a freshman, you must submit a nonrefundable \$50 tuition deposit to hold your place in the freshman class. When you enroll, your deposit will be applied to your first quarter's tuition. The tuition deposit deadlines are May 1 for fall quarter and November 1 for winter. You must pay the deposit by the deadline or within four weeks after the date on your admission notification letter (whichever is later). If you do not submit the deposit by the deadline, you may lose your place in the freshman class.

If you are admitted through and certified by the Office of Minority Student Affairs (OMSSA) (i.e., as a disadvantaged or minority student), you are exempt from this requirement and do not need to pay a deposit. If you have questions about the tuition deposit contact the Office of Admissions (612/625-2008).

Transfer Student Admission

To transfer to the University of Minnesota after completing coursework at another college institution, you must apply for admission with advanced standing. Your previous college record—courses taken, credits earned, grade point average (GPA)—is considered in making the admission decision. Advanced standing applicants must meet the same high school mathematics requirements as freshman applicants. If you did not take math at your transfer institution, you must send the Office of Admissions a copy of your high school transcript so that completion of the mathematics units can be verified. Your coursework will be evaluated by the college based on the requirements for the specific undergraduate program you intend to enter. Refer to the Admissions Requirements section of the program you are interested in for program-specific requirements.

Note: Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements listed under Freshman Admission.

GPA Requirements—The following transfer GPAs are required for admission to College of Human Ecology programs. *Note:* Students transferring from General College must have an overall and non-General College coursework GPA equal to the required transfer GPAs listed below.

General Information

Apparel Sciences and Design	2.50
Design Communication [*]	2.50
Food Science ^{**}	2.00
<i>(Beginning spring 1993, a 2.50 GPA is required)</i>	
Home Economics (Interdepartmental)	2.00
Housing	2.00
Human Relationships:	
Family, Youth, and Community	2.50
Interior Design [*]	2.60
Nutrition ^{**}	2.00
<i>(Beginning spring 1993, a 2.50 GPA is required)</i>	
[*] These majors require a formal portfolio review to move from pre-major status to full major status.	
^{**} These majors require strong mathematics and science backgrounds.	

If you are planning to start your college career elsewhere with the intention of transferring to the College of Human Ecology, program descriptions and curricular requirements presented in this bulletin can help you select appropriate courses so that the maximum number of credits are accepted when you transfer. For information about transfer of coursework, consult your college counselor or write to Transfer Specialist, College of Human Ecology, 32 McNeal Hall, University of Minnesota, 1985 Buford Avenue, St. Paul, MN 55108. You may also arrange to meet with an adviser assigned to the program area you plan to enter.

Change of College Within the University—To transfer to the College of Human Ecology from another college of the University, you must meet the entrance requirements of the College of Human Ecology and the specific requirements of the major to which you are applying (see above). Apply for transfer at the admissions office on the campus where you are currently registered or where you last attended classes.

Transfer of Credit From Continuing Education and Extension—If you have credits and grades for Continuing Education and Extension (CEE) courses *taken before fall quarter 1989*, submit your CEE transcript to the Office of Admissions with your

application. Both the admissions office and the Office of the Registrar (OTR) will evaluate your CEE transcript and determine which credits and grades will be included on your record in the College of Human Ecology.

Special Admissions

Readmission to the College—Students returning to the college after an absence of more than one year must meet current admission requirements and complete the curricular requirements in effect when they reenter. Call 612/624-1717 for a readmission appointment.

Those who completed all requirements except the final 24 credits or less when they last attended the college may follow either current requirements or those in effect when they last enrolled.

Adult Special Admission—If you wish to register for particular courses to meet special needs rather than to pursue a degree, you may be admitted as an adult special student. Apply through the Office of Admissions and Records, 130 Coffey Hall.

If you decide at a later date to seek a baccalaureate degree in the College of Human Ecology, you must file a special application for a change of status with the Office of Admissions and pay a \$25 fee. To be admitted as a degree-seeking student, you will be expected to meet College of Human Ecology admission requirements for the particular undergraduate program you select.

Contact the Graduate School if you plan to transfer adult special credits to a graduate program.

Admission to Graduate School—Refer to the *Graduate School Bulletin*, or call the Graduate School (612/625-3014).

Summer-Only Student Admission—Refer to the *Summer Session Bulletin*, or call the Summer Session office (612/624-3555).



Financial Aid

Student financial aid is available in the form of grants, loans, scholarships, and work-study. Application packets are available at the Office of Student Financial Aid:

130 Coffey Hall
1420 Eckles Avenue
St. Paul, MN 55108

or

210 Fraser Hall
106 Pleasant Street S.E.
Minneapolis, MN 55455

Walk in service is available at both offices. Questions can be answered by calling 612/624-1665.

Scholarships

Several merit scholarships administered through the Office of Student Financial Aid are available only to students in the College of Human Ecology. Recipients of these scholarships are selected according to academic aptitude, vocational promise, personal attributes, leadership, and, in most but not all cases, financial need.

Approximately 30 college scholarships are available to College of Human Ecology students. Interested students complete one application. For applications and more information contact the college office, 32 McNeal Hall (612/624-1762).

Several department-based scholarships are available also. Contact your major department.

Registration

Each quarter you and the University complete a contract through the registration and payment process. The University agrees to provide certain instruction and facilities; you agree to attend and pay tuition and fees for the classes you have chosen. Although changes sometimes occur in course listings, the responsibility for accurate, timely registration and payment rests primarily with you.

Quarterly class offerings are listed in the *Class Schedule*, which is published just before the registration period each quarter.

Senior Citizen Admission—If you are a Minnesota resident age 62 or older, you may be admitted to University of Minnesota classes when space is available after all tuition-paying students have been accommodated, provided you have completed specified prerequisites and obtain written permission from the instructor. If you take courses on an audit (no credit) basis, there is no charge unless materials or other special fees are involved. If you take courses for credit, a modest fee per credit as well as any special fees are charged. Eligible persons should contact the Office of Admissions and Records, 130 Coffey Hall (612/624-9203).

Expenses

Current information on tuition, fees, and other expenses is published in the quarterly *Class Schedule*, available from the Office of Admissions and Records, 130 Coffey Hall, University of Minnesota, 1420 Eckles Avenue, St. Paul, MN 55108.

General Information

Check the *Class Schedule* for prerequisites, limitations on enrollment, special registration procedures, and meeting places and times for courses.

Registration periods begin in mid-August for fall quarter, mid-November for winter quarter, and mid-February for spring quarter. Continuing students register for summer and fall terms in May.

Obtaining Registration Materials—As a continuing student, you will receive registration instructions at your current mailing address before the first day of registration for the upcoming term. Registration materials may be picked up in the college office, 32 McNeal Hall.

To ensure an efficient registration carefully follow instructions in the quarterly *Class Schedule*.

Working with Your Adviser—Your adviser approves your course selections, follows your academic progress, and offers assistance with other aspects of your college career.

You are expected to take the initiative in keeping your adviser informed of your academic progress. Make registration appointments in advance and reschedule if necessary. Before meeting with your adviser, develop a tentative program for the quarter, using the curriculum requirements and course descriptions in this bulletin and the *Class Schedule* as guides.

Repeating a Course—You must repeat any required course in which you received a W, F, or an N grade. You may repeat any course in which you received a D grade. Grades of C or better may not be repeated without special permission from the Scholastic Standing Committee. The higher grade is used when computing the GPA. W, D, F, and N grades from the first attempt remain on the transcript but will not be factored into your GPA.

Registering for Extension Classes—Many students take courses offered by their departments through Continuing Education and Extension (CEE). Undergraduate degree

courses offered through CEE are accepted for full credit and grade value by the College of Human Ecology. To register for courses through CEE, obtain a registration form from 101 Wesbrook Hall (612/625-2500), 130 Coffey Hall, or 32 McNeal Hall. CEE registration automatically appears on your day school transcript.

Special Registration Procedures—Certain special registration procedures allow you to audit courses, take them as independent study or reading courses, or take them for extra credit.

Auditing—Auditors attend and complete all work for a course, but do not take the final examination or receive credit. As an auditor, you must officially enroll in a course and pay regular tuition and fees. Both your adviser and the course instructor must approve your registration. Enter a course you are going to audit on your registration card with a V after the course number (e.g., Rhet 3280V).

Extra Credit Registration—With the course instructor's approval, you may earn 1 to 3 additional credits for a course you are currently taking or have already taken. You may, for example, explore a course topic intensively or extend it to a related topic. You will do the extra work on your own according to standards set by the instructor.

You will need approval from the course instructor on a registration override permit. Submit the completed override along with your course enrollment request form with an X after the course number (e.g., Rhet 3280X). The usual regulations concerning tuition and fees, grades, and cancellations apply.

Independent Study Registration—You have three options for obtaining credit through independent study. In some University courses, you may request an examination (or other evaluation) after preparing for it in any way you choose. If you pass the examination, you will receive credit for the course. You must pay a fee for each examination attempted. Check with the

college office for further information and for Request for Special Examination application forms.

A second method of independent study is to complete the course on your own. You pay the usual tuition and fees for the course, meet all deadlines, and take the final examination at the regular time. All usual regulations apply to students taking independent study in this manner. Check with the department offering the course concerning permission to take it for independent study. You will need approval from the course instructor on a registration override permit. Return the completed override to the Office of Admissions and Records, 130 Coffey Hall. Enter the course you are going to take by independent study on your course request form with a Y after the course number.

The third option is to take a course from the Department of Independent Study, which offers courses through Continuing Education and Extension (see the *Independent Study Bulletin*).

Cancel/Add Procedures—Use a course request form, available from the Office of Admissions and Records, 130 Coffey Hall, or the college office, to change registration. Make all such changes as early as possible in the quarter. *Note:* Cancel/adds are official only if you use the course request forms from the Office of Admissions and Records.

Cancel—When you cancel a course, you are subject to the following procedures and requirements:

- Cancellations during the first two weeks of a quarter are deleted from your record.
- Cancellations during the third through sixth weeks of a quarter require your instructor's signature on the course request form. A W is assigned. The withdrawal (W) will not affect your GPA.
- Withdrawal from a course after the sixth week of a quarter is strongly discouraged unless there are extenuating circumstances. Cancellations after the sixth week require the signatures of the adviser, instructor, and Scholastic Standing Committee representative on the course request form. *Cancellations*

during the ninth and tenth week of a quarter are seldom approved by the Scholastic Standing Committee. If a cancellation is approved, a W is assigned.

Add—No signatures are required to add a class during the first week of a quarter. You must have your instructor's signature during the second through sixth weeks of the quarter. After the sixth week of the quarter, adding a course requires the signatures of your instructor and the Scholastic Standing Committee representative. *Approval after the sixth week of the quarter is rarely granted.*

Grading Change—A change from one grading system selected for a course to another (e.g., from A-F to S-N or Audit) must be made during the *first two weeks of a quarter*. The choice of grading system *may not be changed after the end of the second week.*

Cancellation of Entire Registration—If you leave the University before the end of a quarter, you must cancel your registration when you stop attending classes. Submit a course request form to the Office of Admissions and Records, 130 Coffey Hall. Cancellations are effective the day they are processed. Refunds are based on the date you officially cancel. You are entitled to a full refund if you cancel before the first day of classes. Contact Admissions and Records, 130 Coffey Hall, for current refund information.

Credit

Advanced Placement—The Advanced Placement (AP) program of the College Board provides a way for high schools to offer college-level studies to their more advanced students and for such students to demonstrate satisfactory achievement in those studies. Through this program students may earn college credit, exemption from requirements, or placement in advanced courses when they enroll in college. For more information, contact the Office of

General Information

Admissions, 240 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, MN 55455 (612/625-2008).

Credit Load—The average course load is 14 to 17 credits per quarter. If you are employed or have other outside commitments, you may need to take a lighter load. You must carry a minimum of 12 credits per quarter to be classified as a full-time student (15 credits for state aid programs). To take more than 18 credits a quarter you must have a C (2.00) average. To carry more than 21 credits you must have a B (3.00) average in the work of the previous quarter and must obtain permission from the Student Scholastic Standing Committee.

Credit by Special Examination—If you believe your knowledge of a subject is equal to that required to complete a particular course, you may request a special examination for either proficiency or credit. Check with the college office, 32 McNeal Hall.

The University grants both credit and advanced placement based on scores earned in the English and humanities tests of the College Level Examination Program (CLEP). Apply to take the CLEP tests at 101 Eddy Hall, Minneapolis. The college faculty accepts scores above the 75th percentile in the CLEP English examination in lieu of the Rhet 1101 requirement for the undergraduate programs. Scores in the CLEP humanities examination above the 75th percentile earn credits that may be applied toward the liberal education distribution requirements for category D, Literature, Humanities, and Fine Arts.

Credit Through Experiential Learning—Experiential learning integrates practical work experience or internships with academic study. You can earn 2 to 15 credits, depending on your program area, through a preplanned work experience related to your professional program. For further information, contact the Career Services Center, 68 McNeal Hall (612/624-6762).

Residence Credit Requirement for a Baccalaureate Degree—You may earn a bachelor of science degree in the College of Human Ecology by completing all degree requirements in a selected program, including a minimum of 45 credits while registered in one of this college's major programs.

Grading

The University uses two grading systems: the traditional letter grade (A-F) system and the satisfactory-no credit (S-N) system. When you register you must choose the grading system under which you want your class performance to be evaluated. The grading system must be declared at the time of registration and may not be changed after the second week of the quarter.

A-F System—Under the A-F system, students may satisfactorily complete a course by earning grades of A, B, C, or D. Students whose work is below the D level receive an F. For computation of the GPA, each credit of A is equivalent to four grade points; B, three grade points; C, two grade points; D, one grade point; and F, no grade point. The GPA is computed by dividing the total number of grade points earned by the total number of A, B, C, D, and F credits earned/attempted. Transfer credits from other schools are not reflected in your University GPA.

S-N System—Under the S-N system S stands for "satisfactory" and N for "no credit." S and N grades do not carry grade points and therefore are not included when computing the GPA; credits of S are, however, counted toward the total credits required for graduation. Instructors determine their own criteria for satisfactory work in a course. The S is not tied to any letter grade equivalent in the A-F system. The following restrictions apply to the use of the S-N system:

Note: Courses that are specifically listed in your curriculum by department designator and number (e.g., Rhet 1101) must be taken under the A-F grading system. Courses that are used to fulfill a credit requirement for



your curriculum (e.g., minimum of 9 credits in the following) may be taken S-N. However, all professional courses in the major (category E) must be taken A-F unless otherwise indicated.

- Baccalaureate candidates from the college may present a maximum of 25 percent of the residence credits offered for their degrees in courses in which they received grades of S.
- The S-N system is available to students of the college regardless of their academic standing.
- Students may take only one course per quarter on the S-N grading system until they have completed 36 credits. This restriction does not include courses offered on the S-N system only.
- A course previously registered on the A-F system may not be taken at a later date on the S-N system.

Your adviser or the college office will offer assistance if you have questions about the use of the S-N system.

The quarterly *Class Schedule* contains complete definitions of grades and the supplementary symbols W (withdrawal), I (incomplete), X (sequence course), V (visitor or auditor), and T (transfer credits).

Academic Records and Grade Reports—

Your official grade record is kept by the Records Office. It indicates the outcome of every registration and shows all passing grades, as well as F and N grades, incompletes, and withdrawals.

Fall and winter quarter transcripts are distributed at the beginning of the next quarter in Admissions and Records, 130 Coffey Hall, upon presentation of your student identification card. An end-of-the-year transcript, which includes your spring quarter grades, is mailed to you each summer from the Records Office.

If you have any questions about grading symbols and transcripts, contact the Office of Admissions and Records, 130 Coffey Hall.

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, they must notify the records office on their campus (130 Coffey Hall).

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

General Information

Honors Program

The Honors Program is designed for highly motivated students whose academic potential has already been demonstrated and who wish to participate in stimulating learning experiences using the faculty and research facilities of the college.

To be eligible, you must have (1) declared a major in the College of Human Ecology, (2) completed at least 90 credits, (3) completed a minimum of 12 credits at the University of Minnesota with a GPA of 3.50 or above, and (4) have at least four quarters remaining before graduation.

Eligible students are encouraged to apply. Application forms are available in 32 McNeal Hall.

Undergraduate Research Opportunities Program

The Undergraduate Research Opportunities Program (UROP) is a competitive, merit-based program that offers financial awards to undergraduates for research, scholarly, or creative projects undertaken in partnership with a faculty member. Application deadlines generally occur twice each year, in early November and mid-April. Interested students should contact the UROP coordinator, 32 McNeal Hall (612/624-4244), to obtain current guidelines and application forms.

Dean's List

The Dean's List is posted quarterly on the bulletin board in the lobby of McNeal Hall, and a Dean's List notation is added to the student's transcript. To be named to the Dean's List you must earn 12 credits of A; any additional credits that quarter must be A or S.

Satisfactory Academic Progress

College of Human Ecology students are expected to maintain an academic standing that will enable them to graduate. To aid in the early identification of students who are

not making satisfactory progress so that appropriate assistance can be provided, the following guidelines have been developed.

An overall as well as unit (those courses taken after admittance to the College of Human Ecology) GPA of 2.00 (C) is required. In addition, specific major programs may require students to maintain a GPA well above 2.00.

Students whose cumulative and/or unit GPA is below 2.00 are referred to their academic adviser for planning. If a student's GPA deficiency can be remedied within a quarter, the student is placed on the *first level* of academic probation. If the GPA deficiency is too great to remedy within a quarter, the student is placed on a *strict academic* probation by the College Scholastic Standing Committee and referred for academic counseling. Students remain on academic probation until their unit *and* cumulative GPA is 2.00 or greater.

Students on academic probation will not be permitted to register in the college until they have received permission to do so from their academic adviser and/or the college office. If this approval is granted, specific goals may be established and the student will be expected to meet them. Students who do not meet these goals may be suspended from the college.

Students are encouraged to seek help from advisers, instructors, and the University Counseling Services (190 Coffey Hall), which maintains a Reading and Study Skills Center and also provides personal and career counseling. If you feel you are having difficulties, check with your instructor, adviser, or a staff member in University Counseling Services immediately rather than waiting until you receive a low grade.

Student Scholastic Conduct

The college expects ethical conduct of its students, faculty, and staff. Thus, scholastic misconduct includes: cheating on assignments; acquiring or using test materials without faculty permission; plagiarizing (representing as a student's own work any



part of what was done by another person); submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials or otherwise interfering with another student's work; falsifying a record; or any other act that violates the academic rights of another student or involves misrepresentation of a student's own work.

The college's policy for responding to apparent scholastic misconduct is found in the college brochure, "Policy and Procedures Concerning Scholastic Misconduct," available in the college office, 32 McNeal Hall.

Expectations of Student Behavior

The College expects ethical behavior on the part of students, faculty, and staff in order to accomplish its mission of open inquiry and debate as specified in the University of Minnesota Student Conduct Code. Copies are available in the college office, 32 McNeal Hall.

Petitions and Appeals

Petitioning—To request permission to depart from procedures and regulations, you must complete a petition form available at the college office, 32 McNeal Hall. Consultation with your adviser is required. Submit your petition and a transcript to the college office for a decision. The decision and your transcript will be mailed to you.

Student Scholastic Standing Committee—The Student Scholastic Standing Committee is a subcommittee of the college's Educational Policy Committee. The subcommittee interprets and enforces faculty policy concerning academic regulations and requirements. The subcommittee is also authorized to consider alternative ways of meeting those requirements when permission to depart from normal procedures is requested.

College of Human Ecology Appeals Committees—When you have problems or questions, your adviser, the program chairpersons, the department heads, and the Student Services staff in the college office are good sources of information and support.

Should you encounter a situation in which you question some aspect of the

General Information

college program, you may wish to carry your concern to your adviser, department head, the College of Human Ecology Academic Freedom and Responsibilities Appeals Committee, or the College of Human Ecology Student-Faculty Complaints Committee. The committees, composed of faculty and student members, are organized to resolve problems that cannot be handled through usual channels. The college office (612/624-4244) provides information about appeals procedures.

Graduation

Requirements—To be recommended for graduation as a candidate for the bachelor of science degree, you must:

1. Complete the prescribed curriculum as specified in your degree program.
2. Earn at least 45 credits after admission to the College of Human Ecology. Of the last 45 credits earned before graduation, 30 must be awarded by the University. All credits awarded by the University, regardless of the type of instruction or the unit offering them, count toward the residence credit requirement for the degree.
3. Earn a minimum cumulative GPA of 2.00 or higher, depending on the requirements of your major program, and the specific minimum GPA as spelled out in the program requirements.
4. Officially apply for graduation.
5. Meet all financial obligations to the University.

Application for Degree—Graduation application deadlines are established by the Records Office and are published as part of registration information materials distributed to students.

Two quarters before your expected graduation date request your updated program sheet from your adviser. Submit your program sheet with the degree application to 130 Coffey Hall.

<i>Term you plan to graduate</i>	<i>Clearance sheet and degree application to 130 Coffey Hall on or before</i>
SSI or SII	Fifth day of winter quarter
Fall	Fifth day of spring quarter
Winter	Fifth day of fall quarter
Spring	Fifth day of winter quarter

Your degree application initiates the preparation of the graduation clearance checklist listing the total number of credits accumulated, the required courses that remain to be completed, and any deficiencies that must be removed before the degree can be granted. If your graduation date changes from that indicated on your degree application, it is your responsibility to inform the college office and the Records Office of this change.

Program Update—If, after filing for your degree, you find that minor changes occur because you are not able to register for courses listed on your clearance sheet, you must submit a program update on a petition. Your adviser must approve any changes. Take the petition to 32 McNeal Hall.

Commencement—The college holds official commencement exercises once a year in June. Eligible seniors will be given information about commencement.

Honors—You must rank in the top 10% of your class scholastically to graduate “with distinction” from the College of Human Ecology. To graduate “with high distinction,” you must rank in the top 3% of your class. The Records Office identifies graduating seniors who qualify for these honors based on the cumulative GPA for courses completed at the University of Minnesota.

To graduate with designated honors (*cum laude*, *magna cum laude*, *summa cum laude*), you must participate in the college’s Honors Program for a minimum of four academic quarters. Students with 90 credits and a cumulative GPA of 3.50 or above may apply for admission to the Honors Program.

For additional information, consult the Honors brochure or the director of the Honors Program in the college office (612/624-4244).

Student Services

College Information Desk—The person at the college information desk in 32 McNeal Hall can give you information about the programs and activities of the College of Human Ecology. College bulletins and brochures describing the various curricula are available. You will be referred to appropriate staff members for answers to specific questions.

Student Mailboxes—Each student is assigned a mailbox used for in-house communications from your adviser, instructors, the Career Services Center, the college office, student organizations, and other students.

The mailboxes are not used for U.S. mail. You are expected to check your mailbox frequently. New mailbox numbers are issued at the beginning of each academic year.

Academic Student Services—The Student Services office provides needed services for the students in the College of Human Ecology. The office processes admission applications, maintains student files, acts as the agent for the Student Scholastic Standing Committee, and coordinates undergraduate advising.

Career Services Center—The Career Services Center offers individual counseling, classes and workshops, and maintains a Career Resource Library to help students clarify career goals, secure internships, and plan for a proactive job search. Students, graduates, and alumni may use the job referral service database to learn about current internship and job opportunities. Staff members teach career planning courses and are available to discuss career choices and employment opportunities. Full- and part-time positions are posted in departments and listed in *Career Highlights*, a biweekly newsletter. During the year the center

sponsors programs dealing with various career planning topics.

An important part of the college experience is participating in an internship. The experiential learning program acts as a clearinghouse for internship activities.

For questions concerning career planning, internships, and job opportunities, call the Career Services Center (612/624-6762).

Additional placement services are available to students in home economics education through the Education Student Affairs Office of the College of Education, 1425 University Avenue S.E., Minneapolis, MN 55414.

Student Organizations

Human Ecology Student Board—The major objectives of the Human Ecology Student Board (HESB) are to initiate, promote, and coordinate activities of human ecology student organizations and to serve as a liaison between students and faculty in order to achieve the goals of the college. Board members facilitate communication between the student body, faculty, and administration through their representation on college committees and through the publication of the quarterly student newsletter.

HESB consists of five elected officers plus representatives from the following groups: the four curricular areas in the college, the freshman class, new advanced standing students, the three human ecology organizations (Kappa Omicron Nu, Phi Upsilon Omicron, and the Home Economics Association), the St. Paul Board of Colleges, and the Student Center Board. All students in the college are eligible to file for a position as an officer or as a representative of one of the curricular areas: design, housing, and apparel; food science and nutrition; human relationships; and home economics. Elections are held during spring quarter. You can keep informed about the board's activities and its current membership by checking notices on the student bulletin board in McNeal Hall or by inquiring at the college office, 32 McNeal Hall. Meetings are open to all students in the college.

General Information

Student Participation on College Committees—Every standing committee and every program committee in the college has two or more student members on its roster. Student members of college committees automatically become nonvoting members of the HESB.

Other Human Ecology Student Organizations—Many of the undergraduate programs sponsor student clubs. Honor societies periodically hold elections to invite selected students to membership. Membership and participation in student organizations can add a valuable dimension to your academic program and contribute a great deal to your professional development. Faculty adviser and officer names for the following organizations are available at the front desk, 32 McNeal Hall.

Student and Professional Organizations

- American Society of Interior Designers
- Associated Retail Merchandisers
- Applied Design Club
- Costume Design Club
- Food Science & Nutrition Club
- Home Economics Association
- Human Ecology Student Board
- Institute of Business Designers
- Student Organization of Nutrition and Dietetics

Honor Societies

- Kappa Omicron Nu
- Phi Upsilon Omicron

Freshman Board—This group gives you an opportunity to learn about the University—its organization and administration, its governance and procedures, and student roles in decision making. Freshman students may apply for membership during the orientation-registration program in August or during Campus Kick-Off Days in September. Freshmen are invited to become members each fall. For further information, inquire at the Student Affairs office, 190 Coffey Hall (612/625-9225).

St. Paul Campus Board of Colleges—The St. Paul Campus Board of Colleges directs and coordinates student activities and encourages student leadership throughout the St. Paul campus. Its membership is drawn from all major areas of the colleges of Agriculture, Biological Sciences, Human Ecology, Natural Resources, and Veterinary Medicine.

The board cooperates with the Minnesota Student Association and the Assembly Committee on Student Affairs. It brings questions from the student body to the administration of its member colleges and discusses and reaches decisions on matters of general interest. As a student in the College of Human Ecology, you may file for election to the board. Inquire at the Student Affairs office, 190 Coffey Hall (612/625-9225).

Student Center Board of Governors—The St. Paul Student Center sponsors a wealth of social, cultural, and recreational activities and contributes in many ways to the educational objectives of the campus. You are encouraged to participate in these varied activities. Students representing the academic units on the St. Paul campus are elected to the Board of Governors, which formulates policy for the operation of the Minnesota Unions and establishes its budget. For information about the Student Center, its operation, and opportunities to serve on its various planning and programming committees, inquire at the information desk, room 42 of the Student Center.

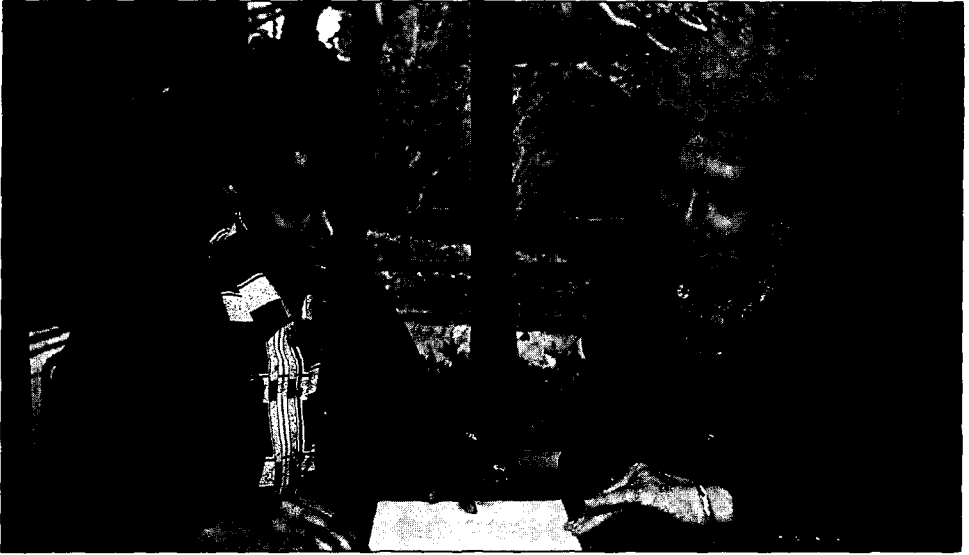
Student Representation on College and University Committees—All College of Human Ecology committees and most all-University committees have student representatives and welcome student interest in their activities. For college committees, selection is made by the Human Ecology Student Board. For all-University committees, watch for announcements about filing for positions in *The Minnesota Daily* and on bulletin boards around the campuses.

College of Human Ecology

Programs



Programs



Liberal Education Distribution Requirements

Programs in the College of Human Ecology meet distribution requirements that contribute to the liberal education of all students, whatever their major or professional goals. In the broadest sense, a liberal education frees us from the limitations that ignorance places on our powers of judgment and choice. More specifically, a liberal education asks that we acquire mastery of the general intellectual instruments for acquiring and communicating knowledge, primarily through the command of language and numbers; understanding of the ways in which natural science has contributed to our knowledge of ourselves and our environment; human, cultural, social, historical, and philosophic perspective on the nature of our own lives and the world in which we live; and appreciation of the creative insights into life and nature provided by literature and the arts.

To help you achieve the goal of a liberal education, the College of Human Ecology has set minimum requirements for the four major categories of knowledge listed below. These college distribution requirements meet

or exceed the University requirements. They are firmly fixed, and *you should not expect to petition out of even one credit in any category.*

If you can demonstrate high ability in certain subject areas, proficiency tests are offered by many University departments. You may be excused from some course requirements. *However, you must still meet the minimum credit requirement in each category.*

Because of the numerous changes that occur in course numbers, titles, and content, a complete list of courses that fulfill each of the four categories below is difficult to maintain. For approval of courses not listed below, consult the college office, 32 McNeal Hall (612/624-6250).

A. Communication, Language, Symbolic Systems (18 credits minimum)

Specific requirements must be taken A-F; electives may be taken S-N)

Listed below are the minimum requirements for the College of Human Ecology. Consult each major program listing for additional course requirements:

Required courses for all majors:

Freshman Composition I: Rhet 1101 or Comp 1011 or
Comp 1013 or GC 1421/1422

Freshman Composition II: Rhet 1151/1104 or Comp
1027

Lower Division Speech: Rhet 1222 or Spch 1101 or GC
1461

Liberal Education Distribution Requirements

Upper Division Writing: Rhet 3562 or Comp 3012, 3013, 3014, 3015, 3027, 3031, 3032, 3033, 3051 or GC 3425

Additional suggested coursework that can be applied toward meeting elective credit in this area is listed below:

1. English and Foreign Language Communication Skills

Rhet 1220, 1251, 3101, 3254, 3266, 5257, 5258, 5551
Spch 1102, 3401, 3605, 5451

Foreign Languages—all beginning courses

2. Linguistics, Logic, Philosophic Studies

Engl 3851
Ling 1001, 3001
Phil 1001

3. Mathematics, Computer Science, and Statistics

CSci—all courses
Math—all courses
Stat—all courses

B. Physical and Biological Sciences (9 credits minimum. Specific requirements must be taken A-F; electives may be taken S-N)

To graduate from the College of Human Ecology, you must complete a minimum of 9 credits in physical and biological sciences.

1. The Physical Universe

Ast 1011, 1015
BioC 3001, 3031
Chem 1001-1002, 1003, 1051-1052
GC 1111, 1112, 1161, 1162, 1163, 1171
Geo 1001, 1002, 1005, 1012, 1601
Geog 1401
NSci 1501
Phys 1001, 1005, 1041-1042, 1061, 1071

2. The Biological Universe

Biol—all courses
Bot—all courses
EBB—all courses
FScN 1020, 1612
GC 1131, 1132, 1137
GCB 3002, 3008, 3022
MicB 3103
Phsl 1002, 3051

C. The Individual and Society (9 credits minimum. Specific requirements must be taken A-F; electives may be taken S-N)

1. Analysis of Human Behavior and Institutions

Afro 1011, 1025, 1334, 1441, 3061, 3072, 3091, 3543, 5072
AgEc 1101, 1102, 3070, 5720
AmIn 1771, 5341, 5411, 5422
Anth 1102, 3131, 3211, 3212, 3222, 3223, 3241, 3261, 3293, 3371, 3501, 3511, 3512, 3521, 5112, 5115, 5118, 5121, 5131, 5141, 5151, 5152, 5153, 5154, 5161, 5258, 5325, 5335, 5411
Chic 3615, 3617, 3711, 3712
Clas 3071, 3072, 3073
EAS 1032, 1461, 1462, 1463, 3315
Econ 1101, 1102, 1104, 1105, all courses in Economic Development, Comparative Systems, and Area Studies

Fren 3511, 3512, 3513, 3590

FSoS 1001, 1025

Geog 1301, 3101, 3121, 3131, 3141, 3161, 3181, 3211, 3212, 3213, 3215, 3221, 3321, 3331, 3341, 3343, 3344, 3345, 3371, 3373, 3375, 3378, 3381

Ger 3501, 3502, 3511, 3512, 3513

Ital 3590

IntR—all courses except 5900, 5910, 5920, 5930

Jour 5601, 5721

JwSt 1034, 3034, 3126, 3521

LAS 3131, courses under social sciences section

Ling 1001, 1005, 3111

Phil 3234, 3304

Pol 1001, 1025, 1026, 1027, 1041, 1054, 1061, 3306, 3307, 3308, 3309, 3321, 3331, 3659, 3661

Psy 1001, 1004, 1005, 3101, 3201

RelS—all courses except 5890, 5960

Scan 1504, 3457

Soc—all courses except methodology and topics courses

Spch 5611, 5616, 5617, 5618

WoSt 1001, 1002, 1101, 1102, 3102, 3203, 3204, 3205, 3300, 3305, 3404, 3602, 5201

2. Development of Civilization: Historical and Philosophic Studies

Afro 1011, 1441, 3001, 3002, 3011, 3013, 3061, 3421, 3864, 3865, 5597

AgEc 3040

AgEd 1010

AmIn 3026, 3111, 3112, 3121, 3211

AmSt—all courses

Anth 3003

Chic 3105, 3106, 3107, 3212, 3213, 3427, 3428, 3441, 3442

Clas 1001, 1002, 1003, 1004, 1005, 1006, 1023, 1024, 1025, 1061, 3071, 3073

CICv 3201

EAS 1063, 1461, 1462, 1463, 3464, 3465, 3467, 3468, 3471, 3472, 3481

Fren 3599

Hist—all courses

HSci—all courses except 5970, 5990

Hum—all courses except 3910, 3970, 5910, 5970, 5990

JwSt 3521, 3607

LAS 3401, 3402, 3403, 3500, 3501, 3502, 3610, 5524, any courses under the history section

MidE 3541, 3542, 3543

Phil 1002, 1003, 1004, 3001, 3002, 3003, 3004, 3005, 3234, 3302, 3304

Russ 3511, 3512

Scan 3271, 3272, 3273

SOAS 3501

Span 1501, 1502, 1503, 3501, 3502, 3512

Spch 5602, 5607, 5611, 5616, 5617, 5618, 5621, 5622

WoSt 3103, 3307, 3402, 3403, 3404, 5101, 5401, 5402

D. Literature, Humanities, and Fine Arts (9 credits minimum. Specific requirements must be taken A-F; electives may be taken S-N)

You must complete a minimum of 9 credits in the humanities, arts (non-studio), literature, music, and/or theatre arts (non-technical).

Programs

Afro 1301, 3105, 3108, 3301, 3591, 3592, 3601, 5181, 5182, 5201, 5301, 5551, 5593, 5595, 5596, 5597
AmIn 3116, 3242, 5251
Arch 1001, 1021, 1022, 5051, 5052, 5053, 5054, 5055, 5056, 5061, 5064
ArtH—all courses except 5895, 5950, 5960, 5970, 5990, 5591
ArtS 1401 only
Chic 3212, 3213, 3507, 3508, 3510, 3511
Clas 1001, 1002, 1003, 1004, 1005, 1006, 1023, 1024, 1025, 1042, 3001, 3002, 3003, 3008, 3023, 3024, 3025, 3035, 3065, 3072, 3081, 3082, 3083, 3142, 3145, 3152, 3162
CLit—all courses
Dsgn 1300, 3117, 5107, 5109, 5112, 5114, 5115, 5118
EAS 3013, 3020, 3162, 3163, 3165, 3808, 3941
Engl—all courses except 3851, 3852, 3910, 3920, 3931, 3932, 3940, 3950, 3963, 3970, 3980, 5815, 5821, 5831, 5843, 5851, 5860, 5871, 5910, 5920, 5940, 5950
Foreign Languages—literature courses only
Hum—all courses except 39xx, 59xx
JwSt 3315, 3401, 3402, 3403
LA 1021, 1022
LAS—all humanities courses
MidE 3213, 3601
Mus 1001, 1021, 1602, 1804, 3021, 3027, 3028, 3029, 3604, 3605, 3606, 3708, 3709, 3808
Rhet—humanities courses: 1301, 1302, 1303, 1310, 1311, 1376, 3370, 3375, 3380, 3390
Scan 3503, 3505, 3601-3654, 5502, 5511, 5613-5645
SOAS 3204, 5202
Th 1101, 1102, 1405, 3171, 3172, 3173, 5130, 5171, 5172, 5173, 5177, 5178, 5181, 5182, 5186
WoSt 3303, 3304, 3305, 3306, 3307, 3308, 5304, 5305

Because of many changes that occur in course numbers, titles, content, and credits, an accurate list of courses that fulfill each of the above categories is difficult to maintain. For an updated list of suggested courses and for approval of courses not on this list, consult your adviser or contact the college office, 32 McNeal Hall (612/624-6250).

Apparel Sciences and Design

(formerly Costume Design, Retail Merchandising, and Textiles and Clothing)

Apparel Sciences and Design offers a strong emphasis on translating consumer needs, both aesthetic and physical, into product characteristics by offering specializations in clothing design, merchandising and consumer science, and product analysis.

The curriculum creates program integration with foundation courses and offers specializations that provide the depth students need to gain competence and relate to professional occupations.

The professional foundation courses are based on the apparel industry's concern with the essential components of product development at the manufacturing and retail level. Areas within the foundation include human needs/factors, textile and apparel science, design and aesthetics, business systems, and research methods. The Apparel Sciences and Design program focuses on apparel products and other soft goods, always with the underlying emphasis of satisfying human needs.

Students entering this program are expected to have a working knowledge of microcomputers and software. In addition, students pursuing the Clothing Design concentration are expected to have clothing construction/assembly competence.

Students are encouraged to use the liberal education categories as a place to explore multicultural issues and themes and to strengthen the knowledge base that will support and enhance their chosen area of concentration.

Admission Requirements

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 are required to complete the High School Preparation Requirements.
- Overall GPA of at least 2.50.

Program Requirements

Refer to the Liberal Education Distribution Requirements on page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum)

Please refer to the Liberal Education Distribution Requirements, page 22, for more detailed information.
Rhet 1101—Writing to Inform and Persuade (4)
Rhet 1104—Library Research Methods (1)
Rhet 1151—Writing in Your Major (4)
Rhet 1222—Public Speaking (4)
Rhet 3562—Writing in Your Profession (4)

These courses in combination with courses listed in the Business Systems program core fulfill this category.

B. Physical and Biological Sciences (9 credits minimum)

This category is partially fulfilled by the completion of chemistry listed in Textile and Apparel Science Technology core in Category E.

Select one additional course from the Biological Universe section listed in the Liberal Education Distribution Requirements, Category B, to meet minimum credit requirements.

C. The Individual and Society (9 credits minimum)

This category is partially fulfilled by the Business Systems core in Category E.

Select one additional course from Development of Civilization: Historical and Philosophic Studies, Liberal Education Distribution Requirements, Category C—Part 2. The world history survey course option listed in the Design and Aesthetics core will complete this category.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

This category is partially fulfilled by major/program requirements listed in Category E.

Select one additional course from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

E. Professional Courses in the Major (75-82 credits)

Program Core

Human Needs/Factors (22-26 credits)

TexC 3211—Human Body Garment Interface (4)

TexC 3212—Cultural Diversity in Dress (4)

TexC 3213—Fashion Trend Analysis (4)

TexC 5211—Issues and Trends in Textile Consumer Protection (3)

TexC 5212—Clothing and Human Behavior (4)

One course selected from:

Dsgn 3117—History of Costume: Paeleolithic through 18th Century (3) (*Note:* required for Clothing Design concentration)

Dsgn 5107—History of Decorative Arts: Textiles (4)

Dsgn 5109—History of Decorative Arts: Metal, Ceramics, Wood, Glass (4)

Dsgn 5118—History of Costume: 19th and 20th Century (4) (*Note:* required for Clothing Design concentration)

Textile and Apparel Science and Technology (33-37 credits)

Chem 1001-1002—Chemical Principles & Covalent Systems (4,4)

TexC 3214—Apparel Industries (4)

TexC 3215—Apparel Analysis I (4)

TexC 3216—Textile Analysis (5)

TexC 5213—Advanced Textile Analysis (4) (*Note:* required for Product Analysis concentration)
 or TexC 5214—Characterization of Yarns, Woven, and Knitted Fabrics (5) (*Note:* required for Product Analysis concentration)
 or TexC 5215—Textiles for Interior Environments (4)

TexC 5216—Textile and Apparel Consumer (4)

TexC 5217—International Trade in Textiles and Apparel (4)

Design and Aesthetics (14 credits)

Art History, one course

or World History, one course

DHA 1101—Introduction to the Designed Environment (3)

TexC 3217—Aesthetics of Clothing (3)

One computer application course selected from:

CSci 3002—Creative and Analytical Application of Computers in the Arts (4)

Dsgn 3334—Computer Applications to Design Problems (4)

Dsgn 3523—Computer-Aided Design, Drafting System I (4)

IDSc 1010—Fundamentals of Information Development and Use (4)

TexC 3218—Computer-Aided Design of Apparel (4)

Business Systems (17-26 credits)

AgEc 1101-1102—Principles of Microeconomics, Macroeconomics (4,4)

or Econ 1101-1102—Principles of Microeconomics, Macroeconomics (4,4)

Math 1111—College Algebra (5)

or Math 1131—Finite Math (5) (recommended for Merchandising and Consumer Science concentration)

Statistics, one course (See your academic adviser for a list of recommended courses)

In addition, students pursuing the Clothing Design or the Product Analysis concentration must choose two courses from the following:

TexC 1211—Introduction to Merchandising (4)

BGS 3002—Business and Society (4)

BGS 3003—Business and the Natural Environment (4)

BGS 3004—International Business (4)

GC 1513—Principles of Small Business Operations (5)

or Mgmt 3008—Entrepreneurship and the Smaller Enterprise (4)

Mgmt 3001—Fundamentals of Management (4)

Mktg 3000—Principles of Marketing (4)

Research Methods (4 credits)

See your academic adviser for a list of recommended courses.

Field Experience/Internship (1-4 credits)

TexC 3203—Field Experience in Apparel Science and Design (1-3)

or TexC 5203—Field Experience in Apparel Science and Design (1-4 credits)

All students must complete an off-campus work internship related to their area of concentration. Please consult your academic adviser for further information.

Area of Concentration—Choose one of the following program concentrations:

Clothing Design Concentration (52 credits)

Dsgn 1323—Design Process: Drawing I (4)

Dsgn 1325—Design Process: 2-D (4)

Dsgn 1328—Design Process: Color (4)

Dsgn 1331—Surface Fabric Design I (4)

Dsgn 3327—Design Process: 3-D (4)

Dsgn 3331—Surface Fabric Design II (4)

or Dsgn 3332—Fiber Structure: Weaving (4)

Programs

Dsgn 1231—Costume Design: Special Techniques (4)
TexC 3221—Pattern Development in Apparel Design (4)

Dsgn 3232—Costume Design II (4)
Dsgn 5231—Costume Design III (4)

Dsgn 5232—Costume Design Problems (4)

Dsgn 5233—Problems in Design: Costume (4)

Dsgn 5234—Clothing Design for Special Needs (4)

Merchandising and Consumer Science Concentration
(47-49 credits) (300 hours of approved work experience required before taking courses in this concentration)

TexC 1211—Introduction to Merchandising (4)

or GC 1511—Introduction to Merchandising (4)

TexC 3241—Merchandising Principles (4)

TexC 5241—Strategic Merchandising (4)

TexC 5242—Managerial Decision Making (4)

Supporting Business Requirements:

Mgmt 3001—Fundamentals of Management (4)

Mktg 3000—Principles of Marketing (4)

Acct 1050—Principles of Financial Accounting (3)

or AgEc 1250—Principles of Accounting (5)

Mgmt 3002—Psychology in Management (4)

Mktg 3010—Buyer Behavior (4)

Mktg 3065—Retail Management (4)

OMS 3000—Introduction to Operations Management (4)

OMS 3056—Production and Industry Management (4)

Production Analysis Concentration (32 credits)

TexC 3251—Assessment of Pattern and Sizing Systems (4)

TexC 3252—Principles of Garment Assembly (4)

TexC 3221—Pattern Development in Apparel Design (4)

TexC 5251—Apparel Analysis II (4)

TexC 5252—Textile Coloration and Finishing (4)

TexC 5253—Recycling Process (3)

TexC 5254—Performance Evaluation: Fabrics and Garments (5)

One course selected from:

Dsgn 1231—Costume Design: Special Techniques (4)

Dsgn 1306—Spatial Logic for Designers (4)

Dsgn 1323—Design Process: Drawing I (4)

Dsgn 1331—Surface Fabric Design I (4)

Dsgn 1521—Intermediate Drafting (4)

Dsgn 3332—Fiber Structure: Weaving (4)

F. Electives

Electives to make a minimum total of 185 credits required for graduation (may be taken S-N).

Applied Design and Visual Communication

(see Design Communication)

Costume Design

(see Apparel Sciences and Design)

Design Communication

(formerly Applied Design and Visual Communication)

*Department of Design, Housing, and Apparel
240 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
612/624-9700*

This program in theoretical and applied dimensions of design has concentrations in graphic communication or fiber arts. It is based on a design foundation with problem solving in visual presentation, color, two- and three-dimensional design, and history of design and is supported by liberal education and collateral studies. Students have the opportunity to become articulate in writing and speaking about design and to develop computer literacy.

Graduates may find careers in graphic design and fiber arts in business and industry, design management, museums, and exhibition design. An internship is required. The program also prepares students for graduate studies in design process and research in design foundations and education, decorative arts, history of design, and museology. Graduate programs at the M.A. and Ph.D. level are individually tailored. See the *Graduate School Bulletin*.

Pre-Design Communication Admission Requirements

Freshmen and transfer students are initially admitted to the Pre-Design Communication major.

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.50.

Design Communication Admission Requirements

Pre-Design Communication majors need the following to be considered for the Design Communication major:

- completion of Design 1300, 1323, 1325, 1328.
- overall GPA of at least 2.50
- design course GPA of at least 3.00
- pass portfolio review

Contact your academic adviser for more information.

Transfer Students

Transfer students may apply for portfolio review the same quarter they are admitted to the College if all other Design Communication admission requirements are met. See student services staff, 32 McNeal Hall, for more information.

Graduation Requirements

- Completion of college graduation requirements.
- Overall GPA of at least 2.50.
- Core, Category E, GPA of at least 2.00.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum)

- Rhet 1101—Writing to Inform and Persuade (4)
- Rhet 1104—Library Research Methods (1)
- Rhet 1151—Writing in Your Major (4)
- Rhet 1222—Public Speaking (4)
- Rhet 3562—Writing in Your Profession (4)

B. Physical and Biological Sciences (9 credits minimum)

Refer to Liberal Education Distribution Requirements, Category B.
Physical Universe, one course
Biological Universe, one course
One laboratory course required

C. The Individual and Society (9 credits minimum)

This category is partially fulfilled by the completion of the history survey and the introductory psychology courses listed in the major preparatory core in Category E.

Select additional course from Liberal Education Distribution Requirements, Category C, to meet minimum credit requirements.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

This category is partially fulfilled by the completion of the introductory art history and the introductory literature courses listed in the major preparatory core in Category E.

Select additional courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

E. Professional Courses in the Major Preparatory Core

Art History, one introductory course
History, one survey course
Literature, one introductory course
Psychology, one introductory course

Program Core

Basic design requirements (must be taken before coursework in area of concentration)

- DHA 1101—Introduction to the Design Environment (3)
- Dsgn 1306—Spatial Logic in Design (4) (CEE only)
- Dsgn 1300—Introduction to Design (3)
- Dsgn 1323—Design Process: Drawing I (4)
- Dsgn 1325—Design Process: Two-Dimensional Design I (4)
- Dsgn 1328—Design Process: Color I (4)
- Dsgn 1331—Surface Fabric Design I (4)
- Dsgn 3323—Design Process: Drawing II (4)
- Dsgn 3325—Design Process: Two-Dimensional Design II (4)
- Dsgn 3327—Design Process: Three-Dimensional Design (4)
- Dsgn 3328—Design Process: Color II (4)
- Dsgn 3334—Computer Applications to Design Problems I (4) (CEE only)
- Dsgn 5334—Computer Applications to Design Problems II (4) (CEE only)
- Rhet 3101—Functional Photography (4) *or* equivalent course

Minimum of 4 credits in business and marketing

Design history courses (12 credits selected from the following)

- Dsgn 3117—History of Costume: Primitive Through 18th Century (3)
 - Dsgn 5107—History of Decorative Arts I: Textiles (4) (*Required for students taking fiber arts concentration*)
 - Dsgn 5109—History of Decorative Arts II: Metals, Ceramics, Glass (4)
 - Dsgn 5112—History of European Furniture and Interiors (4)
 - Dsgn 5114—History of American Furniture and Interiors (4)
 - Dsgn 5115—20th Century Furniture and Interiors (4)
 - Dsgn 5118—History of Costume: 19th and 20th Centuries (4)
- and/or* courses taught in Department of Art History (see adviser for list)
and/or history courses taught in School of Architecture (see adviser for list)

Area of Concentration (Minimum of 40 credits in one area of concentration, either Fiber Arts or Graphic Communication.) See adviser for updated lists.

Programs

F. Collateral Area

Minimum of 18 credits from an area selected with approval of your adviser (must be taken A-F); two-thirds of credits must be 3000-level or above. Suggested areas include:

American Studies
Anthropology
Architecture
Art Education
Art History
Business
Computer Science
Industrial Education
Journalism and Mass Communication
Psychology
Sociology
Speech Communication
Studio Art
Theatre Arts

Other collateral areas may be developed.

For courses relevant to collateral areas, see adviser.

G. Free Electives

Electives to make a total of 185 credits required for graduation

Education Collateral

The Education Collateral is offered through Home Economics Education. Refer to page 31.

Food Science

Department of Food Science and Nutrition
225 Food Science and Nutrition
1334 Eckles Avenue
St. Paul, MN 55108
612/624-1290

Food science applies scientific principles to the manufacture, distribution, marketing, and consumer aspects of food. Food scientists apply the basic principles and techniques of many disciplines including chemistry, physics, economics, microbiology, nutrition, management, and marketing to food processing and preservation, new product development, and food marketing. Food scientists are concerned with the theoretical and practical aspects of the food chain from the production of raw materials to the use of food products by consumers.

The program is open to students registered in either the College of Agriculture or the College of Human Ecology. Faculty advisors are from the Department of Food Science and Nutrition, which is jointly administered by the two colleges.

Many graduates of the program seek employment after earning the bachelor of science degree, while others continue on to graduate study. Career areas include production management, product and process research and development, public health and regulatory agency service, education, marketing, management, technical sales and promotion, and quality control supervision.

Admission Requirements

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.00.
- Beginning spring 1993, transfer students must have a minimum overall GPA of at least 2.50.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary. Where options are available, course choice should always be made in consultation with your adviser.

A. Communication, Language, Symbolic Systems (23 credits minimum)

This category is fulfilled by courses listed in the Required Supporting Courses in Communication, Math, and Science in Category E.

B. Physical and Biological Sciences (44 credits minimum)

This category is fulfilled by courses listed in the Required Supporting Courses in Communication, Math, and Science in Category E.

C. The Individual and Society (14 credits minimum)

This category is partially fulfilled by the completion of AgEc 1101 or Econ 1101, listed in the Required Supporting Courses in Communication, Math, and Sciences in Category E.

Select an additional course from The Development of Civilization: Historical and Philosophic Studies listed in the Liberal Education Distribution Requirements, Category C—Part 2, to meet minimum credit requirements.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

Select courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements. You may not apply technical courses, performance courses, or studio courses toward this category.

E. Professional Courses in the Major

Required Supporting Courses in Communication, Math, and Sciences (71-77 credits)

- AgEc 1101—Principles of Microeconomics (4)¹
- or Econ 1101—Principles of Microeconomics (4)¹
- Biol 1009—General Biology (5)²
- Biol 5001—Biochemistry (4)²
- or BioC 3031—Survey of Biochemistry (4)²
- Chem 1051, 1052—General Principles of Chemistry (4,4)²
- Chem 3301, 3305—Elementary Organic Chemistry I and Laboratory (4,2)²
- Chem 3302, 3306—Elementary Organic Chemistry II and Laboratory (4,2)²
- Math 1251, 1252—Differential and Integral Calculus (4,4)¹
- or Math 1142—Short Calculus (5)¹
- MicB 5105—Biology of Microorganisms (5)²
- or VPB 3103—General Microbiology (5)²
- Phys 1041, 1045—Introductory Physics and Laboratory (4,1)²
- Phys 1042, 1046—Introductory Physics and Laboratory (4,1)²
- Rhet 1101—Writing to Inform and Persuade (4)¹
- Rhet 1104—Library Research Methods (1)¹
- Rhet 1222—Public Speaking (4)¹
- Rhet 3562—Writing in Your Profession (4)¹
- Stat 3011, 3012—Statistical Analysis (4,4)¹
- or Stat 5021—Statistical Analysis (5)¹

Required Professional Courses (66 credits)

- FScN 1102—Technology of Food Processing (4)
- FScN 1612—Principles of Nutrition (4)
- FScN 3102—Introduction to Food Science (4)
- FScN 3112—Food Analysis (4)
- FScN 3135—Food Processing I (4)
- FScN 3136—Food Processing II (4)
- FScN 5100—General Seminar (1)
- FScN 5110—Food Chemistry (4)
- FScN 5120—Food Microbiology (5)
- FScN 5122—Control Systems in Food Microbiology (2)
- FScN 5123—Food Fermentation and Biotechnology (4)
- FScN 5135—Food Engineering Unit Operations (5)
- FScN 5136—Unit Operations Laboratory (2)
- FScN 5312—Instrumental Analysis of Foods (3)

In addition to these required courses, a minimum of 16 credits must be chosen from the following courses. A maximum of 4 credits in FScN 5000/5111 may be used to meet the 16 credit requirement.

- FScN 3400—Food Communications Techniques (3)
- FScN 3472—Food Selection Principles (4)
- FScN 5000—Professional Experience Program (4)
- FScN 5111—Independent Study in Food Science and Nutrition (1-5)
- FScN 5314—Physicochemistry of Foods (4)
- FScN 5320—Food Biotechnology (3)
- FScN 5350—Application of Experimental Design in the Food Industry (4)
- FScN 5360—Sensory Evaluation of Food Quality (4)
- FScN 5380—Food Packaging (3)

- FScN 5390—Introduction to Food Law (4)
- FScN 5403—Experimental Study of Foods (5)
- FScN 5414—Food Interactions (3)
- FScN 5474—Food Marketing Economics (4)
- FScN 5512—Meat Technology (4)
- FScN 5522—Technology of Fluid and Concentrated Milk Products (4)
- FScN 5523—Technology of Fermented Dairy Products (4)
- FScN 5524—Sensory Evaluation of Dairy Products (1)
- FScN 5530—Industrial Processing of Fruits and Vegetables (4)
- FScN 5540—Fats and Oils Chemistry and Technology (4)
- FScN 5555—Freezing and Dehydration of Foods (5)
- FScN 5562—Flavor Technology (4)
- FScN 5620—Nutrition and Metabolism (5)

F. Optional Area of Emphasis

An area of emphasis that meets the student's educational and career goals may be designed in consultation with his/her adviser. The area of emphasis plan must include 20 credits and be submitted to the undergraduate studies committee for approval. Two special areas of emphasis, physical science/biochemistry and engineering, are currently being developed. In addition, some suggested areas are chemistry, microbiology, statistics, management, economics, nutrition, international affairs, and communications.

G. Electives

Electives to complete 185 credits required for graduation with the bachelor of science degree.

Foreign Studies Minor

The foreign studies minor allows students to integrate a quarter of study abroad with their chosen major field in the College of Human Ecology. This study abroad and the coursework pertaining to the language and culture of the chosen country give an international focus to the student's major field of study. Students planning to have a foreign studies minor must receive prior approval.

Requirements

- Two pre-departure courses.
- Minimum of 10 weeks (one quarter) of study in the chosen country.
- 23 credits of the appropriate second language.
- 15 3000- or 5000-level credits of courses focusing on chosen country.

Careful planning with the help of your academic adviser is necessary. Several courses must be taken before you leave for your study abroad experience while others

¹Also fulfills Category A requirements.

²Also fulfills Category B requirements.

³Also fulfills Category C requirements.

Programs

must be completed after you return. Application materials and a complete list of required courses are available in 32 McNeal Hall.

Home Economics

32 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
612/624-1717

This interdepartmental and interdisciplinary program provides much flexibility. The program requirements include a broad base of courses in the liberal education distribution areas as well as home economics courses in food and nutrition, textiles and clothing, design, housing, family resource management, and family relationships.

The remainder of the credits are taken in the collateral area (supporting area of study) and electives. You can develop an in-depth study in a particular area—within or outside home economics—appropriate to your personal and professional goals.

You may work with your adviser to develop an individualized collateral area, or you may follow one of several defined areas that have been developed with the aid of practicing professionals in the field. Defined collateral areas are listed under Category F.

Admission Requirements

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.00.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum)

- Rhet 1101—Writing to Inform and Persuade (4)
- Rhet 1104—Library Research Methods (1)
- Rhet 1151—Writing in Your Major (4)
- Rhet 1222—Public Speaking (4)
- Rhet 3562—Writing in Your Profession (4)
- Math 1111—College Algebra and Analytic Geometry (5)

B. Physical and Biological Sciences (9 credits minimum)

This category is fulfilled by courses listed in the major preparatory core in Category E.

C. The Individual and Society (9 credits minimum)

This category is fulfilled by courses listed in the major preparatory core in Category E.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

Select courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

E. Professional Courses in the Major (must be taken A-F)

Preparatory Core

- AgEc 1101-1102—Principles of Microeconomics, Macroeconomics (4,4)
- Anth 1102—Introduction to Social and Cultural Anthropology (5)
- Biol 1009—General Biology (5)
or GC 1132—Biological Science, Human Body (5)
- Chem 1003—Physical World, Chemistry (5) and Phys 1001—The Physical World (4)
or Chem 1051-1052—General Principles of Chemistry (4,4)
- CPsy 1301—Introduction to Child Psychology (4)
- FScN 1020—Introductory Microbiology (4)
or VPB 3103—General Microbiology (5)
- Psy 1001—Introduction to Psychology (5)
- Soc 1001—Introduction to Sociology (4)

Program Core

- Dsgn 1300—Introduction to Design (3)
- FScN 1612—Principles of Nutrition (4)

Minimum of 8 additional FScN credits selected from:

- FScN 1102—Technology of Food Processing (4)
- FScN 3102—Introduction to Food Science (4)
- FScN 3400—Food Communication Techniques (3)
- FScN 3472—Food Selection Principles (4)
- FScN 3610—Community Nutrition (2)
- Hsg 1400—Introduction to Housing (4)
- Hsg 1401—Residential Technology (4)
- FSoS 3260—Family Resource Management (4)
- FSoS 5200—Family Relationships (5)
- FSoS 5218—Family Financial Management (4)
- HE 3191—Proseminar: Home Economics (2)
- HE 5003—Field Experience (5) or equivalent course
- TexC 3216—Textiles (5)
- One 5000-level course in home economics area (3-5)

F. Collateral Area (must be taken A-F)

Minimum of 18 credits selected in consultation with your adviser on the basis of your professional goals and interests; at least one-half the credits must be in upper division courses. Listings of suggested courses for collaterals are available from advisers.

The type of employment students seek often depends on their collateral and its depth. The different collaterals help prepare students for various professional positions as discussed below.

Agging—Positions with organizations involved with serving the needs of elderly individuals.

Business—Positions with businesses, trade associations, or other organizations related to the subject matter areas of home economics.



Consumer Affairs—Positions with businesses, government agencies or associations that develop policies and programs to assist consumers.

Education/Extension—Positions requiring educational skills in community organizations or business settings. This collateral is also appropriate to students who want an extension emphasis in their degree program. This collateral is not a program for secondary teacher licensure.

Technology and Energy—Positions with manufacturers of products used in residential dwellings and with agencies and companies that specialize in energy information and technology.

International—Positions involving an interdisciplinary understanding of development issues in other countries and cultures.

Individualized—Positions related to specific professional goals such as working with special population groups (e.g., American Indians, Chicanos, the handicapped, entrepreneurs).

G. Electives

Electives to make a total of 185 credits required for graduation (may be taken S-N)

Home Economics Education

*Division of Home Economics Education
325 Vocational and Technical Educational Building
1954 Buford Avenue
St. Paul, MN 55108
612/624-3010*

Home economics education offers 1) a postbaccalaureate teacher licensure program; 2) an education collateral that complements majors in the college; and 3) courses and advising to qualify students for additional Minnesota educator licenses.

Vocational Home Economics/Family Life Education Postbaccalaureate Program

The vocational home economics/family life education postbaccalaureate program prepares individuals to teach home economics in secondary schools, with an emphasis on family education. The full-time program cycles from one summer through the academic school year to the end of the following summer. Upon satisfactory completion of the program, students will be qualified for a consumer homemaking secondary vocational teaching license in Minnesota and will have earned credits applicable to the Master of Education (M.Ed.) degree in home economics education. The application deadline is February 1 for the cycle that begins the following June.

Criteria for admission include:

- A completed baccalaureate degree. In addition, the following minimum number of quarter credits in the following areas must be completed: 15 credits in family studies, 20 credits in human development, 12 credits in family resource development and management, and 15 credits in contexts of the family. These credits could be earned in a baccalaureate program or in preparation for admission to this postbaccalaureate program.
- A minimum GPA of 2.80 in undergraduate coursework (based on a 4.00 scale).
- A 75% completion rate of undergraduate coursework.
- Completion of additional procedures as specified by the Division of Home Economics Education.

Course Requirements

- HEEd 5510—Orientation to Teaching Home Economics (3)
 - HEEd 5511—Home Economics Instruction in Secondary Schools (5)
 - HEEd 5512—Clinical Seminar: The School Setting (4)
 - HEEd 5513—Clinical Seminar: Educational Practice (4)
 - HEEd 5514—Clinical Seminar: Teaching (12)
- Students are expected to participate in secondary school activities in late August and early September.

Education Collateral

The education collateral enables students to develop beginning educator competencies to complement and enhance their majors in the college. Students develop ability to plan, deliver, and evaluate sound educational

Programs

programs in work and community settings. This collateral does *not* qualify one to teach in K-12 schools. Some students can fulfill most requirements for adult family life education licenses while they pursue this collateral. See section below on licenses.

Collateral requirements

Option A

Orientation to the Profession

HE 3191—Proseminar: Home Economics (2)

Methods of Instruction

Choose one:

HEEd 3910—Educational Methods for Home Economists and Related Professionals (3)

HEEd 5310—Methods in Teaching Home Economics: Attitudes, Values, and Knowledge (3)

Program Planning

Choose one:

HEEd 5025—Extension Program Development (3)

HEEd 5300—Home Economics Curriculum (3)

HEEd 5320—Adult Education in Home Economics (3)

Evaluation

HEEd 5315—Evaluation: Theoretical and Technical Aspects (3)

Learning Development and Processes

Choose one:

EPsy 5113—Introduction to the Psychology of Instruction (3)

EPsy 5114—Psychology of Student Learning (3)

EPsy 5115—Adult Learning and Educational Practice (4)

EPsy 5151—Structuring Learning: Social Psychological Approaches (3)

CPsy 3343—Introduction to Cognitive Development (4)

Educ 5401—Adult Learning and Development Through the Life Span (3)

Practicum

Choose one:

HEEd 5600—Adult Education Practicum (6-12)

HEEd 5027—Extension Practicum (6-12)

Option B

Before beginning coursework, students design their own education collateral in consultation with an academic program adviser and collateral adviser in the Division of Home Economics Education. Other education collaterals, for example, might focus specifically on cooperative extension service, family life, or nutrition.

Master of Education

Master of Education (M.Ed.) programs in home economics education are offered for licensed home economics teachers and for nonlicensed professional workers in home economics education. See the *College of Education Bulletin* for details.

Minnesota Educator Licenses

As indicated above, completion of the vocational home economics/family life education postbaccalaureate program leads to secondary school licensure in Minnesota. Some additional teaching roles require a license in the state. Licenses for which students can become qualified while studying for a degree or by taking additional courses related to home economics education include:

Teacher Coordinator License—for home economics teachers who wish to prepare themselves for positions as coordinators of service occupation programs in secondary schools;

Family Life Educator Endorsement—for elementary and secondary teachers who hold a license and desire to teach family life education primarily;

Adult Vocational Parent Education License—for professionals who teach adults about parenting in programs funded with vocational and/or community education funds;

Family Education Parent Educator License—for professionals who teach adults about parenting in programs funded with community education funds.

Detailed information about courses that qualify one for these licenses can be obtained from the Division of Home Economics Education, University of Minnesota, 325 Vocational and Technical Education Building, St. Paul, MN 55108.

Housing

Department of Design, Housing, and Apparel
240 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
612/624-9700

Housing is an interdisciplinary program of integrated study that prepares students for a wide variety of housing-related positions. The program uses the social and behavioral sciences, design, and technology to provide background in the housing-related interactions within households, between households and society, and with the natural and built environments. The background provided derives from two orientations, the individual or household level and the societal level, focusing on the interplay between them.

After acquiring a general background of coursework in housing, students may specialize in one of four broad areas: (1) Community Development and Policy, (2) Design and Technology, (3) Management and Finance, or (4) Special Populations. In addition, a student may propose an area of concentration tailored to individual background and interest after consulting with an adviser and receiving program committee approval.

Community Development and Policy—Students take additional coursework in such areas as public affairs, planning, geography, and political science. The concentration

prepares students for work with agencies and organizations involved in policy making, planning, and development related to housing. These include housing and redevelopment authorities, city planning departments, and non-profit organizations.

Design and Technology—Students take additional coursework in design, technology, and environmental studies. This background prepares students for work in construction and development firms; in rehabilitation, energy, and housing inspection programs; and in redesign and historic preservation.

Management and Finance—Students take additional coursework in such areas as economics and business. This specialization prepares students for work in public and private housing management, state finance agencies, commercial banks, and mortgage and title companies.

Special Populations—Students take courses in sociology, social work, gerontology, women's studies, Afro-American studies, Native American studies, and Latin American studies. This specialization prepares students to work in housing-related programs involving human relations; advocacy; affirmative action; and housing for the elderly, disabled, and low-income families of various types.

Students in the housing program complete an internship that typically involves one quarter of work experience (a minimum of 400 hours) in a situation related to the student's area of specialization. Graduates of the program work in a variety of positions that grow out of the area of concentration and internship experience. The program provides background for graduate studies for additional professional preparation for college teaching, research, planning, and administration. Note that the program requires a basic knowledge of drafting that can be acquired in a variety of ways including high school, vocational, or technical coursework.

Admission Requirements

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.00.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum, must be taken A-F)

Rhet 1101—Writing to Inform and Persuade (4)

Rhet 1104—Library Research Methods (1)

Rhet 1151—Writing in Your Major (4)

Rhet 1222—Public Speaking (4)

Rhet 3562—Writing in Your Profession (4)

One computer course or demonstrated proficiency

If computer proficiency is met, recommend:

Rhet 3266—Communication Discussion in Small Group

Decision Making (4)

or Spch 3411—Small Group Communication

Processes (4)

B. Physical and Biological Sciences (9 credits minimum, must be taken A-F)

This category is partially fulfilled by the completion of Phys 1001, listed in the major preparatory core in Category E.

Select additional courses from the Physical Universe and Biological Universe sections listed in the Liberal Education Distribution Requirements, Category B, to meet minimum credit requirements.

C. The Individual and Society (must be taken A-F)

This category is fulfilled by courses listed in the major preparatory core in Category E.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

Select courses from at least two disciplines from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

Recommended courses:

Arch 1021—History of Architecture (4)

Dsgn 1501—Introduction to Design (3)

E. Professional Courses in the Major (must be taken A-F) A minimum grade of C is required.

Preparatory Core

AgEc 1101-1102—Principles of Microeconomics,

Macroeconomics (4,4)

or Econ 1101-1102—Principles of Microeconomics,

Macroeconomics (4,4)

Psy 1001—Introduction to Psychology (5)

Soc 1001—Introduction to Sociology (4)

Programs

Program Core

DHA 1101—Introduction to the Designed Environment (3)

Hsg 1400—Introduction to Housing (4)

Hsg 1401—Residential Technology (4)

Hsg 3463—Housing and Community (4)

Hsg 3470—Professional Seminar in Housing (1)

Hsg 5461—Housing Management (5)

Hsg 5463—Housing Policy (3)

Hsg 5467—Housing and the Social Environment (4)

Hsg 5468—Housing Problems of the Family (5)

FSoS 3260—Family Resource Management (4)

or FSOS 3500—Consumer and the Market System (3)

FSoS 5200—Family Relationships (5)

Dsgn 3632—Interior Building Technology (4)

or Arch 3061, 3062—Building Systems (4, 4)

One drafting course or demonstrated proficiency

One of the following finance courses:

Econ 3701—Money and Banking (4)

BFin 3000—Finance Fundamentals (4)

BFin 3500—Real Estate Investment Analysis (4)

AgEc 3101 (Econ 3101)—Microeconomic Theory (4)

AgEc 3640—Public Finance: Concepts and Practices (4)

Econ 3801—Elements of Public Finance (4)

One of the following family courses:

FSoS 5202—Social Psychology of Close Relationships (5)

FSoS 5218—Family Financial Management (4)

FSoS 5220—Family Economics (3)

FSoS 5260—Dynamics of Family Decision Making (3)

Hsg 5401 (FSoS 5301)—The Family and Energy Issues (3)

One of the following policy courses:

Econ 5623—Housing Markets and Public Policy: United States (4)

FSoS 5255—Approaches to Family Policy (4-5)

Geog 5372—Metro Analysis I: Population and Housing (statistics prerequisite recommended)(4)

One of the following rural-focused courses:

Soc 1651—Rural Sociology (4)

Geog 5391—Rural Geography (4)

Soc 5651—Rural Social Institutions (4)

Soc 5661—Rural Community Analysis (4)

One of the following courses:

Arch 5137—Planning: Urban Function and Structure (4)

Geog 5373—Metro Analysis II: Urban Economic Geography (4) (statistics prerequisite recommended)

Geog 5375—American Metropolitan Evolution (4)

Geog 5376—American Metropolitan Regions (4)

PA 5200—Introduction to Planning (3)

PA 5202—Planning Methods (4)

One of the following statistics courses:

EPsy 5260—Introductory Statistical Methods (4)

Stat 1001—Introduction to Ideas of Statistics (4)

Stat 3011-3012—Statistical Analysis (4,4)

Stat 5021—Statistical Analysis I (5)

Soc 3801-3802-3803—Sociological Methods I, II, III (15)

Psy 3801—Introduction to Measurement and Statistical Methods (4)

Area of Concentration

A minimum of 30 credits in one of the following areas (see adviser for list of suggested courses for each area of concentration).

Community Development and Policy

Design and Technology

Management and Finance

Special Populations

Students who wish to develop skills in educational programming are encouraged to supplement their program with the Education Collateral, offered by Home Economics Education, listed on page 30 in this bulletin.

F. Internship

Hsg 5403—Internship in Housing (3 cr)

(after completion of one-half of professional sequence and Hsg 3470—Professional Seminar in Housing)

G. Free Electives

Electives to make a total of 185 credits required for graduation

Human Relationships: Family, Youth, and Community

Department of Family Social Science

290 McNeal Hall

1985 Buford Avenue

St. Paul, MN 55108

612/625-1900

This program educates students for beginning work in the human services. Qualified graduates may pursue graduate education in an academic or professional program.

The field of the family is the foundation of this program. Students select from family relationships, aging, and youth studies as areas of concentration.

Coursework is enriched through a student-selected field experience that acquaints students with the range of problems and issues individuals and families encounter.

The program aims to provide students with the interpersonal skills and academic knowledge for entry-level work in the social services and a strong foundation for graduate work.

Pre-Human Relationships Admission Requirements

Freshmen and transfer students are initially admitted to the Pre-Human Relationships major.



Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.50.

Human Relationships Admission Requirements

Pre-Human Relationships majors need the following to be considered for the Human Relationships major:

- completion of 90 credits, including all 1000-level courses and preparatory core.
- overall GPA of at least 2.50.

Contact your academic adviser for more information.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum)

- Rhet 1101—Writing to Inform and Persuade (4)
- Rhet 1104—Library Research Methods (1)
- Rhet 1151—Writing in Your Major (4)
- Rhet 1222—Public Speaking (4)
- Rhet 3562—Writing in Your Profession (4)
- Math 1111—College Algebra and Analytic Geometry (5)

B. Physical and Biological Sciences (9 credits minimum)

Refer to Liberal Education Distribution Requirements, Category B.

- Physical Universe, one course
- Biological Universe, one course

C. The Individual and Society (9 credits minimum)

This category is fulfilled by courses listed in the major preparatory core in Category E.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

Select courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

E. Professional Courses in the Major (must be taken A-F unless offered S-N only)

Preparatory Core

- AgEc 1101-1102—Principles of Microeconomics, Macroeconomics (4,4)
or Econ 1101, 1102—Principles of Microeconomics, Macroeconomics (4,4)

Anth 1102—Introduction to Social and Cultural Anthropology (5)

Pol 1001—American Government and Politics (5)

Psy 1001—Introduction to Psychology (5)

Soc 1001—Introduction to Sociology (4)

Program Core

- CPsy 1301—Introductory Child Psychology (4)
or CPsy 3303—Adolescent Psychology (4)
or CPsy 5301—Advanced Child Development (4)

*FSoS 3260—Family Resource Management (4)

*FSoS 3600—Family Issues Across the Lifespan (5)

FSoS 5001—Human Sexual Behavior (5)

FSoS 5200—Family Relationships (5)

FSoS 5205—Introduction to Family Research Methods (4)

FSoS 5255—Approaches to Family Policy (4)

FSoS 5500—Racial and Ethnic Diversity in Families (4)

SW 1001—Introduction to Social Welfare and Community Services (5)

SW 3201—Interventions with Individuals and Groups (4)

SW 3202—Interventions in Community and Social Policy (4)

**This course must be completed before enrolling in 5000-level coursework.*

Two courses in American studies, history, classics, philosophy, women's studies, humanities, Afro-American studies, American Indian studies, Chicano studies, East Asian studies, Middle Eastern studies, South Asian studies, or Scandinavian studies

4 or 5 credits in statistics from:

EPsy 5260—Introductory Statistical Methods (4)

Psy 3801—Introduction to Measurement and Statistical Methods (4)

Soc 3801, 3802—Sociological Methods I and II (5, 5)
(both courses must be taken to meet requirement)

Stat 1001—Introduction to Ideas of Statistics (4)

Programs

One of the following areas of concentration:

Family Relationships (19 credits minimum)

The Social Perspective

FSoS 5202—Social Psychology of Close Relationships (4)

or Soc 5201—Introduction to Social Psychology (4)

or Psy 5201—Social Psychology (4)

The World Perspective

FSoS 5210—Family in World Perspective (4)

or FSoS 5252—Aging, Family, and Society (4)

or WoSt 5401—Women, Colonialism, and Underdevelopment (4)

The Economic Perspective

FSoS 5220—Family Economics (4)

or FSoS 5218—Family Financial Management (4)

or FSoS 5260—Dynamics of Family Decision Making (4)

The Applied Perspective

FSoS 5231—Planning for Fieldwork (2)

FSoS 5249—Fieldwork: Directed Community Work Experience (5-15)

Youth Studies (27 credits minimum)

YoSt 3100—Introduction to Youthwork (3)

YoSt 5201-2-3—Practicum (4 cr per qtr)

YoSt 5330—Child and Adolescent Psychology for Practitioners (3)

or CPsy 3303—Adolescent Psychology (4)

Minimum of 3 courses from:

YoSt 5130—Special Topics in Youth Studies (3-5)

YoSt 5132—Experiential Learning (3)

YoSt 5133—Youth and Health (3)

YoSt 5230—Work with Youth: Individual (3)

YoSt 5231—Work with Youth: Family (3)

YoSt 5232—Work with Youth: Groups (3)

YoSt 5331—Youth Agencies, Organizations, and Youth Service Systems (3)

Other YoSt courses or courses from other departments may be included with consent of adviser.

Aging Studies (27 credits minimum)

FSoS 5251—Aging Families (4)

Hsg 5881—Designed Environments and Aging (4)

SW 5024—Multidisciplinary Perspectives on Aging (4)

One course from the following:

FSoS 5242—Death, Other Losses, and the Family (3)

FSoS 5249—Fieldwork—Directed Community Experience (5)

FSoS 5252—Aging, Family, and Society (4)

FSoS 5253—Humanities, Aging, and Family Living (4)

Hsg 5867—Housing Alternatives of the Family (4)

Hsg 5868—Housing Problems of the Family (5)

SW 5013—Interdisciplinary Team Training in Health Services Delivery (3)

WoSt 5201—The Older Woman (4)

Aging Studies Electives. In consultation with the academic adviser from the major department, students select a *minimum of 12 credits* from the annual course catalog produced by the All-University Council on Aging.

Students who wish to develop additional skills in educational programming are encouraged to supplement their program with the Education Collateral listed on page 32.

F. Electives

Electives to make a total of 185 credits required for graduation (may be taken S-N).

Interior Design

Department of Design, Housing, and Apparel
240 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
612/624-9700

This program develops a student's competence in identifying, researching, and creatively solving problems of the immediate physical environment by acquiring (1) an understanding of the relationship between the individual and the environment, (2) a sense of the designer's responsibility to society, (3) a foundation in basic design, (4) an understanding of functional and aesthetic needs, (5) an understanding of historical styles and contemporary theories, (6) technical knowledge and communication skills, and (7) an awareness of business and professional ethics. A firm base of professional coursework and flexibility in the choice of supporting areas of study are offered. The program is accredited by the Foundation for Interior Design Education Research (FIDER).

Upon graduation, students may work in residential or non-residential design. Potential employers include interior design firms, architectural firms, showrooms, or corporations.

If students temporarily drop out of the program for three or more consecutive quarters (excluding summer sessions), they must follow the program that is in existence at the time of their reenrollment.

Pre-Interior Design Admission Requirements

Freshmen and transfer students are initially admitted to the Pre-Interior Design major. A basic knowledge of drafting is required before enrolling in Dsgn 1621—Intermediate Drafting. See your academic adviser for more information.

Freshmen

- Completion of High School Preparation Requirements.
- Incoming freshmen must attain an overall GPA of at least 2.60 upon completion of 45 credits.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Minimum transfer GPA of at least 2.60.

Interior Design Admission Requirements

A limited number of students who have met the specified requirements are admitted to the Interior Design program.

Pre-Interior Design majors need the following to be considered for the Interior Design major:

- completion of 90 credits, including all 1000-level required courses
- overall GPA of at least 2.60
- design course GPA of at least 3.00 in these Design courses: Dsgn 1300, 1323, 1328, 1621, 1641, and 1642
- positive assessment of design work through portfolio review

Contact your academic adviser for more information.

Graduation Requirements

- Completion of all program requirements
- 400-hour internship
- Overall GPA of at least 2.60
- Minimum grade of C in all interior design studio courses

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary.

A. Communication, Language, Symbolic Systems (18 credits minimum)

Refer to Liberal Education Distribution Requirements, Category A.

Writing, three courses

Public speaking, one course

Select additional courses from Liberal Education Distribution Requirements, Category A, to meet minimum credit requirements.

B. Physical and Biological Sciences (9 credits minimum)

This category is partially fulfilled by the physics and chemistry courses listed in the preparatory courses in Category E.

Select additional courses from the Liberal Education Distribution Requirements, Category B, to meet minimum credit requirements.

C. The Individual and Society (9 credits minimum)

This category is fulfilled by the courses listed in the preparatory courses in Category E.

D. Literature, Humanities, and Fine Arts (9 credits minimum)

This category is partially fulfilled by the completion of ArtH 1002 and Arch 1021 or 1022 (or their equivalents) listed in Category E.

Select additional courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements.

E. Professional Requirements in the Major

Preparatory Courses

ArtH 1002—Introduction to History of Art (4)

or equivalent course

Arch 1021—History of Architecture (4)

or Arch 1022—History of Landscape Architecture (4)

or equivalent course

Chemistry, one course (*Note:* TexC 3216 requires Chem 1002, 1003, or 1052 as a prerequisite)

Economics, two courses (*Note:* MKT 3000 requires Econ 1101 and 1102 or equivalents as prerequisites)

History, one course in European or World history

Physics, one course (*Note:* Dsgn 3633 requires Phys 1001 as a prerequisite)

Professional Courses

DHA 1101—Introduction to the Designed Environment (3)

Dsgn 1300—Introduction to Design (3)

Dsgn 1323—Design Process: Drawing I (4)

Dsgn 1328—Design Process: Color (4)

Dsgn 1621—Intermediate Drafting (4)

Dsgn 1641—Interior Design Studio I (4)

Dsgn 1642—Interior Design Studio II (4)

Dsgn 3327—Design Process: Three-Dimensional Design (4)

Dsgn 3611—Interior Design Professional Practice (3)

Dsgn 3622—Interior Design Presentation (3)

Dsgn 3631—Interior Design Resources and Materials (3)

Dsgn 3632—Interior Building Technology (4)

or Arch 3061—Building Systems (4)

Dsgn 3633—Lighting Design for Environmental Spaces (3)

Dsgn 3643—Interior Design Studio III (4)

Dsgn 5107—History of Decorative Arts: Textiles (4)

or Dsgn 5109—History of Decorative Arts: Metal, Ceramics, Wood, Glass (4)

Dsgn 5112—History of European Furniture and Interiors (4)

Dsgn 5114—History of American Furniture and Interiors (4)

Dsgn 5115—20th-Century Interiors and Furnishings (4)

Programs

Dsgn 5612—Interior Design Research (2)
Dsgn 5645—Interior Design Studio V (4)
Dsgn 5646—Interior Design Studio VI (4)
Dsgn 5647—Interior Design Thesis (6)
Hsg 1401—Residential Technology (4)
Hsg 3216—Textiles (5)
TexC 5215—Textiles for Interiors (3)

Select one of the following:

Dsgn 5644—Interior Design Studio IV (6)
Hsg 5482—Family and Energy Issues (3)
Hsg 5468—Housing Problems of the Family (5)
Hsg 5481—Designed Environments and Aging (4)

See adviser for other course options.

Select two from the following:

Acct 1024—Principles of Financial Accounting (3)
or AgEc 1250—Principles of Accounting (5)
Mktg 3000—Principles of Marketing (4)
Mgmt 3001—Fundamentals of Management (4)

F. Collateral Area

Minimum of 15 credits of related courses selected with approval of your adviser (may be taken S-N)

G. Free Electives

Electives to make a total of 185 credits needed for graduation (may be taken S-N)

Nutrition

Department of Food Science and Nutrition
225 Food Science and Nutrition
1334 Eckles Avenue
St. Paul, MN 55108
612/624-1290

Nutrition explores how nutrients and the foods from which they are derived aid the body in health, growth, and development. With the major national and international concern for how nutrition affects health and disease, there are many career opportunities for registered dietitians and nutritionists.

Nutrition and dietetics is for students planning to become registered dietitians by meeting American Dietetic Association Requirements. These include completion of an approved baccalaureate program, approved or accredited professional experience, and a national registration examination. Students may complete the degree program and apply for a post-baccalaureate dietetic internship or a preprofessional practice program. An alternative is to apply, before the junior year, to the University of Minnesota's Coordinated Program in Dietetics and to complete both the academic and professional experience requirements in a two-year program. Registered dietitians work in a wide variety of health care,

community, educational, and corporate positions relating to food and health. Students expecting to apply to the Coordinated Program in Dietetics, an internship, or graduate school should maintain a GPA of at least 2.80.

The *nutritional science* option is for students planning to do graduate work in nutrition, related sciences, or professional programs such as medicine or dentistry. Students should be aware of the entrance requirements for the graduate or professional program of their choice and maintain a cumulative GPA of 3.00 or higher.

Admission Requirements

Freshmen

- Completion of High School Preparation Requirements.
- AAR score of 110 or above.

Transfer Students

- Three years of high school mathematics (see page 9).
- Beginning fall 1993, transfer students who graduated from high school after 1987 must complete the High School Preparation Requirements.
- Overall GPA of at least 2.00.
- Beginning spring 1993, transfer students must have a minimum overall GPA of at least 2.50.

Program Requirements

Refer to Liberal Education Distribution Requirements, page 22, when necessary. Where options are available, the course choice should always be made in consultation with your adviser.

A. Communication, Language, Symbolic Systems (18 credits minimum)

This category is partially fulfilled by the completion of Math 1111 listed in the Required Supporting Courses in Math and Sciences in Category E.

Select additional courses according to the Liberal Education Distribution Requirements, Category A, to meet minimum credit requirements.

Computer Competency

As a nutrition student you will use computer applications in your coursework and will be expected to have basic computer competency in word processing, spreadsheets, database management, and telecommunications. Computer competency will be assessed in the advising process and students lacking the needed skills may seek advice on courses required to learn those skills.

B. Physical and Biological Sciences (9 credits minimum)

This category is fulfilled by the courses listed in the Required Supporting Courses in Math and Sciences in Category E.

C. The Individual and Society (9 credits minimum)

At least one course from each of these sections in Category C listed on page 23:

- Analysis of Human Behavior and Institutions
- Development of Civilization: Historical and Philosophic Studies

D. Literature, Humanities, and Fine Arts (9 credits minimum)

Select courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements. You may not apply technical courses, performance courses, or studio courses toward this category.

E. Professional Courses in the Major**Required Supporting Courses in Math and Sciences** (55-58 credits)

- BioC 3031—Survey of Biochemistry (4)²
 - Biol 1009—General Biology (5)²
 - CBN 3001—Elementary Anatomy (4 or 5)²
 - Chem 1052, 1053—General Principles of Chemistry (4,4)²
 - Chem 3301, 3305—Elementary Organic Chemistry I and Lab (4,2)²
 - Chem 3302, 3306—Elementary Organic Chemistry II and Lab (4,2)²
 - Math 1111—College Algebra and Analytic Geometry (5)¹
 - LaMP 5177—Pathology for Allied Health Students: General and System Pathology (4)
 - Phsl 3051—Human Physiology (5)²
or Phsl 1002—Human Physiology: Introductory Survey for Allied Health Sciences (4)²
 - VPB 3103—General Microbiology (5)²
or MicB 5105—Biology of Microorganisms (5)²
- 4-5 credits in statistics chosen from the following or in consultation with your adviser:
- EPsy 5260—Introductory Statistical Methods (4)
 - PubH 5404—Introduction to Biostatistics and Statistical Decision (4)
 - Soc 3801—Sociological Methods I: Descriptive Statistics (5)
 - Stat 1001—Introduction to Ideas of Statistics (4)
 - Stat 3091—Introduction to Probability and Statistics (4)
 - Stat 5021—Statistical Analysis I (5)

Required Professional Courses (59-60 credits)

- FScN 1612—Principles of Nutrition (4)
- FScN 3102—Introduction to Food Science (4)
- FScN 3112—Food Analysis (4)
- FScN 3472—Food Selection Principles (4)
- FScN 3610—Community Nutrition (2)
- FScN 3612—Biological Aspects of Nutrition (4)
- FScN 3730—Quantity Food Production Management [Lab] (3)
- FScN 3732—Lecture in Quantity Food Production Management (2)

- FScN 5100—General Seminar (1)
 - FScN 5110—Food Chemistry (4)
 - FScN 5612—Experimental Nutrition (2)
 - FScN 5620—Nutrition and Metabolism (5)
 - FScN 5665—Applied Clinical Nutrition I (3)
 - FScN 5666—Applied Clinical Nutrition II (3)
 - FScN 5667—Applied Clinical Nutrition III (3)
 - FScN 5750—Principles of Food Service Management (4)
 - Mgmt 3001—Fundamentals of Management (4)
- 3-4 credits in psychology of learning from the following:
- HSU 5011—The Teaching-Learning Process in the Health Care Setting (3)
 - EPsy 5114—Psychology of Student Learning (3)
 - EPsy 5115—Adult Learning and Educational Practice (4)

F. Alternative Programs

As an alternative, you may apply for one of the following programs:

Coordinated Program in Dietetics

The basic curriculum is similar to that specified in Areas A through E above. However, it also includes field experience courses in which didactic and clinical phases of instruction are coordinated. A detailed plan of the coordinated program may be obtained from the Department of Food Science and Nutrition.

Nutritional Science**A. Communication, Language, Symbolic Systems** (18 credits minimum)

This category is fulfilled by the courses listed in the Required Supporting Courses in Category E.

B. Physical and Biological Sciences (9 credits minimum)

This category is fulfilled by the courses listed in the Required Supporting Courses in Category E.

C. The Individual and Society (17 credits minimum)

This category is partially fulfilled by the completion of AgEc 1101 or Econ 1101, Psy 1001, and Soc 1001 listed in the Required Supporting Courses in Category E. Select at least one course from the Development of Civilization: Historical and Philosophic Studies category listed on page 23.

D. Literature, Humanities, and Fine Arts (10 credits minimum)

Select courses from the Liberal Education Distribution Requirements, Category D, to meet minimum credit requirements. You may not apply technical courses, performance courses, or studio courses toward this category.

¹Also fulfills Category A requirements

²Also fulfills Category B requirements

Programs

E. Professional Courses in the Major

Required Supporting Courses (102-107 credits)

- AgEc 1101—Principles of Microeconomics (4)³
or Econ 1101—Principles of Microeconomics (4)³
BioC 3031—Survey of Biochemistry (4)²
or Biol 1106—General Zoology (5)²
BioC 5025—Biochemistry Laboratory (2)²
Biol 1009—General Biology (5)²
Biol 5001—Biochemistry (4)²
Biol 5003—Genetics (4)²
or GCB 3002—Genetics (4)²
Chem 1051, 1052—General Principles of Chemistry (4,4)²
Chem 3301, 3305—Elementary Organic Chemistry I and Lab (4,2)²
Chem 3302, 3306—Elementary Organic Chemistry II and Lab (4,2)²
Math 1142—Short Calculus (5)¹
Phsl 3051—Human Physiology (5)²
or Phsl 1002—Human Physiology: Introductory Survey for Allied Health Sciences (4)²
or AnSci 3301—Systemic Physiology (6)²
Phys 1104, 1107—General Physics (4,1)²
Phys 1105, 1108—General Physics (4,1)²
Phys 1106, 1109—General Physics (4,1)²
Psy 1001—Introduction to Psychology (5)³
Rhet 1101—Writing to Inform and Persuade (4)¹
or Comp 1011—Writing Practice (5)¹
Rhet 1104—Library Research Methods (1)¹
Rhet 1151—Writing in Your Major (4)¹
Rhet 1222—Public Speaking (4)¹
Rhet 3562—Writing in your Profession (4)¹
Soc 1001—Introduction to Sociology (4)³
VPB 3103—General Microbiology (5)²
or MicB 5105—Biology of Microorganisms (5)²
4-5 credits in statistics chosen from the following or in consultation with adviser:
EPsy 5260—Introductory Statistical Methods (4)
PubH 5404—Introduction to Biostatistics and Statistical Decision (4)
Soc 3801—Sociological Methods I: Descriptive Statistics (5)
Stat 1001—Introduction to Ideas of Statistics (4)
Stat 3091—Introduction to Probability and Statistics (4)
Stat 5021—Statistical Analysis I (5)

Required Professional Courses (33-34 credits)

- FScN 1612—Principles of Nutrition (4)
FScN 3102—Introduction to Food Science (4)
FScN 3610—Community Nutrition (2)
or FScN 5665—Applied Clinical Nutrition I (3)
FScN 3612—Biological Aspects of Nutrition (4)
FScN 5100—General Seminar (1)
FScN 5110—Food Chemistry (4)
FScN 5612—Experimental Nutrition (2)
FScN 5622—Macronutrient Metabolism (4)
FScN 5623—Vitamin and Mineral Biochemistry (4)
FScN 5624—Human Protein and Energy Utilization (4)

F. Electives to complete the 185 credits required for graduation with the bachelor of science degree.

Retail Merchandising

(see *Apparel Sciences and Design*)

Scientific and Technical Communication

(see *College of Agriculture Bulletin*)

Youth Studies Collateral

School of Social Work
400 Ford Hall
224 Church Street S.E.
Minneapolis, MN 55455
612/624-5888

The School of Social Work offers a 27-credit collateral area of emphasis in youth studies for selected upper-division and graduate students registered in any college of the University. The purpose of the collateral is to help students acquire the basic understanding, skills, attitudes, and insights into themselves necessary for study about or continuing work with youth. Contact Jerome Beker at the address above for more information. The Youth Studies Collateral includes:

1. A designated course for each of three quarters: YoSt 3100—Introduction to Youthwork; YoSt 5330—Adolescent Psychology for Practitioners; or CPsy 3303—Adolescent Psychology; or other courses, depending on student needs.
2. Twelve to fifteen hours per week of direct work with youth throughout the three quarters.
3. A weekly seminar throughout the academic year to discuss and integrate knowledge about and experience with youth.

For direct work with youth and the weekly seminar, students register for YoSt 5201-5202-5203—Practicum.

¹Also fulfills Category A requirements

²Also fulfills Category B requirements

³Also fulfills Category C requirements

College of Human Ecology

Course Descriptions



Course Descriptions

Numbers—Courses primarily for freshmen and sophomores are numbered 1000 through 1999; for juniors and seniors, 3000 through 3999; for juniors, seniors, and graduate students, 5000 through 5999; and for Graduate School registrants only, 8000 and above.

Symbols—The following symbols are used throughout the descriptions:

† All courses preceding this symbol must be completed before credit will be granted for any quarter of the sequence.

§ Credit will not be granted if credit has been received for the course listed after this symbol.

¶ Concurrent registration is required in the course listed after this symbol.

Registration Override Permit, completed and signed by the instructor, is required for registration.

Δ Registration Override Permit, completed and signed by the department offering the course, is required for registration.

□ Registration Override Permit, completed and signed by the college offering the course, is required for registration.

H Honors course (follows the course number).

f, w, s, su fall, winter, spring, summer (follows the course number). Use as a guide only. Contact the department offering the course for updates.

When no abbreviated department prefix precedes the course number listed as a prerequisite, that prerequisite is in the same department as the course being described.

Design (Dsgn)

(Department of Design, Housing, and Apparel)

1231 (formerly 1544). COSTUME DESIGN: SPECIAL TECHNIQUES. (4 cr, §1544; prereq 1331 or 1531, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Studio problems with emphasis on line, shape, and color for costumes.

1261 (formerly 1543). FASHION ILLUSTRATION. (4 cr, §1543; prereq Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Human figure sketches and fashion illustration as a form of communication. Emphasis on color, proportion, cut, and fabric detail. (Extension only)

1300f,w (formerly 1501). INTRODUCTION TO DESIGN. (3 cr, §1501)

Study of basic design processes; the elements, principles, evaluation, and history of design in global perspective.

1301f,w,s (formerly 1201). INTRODUCTION TO VISUAL COMMUNICATION AND GRAPHIC DESIGN. (4 cr, §1201)

Overview of advertising communications process and creative procedure, terminology, and technology. Copywriting, design, typography, color separating, printing, photography, and television. Emphasis on commercial artist's relationship with other specialists. (Extension only)

1302 (formerly 1202). DESIGN PROCESS:

CREATIVITY. (4 cr, §1202; prereq Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Overview of creative processes, application to graphic design and creative problem solving. Emphasis on ideas, visual communication of concepts. (Extension only)

1306f,w (formerly 1206). SPATIAL LOGIC FOR DESIGNERS. (4 cr, §1206; prereq Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Drafting, orthographic projection, and scale drawing fundamentals. Emphasis on use of geometry in mechanical construction of 1, 2, 3 point perspective; methods of visually communicating technical, financial, and statistical information. (Extension only)

1323f,w,s (formerly 1523). DESIGN PROCESS: DRAWING I. (4 cr, §1523; prereq Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Problem solving in drawing with application of design elements and principles. Assignments done both in and out of design studio.

1325f,w,s (formerly 1525). DESIGN PROCESS: TWO-DIMENSIONAL DESIGN I. (4 cr, §1525; prereq Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Experiments with principles of two-dimensional design.

1328f,w,s (formerly 1528). DESIGN PROCESS: COLOR. (4 cr, §1528; prereq 1300 or 1501, 1323 or 1523, 1325 or 1525, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)

Color concepts and their applications to design.

1331f,w,s (formerly 1531). SURFACE FABRIC DESIGN I. (4 cr. §1531; prereq 1300 or 1501, 1323 or 1523, 1325 or 1525, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)
Exploration of surface pattern and composition with varied media and materials: dyeing, resist, batik, stencil, block printing, and others.

1621f,w,s (formerly 1550). INTERMEDIATE DRAFTING. (4 cr. §1550; prereq demonstrated proficiency in basic drafting techniques)
Intermediate level drafting instruction in parallel drawing, perspective drawing, and architectural dimensioning. (Extension only)

1641f (formerly 1554). INTERIOR DESIGN STUDIO I. (4 cr. §1554; prereq 1300 or 1501, 1323 or 1523, 1328 or 1528, proficiency in basic drafting techniques, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)
Application of design elements and principles to interior design problems, including two-dimensional projects, scale models, and three-dimensional design experiments in the space laboratory.

1642s (formerly 1555). INTERIOR DESIGN II. (4 cr. §1555; prereq 1550 or 1621, 1554 or 1641, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)
Problems in designing for living space needs with emphasis on behavioral concerns related to interiors.

3117 (formerly 3517). HISTORY OF COSTUME: PRIMITIVE THROUGH 18TH CENTURY. (3 cr. §3517; prereq general art history course)
Emphasis on European costume.

3232f,w (formerly 3541). COSTUME DESIGN II. (4 cr. §3541; prereq 1231 or 1544, 1261 or 1543, Appl Dsgn, Pre-Appl Dsgn, ASciD, Pre-ASciD, Cos Dsgn, Dsgn Comm, Pre-Dsgn Comm, Hsg, Int Dsgn, Pre-Int Dsgn, Ret Merch, Pre-Ret Merch, or TexC student)
Problems in design of children's garments.

3261 (formerly 3543). FASHION ILLUSTRATION II. (4 cr. §3543; prereq 1261 or 1543)
Advanced study of the human figure and its movements. Techniques developed to express clear perspectives of fashion point of view. Opportunity to develop pre-professional portfolio.

3323f,w,s (formerly 3523). DESIGN PROCESS: DRAWING II. (4 cr. §3523; prereq 1323 or 1523, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student, pass portfolio review)
Advanced problem solving in drawing with application of design elements and principles. Assignments done both in and out of studio.

3325f,w,s (formerly 3525). DESIGN PROCESS: TWO-DIMENSIONAL DESIGN II. (4 cr. §3525; prereq 1325 or 1525, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student, pass portfolio review)
Experiments with principles of two-dimensional design.

3327w (formerly 3527). DESIGN PROCESS: THREE-DIMENSIONAL DESIGN. (4 cr. §3527; prereq 1323 or 1523, 1325 or 1525, 1328 or 1528, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student, pass Dsgn Comm or Int Dsgn portfolio review)
Study and application of principles of three-dimensional design.

3328f,w,s (formerly 3528). DESIGN PROCESS: COLOR II. (4 cr. §3528; prereq 1323 or 1523, 1328 or 1528, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student, pass Dsgn Comm portfolio review)
Continued study of color concepts and their application to design.

3331w (formerly 3531). SURFACE FABRIC DESIGN II. (4 cr. §3531; prereq 1331 or 1531, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student, pass Dsgn Comm portfolio review)
Selection from printed, dyed, woven, or non-woven textiles.

3332f,s (formerly 3532). FIBER STRUCTURE: WEAVING. (4 cr. §3532; prereq 1325 or 1525, 1328 or 1528 or #)
Beginning loom techniques. Studio problems. (Extension only)

3334f,w,s (formerly 3534). COMPUTER APPLICATION TO DESIGN PROBLEMS. (4 cr. §3534; prereq 1323 or 1523, 1325 or 1525, 1328 or 1528)
Solutions to the design process using the Macintosh. Students gain experience in microcomputers, peripherals, and software. (Extension only)

3335 (formerly 3535). DESIGN PROCESS: MATERIALS. (4 cr. §3535; prereq 1323 or 1523, 1325 or 1525, 1328 or 1528 or #, Δ)
Design process to convey visual concepts explored through a series of units in selected materials.

3337s (formerly 3537). FIBER STRUCTURE DESIGN I. (4 cr. §3537; prereq pass Dsgn Comm portfolio review, demonstrated proficiency in sewing)
Individual designing with two- and three-dimensional forms (non-loomed techniques). (Extension only)

3351f,s (formerly 3251). GRAPHIC DESIGN I. (4 cr. §3251; prereq 3251 or 3351 or #)
Layout techniques, materials, structure, color theory. Applications of type style and copyfitting. (Extension only)

3352f,w (formerly 3252). GRAPHIC DESIGN II. (4 cr. §3252; prereq 3251 or 3351 or #)
Continued development of professional skills in layout and design for advertising. Photographic techniques, color separation, and other printing/production techniques. (Extension only)

Course Descriptions

3353w,s (formerly 3253). GRAPHIC DESIGN III. (4 cr, §3253; prereq 3252 or 3352)

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. (Extension only)

3355f,w (formerly 3255). TYPOGRAPHIC DESIGN. (4 cr, §3255; pass Dsgn Comm portfolio review for degree program)

Theory and application of principles of typographic composition. Emphasis on history of typography, type faces and letter forms, typesetting methods, terminology, type specification, copyfitting. (Extension only)

3356w,s (formerly 3256). PRODUCTION FOR THE GRAPHIC DESIGNER. (4 cr, §3256; prereq pass portfolio review for degree program)

Investigation of processes and techniques for production of print communication. Fundamentals of keyline, mechanical art production, specification for printing industry. (Extension only)

3371w (formerly 3571). PROFESSIONAL ISSUES IN APPLIED DESIGN/VISUAL COMMUNICATIONS.

(2 cr, §3571; prereq completion of 60 cr in Category E. To be taken before or concurrently with 3584 or 5303, #) Discussion of issues in the field, possible goals, and professionalism.

3380f,s (formerly 3280). DESIGN PORTFOLIO. (4 cr, §3280; prereq 20 cr of 32xx and/or 33xx and/or 36xx courses, pass Dsgn Comm portfolio review)

Compilation of individual portfolios; individual and group critiques. Preparation of slides. (Extension only)

3382 (formerly 3582). FIELD EXPERIENCES IN EXHIBITION DESIGN. (3 cr, §3582; S-N only; prereq completion of at least one-half of professional sequence, #)

Minnesota State Fair and other exhibitions. (Extension only)

3611 (formerly 3558). INTERIOR DESIGN PROFESSIONAL PRACTICE. (3 cr, §3558; prereq pass Int Dsgn portfolio review)

Professional ethics and issues, credentials, and business practices.

3622f,s (formerly 3550). INTERIOR DESIGN PRESENTATION. (3 cr, §3550; pass Int Dsgn portfolio review, Δ)

Rendering methods for interiors.

3623f,w (formerly 3552). COMPUTER-AIDED DESIGN, DRAFTING SYSTEM I. (4 cr, §3552; prereq 1550 or 1621)

Use of computer-aided design drafting system for interior spaces. Includes drawing capabilities and dimensioning for drafting floor plans and three-dimensional views. AutoCADD software used on an IBM. (Extension only)

3624s (formerly 3556). COMPUTER-AIDED DESIGN, DRAFTING SYSTEM II. (4 cr, §3556; prereq 3623 or 3552)

Applying design principles using advanced 2-D and 3-D computer-aided design; application to the interior design profession using AutoCADD on the IBM. (Extension only)

3631f (formerly 3557). INTERIOR DESIGN RESOURCES AND MATERIALS. (3 cr, §3557; prereq pass Int Dsgn portfolio review, TexC 3216 or 3621)

Resources and materials used in interiors and their functional and aesthetic relationship to interior design. Includes life safety issues.

3632w (formerly 3554). INTERIOR BUILDING TECHNOLOGY. (4 cr, §3554; prereq pass Int Dsgn portfolio review or Δ)

Methods of building construction and principles of structure theory. Emphasis on interior architectural components and systems.

3633s (formerly 3548). LIGHTING DESIGN FOR ENVIRONMENTAL SPACES. (3 cr, §3548; prereq pass Int Dsgn portfolio review or #)

Examination of types and uses of lighting, its relationship to color and energy conservation. Evaluation of light quantity and quality for residential and non-residential spaces.

3643f,w (formerly 3553). INTERIOR DESIGN III. (4 cr, §3553; prereq 3550 or 3622 or #, Δ)

Intermediate interior design; working creatively with design elements as related to non-residential interiors.

5107w (formerly 5507). HISTORY OF DECORATIVE ARTS: TEXTILES. (4 cr, §5507; prereq ArtH 1002)

Textiles from early civilization to the 20th century. Design, materials, and techniques.

5109s (formerly 5509). HISTORY OF DECORATIVE ARTS: METAL, CERAMICS, WOOD, AND GLASS. (4 cr, §5509; prereq ArtH 1002)

Glass, ceramics, metalwork, wood, and other materials from selected historical periods. Application to interior design.

5112f (formerly 5512). HISTORY OF EUROPEAN FURNITURE AND INTERIORS. (4 cr, §5512; prereq ArtH 1002)

Furniture and interiors from ancient civilizations through the 19th century.

5114w (formerly 5514). HISTORY OF AMERICAN FURNITURE AND INTERIORS. (4 cr, §5514; prereq ArtH 1002, 5112 or 5512)

Styles of American interiors and furnishings from the 17th to the 20th century.

5115s (formerly 5515). 20TH-CENTURY INTERIORS AND FURNISHINGS. (4 cr, §5515; prereq 5114 or 5514 or #)

In-depth study of 20th-century design of interiors and furnishings from Victorian to the present time.

5118s (formerly 5518). HISTORY OF COSTUME: 19TH AND 20TH CENTURIES. (4 cr, §5518; prereq 3117 or 3517 or #)

Emphasis on American costume. Study of historic costumes from the Goldstein Gallery's costume collection.

5231f (formerly 5541). COSTUME DESIGN III. (3 cr, §5541; prereq 3232 or 3541, TexC 3221 or 3604 or #, Δ) Advanced problems in draping and sketching. Pencil, crayon, and watercolor techniques. Studies and reports on selected topics. Develop senior line.

5232s (formerly 5544). COSTUME DESIGN PROBLEMS. (4 cr, §5544; prereq 5231 or 5541 or §5541, Δ) Supervised experience in design production; development of a "line"; professional ethics and business practice.

5234. CLOTHING DESIGN FOR SPECIAL NEEDS. (4 cr, prereq 5231 or 5541, TexC 3216 or 3621) Experimental design concepts as they relate to special market segments, i.e., physical limitations, safety protection, energy consumption, with emphasis on the integration of human needs, fabric character, and the garment structure.

5289 (formerly 5589). PROBLEMS IN DESIGN: COSTUME. (3-4 cr per qtr [max 12 cr], §5589; prereq Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student) Independent study under tutorial guidance.

5303 (formerly 3584). FIELD EXPERIENCE IN DESIGN COMMUNICATION. (Cr ar [max 8 cr], §3584; prereq completion of at least one half of professional sequence and plan to be submitted and approved in advance by adviser and employer, #) Supervised work experience with a professional, design studio, retail store, community service, museum, printing or publishing firm, or other appropriate organization. Evaluative report required.

5323w. DESIGN PROCESS: DRAWING III. (4 cr; prereq 3323 or 3523 or #) Application of design principles to advanced drawing problems.

5327 (formerly 5527). THREE-DIMENSIONAL DESIGN II. (4 cr, §5527; prereq 3327 or 3527, pass Dsgn Comm portfolio review or #) Lectures and studio work based on unitary systems derived from modules. Application of plans based on visual perception exercises to space division in the space laboratory.

5328s (formerly 5528). COLOR AND DESIGN. (4 cr, §5528; prereq 1328 or 1528, #) Continued study of color concepts and their application to design.

5331s (formerly 5531). SURFACE FABRIC DESIGN III. (4 cr, §5531; prereq 3331 or 3531, pass Int Dsgn portfolio review, Appl Dsgn, ASciD, Cos Dsgn, Dsgn Comm, Hsg, Int Dsgn, Ret Merch, or TexC student) Designing in one special surface textile technique. Studio problems. Readings. (Extension only)

5332 (formerly 5532). FIBER STRUCTURE: WEAVING II. (4 cr, §5532; prereq 3332 or 3532)

Advanced loom weaving. Exploration of pattern weaves and color. (Extension only)

5334 (formerly 5534). COMPUTER APPLICATIONS TO DESIGN PROBLEMS II. (4 cr, §5534; prereq 3334 or 3534)

Solutions to the design process using Macintosh computers. Students use software to combine images and print and explore color and desktop publishing.

5337 (formerly 5537). FIBER STRUCTURE DESIGN: QUILTING. (4 cr, §5537; prereq pass Dsgn Comm portfolio review)

Application of color and design principles through techniques of patchwork and quilting. (Extension only)

5380 (formerly 5585). DIRECTED STUDY IN DESIGN COMMUNICATION. (2-4 cr per qtr [max 12 cr]; prereq #, Δ)

Independent study in design under tutorial guidance.

5612f,s (formerly 5575). INTERIOR DESIGN RESEARCH. (2 cr, §5575; prereq 3553 or 3643 or #) Examination and development of studies related to interior design.

5644 (formerly 5553). INTERIOR DESIGN STUDIO IV. (6 cr, §5553; prereq 3553 or 3643, Δ)

Solving design problems for the near environment using an interdisciplinary team approach.

5645f,w (formerly 5552). INTERIOR DESIGN STUDIO V. (4 cr, §5552; prereq 3553 or 3643, 3557 or 3631, TexC 3216 or 3621, Hsg 1401 or 1801 or #, Δ; Dsgn 3550 or 3632 and TexC 5215 or 5631 recommended)

Advanced interior design problems related to residential spaces.

5646f,w (formerly 5554). INTERIOR DESIGN STUDIO VI. (4 cr, §5554; prereq 3553 or 3643, 3557 or 3631, TexC 3216 or 3621 or #, Δ; Dsgn 3550 or 3632, TexC 5215 or 5631 recommended)

Advanced interior design problems related to non-residential spaces.

5647f,w,s (formerly 5555). INTERIOR DESIGN THESIS. (6 cr, §5555; prereq 5552 or 5645, 5554 or 5645, 5575 or 5612)

Comprehensive independent interior design project generated from research conducted in Dsgn 5612 or 5575. (This is the culmination of studio work. It can be taken for—but is not limited to—honors credit.)

5680 (formerly 5586). DIRECTED STUDY IN INTERIOR DESIGN. (2-4 cr per qtr [max 12 cr], §5586; prereq #, Δ)

Independent study in interior design under tutorial guidance.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8380. DIRECTED STUDY IN DESIGN COMMUNICATION

8390. READING IN DESIGN COMMUNICATION
8523. DESIGN PROCESS: DRAWING

Course Descriptions

- 8525. DESIGN PROCESS: TWO-DIMENSIONAL DESIGN**
8528. DESIGN PROCESS: COLOR
8556. ENVIRONMENTAL STUDIES IN INTERIOR DESIGN
8586. PROBLEMS: INTERIOR DESIGN
8680. DIRECTED STUDY IN INTERIOR DESIGN
8690. READINGS IN INTERIOR DESIGN

Design, Housing, and Apparel (DHA)

(Department of Design, Housing, and Apparel)

- 1101. INTRODUCTION TO THE DESIGNED ENVIRONMENT.** (3 cr)
Analysis of the interaction between people and the designed environment, both at the micro and macro levels.
- 3170. SPECIAL TOPICS IN DHA.** (1-4 cr; prereq depends on specific topic, check with dept)
In-depth investigation of a single specific topic, announced in advance.
- 5103. FIELD STUDY: NATIONAL/INTERNATIONAL.** (1-15 cr [max 15 cr]; prereq #)
Faculty-directed field study in a national or international setting.
- 5170. SPECIAL TOPICS IN DHA.** (1-4 cr; prereq depends on specific topic, check with dept)
In-depth investigation of a single specific topic, announced in advance.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

- 8170. SPECIAL TOPICS IN DESIGN**
- 8176. SEMINAR: DESIGN, HOUSING, AND APPAREL INSTRUCTION** (1 cr)
- 8181. INTEGRATIVE SEMINAR**
- 8777. THESIS CREDITS: MASTERS.** (1-16 cr)
Open to graduate students admitted fall 1983 or later.
- 8888. THESIS CREDITS: DOCTORAL.** (1-36 cr [max 18 cr per qtr])
Open to graduate students admitted fall 1983 or later.

Family Social Science (FSoS)

(Department of Family Social Science)

- 1001f,w,s. DYNAMICS OF FAMILY RELATIONSHIPS.** (4 cr)
Application of behavioral sciences to mate selection, interaction in marriage and other committed relationships, sex roles, and maintaining and ending relationships. (Day and Extension)
- 1025s. PARENTHOOD.** (4 cr)
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. (Extension only)

- 3001. COMMUNICATION SKILLS AND INTERVIEWING TECHNIQUES: AN INTRODUCTION.** (3 cr; prereq 1001)
Introductory training and experience in various communication skills and interviewing techniques for undergraduates. Integration of didactic and experiential training, and preparation for more advanced course work in the department.

- 3240. SPECIAL TOPICS IN FAMILY SOCIAL SCIENCE.** (3 cr per qtr [max 9 cr]; prereq dependent on specific topic, soph or above and/or #)

- 3260w,s. FAMILY RESOURCE MANAGEMENT.** (4 cr; prereq AgEc 1101, Psy 1001, Soc 1001, Anth 1102 and Pol 1001 recommended)
Examination of managerial behaviors in families, including valuing, goal setting, problem solving and decision making, planning and implementation, as well as resource use and creation.

- 3500. CONSUMER AND THE MARKET SYSTEM.** (4 cr; prereq Soc 1001, Psy 1001, AgEc 1030; 3260 recommended)
Analysis of the interaction of the family and marketing systems; consumer problems resulting from that interaction.

- 3600f. FAMILY ISSUES ACROSS THE LIFESPAN.** (5 cr; prereq Psy 1001, Soc 1001; fall only)
Major family theories serve as frameworks to analyze selected problems confronting families throughout the lifespan.

- 5001f,s. HUMAN SEXUAL BEHAVIOR.** (5 cr; prereq 90 credits, FSoS 3600 or grad status in social, behavioral, educational, health science, or human service program or #)
Multidisciplinary approach to sexual development through individual/family life cycles; emphasis on scientific knowledge for promotion of sexual health through individual, family, and community services; ethics and values issues. (Day and Extension)

- 5025. PARENTING.** (4 cr; prereq 5200 or 5202, CPsy 1301)
Parenting methods, the child's development from infancy through adolescence. Helps students identify differing parenting techniques, develop their own parenting approach, and conduct parenting classes. (Extension only)

- 5200f,w. FAMILY RELATIONSHIPS.** (5 cr; prereq Psy 1001 or equiv, Soc 1001 or equiv)
The family as an institution and system of relationships. Current developments in study of the family. Changes in American society and their influence on family life. (Day, Extension, Independent Study)

- 5202s. SOCIAL PSYCHOLOGY OF CLOSE RELATIONSHIPS.** (4 cr, prereq Psy 1001, introductory sociology or #)
Introduction to social psychology theory and research concerning marriages, families, and other close relationships. Symbolic interaction theory, family systems theory, exchange theory, conflict theory, communication theory, and social cognition.

5205w. INTRODUCTION TO FAMILY RESEARCH METHODS. (4 cr; prereq 3260, 5200)

Logic and philosophy of scientific method. Family research questions and objectives, standards for evaluating family research, techniques of data gathering (qualitative and quantitative methods), analysis, reporting, and writing.

5206. DEVELOPING AND EVALUATING FAMILY RESEARCH PROJECTS. (4 cr; prereq 5205)

Practice in proposal writing, use of various family research techniques, interpreting and reporting research results. Includes microcomputer use.

5210f. FAMILY IN WORLD PERSPECTIVE. (4 cr; prereq 5200, Anth 1102 or #)

Comparison of kinship, marriage, family organization, the family life cycle, and modes of family functioning across cultures; relationship to economic, political, religious, and other institutions, with emphasis on adaptations of the family to urbanization and industrialization.

5218f. FAMILY FINANCIAL MANAGEMENT. (4 cr; prereq 3260 or equiv)

Analysis of family financial management principles. Financial planning of savings; investments; credit; mortgages; taxation; life, disability, health, property insurance; public, private pensions; and estate planning.

5219. FAMILY FINANCIAL MANAGEMENT COUNSELING. (4 cr; prereq 3260 or 5260, 3001 or #)

Analysis of family financial management principles and processes; emphasis on dysfunctional management; modification of managerial behavior by application of cognitive and behavioral techniques.

5220. FAMILY ECONOMICS. (4 cr; prereq 3260 or #)

Variations in family income, saving, spending, and decision making related to socioeconomic factors. Conceptual development and research on economic problems of families.

5230f,w,s. INDEPENDENT STUDY IN FAMILY SOCIAL SCIENCE. (1-5 cr [max 16 cr]; prereq #)

Independent reading or research under faculty supervision.

5231f,s. PLANNING FOR FIELDWORK. (2 cr; prereq #)

Preparation for actual field experience.

5240. SPECIAL TOPICS IN FAMILY SOCIAL SCIENCE. (2-6 cr per qtr [max 16 cr]; prereq dependent on specific topic)

Review of research and discussion. See the *Class Schedule* for topics.

5241. ECONOMIC EFFECTS OF DIVORCE ON FAMILIES. (4 cr; prereq 5200, 5202, 5218 or equiv)

Interdisciplinary seminar with readings and research findings in family economics, finance, and law applied to economic well-being of families and resulting policy issues where divorce is a factor.

5242. DEATH, OTHER LOSSES, AND THE FAMILY. (3 cr; prereq 5202 or equiv)

Individual and family reactions to dying, death, and other losses or potential losses from perspective of theories of grief work, family systems, others.

5249f,w,s. FIELDWORK—DIRECTED COMMUNITY WORK EXPERIENCE. (5 cr [max 15 cr]; prereq 5231, Human Relationships major, #)

Directed preprofessional work experience related to the student's field of study.

5251f. AGING FAMILIES. (4 cr; prereq FSoS 5200 or SW 5024 or equiv)

Aging families examined as complex developing systems interacting with a changing social structure. Marital relationships, role changes, and family caregiving issues studied.

5252s. AGING, FAMILY, AND SOCIETY. (4 cr; prereq FSoS 5200 or SW 5024 or equiv)

Elderly populations from diverse cultures are examined within the context of individual life history, family systems, and social structures.

5253w. HUMANITIES, AGING, AND FAMILY LIVING. (4 cr; prereq FSoS 5200 or SW 5024 or equiv)

Aging and family living examined from the perspective of literature and film. (Day and Extension)

5255w. APPROACHES TO FAMILY POLICY. (4 cr; prereq SW 3101 or Pol 1001 or #)

Analysis of interrelationship between families and social policy in areas of welfare, housing, health care, family law, education, and social services.

5256s. FAMILY POLICY: AN INTERNATIONAL PERSPECTIVE. (4 cr; prereq FSoS 5255 or #)

Compares policy choices and actions of different countries in areas directly affecting families—health, education, social services, income maintenance, employment and human resources, taxes—and the values and traditions such policies represent.

5260w. DYNAMICS OF FAMILY DECISION MAKING. (4 cr; prereq 3260 or #)

Conceptual models of decision making and resource management. Review and critique of current research and literature.

5301. THE FAMILY AND ENERGY ISSUES. (3 cr, §Hsg 5482 or 5801; prereq 5 cr FSoS or #)

For description see Hsg 5482.

5500s. RACIAL AND ETHNIC DIVERSITY IN FAMILIES. (4 cr; prereq 5200)

Overview of family issues of various American racial and ethnic populations. Combines a study of research and case studies with individual projects to develop and enrich understanding of cultural diversity. (Day and Extension)

Alcohol and Drug Counseling Education Courses (Extension Only)

5008. INTROSPECTIVE WORKSHOP AND CLINICAL SUPERVISION. (1-2 cr; prereq 3035 or 5035)

Special topics, nonregular program or course in family social science for pre-service or in-service helping professionals.

Course Descriptions

5026. ASSESSMENT OF ALCOHOL AND DRUG USE PROBLEMS. (4 cr)

Series of lectures. Theoretical views of nature of dependency and drug use problems, approaches to diagnosis and/or assessment.

5027. CURRENT ISSUES AND PHARMACOLOGY OF ALCOHOL AND DRUG USE. (4 cr)

Series of lectures. Historical and cultural perspectives of drug use and abuse. Additional topics: men's, women's, adolescents', minority, and sexuality issues. Fundamental principles of pharmacology as applied to various classifications of mood-altering chemicals.

5028. TREATMENT OF ALCOHOL AND DRUG USE PROBLEMS. (4 cr)

Continuum of treatment responses and treatment planning for substance abusers. Prevention, self-help groups, professional ethics, nutrition, alternative treatments, aftercare programming, evaluation, some pragmatics of counseling.

5029. COUNSELING SKILLS PRACTICUM I. (4 cr)

Role playing and group exercises to increase competency in basic counseling skills. Assessment of counselor needs and motivations, nonverbal communication, accurate empathy, self-disclosure, and questioning. Videotape gives students feedback.

5030. COUNSELING SKILLS PRACTICUM II. (4 cr; prereq 3029 or 5029 or #)

Facilitating client's exploration of self and understanding of the problem, assisting in setting therapeutic goals. Identifying and challenging client's "deep structure," advanced empathy, immediacy, confrontation, reframing, and problem solving.

5031. COUNSELING SKILLS PRACTICUM III. (4 cr; prereq 3030 or 5030 or #)

Advanced therapeutic methods, double bind theory, use of paradox, working with resistant clients, neurolinguistic programming.

5032. CHEMICAL ABUSE AND THE FAMILY: AN OVERVIEW. (4 cr)

Introduction to marriage and family therapy, with particular application to families in which alcohol or drug abuse is a problem. Family types, family of origin, structural family therapy, family systems theory, and alcoholism. Review of literature.

5034. TOPICS IN ALCOHOL AND DRUG ABUSE. (1-5 cr; prereq written #)

Selected readings or projects in alcohol and drug use problems and evaluation of students' mastery of assigned study.

5035. CLINICAL INTERNSHIP IN CHEMICAL USE PROBLEMS. (2-18 cr; prereq 3026, 3027, 3028, 3030, 3032, 3037, written #; admission requests must be made to internship coordinator of ADCEP)

Rotating clinical internship (1,000 hours) in three to four community agencies (separate registration required for each placement, required closed class permission slip available at program office).

5037. GROUP THERAPY: THEORY AND PRACTICE. (3 cr)

Lectures and small group experiences. Stages of group development, stages of affective development, Hill Intervention Matrix, leadership roles and functions, Yalom's curative factors, and understanding of group process.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8200. SEMINAR: RESEARCH AND INTERPRETATION

8203. FAMILY STRESS, COPING, ADAPTATION

8214. THEORIES OF MARITAL AND FAMILY THERAPY

8215. CLINICAL ISSUES IN MARITAL AND FAMILY THERAPY

8216. MARITAL AND FAMILY ASSESSMENT

8217. CLINICAL INTERVENTIONS FOR SEXUAL PROBLEMS

8221, 8222, 8223. INTERNSHIP IN TEACHING COLLEGE LEVEL FAMILY COURSES I, II, III

8230. DIRECTED STUDY IN FAMILY SOCIAL SCIENCE

8231. SEMINAR IN GENDER ROLES

8242. VALUE THEORIES AND RESEARCH IN FAMILY SOCIAL SCIENCE

8251. PROBLEMS: FAMILY SOCIAL SCIENCE

8252. PROBLEMS: FAMILY SOCIAL SCIENCE

8255. CONCEPTUAL FRAMEWORKS IN THE FAMILY

8260. FAMILY DECISION MAKING

8261, 8262. PROCESS SEMINAR FOR FAMILY I, II

8266. FAMILY RESEARCH METHODOLOGY I

8267. FAMILY RESEARCH METHODOLOGY II

8270. PRACTICUM IN FAMILY RESEARCH

8317, 8318. FAMILY OF ORIGIN I, II

8319. ETHICAL AND LEGAL ISSUES IN MARRIAGE AND FAMILY THERAPY

8500, 8501. FAMILY THERAPY PRACTICUM I, II

8551, 8552, 8553. INTERNSHIP IN MARITAL AND FAMILY THERAPY I, II, III

Food Science and Nutrition (FScN)

(Department of Food Science and Nutrition)

1020. INTRODUCTORY MICROBIOLOGY. (4 cr)

Fundamental principles of microbiology. Characteristics of bacteria, yeasts, molds, and other microorganisms; their importance in the preparation and preservation of foods, and their relation to the health and well-being of the individual and the family.

1102. TECHNOLOGY OF FOOD PROCESSING.

(4 cr; prereq high school chemistry and biology) Introduction to food processing technology with emphasis on preventing biological, microbiological, physical, and chemical deterioration. Changes in food composition, microbiological safety, food laws and regulations, technologies of major food processes such as canning, freezing, and drying.

1500. BIOTECHNOLOGY; BASIC CONCEPTS AND APPLICATIONS. (3 cr, §Agro 1500, §AnSci 1500, §PIPa 1500, §Soils 1500; prereq high school chemistry and biology or #)

Introduction to biotechnology for students interested in this field as part of a liberal education, as well as those contemplating careers in science and genetic engineering; applying biotechnology to microbes, plants, and animals; legal and ethical issues.

1612. PRINCIPLES OF NUTRITION. (4 cr; prereq high school chemistry and biology)

Fundamental concepts: human nutritional requirements, the function of nutrients, and nature of deficiencies. Vegetarianism, weight loss, fad diets, activity, obesity, cancer, heart disease, food processing, safety, and world food problems.

3102. INTRODUCTION TO FOOD SCIENCE. (4 cr; prereq Chem 1002 or 1052)

Introduction to the composition and the chemical and physical properties of foods; interaction, reaction, and evaluation of foods due to formulation, processing, and preparation.

3112. FOOD ANALYSIS. (4 cr; prereq 3102)

Application of analytical techniques in the analysis of food composition (proximate, mineral, vitamins, and food contamination). Physical methods of analysis.

3135. FOOD PROCESSING I. (4 cr; prereq 1102, 3102, Math 1111)

Qualitative and quantitative discussion of principles of product movement and modification used in food processing. Operations needed for proper functioning of a food processing facility such as pumping, homogenization, membrane separations, milling, and dry blending.

3136. FOOD PROCESSING II. (4 cr; prereq 3135)

Discussion of major food processing operations including heating and cooling, evaporation, drying, and process automation, from the perspective of the introduction and principles of equipment and quantitative base for operations.

3400. FOOD COMMUNICATION TECHNIQUES. (3 cr; prereq 3102)

Communication of information about food products (from proposal to marketing strategy) or recipes (from proposal to cookbook page). Individual and team oral and written presentations; demonstrations, food photography.

3472. FOOD SELECTION PRINCIPLES. (4 cr; prereq 4 cr in food science and nutrition)

Consumer trends and food selection. Food distribution system. Food selection principles. Information used when making and evaluating food selection decisions. Use of computer-based nutrient calculation systems.

3602. NUTRITION IN PROFESSIONAL HEALTH CARE. (4 cr; prereq chemistry, human physiology, pharmacology, pathophysiology, regis in a professional health discipline)

General principles of nutrition in professional health care. Nutrition as a factor in attaining and maintaining health. The role of the health practitioner in nutrition education.

3610. COMMUNITY NUTRITION. (2 cr; prereq 1612 or equiv, 5 cr anthropology, psychology or sociology)

Focus on nutritional health services and education in the United States and worldwide for various age groups, as well as techniques for providing these in local communities.

3612. BIOLOGICAL ASPECTS OF NUTRITION.

(4 cr; prereq 1612, Chem 3302 or equiv)
Biological aspects: influence of biological changes throughout the life cycle on nutrient requirements, needs as affected by exercise, digestion and absorption, energy and other nutrient balances, protein energy malnutrition, infection.

3662. INTRODUCTION TO THE CLINICAL PRACTICE OF DIETETICS. (2 cr; prereq 12 cr in food science and nutrition, regis in coordinated program in dietetics)

Practice of dietetics in hospitals, outpatient clinics, public service agencies, and food services.

3703. FIELD EXPERIENCE IN FOOD SERVICE MANAGEMENT. (3-18 cr; prereq regis in coordinated program in dietetics or #)

Supervised food service production and management experience in a community or health care facility.

3730. QUANTITY FOOD PRODUCTION MANAGEMENT. (3 cr; prereq 3102, 3472)

Participation in the management procedures used in the selection, storage, preparation, pricing, and service of food in quantity. Quantity food service facilities used as laboratories. Field trips may be required.

3732. LECTURE IN QUANTITY FOOD PRODUCTION MANAGEMENT. (2 cr; prereq 3102, 3472)

Understanding of management procedures used in selection, storage, preparation, pricing, and service of food in quantity.

5000. PROFESSIONAL EXPERIENCE PROGRAM. (4 cr; not for grad cr; A-F only; prereq 15 cr food science and nutrition, #)

Up to 12 weeks of planned experience in a selected position in the food industry; evaluative reports and consultations with faculty advisers and employers. (Extension only)

5100. GENERAL SEMINAR. (1 cr; A-F only; prereq sr or #)

Literature review and presentation of papers in selected areas of food science and nutrition.

5110. FOOD CHEMISTRY. (4 cr; prereq 3102, BioC 3031 or Biol 5001)

Study of chemical structures and functional properties of food components in relationship to their roles as parts of complex biochemical systems and as modified by various environmental and processing factors.

5111. INDEPENDENT STUDY IN FOOD SCIENCE AND NUTRITION. (1-5 cr [may be repeated for cr]; prereq Δ)

Individual laboratory or library research in some area related to food science or nutrition.

Course Descriptions

5120. FOOD MICROBIOLOGY. (5 cr; prereq 1102, 3112, VPB 3103 or MicB 5105 or #)
Relationship of environment to occurrence, growth, and survival of microorganisms in foods; methods of evaluation, mechanisms to control, genera and species of importance, control of foodborne pathogens and toxins. Enumeration of, isolation of, and identification of microbes in foods.

5122. CONTROL SYSTEMS IN FOOD MICROBIOLOGY. (2 cr; prereq 5120)
Control and destruction of microorganisms in foods; hazard analysis; critical control points for control of microbes; chemical, physical and microbiological considerations in cleaning and sanitizing food contact surfaces and equipment; microbiological criteria for raw and processed foods; sampling methodologies.

5123. FOOD FERMENTATIONS AND BIOTECHNOLOGY. (4 cr; prereq 5120, 5122)
Characteristics of microorganisms involved in dairy and food fermentations and factors that influence their activity; natural and controlled fermentations; lactic bacteriophages and their control; application of biotechnology to food grade microorganisms; rapid detection systems; regulation of biotechnology-derived microbial products.

5135. FOOD ENGINEERING UNIT OPERATIONS. (5 cr; prereq 1102 or ¶1102, Math 1142, Phys 1041-1046)
Principles and food system applications of these unit operations: fluid flow, heat transfer, drying, evaporation, contact equilibrium (distillation, extraction, crystallization, and membrane processes), and mechanical separation (filtration, centrifugation, sedimentation, and sieving).

5136. UNIT OPERATIONS LABORATORY. (2 cr; prereq 5135)
Applications of food engineering unit operations; experiments involving fluid flow, heat and mass transfer.

5312. INSTRUMENTAL ANALYSIS OF FOODS. (3 cr; prereq 3112, 5110)
Application of instrumental methods of analysis to the examination of food products.

5314. PHYSICOCHEMISTRY OF FOODS. (4 cr; prereq 5110)
Characterization of crystalline systems, gels, emulsions, and foams; functionality of food macromolecules in these systems.

5320. FOOD BIOTECHNOLOGY. (3 cr; prereq 5123, Biol 5001)
Impact of biotechnology in agriculture, nutrition, and food processing. Discussion of recombinant DNA and related technologies, bioprocess engineering, and fermentation technology.

5360. SENSORY EVALUATION OF FOOD QUALITY. (4 cr; prereq 3102, Stat 3012 or 5021)
Fundamentals of sensory perception. Test designs and methods used in studying sensory quality of foods.

5380. FOOD PACKAGING. (3 cr; prereq 3102, Phys 1042 or equiv)
Lectures on and demonstrations of packaging principles as applied to food and the food industry.

5390. INTRODUCTION TO FOOD LAW. (4 cr; prereq 1102 or #)
Federal and state legal requirements and case law history affecting the production, processing, packaging, marketing, and distribution of food and food products.

5403. EXPERIMENTAL STUDY OF FOODS. (5 cr; prereq 3102, 5110, 5360)
Individual laboratory experimentation and comprehensive literature search on a problem in foods. Statistics and computers as research tools. Data analysis and interpretation for a scientific paper.

5404. CURRENT ISSUES IN FOOD AND NUTRITION. (2-4 cr; prereq 15 cr food science and nutrition or #)
Evaluation of popular and scientific literature dealing with nutrition, food additives, food safety, food fads, health foods, environmental contamination, the consumer movement, naturally occurring food toxicants, processed foods, synthetic foods, organically grown foods.

5414. INGREDIENT INTERACTIONS. (3 cr; prereq 5110)
Laboratory experimentation for several case studies illustrating the hydration properties of crystalline and macromolecular structures and ways of controlling the properties and functions of ingredients in emulsions, foams, gels, and sols.

5462. ADVANCED TOPICS IN SENSORY EVALUATION OF FOOD. (2-4 cr; prereq 5360)
Review of current literature pertinent to specific topics under active investigation.

5474. FOOD MARKETING ECONOMICS. (4 cr, §AgEc 5550; prereq AgEc 3101 or equiv)
Economics of food marketing in the United States. Food consumption trends; consumer food behavior; food expenditure and consumption data; consumer survey methodology; the food distribution and retailing system; food policy issues related to food marketing. Students pursue individual and group projects.

5512. MEAT TECHNOLOGY. (4 cr; prereq 5110)
Industrial processing of meat, fish, and poultry products, including protein functionality, thermal processing, curing, smoking, and deterioration during storage. Use of preblending and least-cost analysis in product development and formulation.

5522. TECHNOLOGY OF FLUID AND CONCENTRATED MILK PRODUCTS. (4 cr; prereq 3136, 5110)
Application of scientific principles to problems involved in processing fluid and dehydrated milk systems and their control. Demonstration of basic processing operations including heating, cooling, homogenization, evaporation, drying, crystallization, and freezing.

5523. TECHNOLOGY OF FERMENTED DAIRY PRODUCTS. (4 cr; prereq 5110, 5123)

Integration of chemical, microbiological, and physical principles involved in the manufacture and storage of cheeses and fermented milks.

5524. SENSORY EVALUATION OF DAIRY PRODUCTS. (1 cr; prereq 3102)

Laboratory and commercial procedures for evaluating the sensory properties and market quality of dairy products. Cause and identification of common defects in flavor, physical properties, and appearance.

5530. INDUSTRIAL PROCESSING OF FRUITS AND VEGETABLES. (4 cr; prereq 3136, 5110, 5120, 5135; 3 lect and 3 lab hrs per wk)

Relationship of chemical, physical, and microbiological principles to commercial processing of fruits and vegetables from procurement of raw products through preparation, preservation, packaging, storage, transportation, and merchandising. Emphasis on preservation methods involving heat sterilization, freezing, dehydration, and fermentation.

5540. FATS AND OILS CHEMISTRY AND TECHNOLOGY. (4 cr; prereq 5110)

Nature of fats and oils; their structure, composition, chemical and physical properties; raw materials for fat and oil products; extraction, refining, hydrogenization, and other industrial manipulations; handling, storage, analysis and grading of raw materials and finished products.

5555. FREEZING AND DEHYDRATION OF FOODS. (5 cr; prereq 1102, 5135)

Principles involved in the processing, handling, and storage of frozen, dry, and intermediate moisture foods with emphasis on the physicochemical properties of water in foods.

5562. FLAVOR TECHNOLOGY. (4 cr; prereq 1102, 5110)

Flavor and off-flavor development in foods. Industrial production of food flavorings, their proper application to food systems.

5600. NUTRITION SEMINAR. (1 cr; prereq #)

Literature review and presentation of papers in selected areas of nutrition. (Extension only)

5610. HUMAN NUTRITION. (4 cr; prereq 1612, Physl 1002 or 3051 or BioC 3031 or Biol 5001)

Physiological function and metabolic fate of nutrients and factors influencing nutrient use in the body.

5612. EXPERIMENTAL NUTRITION. (2 cr; prereq 3612, §Biol 5001)

Laboratory experience in chemical and biochemical methods of analysis of nutritional status.

5620. NUTRITION AND METABOLISM. (5 cr; prereq 3612 or #, BioC 3031, Biol 5001)

Physiological function and metabolic fate of carbohydrates, lipids, and proteins, and their involvement in fulfilling energy needs for maintenance, growth, and work. Physiological function of vitamins and minerals.

5622. MACRO-NUTRIENT METABOLISM. (4 cr; prereq 3612, BioC 3031, Biol 5001, Phsl 3051)

Physiological function and metabolic fate of carbohydrates, lipids, and proteins, and their involvement in fulfilling energy needs for maintenance, growth, and work.

5623. VITAMIN AND MINERAL METABOLISM. (4 cr; prereq 3612, BioC 3031 or Biol 5001, Phsl 3051)

Nutritional, biochemical, and physiological function of essential vitamins and minerals in humans and experimental animal models.

5624. HUMAN PROTEIN AND ENERGY UTILIZATION. (4 cr; prereq 5622)

Regulation of human protein and energy use, interactions, adaptations; critical evaluations of methods of determining requirements; technical and ethical problems in human experimentation, and determination of recommended intake levels.

5626. CLINICAL NUTRITION SUPPORT SEMINAR. (1 cr; S-N only; prereq #: same course as Surg 5526)

Presentations on current topics in hospital nutrition support or research.

5627. HOSPITAL NUTRITION SUPPORT. (9 cr; S-N only; prereq #: same course as Surg 5527)

Clinical experience in hospital nutrition support. Includes rotations in medicine, surgery, pediatrics, and home nutrition support. Principles of parenteral and enteral feeding and nutritional assessment. Includes exposure to clinical nutrition research.

5642. FIELD EXPERIENCE IN COMMUNITY NUTRITION. (3-18 cr; prereq at least one course in human nutrition. #)

Application of nutrition information to problems of health and welfare; assigned readings, discussions, and experience in a community agency.

5643. WORLD FOOD PROBLEMS. (3 cr, §AgEc 5790, §Agro 5200, §Soc 5675, §LACS 5280; limited enrollment; prereq sr or grad)

Multidisciplinary approach to social, economic, and technical problems of feeding the world's growing population. Principles sought from social, economic, plant, animal, and food sciences for their application to world food problems.

5662. CURRENT ISSUES IN CLINICAL NUTRITION. (3 cr; prereq 5620, 5667)

Evaluation of current scientific research and literature related to clinical nutrition.

5664. FIELD EXPERIENCE IN CLINICAL NUTRITION. (3-18 cr; prereq a course in human nutrition. #)

Application of nutrition information to problems of health and disease; assigned readings, discussions, and experience in a clinical facility.

Course Descriptions

5665. APPLIED CLINICAL NUTRITION I. (3 cr; prereq Biol 5001, Phs1 3051 or 1002, LaMP 5177 or ¶5177)

Nutritional assessment and support; fluid and electrolyte balance; diet/drug interactions. Nutritional intervention in disorders of the gastrointestinal system and in cancer.

5666. APPLIED CLINICAL NUTRITION II. (3 cr; prereq 5665, 5662 or ¶5662) (Continuation of 5665)
Pathology, treatment, and nutritional therapy of diseases of cardiovascular and respiratory systems and common disorders of endocrine system, notably diabetes mellitus; nutrition intervention in obesity.

5667. APPLIED CLINICAL NUTRITION III. (3 cr; prereq 5666 or ¶5666)
Pathology, treatment, and nutrition therapy for diseases of urinary tract, inborn errors of metabolism, and allergies. Nutritional considerations in eating, neurological, muscular, and skeletal disorders. Special nutritional considerations for pediatric patients.

5668. ADVANCED CLINICAL NUTRITION. (2 cr; prereq 5662 or #)
Integrated approach to prevention and treatment of illness focusing upon the role of nutrition in total medical care.

5693. SELECTED ASPECTS OF NUTRITION. (2-4 cr [may be repeated for max 12 cr]; prereq sr, 3102, 3612)

In-depth investigation of a single, preselected aspect of nutrition in any one offering. Teaching procedure and approach determined by nature of topic and student needs. Specific topic announced in advance of course offering.

5694. METABOLIC BASIS FOR THERAPEUTIC NUTRITION. (4 cr; prereq 5664 or #)
Physiological and biochemical bases for dietary treatment, dietary principles related to adequate nutrition. Case study presentations and clinical experience included.

5702. SELECTED ASPECTS OF FOOD SERVICE MANAGEMENT IN HEALTH CARE FACILITIES. (3 cr; prereq 3 cr elementary statistics, 6 cr economics, #)
Management techniques applied to food services for health care facilities. Methods of analysis and control.

5705. FIELD EXPERIENCE IN FOOD SERVICE MANAGEMENT. (3-18 cr; prereq regis in coordinated program in dietetics or #)
Application of principles of food service management to problems in community, commercial, or health care facility.

5732. PRINCIPLES OF FOOD SERVICE ORGANIZATION AND MANAGEMENT. (4 cr; prereq sr, 3732, Mgmt 3001, regis in coordinated program in dietetics)
Management of food service personnel, financial control, regulations, related administrative problems.

5750. PRINCIPLES OF FOOD SERVICE MANAGEMENT. (4 cr; prereq 3730 or 3732, Mgmt 3001)
Application of management principles in a food service. Business procedures, personnel management, cost control, financial management, and related administrative problems. Field trips may be required.

5755. CURRENT TOPICS IN FOOD SERVICE MANAGEMENT. (4 cr [may be repeated for cr, max 8 cr]; prereq #)
In-depth examination of timely issues. Content varies from quarter to quarter.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8101. RESEARCH SEMINAR

8205. GENERAL SEMINAR

8311. FLAVOR CHEMISTRY

8312. REACTION KINETICS OF FOOD DETERIORATION

8315. FOOD PROTEINS

8322. MICROBIOLOGY AND ENGINEERING OF FOOD STERILIZATION PROCESSES

8323. MICROBIAL STARTER CULTURES

8324. MICROBIAL TOXINS AND TOXIC MICROORGANISMS IN FOODS

8401. INDEPENDENT STUDY: FOOD SCIENCE

8403. ADVANCED TOPICS IN FOOD SCIENCE

8412. INTERRELATIONSHIPS AND FUNCTIONS OF FOOD COMPONENTS

8603. ADVANCED TOPICS IN NUTRITION

8621. INDEPENDENT STUDY: NUTRITION

8777. THESIS CREDITS: MASTERS

8888. THESIS CREDITS: DOCTORAL

Nutr 8745. SEMINAR

Nutr 8777. THESIS CREDITS: MASTERS

Nutr 8888. THESIS CREDITS: DOCTORAL

Nutr 8990. GRADUATE RESEARCH

Home Economics (HE)

Home Economics courses are now listed under Human Ecology, page 56.

Home Economics Education (HEEd)

(*Division of Home Economics Education*)

3900. INDEPENDENT STUDY. (1-9 cr per qtr [max 9 cr]; prereq jr, #)

Study of selected topics in home economics chosen in collaboration with staff.

3910. EDUCATIONAL METHODS FOR HOME ECONOMISTS AND RELATED PROFESSIONALS.

(3 cr; S-N optional; prereq jr, non-HEEd major)
For professionals whose work includes educating people. Skills necessary to organize, implement, and evaluate presentations and programs for individual clients and groups.

5001. SPECIAL TOPICS. (1-6 cr; S-N optional)
Study of topic not covered by available courses.

5003. INTERNSHIP: COMMUNITY/WORK SETTINGS. (3-12 cr [max 12 cr, max 3 cr may be used in MEd and MA programs]; S-N only; prereq #)
Planned work experience focusing on educational competencies in community and work settings. Students assume defined responsibilities of a position.

5021. EDUCATION THROUGH EXTENSION METHODS. (3 cr, §AgEd 5021; prereq grad or #)
Methods and techniques of formal and nonformal education used by Extension Service and other organizations.

5023. EXTENSION METHODS FOR DEVELOPING COUNTRIES. (3 cr, §AgEd 5023)
Extension methods to promote the rapid adoption of improved practices.

5024. EXTENSION HISTORY AND PHILOSOPHY. (3 cr, §AgEd 5024)
Origin, philosophy, historical development, objectives, and organizational structure of Extension Service.

5025. EXTENSION PROGRAM DEVELOPMENT. (3 cr, §AgEd 5025)
Planning, implementing, and evaluating the program development process.

5026. EXTENSION ADMINISTRATION. (3 cr, §AgEd 5026; prereq #)
Administration of the Cooperative Extension Service at the county, area, and state levels.

5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES. (2-9 cr [max 9 cr], §AgEd 5027; S-N optional)
Observation of and participation in activities of Extension Service staff at county and state level; familiarization with staffing, program planning and development, and educational and administrative functions.

5055. INTRODUCTION TO FARMING SYSTEMS RESEARCH AND EXTENSION. (3 cr, §AgEd 5055)
Introduction to theory and practice; interdisciplinary approach to holistic view of farm family agricultural enterprise.

5056. APPLICATION OF FARMING SYSTEMS RESEARCH AND EXTENSION. (3 cr; prereq HEEd 5055 or AgEd 5055)
Seminar and fieldwork projects; sondeos and on-farm trials conducted.

5100. SERVICE OCCUPATIONS EDUCATION. (3 cr [max 12 cr], §5331)

Development of occupational programs; exploration of career opportunities; identification of competencies for career clusters; development of objectives, learning experiences, and appraisal techniques; preparation of teaching materials; licensure course for instructors.

5102. SERVICE OCCUPATIONS WORK EXPERIENCE. (3-6 cr [max 3 cr applied to a grad degree, max 12 cr], §5336; S-N optional; prereq #)
Observation and directed experience in selected occupational cluster with application to teaching. Each credit requires 85 hours of paid occupational experience; work experience course for licensure requirements.

5153. CONSUMER EDUCATION: CURRICULA, METHODS, AND MATERIALS. (3-4 cr, §BME 5153)
Objectives, content, curriculum organization, teaching methods, materials, and evaluation methods for the elementary, secondary, postsecondary, and adult levels.

5200. SEMINAR: WORKING WITH YOUTH THROUGH ADULTS. (1-3 cr per qtr [max 9 cr incl AgEd 5200 and YoSt 5200]; S-N optional)
Interdisciplinary seminar focusing on definition of the youth work profession; essential skills for youth workers; youth needs, roles, relationships with adults; development and management of a system of support for youth work.

5244. TOPICS IN PROGRAM PLANNING FOR EXTENSION EDUCATION. (1-6 cr [max 9 cr])
Effective extension educational programming in relation to situation and needs analysis; coordination of content, people, methodology; specific aspects in development of program models; managing resources available.

5245. TOPICS IN ADMINISTERING EXTENSION EDUCATION. (1-6 cr [max 9 cr])
Issues and current literature; focus on personnel hiring and supervision, financial management, leadership styles, long-range planning; application of theory to administrative practice.

5246. TOPICS IN TEACHING AND DELIVERING EXTENSION EDUCATION. (1-6 cr [max 9 cr])
Teaching techniques related to concepts of use of media, telecommunications, computers, group process methods, experiential learning in extension education settings.

5247. TOPICS IN EVALUATING AND DELIVERING EXTENSION EDUCATION. (1-6 cr [max 9 cr])
Overall evaluation design; issues in choosing quantitative versus qualitative evaluation methods; developing skills and conceptual frameworks to apply theory to extension settings.

5300. HOME ECONOMICS CURRICULUM. (3 cr)
Examination of research and literature; development of units of study and programs at elementary and secondary levels; production and evaluation of materials.

5305. HOME ECONOMICS CURRICULUM: COLLEGE LEVEL. (3 cr; prereq #)
Examination of research and literature; course and program development in higher education; analysis of current college programs; production and evaluation of curriculum materials.

Course Descriptions

5310. METHOD IN TEACHING HOME ECONOMICS: ATTITUDES, VALUES, AND KNOWLEDGE. (3 cr)

Derivation of theory for educational method from relevant research; application to educational objectives, strategies, and student motivation.

5315. EVALUATION: THEORETICAL AND TECHNICAL ASPECTS. (3 cr)

Collecting and interpreting evidence related to achievement of objectives, emphasizing higher levels of cognition and affective behaviors.

5320. ADULT EDUCATION IN HOME ECONOMICS. (3 cr)

Planning a community program; teaching procedures; special problems.

5321. INTERNATIONAL PERSPECTIVES IN HOME ECONOMICS EDUCATION. (3 cr)

Examination of field (formal and nonformal) around world; commonalities and differences in purpose, problems, history, methods of delivery, and context.

5325. TRENDS IN HOME ECONOMICS EDUCATION. (1-4 cr per qtr [max 12 cr])

Current status; purposes, programs, content emphasis, research, problems and issues in the field.

5404. INTRODUCTION TO EARLY CHILDHOOD FAMILY EDUCATION PROGRAMS. (1 cr)

Introduction to concept and philosophy of early childhood family education programs as basis for program implementation.

5405. CHILD DEVELOPMENT AND PARENT EDUCATION. (1-6 cr [max 12 cr]; A-F only)

Objectives, content, curriculum organization, teaching methods, materials, and evaluation approaches for teaching youth and adults about social, cultural, psychological, economic, and technical aspects of child development, parenting, and parent-child interaction.

5406. SPECIAL TOPICS IN PARENT AND FAMILY EDUCATION. (1-6 cr; S-N optional)

Study of issues and current literature focused on emerging topics relevant to parent and family education.

5407. FAMILY LIFE EDUCATION. (1-4 cr [max 12 cr]; A-F only)

Objectives, content, curriculum development, methods, materials, and evaluation approaches for teaching diverse groups of youth and adults family life concepts, including current research in communication, relationships, sexuality, self-esteem, and decision making.

5408. EDUCATION FOR WORK-FAMILY RELATIONSHIPS. (3 cr)

Examination of interactions between work and family, with focus on educational applications for youth and adults.

5409. GROUP METHODS FOR PARENT AND FAMILY EDUCATION. (2 cr)

Methods and theories applied to developing skills for leading parent and family education groups.

5410. FOOD AND NUTRITION EDUCATION. (1-4 cr [max 12 cr]; A-F only)

Objectives, content, curriculum organization, teaching methods, materials, and evaluation approaches for teaching youth and adults about nutrition principles; psychological, social, cultural, political, economic, and technical aspects of food and nutrition-related problems, decisions, and issues.

5420. WORKSHOP: ADULT EDUCATION. (1-4 cr per qtr [max 12 cr])

Procedures in teaching adults; planning the program; use of new materials and techniques; group and individual problems.

5430. WORKSHOP: CONTEMPORARY PROBLEMS IN HOME ECONOMICS EDUCATION. (1-6 cr per qtr [max 12 cr])

Consideration of topic of current concern in home economics education.

5440. COMPUTER APPLICATIONS IN HOME ECONOMICS. (3 cr)

Accession and use of information, evaluation of home economics databases and software, impact of computers on families and consumer behavior.

5500. PROSEMINAR: HOME ECONOMICS EDUCATION. (2 cr; required of all new grad students)

Relation of the processes and standards of rational thought to professional competence and the goals of a graduate program of study.

5505. SEMINAR: SUPERVISION OF STUDENT TEACHING. (2 cr)

Examination of research pertinent to purposes, procedures, evaluation, and interpersonal relations.

5510. ORIENTATION TO TEACHING HOME ECONOMICS. (3 cr; A-F)

Critical analysis of home economics and the teaching of home economics; identification of practical problems encountered by families; development of a personal orientation toward becoming a home economics teacher.

5511. HOME ECONOMICS INSTRUCTION IN SECONDARY SCHOOLS. (5 cr; A-F; prereq 5510)

Examination of curriculum perspectives and development of curriculum, instructional methods, and student evaluation for home economics in secondary schools.

5512. CLINICAL SEMINAR: THE SCHOOL SETTING. (4 cr, §Ind 5512; S-N)

Examination of and experience with the school as a social-political setting, the role of vocational education in the school, the relation between adolescent development and curriculum, and the patterns of organizational and interpersonal communication within the school.

5513. CLINICAL SEMINAR: EDUCATIONAL PRACTICE. (4 cr, §Ind 5573; S-N; prereq HEEd-Ind 5512)

Development of curriculum and instructional materials for school classrooms and laboratories and the conducting of research in school settings.

5514. CLINICAL SEMINAR: TEACHING. (12 cr; S-N only; prereq HEEd/Ind 5512, 5513 or permission of instructor)

Teaching experience in a public school setting.

5520. PHILOSOPHY OF HOME ECONOMICS. (4 cr; prereq #)

Application of philosophic thought to conceptions of home economics upheld in literature and practice.

5600. PRACTICUM: ADULT EDUCATION. (1-6 cr; A-F only; prereq #)

Individual field assignments under supervision.

5900. READINGS IN HOME ECONOMICS EDUCATION. (1-3 cr per qtr [max 12 cr]; prereq #)

Independent study under tutorial guidance.

5910. INTEGRATING PAPER. (3 cr; prereq MED student)

Independent paper integrating learning from an education course(s) and home economics education.

5920. DIRECTED STUDIES. (1-6 cr; S-N optional; prereq #)

Opportunity for individualized learning experience not covered by regular courses.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8500. SEMINAR: CURRICULUM DEVELOPMENT

8510. SEMINAR: IMPROVEMENT OF INSTRUCTION IN ADULT EDUCATION

8515. SEMINAR: TEACHER EDUCATION

8520. SEMINAR: HISTORY AND PHILOSOPHY OF HOME ECONOMICS EDUCATION

8525. SEMINAR: ADMINISTRATION AND SUPERVISION OF HOME ECONOMICS PROGRAMS

8530. SEMINAR: HOME ECONOMICS EDUCATION

8631. PRACTICUM: HOME ECONOMICS TEACHER EDUCATION

8900. PROBLEMS: HOME ECONOMICS EDUCATION

Housing (Hsg)

(Department of Design, Housing, and Apparel)

1400w (formerly 1851). INTRODUCTION TO HOUSING. (4 cr, §1851)

Survey of family housing in relation to needs, processes, and alternatives: financing, buying, and renting; policy, economic, and other variables; and constraints affecting housing decisions.

1401f,s (formerly 1801). RESIDENTIAL TECHNOLOGY. (4 cr, §1801; prereq soph or #; Phys 1001 or 1041)

Survey of equipment and technological systems in a residential environment. Emphasis on consumption and conservation of natural resources and energy sources and human considerations in kitchen planning and appliance design. Lecture, discussion, and laboratory.

3463s (formerly 3863). HOUSING AND COMMUNITY. (4 cr, §3863; prereq 1400 or 1851 or #)

Housing process from development to occupancy, the many factors involved. Emphasis on design of physical environment and relationship of housing to neighborhood, community, city, and metropolitan area.

3470f (formerly 3870). PROFESSIONAL SEMINAR IN HOUSING. (1 cr, §3870; S-N only; prereq 3463 or 3863)

Discussion of professionalism, job opportunities in the field, and assembly of credentials.

5403f,w,s,su (formerly 3880). INTERNSHIP IN HOUSING. (3 cr, §3880; S-N only; prereq completion of one-half of professional sequence, 3470 or 3870, #) Supervised work in the community or international study. Seminar and major paper required.

5461s (formerly 5861). HOUSING MANAGEMENT. (5 cr, §5861; prereq 3463 or 3863 or #)

Career demands for professionalism in housing management. Emphasis on increasing interpersonal skills. Includes historical perspectives, current status of housing, management approaches, psychosocial impact of housing and community design, specific residential populations.

5463f (formerly 5863). HOUSING POLICY. (3 cr, §5863, §PA 5611; prereq grad or adult special or 3463 or 3863)

Role of American national, state, and local government in financing, control, taxation, and construction of housing.

5465s (formerly 5865). HOUSING IN WORLD PERSPECTIVE I. (4 cr, §5865; prereq 3463 or 3863 or #)

Social analysis of housing from around the world; emphasis on population, environment, and social organization of nations as contexts for national policy and housing choices of households.

5466 (formerly 5866) HOUSING IN WORLD PERSPECTIVE II. (4 cr, §5866; 5465 or 5865 recommended)

Response of selected countries to housing problems of low- and middle-income people in urban areas; implications of cultural values and technological changes for housing solutions; examples from Eastern Europe, India, Japan, and other areas.

5467w (formerly 5867). HOUSING AND THE SOCIAL ENVIRONMENT. (4 cr, §5867; prereq 3463 or 3863 or #)

Housing choices of households in the context of the social environment; emphasis on the special needs of the elderly, disabled, minorities, large families, and female-headed households.

5468f (formerly 5868). HOUSING PROBLEMS OF THE FAMILY. (5 cr, §5868; prereq 1401 or 1801, 3463 or 3863, or Dsgn 1555 or 1642 or #)

Housing problems of low-income, elderly, and minority individuals and families. Emphasis on rehabilitation of older housing including rehabilitation process, programs, and projects. Students work with a low-income inner-city client family on a home improvement project.

Course Descriptions

5469f (formerly 5869). HOUSING RESEARCH METHODS. (4 cr, §5869; prereq at least one course in statistics)

Development of skills in analysis of housing data, application of housing theories in research, and reporting of results; practice in use of statistical packages with realistic data.

5480f,w,s (formerly 5888). DIRECTED STUDY IN HOUSING. (1-4 cr per qtr [max 4 cr], §5888; prereq #) Independent study in housing under tutorial guidance.

5481w (formerly 5881). DESIGNED ENVIRONMENTS FOR AGING. (4 cr, §5881; prereq 3463 or 3863 or Dsgn 1555 or Dsgn 1642 or #; offered alt yrs) Design of environments with potential to compensate for deficits in physical and mental functioning; emphasis on older adults and on barrier-free, adaptable, and supportive physical environments.

5482w (formerly 5801). THE FAMILY AND ENERGY ISSUES. (3 cr, §5801; prereq 1400 or 1851, 1401 or 1801 or #; offered alt yrs) Analysis of family behavior as it relates to energy use, impact of scarce resources on quality of family functioning, family/energy issues in future.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8480f,w,s (formerly 8880). DIRECTED STUDY IN HOUSING

8490f,w,s. READINGS IN HOUSING

Human Ecology (HE)

(*College of Human Ecology*)

1003. SEMINAR: COOPERATIVE EDUCATION PROGRAM. (1 cr; S-N only)

Preparatory training for participation in off-campus work experience. Allows student to identify and develop professional skills, needs, and goals related to a particular professional role. Emphasis on placement skills and defining objectives for a planned work experience with employers and faculty adviser.

1191. CAREER PLANNING STRATEGIES. (2 cr; S-N only)

Identification and development of professional and personal goals. Examination of role and expectations of College of Human Ecology graduate in today's society.

3010. INTERNATIONAL TOPICS SEMINAR. (1 cr; S-N only)

Introductory course focusing on interrelationship of people of all nations. Overview of basic international systems and organizations governing or affecting global interactions in various spheres that impact on individuals and families.

3191. PROSEMINAR: HOME ECONOMICS. (2 cr; S-N only; prereq 3rd-qtr soph, regis in HE program or #) Introduction to organizational structure, philosophy, and current issues in home economics; exploration of career alternatives.

5003. FIELD EXPERIENCE. (1-5 cr [max 15 cr]; prereq #)

Directed preprofessional work experience in home economics position in business or industry.

5130. INDEPENDENT STUDY IN HOME ECONOMICS. (max 16 cr; prereq #)

5140. SPECIAL TOPICS IN HOME ECONOMICS. (max 16 cr)

5191. DEVELOPMENT IN HOME ECONOMICS. (2 cr)

Discussion of the development of home economics with emphasis on current problems.

5725. SEMINAR IN INTERNATIONAL STUDIES. (4 cr)

Interdisciplinary seminar integrating disciplines within the College of Human Ecology with a focus on global issues in an ecological model.

5726. PRACTICUM IN INTERNATIONAL STUDIES. (Cr ar)

International work, study, or research arranged by individual students with faculty advice and counsel, including an approved academic exercise.

Rhetoric (Rhet)

(*Department of Rhetoric, College of Agriculture*)

1101. WRITING TO INFORM AND PERSUADE.

(4 cr, §Comp 1011: A-F only)

Relationship of thesis construction and clear thinking to informative and persuasive writing. Importance of thesis sentence, evidence, coherence, clarity, and correctness. Emphasis on the writing process in producing several short papers (250-750 words).

1104. LIBRARY RESEARCH METHODS. (1 cr; S-N only)

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 orientation session. Computer-assisted instruction. Lab card required.

1151. WRITING IN YOUR MAJOR. (4 cr; A-F only; prereq Rhet 1104 [or College of Natural Resources students only: FR 1104 or ForP 1104 or FW 1104].

freshman communication requirement, soph status) 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.

1160. EFFICIENT COLLEGE READING. (3 cr)

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. Meets concurrently with 5160.

1200. INFORMATION TECHNOLOGY IN SCIENTIFIC AND TECHNICAL PROFESSIONS.

(4 cr; A-F only; prereq COA undergrad student)
Students explore how to use computers to communicate, gather, analyze, manage, and store information in scientific and technical professions. Emphasis is on main functions of and integration of data from word processing, telecommunications, database, and spreadsheet applications.

1220. PRINCIPLES OF HUMAN COMMUNICATION. (4 cr)

Introduction to the elements and contexts of human communication. Readings, discussions, lectures, and experiential assignments; focus on communication that affects interpersonal gatherings and that entertains, persuades, and instructs public audiences.

1222. PUBLIC SPEAKING. (4 cr; A-F only; prereq freshman communication requirement)

Practical course in fundamentals of effective speechmaking. Emphasis on researching and organizing a speech and communicating with an audience.

1251. EFFECTIVE LISTENING. (3 cr)

Increases listening comprehension by developing four central abilities. Readings, research, theory, and practice.

1301. HUMANITIES: MODERN THOUGHT AND THE ENLIGHTENMENT. (4 cr)

Introduction to humanities tracing the impact of the scientific revolution on human thought. Emphasis on scientific and religious movements and countermovements as they influence modern thinking.

1302. HUMANITIES: MODERN THOUGHT AND THE INDUSTRIAL REVOLUTION. (4 cr)

The industrial transformation of Europe; the rise of laissez-faire capitalism, socialism, Marxism; modern "individualism" and traditional views of community; utilitarianism and deontological approaches to ethics.

1303. HUMANITIES: MODERN THOUGHT AND THE IMPACT OF EVOLUTION. (4 cr)

Investigation of the concept of Darwin's theory of evolution and its effect on 19th- and 20th-century institutions. Emphasis on the attempts of social philosophers to extrapolate from biological theory to political, cultural, and religious life; scientific and religious ways of knowing; the rise of existentialism.

1310. HUMANITIES: THE LAND IN AMERICAN EXPERIENCE. (4 cr)

American attitudes toward the land from colonial times to the present as expressed in social history, literature, and the fine arts. Social thought and the relationship between farm and city, wilderness and countryside. The changing appearance of America.

1311. HUMANITIES: THE FAMILY IN AMERICAN EXPERIENCE. (4 cr)

American attitudes toward family life from colonial times to the present as expressed in literature, the fine arts, and social history. The impact of Protestantism, democracy, capitalism, and reform movements, including women's rights, on the family ideal.

1376. HUMANITIES: TOPICS IN HUMANITIES AND LITERATURE. (4 cr)

Topics vary quarterly and are listed in the *Class Schedule*. For full details, inquire at the department office before registration.

3101. FUNCTIONAL PHOTOGRAPHY. (4 cr; prereq Design 1501 or Rhet 3562)

Practical course in basic photographic communication. Techniques of producing 35mm color transparencies for use in group presentations, teaching, publications, and audiovisual productions.

3105. CORPORATE VIDEO FOR TECHNICAL COMMUNICATORS. (4 cr; prereq 3562 or equiv)

Introduction to video production including the roles played on a video team, production technology, and the development process. Students will apply rhetorical principles in analyzing video, develop a treatment, and write a script.

3254. ADVANCED PUBLIC SPEAKING. (4 cr; prereq 1222)

Training for specific speech situations most likely to be encountered professionally. Emphasis on analysis, design, preparation, and delivery of presentations to provide greater flexibility within a variety of speech environments.

3266. COMMUNICATION, DISCUSSION IN SMALL GROUP DECISION MAKING. (4 cr; prereq Rhet 1222 or #)

Role of communication techniques in the small group decision-making process. Emphasis on problem-solving discussion requiring some kind of formal outcome.

3270. SPEECH: SPECIAL PROBLEMS. (1-5 cr; prereq #, Δ)

Supervised reading and research on advanced speech-communication topics not covered in regularly scheduled speech offerings. Because of the advanced and independent nature of this course, the primary burden of development usually rests with the student.

3370. AMERICAN HUMANITIES. (4 cr)

Examination of the American character and changes it has undergone in the 19th and 20th centuries as exemplified by social, artistic, literary, and architectural records.

3374. HUMANITIES: SPECIAL PROBLEMS. (1-2 cr; prereq #, Δ)

Primarily for supervised reading and research on topics not covered in regularly scheduled humanities offerings.

3375. HUMANITIES: AGRICULTURAL HERITAGE. (4 cr)

Examination and analysis of significant events or periods affecting rural agricultural peoples as expressed in historical, cultural, and literary documents. Understanding of major values, attitudes, and philosophies related to agricultural change and development.

Course Descriptions

3380. HUMANITIES: THE LITERATURE OF SOCIAL REFLECTION. (2 cr)

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.

3381. HUMANITIES: 20TH-CENTURY CULTURE. (4 cr)

Changing structure of 20th-century culture from World War I to the present. Communism, fascism, and democracy. Modern movements in literature, the visual arts, and architecture.

3390. HUMANITIES: TECHNOLOGY, SELF, AND SOCIETY. (4 cr; prereq jr, STC, pre-STC or Δ)

Major shifts in technology from 19th century to the present in the United States, especially in relation to capitalism. Technology and the concepts of nature, work, political and social organization, and self. Interdisciplinary materials are used.

3395. IN SEARCH OF NATURE. (4 cr)

Introductory, interdisciplinary course that examines the human need for a relationship with nature, the images of nature developed from this need, and the variety of ways humans organize their surroundings to reflect this need. Contemporary American response to this need emphasized.

3562. WRITING IN YOUR PROFESSION. (4 cr; A-F only; prereq freshman communication requirement, 1151, jr or sr status)

Projects in writing professional reports. Analyses of audience and situation; writing effectively to meet the needs of particular readers. Assignments include writing instructions, feasibility report, proposal, memorandum, letter of application, and résumé.

3565. WRITING FOR PUBLICATION. (4 cr; prereq 3562, #)

Writing and preparing manuscripts for publication; adaptation to specialized and general reader; professional, trade, and general publications; *information* sources and topic selection; marketing techniques.

3572. GRAMMATICAL EDITING FOR TECHNICAL WRITERS. (2 cr; S-N only; prereq Sci and Tech Comm or Pre-Sci and Tech Comm major; 5 wks long)

Students work independently through exercises in grammar and punctuation, learning proofreading marks and correcting manuscripts. Completing the exercises and passing a final exam required to receive credit. Not a remedial grammar course.

3582. SENIOR SEMINAR. (2 cr; prereq sr)

Discussions of professional and ethical issues and problems related to technical communication. A capstone course, integrating oral, written, visual, organizational, and theoretical competencies.

3670. VISUAL RHETORIC: THEORIES AND APPLICATIONS. (4 cr; prereq 3562 or equiv, Agri 1200 or equiv)

Theoretical and practical aspects of visual rhetoric in scientific and technical communication. Visual literacy terms, rhetorical considerations, design principles, tools and applications, and ethical and social responsibilities. Lecture and lab.

3680. GENDER AND THE RHETORIC OF SCIENCE AND TECHNOLOGY. (3 cr; prereq

freshman communication requirement)
How cultural gender roles and biological sex influence communication within scientific and technical communities. Communication strategies of professional writers, scientists, and technologists.

3690. THE RHETORIC OF SCIENTIFIC CONTROVERSY. (3 cr; prereq freshman communication requirement)

Personal, social, and political challenges created by science and technology. Topics include animal experimentation, organ transplants, frozen embryos, ozone depletion, pollution, and nuclear waste. Public discourse on these issues examined from a rhetorical point of view.

3700. RHETORICAL THEORY: PERSUASION AND THE LITERATURE OF SCIENCE. (4 cr; prereq

freshman communication requirement)
Introduction to principles and history of rhetorical theory and criticism. Emphasis on classical theories, especially those of Plato and Aristotle. Practice of rhetorical criticism of contemporary communication, including scientific communication. (Meets concurrently with Rhet 5700)

5000. PROFESSIONAL EXPERIENCE PROGRAM.

(4 cr; S-N only; prereq #: elective for rhetoric undergrads; not for grad cr)
Professional experience in firms or government agencies through supervised practical experience; evaluative reports and consultations with faculty advisers and employers. (Extension only)

5100. TECHNICAL COMMUNICATION: SPECIAL PROBLEMS. (Cr ar; prereq #, Δ)

For supervised reading, research, and work on advanced technical communication projects not covered in regularly scheduled courses.

5160. ADVANCED COLLEGE READING. (4 cr; prereq 1160 or equiv or #, grad status)

Examination and application of adult reading theories and teaching practices. Observe and participate in Rhetoric 1160 class and an additional 10 hours of seminar meetings. Prepare a research paper and a teaching module for college reading. (When offered, meets concurrently with 1160)

5165. STUDIES IN ORGANIZATIONAL COMMUNICATION, CONFLICT, AND CHANGE. (4 cr; prereq freshman communication or equiv or grad status)

Roles of internal and external organizational communication, conflict-problem identification, and change processes. Contemporary theory and research in organizational development. Methods of problem identification and diagnosis. Change processes and applications to actual organizational settings.

5170. MANAGERIAL COMMUNICATIONS. (4 cr; prereq freshman communication or equiv or grad status)

Analysis of a manager's position in an organizational communication network. Focus on the possible forms, contexts, and functions of a manager's communication. Assessing and developing personal competence and confidence in managerial communication. Lectures, discussions, readings, experiential exercises, and field research.

5180. INTERNSHIP IN TECHNICAL COMMUNICATION. (2-6 cr; prereq Sci and Tech Comm or Tech Comm or grad student or #, Δ)

Gives technical communication majors on-the-job experience at the University or in industry or government.

5257. SCIENTIFIC AND TECHNICAL PRESENTATIONS. (4 cr; prereq 1222, 3562 or grad status or #)

Presentations for specific situations related to technical or scientific topics. Audience analysis and adaptation, techniques of support and visualization, organization for clarity and accuracy, and techniques of interpreting and answering questions. Students make and evaluate technical and scientific presentations. Emphasis on seminar reports and professional conference papers.

5258. INTERVIEWING: DYNAMICS OF FACE-TO-FACE COMMUNICATION. (4 cr)

Intrapersonal and interpersonal skills in interviewing situations. Students learn to understand and use appraisal, reprimand, complaint, persuasion, problem solving, and counseling interview techniques, and participate in a research interview project. Equal emphasis on the interviewer and interviewee roles.

5375. SPECIAL PROBLEMS: AGRICULTURE, ISSUES, AND VALUES. (3 cr; prereq sr, #)

A major, integrative paper based on the student's academic background and interests. Some aspect of the student's major field will be related to social, cultural, and historical trends in agriculture. Supplementary readings.

5400. COMMUNICATION PROGRAM PLANNING AND EVALUATION. (4 cr; prereq jr or sr or grad or work experience in communication)

Methods and process for planning and evaluating communication and information activities in organizations. Study of examples, materials, and resources for planning, budgeting, and assessment of organizational communication programs.

5500. RESEARCH IN COMMUNICATION STRATEGIES. (4 cr)

Fundamental terminology of descriptive and experimental research, communication research, questionnaire techniques, interviewing techniques, survey and experimental designs, the steps in organizing and conducting field and empirical research, and basic statistical and computer techniques. Emphasis on application of various research methods to particular communication strategies or settings.

5531. SCIENTIFIC AND TECHNICAL COMMUNICATION COURSE DEVELOPMENT: PHILOSOPHY AND METHODOLOGY. (4 cr; prereq 3562, STC/Tech Comm sr or grad status)

Reading, observation, and discussion of theories and methodologies as they relate to composition and to scientific and technical communication. Emphasis on learning to teach first-year college students written or oral persuasive strategies. Students practice assignment and course development, justification, and evaluation.

5532. SCIENTIFIC AND TECHNICAL COMMUNICATION COURSE DEVELOPMENT: MENTORED TEACHING. (2 cr; prereq 5531, STC/Tech Comm grads, or permission of instructor)

Students mentor with a faculty member and teach course units, prepare and evaluate course assignments, conduct conferences with student writers or speakers, and through observation and practice help oversee the educational process within an actual course.

5533. SCIENTIFIC AND TECHNICAL COMMUNICATION COURSE DEVELOPMENT: TEACHING SEMINAR. (1 cr; prereq 5332, STC/Tech Comm grads, or permission of instructor)

Usually concurrently with their first teaching assignments, students share observations and solve teaching problems within the seminar setting.

5541. READINGS IN SCIENTIFIC AND TECHNICAL PROSE. (2 cr; S-N only; prereq sr or grad status, Δ)

Tutorial in which students read selected books, essays, and reports exemplifying effective scientific and technical communication (actual scientific and technical discourse as well as philosophical and historical discussions about science and technology).

5551. REPORT AND THESIS WRITING. (3 cr; prereq 3562 or #)

For graduate students and seniors actually working on reports or theses. Organization of reports and theses; library investigation; presentation of data; methods of documentation. Emphasis on revision of manuscripts and improvement in style of writing.

5571. WRITING FOR SPECIAL PURPOSES. (2 cr; prereq Sci and Tech Comm or Pre-Sci and Tech Comm major, freshman communication, 3562 or #)

Analysis of and writing practice in a specific genre of practical writing. Content varies from quarter to quarter and includes policy statements, specialized forms, documents not covered in other writing courses.

5572. PROCEDURES AND POLICIES MANUAL. (2 cr; prereq Sci and Tech Comm or Pre-Sci and Tech Comm major, freshman communication requirement, 3562 or grad status or #)

Problem analysis, process management, gathering information, writing procedures, verification, constructing the finished manual.

5573. GRANT PROPOSAL. (3 cr; prereq Sci and Tech Comm or Pre-Sci and Tech major, freshman communication requirement, 3562 or grad status or #)

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.

5574. PUBLICATIONS MANAGEMENT. (3 cr; A-F only; prereq Agri 1200, Rhet 3562, 3572 or grad status)

Managing publications from initial manuscript to first publication. Scheduling, layout and design, liaisons with printers or authors, desktop publishing options, typography, processing illustrations, and copy fitting.

Course Descriptions

5575. NEWSLETTER. (3 cr; prereq Sci and Tech Comm or Pre-Sci and Tech Comm major, freshman communication requirement, 3562 or grad status or #) Newsletter design and production. Students learn to write and edit newsletter articles and gain hands-on experience in typography, graphic design, formatting, layout, and distribution procedures. They produce the *Tech Communicator* using Macintosh desktop publishing.

5581. DOCUMENT DESIGN. (4 cr; A-F only; prereq 3562, Sci and Tech Comm or Tech Comm sr or grad status, #)

Designing document to meet user's need, completing draft, and evaluating effectiveness. Forms and software documentation (user guides, reference manuals, tutorials, and input sheets) for databases, decision aids, computer-aided instruction, on-line programs, or visual displays. Mandatory lab time as part of project team of programmers, subject matter specialists, and communication specialists.

5592. COMMUNICATION IN TECHNOLOGICAL AND ENVIRONMENTAL IMPACT ASSESSMENT.

(4 cr; prereq sr or grad status, one course in stat, #) Theories and processes involved in technological assessment and environmental impact statement preparation. Case studies of technology assessments, forecasts, and environmental impact statements. Term project on process planning and project management in an actual impact assessment.

5600. TRANSFER OF TECHNOLOGY. (4 cr; prereq work experience in scientific communication or #)

Methods of transferring scientific and technical knowledge and practice. Review of research in diffusion and transfer methods at different technical levels. Tools, methodologies, and assessment procedures for managing a program. Assessment and design plan.

5700. RHETORICAL THEORY: PERSUASION AND THE LITERATURE OF SCIENCE. (4 cr)

Introduction to principles and history of rhetorical theory and criticism. Emphasis on classical theories, especially those of Plato and Aristotle. Practice of rhetorical criticism of contemporary communication, including scientific communication. Study of contemporary scholarship in the rhetoric of science and technical communication. (Meets concurrently with Rhet 3700)

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8100. INTRODUCTION TO SCIENTIFIC AND TECHNICAL COMMUNICATION

8110. THEORY AND RESEARCH IN AUDIENCE ANALYSIS

8120. READING AND WRITING PROCESSES AND THE TECHNICAL COMMUNICATOR

8180. DESIGN PROJECT

8210. THEORY AND RESEARCH IN MEDIA SELECTION

8258. INFORMATIONAL RESEARCH INTERVIEWING IN SCIENTIFIC AND TECHNICAL COMMUNICATION

8500. QUALITATIVE RESEARCH: STRATEGIES IN TECHNICAL COMMUNICATION

8510. THEORY AND PRACTICE IN DESIGNING MESSAGES

8777. THESIS CREDITS: MASTERS

Social Work (SW)

(*School of Social Work*)

1001f,w,s. INTRODUCTION TO SOCIAL WELFARE AND COMMUNITY SERVICES. (5 cr)

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.

3201. INTERVENTIONS WITH INDIVIDUALS AND GROUPS. (4 cr)

Application of social work skills and values to work with individuals and small groups, using an ecological framework.

3202. INTERVENTIONS IN COMMUNITY AND SOCIAL POLICY. (4 cr)

Application of social work skills and values to community organization, social action, and social problems, using an ecological framework.

3970f,w,s. DIRECTED STUDIES. (1-15 cr per qtr; prereq #)

Guided individual reading or study.

3990f,w,s. DIRECTED RESEARCH. (Cr ar; prereq #)

5010f,w,s. SEMINAR: SPECIAL TOPICS. (3 cr)

5013w. INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. (3 cr, §HSU 5001, §PubH 5013; prereq #)

Interpersonal, group communications with application to team health projects, organization, function, and membership. Emphasis on team leadership styles, professional roles and functions, active listening, giving and receiving feedback, and conflict resolution to enhance quality of project outcome.

5024f. MULTIDISCIPLINARY PERSPECTIVES ON AGING. (4 cr, §CPsy 5305, §Educ 5440, §HSU 5009, §Phar 5009, §PA 5671, §Soc 5960)

Multidisciplinary introduction to aging and the aging process.

5025. INTERNATIONAL SOCIAL WELFARE. (3 cr; prereq 1001 or #)

Role of international social welfare in meeting basic human needs and in promoting human rights, social justice, and peace; theories, models, and strategies of social welfare in different economic and political systems; emphasis on the Third World.

5026. MEDIATION AND CONFLICT RESOLUTION. (3 cr)

Students develop beginning skills as mediators and learn to make informed decisions regarding the appropriateness of mediation in divorce, neighborhood disputes, and conflicts between parents and adolescents, spouses, and crime victims and offenders.

5111f, w.s. CONTEMPORARY POLICY AND PROGRAMS IN SOCIAL WELFARE. (3 cr for grads, 4 cr for undergrads; prereq grad standing or 12 cr social sciences)

Concepts and principles of social policy for social welfare programs and services.

5211f, w.s. ADVANCED THEORIES OF HUMAN GROWTH AND CHANGE. (3 cr for grads, 4 cr for undergrads; prereq grad standing or 12 cr in social sciences)

Socio-psycho-biological factors associated with individual and group development as applied to social work practice.

5228s. RURAL ISSUES IN SOCIAL WORK PRACTICE. (3 cr)

Examination of practicing social work in rural environment. Rural service system, public policies affecting rural service delivery, and professional concerns.

5349f. SOCIAL WELFARE IN AMERICA. (3-4 cr, §Hist 5349)

Advanced survey of social services, public policies, and profession of social work—colonial era to present. Issues include dependency, deviancy, crime, social security, public health, social reform, and functions of public and voluntary institutions (charities, settlements).

5404. BEGINNING CHILD WELFARE PRACTICE. (3 cr for grads, 4 cr for undergrads; prereq 1001, 3005)

Exploration, organization, and application of knowledge about demands of child welfare practice. Analysis of and intervention in problems and cases; worker functioning.

5601f, w.s. ETHNOCULTURAL CONCEPTS IN SOCIAL WORK PRACTICE. (3 cr for grads, 4 cr for undergrads)

Relation of ethnocultural concepts to development of social welfare policies and services and social work practice. Common principles and cross-ethnic issues; significant orientations toward welfare issues and practices among American Indian, Asian American, black, and Hispanic groups. Contributions of each to effective interpersonal and intragroup relationships within the social service delivery system.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8010. FIELD INSTRUCTION I**8020. FIELD INSTRUCTION II****8030. FIELD INSTRUCTION IN SOCIAL WORK III****8102. POLICY ISSUES IN SOCIAL WELFARE: POLICY AND PROGRAM ISSUES IN CORRECTIONS****8104. CHILD WELFARE AND THE LAW****8121. SOCIAL POLICY AND DELIVERY SYSTEMS FOR FAMILY AND CHILDREN'S SERVICES****8122. HEALTH/MENTAL HEALTH POLICY****8130. SEMINAR: HISTORY OF SOCIAL WORK****8140. SEMINAR IN SOCIAL WORK EDUCATION****8150. SPECIAL TOPICS IN SOCIAL POLICY****8180. SOCIAL POLICY FORMULATION AND ANALYSIS****8203. FAMILY STRESS****8300. ORGANIZATIONS AND COMMUNITY SYSTEMS****8301. HUMAN SERVICES MANAGEMENT I****8305. COMMUNITY DEVELOPMENT****8307. HUMAN SERVICES MANAGEMENT II****8311. ISSUES AND INTERVENTIONS IN CHILD SEXUAL ABUSE****8350. PLANNED SOCIAL CHANGE****8400. SOCIAL WORK METHODS I****8401. SOCIAL WORK METHODS II****8402. SOCIAL WORK METHODS III****8406. SUPERVISION AND CONSULTATION IN SOCIAL WORK PRACTICE****8407. STRATEGIES OF FAMILY INTERVENTION****8408. DIRECT WORK WITH CHILDREN AND FAMILIES****8421. SOCIAL WORK PRACTICE: PSYCHOPATHOLOGY AND INTERVENTION****8422. SOCIAL WORK PRACTICE WITH THE CHRONICALLY MENTALLY ILL****8423. CHRONIC ILLNESS-IMPACT ON FAMILIES****8424. SOCIAL WORK WITH INVOLUNTARY CLIENTS****8425. TASK-CENTERED PRACTICE****8426. DOMESTIC VIOLENCE****8450. SPECIAL TOPICS: PRACTICE WITH INDIVIDUALS, FAMILIES, AND GROUPS****8461. THEORY AND MODEL DEVELOPMENT IN SOCIAL WORK****8888. THESIS CREDITS: DOCTORAL****8901. SOCIAL WORK RESEARCH METHODS****8902. DIRECT PRACTICE EVALUATION****8903. PROGRAM EVALUATION****8950. SPECIAL TOPICS IN SOCIAL WORK RESEARCH****8970. DIRECTED STUDY****8990. RESEARCH PROJECTS****8991. RESEARCH SEMINAR****8992. RESEARCH SEMINAR****8993. RESEARCH SEMINAR**

See additional School of Social Work courses under Youth Studies (YoSt).

Course Descriptions

Textiles and Clothing (TexC)

(Department of Design, Housing, and Apparel)

1211s (formerly 1641). INTRODUCTION TO RETAIL MERCHANDISING. (4 cr, §1641, §GC 1511)
Orientation to types of retailers; identification of and research of the retail consumer; retail functions, including management and merchandise control.

3203 (formerly 3003). FIELD EXPERIENCE IN APPAREL SCIENCES AND DESIGN. (1-3 cr, §3003; S-N only; prereq soph, HE 1003, #)
Planned work experience relating activity in business, industry, or government to the student's area of study. Written consent of faculty supervisor before registration is required.

3211 (formerly 1602). HUMAN BODY GARMENT INTERFACE. (4 cr, §1602)
Introduction to the relationship between garment design and human body needs throughout the life cycle. Anthropometric issues such as analysis of movements, changing body proportion, and differences in joint and muscle development affecting garment wearability.

3212. CULTURAL DIVERSITY IN DRESS. (3 cr, §3661; DHA 1001 or 1101, Soc 1001 or Anth 1002)
Understanding the function of dress in worldwide cultures. Environmental, physical, and social factors related to design of dress.

3213 (formerly 3664). FASHION TREND ANALYSIS. (4 cr, §3664; prereq jr or sr)
Factors that influence the acceptance or rejection of apparel and other textile products at the consumer level. Analysis of current trends and future projections.

3214s (formerly 1643). APPAREL INDUSTRIES. (4 cr, §1643; prereq AgEc 1101 or Econ 1101)
Production processes and interdependence of textile and related industries. Influence of current national and international trends on consumer demands as reflected in product development, merchandising, marketing, and distribution.

3215f (formerly 3603). APPAREL ANALYSIS I. (4 cr, §3603; prereq 3214 or 1643, 3216 or 3621)
Physical characteristics of components related to function in total garment. Analysis includes visual inspection of ready-to-wear garment quality.

3216 (formerly 3621). TEXTILE ANALYSIS. (5 cr, §3621; prereq soph, Chem 1002, Chem 1003 or Chem 1052 or #)
Basic physical, chemical, and biological characteristics of fiber, yarn, and fabric structures; interrelationship with choice, maintenance, and performance of consumer textiles.

3217 (formerly 3662). AESTHETICS OF CLOTHING. (3 cr, §3662; prereq Dsgn 1300 or 1501 or #)
Perception of design elements and artistic principles for clothing applied in specific laboratory problems.

3218. COMPUTER-AIDED DESIGN OF APPAREL. (4 cr; prereq 3221 or 3604, Dsgn 3232 or 3541)
An understanding of apparel technology and how it affects the design and manufacture of clothing using computer design and drafting systems.

3221s (formerly 3604). PATTERN DEVELOPMENT IN APPAREL DESIGN. (5 cr, §3604; prereq 1602 or 3211, 3217 or 3662)
Principles of pattern development, drafting, and draping for apparel design.

3241f,w (formerly 3643). MERCHANDISING PRINCIPLES. (4 cr, §3643; prereq 1211 or 1641, 3203 or 3003, Math 1131)
Principles and mathematics of merchandise inventory control and the merchandise selection process; includes a computer component.

3262f (formerly 3601). TAILORING. (4 cr, §3601; prereq demonstrated proficiency in clothing construction or #)
Principles of structuring tailored garments. Analysis of hand, machine, and fusing methods.

3263 (formerly 3663). WOMEN'S TEXTILE ARTS: AN HISTORICAL PERSPECTIVE. (3 cr, §3663)
Historical overview of women's involvement in textile arts in domestic environment of everyday life; aesthetic, economic, and social significance.

5203 (formerly 5003). FIELD EXPERIENCE IN APPAREL SCIENCES AND DESIGN. (1-4 cr, §5003; prereq completion of at least one-half of professional sequence and plan to be submitted and approved in advance by adviser and employer, #)
Supervised work experience relating activity in business, industry, or government to the student's area of study. Written consent of faculty supervisor before registration is required. Integrative paper required.

5211 (formerly 5622). ISSUES AND TRENDS IN TEXTILE CONSUMER PROTECTION. (3 cr, §5622)
Needs of the textile consumer for protection from deception and hazard; analysis of federal, state, and local legislation as well as voluntary industrial systems; case histories; change mechanisms.

5212 (formerly 5661). CLOTHING AND HUMAN BEHAVIOR. (4 cr, §5661; prereq sr or #)
Clothing in relation to individual and group behavior patterns; personal and social meaning attributed to dress; conventions and standards influencing clothing choice and use.

5213 (formerly 5621). ADVANCED TEXTILE ANALYSIS. (5 cr, §5621; prereq 5215 or 5631, 5254 or 5627)
Relating visual and tactile properties of textiles to microscopically and submicroscopically detectable physical and chemical characteristics.

5214 (formerly 5628). CHARACTERIZATION OF YARNS, WOVEN, AND KNITTED FABRICS. (3 cr, §5628; prereq 3216 or 3621)
Techniques of dimensional and structural characterization of yarns, woven, and knitted fabrics; the relationship of these characteristics to performance of such fabrics in textile products.

5215 (formerly 5631). TEXTILES FOR INTERIOR ENVIRONMENTS. (3 cr, §3622, §5631; prereq 3621)
Study of textiles for interiors with reference to fiber, yarn, construction, and finish.

5216 (formerly 5662) TEXTILE AND APPAREL CONSUMER. (3 cr, §5662; prereq 3216 or 3621, AgEc 1101 or Econ 1101 or #)

Textile and clothing problems, effects of psychological dispositions, socioeconomic condition, technology, and public/private policies.

5217 (formerly 5685). INTERNATIONAL TRADE IN TEXTILES AND APPAREL. (4 cr, §5685; prereq #)
Comparison of production, distribution, and consumption in the United States and Europe. Effects of world trade on supply and distribution.

5241 (formerly 3646). STRATEGIC MERCHANDISING. (4 cr, §3646; prereq 3241 or 3643, Mgmt 3001)
Elements of retail planning and control, including product sales and human resource development.

5242. MANAGERIAL DECISION MAKING. (4 cr, prereq 5241 or 3646)
Decision-making process in a variety of retail situations, including merchandise planning and management of sales and human resources.

5251. APPAREL ANALYSIS II. (4 cr, prereq 3215 or 3603, 3217 or 3662)

Laboratory procedures for evaluating the market quality of apparel. Specification development and quality assurance practices.

5252 (formerly 5624). TEXTILE COLORATION AND FINISHING. (5 cr, §5624; prereq 5213 or 5621)
Comprehensive survey of processes and operations for coloring and finishing textiles; development of a rational base for predicting hazard and performance in service and recycling, and a realistic limiting perspective for textile design.

5253 (formerly 5626). RECYCLING PROCESSES. (3 cr, §5626; prereq 5213 or 5621)
Principles and practices in recovery of initial appearance and properties of textile products; application to restoration of historic textile materials; water pollution by effluent from wet cleaning processes.

5254 (formerly 5627). PERFORMANCE EVALUATION: FABRIC AND GARMENTS. (3 cr, §5627; prereq 3216 or 3621)

Standard laboratory methods for rapid prediction of performances of textile fabrics and products.

5261 (formerly 5600). ADVANCED APPAREL DESIGN AND CONSTRUCTION PROBLEMS. (2-4 cr per qtr [max 12 cr], §5600; prereq 3216 or 3621, #)
Analytical study of and construction for advanced apparel design using draping and flat pattern techniques. Relating the latest technological developments in textiles to garment design.

5262 (formerly 5603). EXPERIMENTAL STUDIES IN APPAREL. (3-5 cr, §5603; prereq 6 cr in construction or teaching experience, #)
Study of selected procedures in areas of apparel production and design.

5263 (formerly 5623). THE DYEING MEDIUM AND COLOR. (3 cr, §5623; prereq Dsgn 3216 or 3621, Dsgn 1328 or 1528 or #)

Principles of dye selection for specific fibers; precision dyeing for exploring perceived color relationships and expanding the utility of this medium. (Extension or Summer School only)

5264 (formerly 5625). COLOR METROLOGY. (3 cr, §5625; prereq #)

Theory of color perception and measurement; analysis of color order systems; instrumentation; application to unambiguous numerical color specification and description of small color differences; noncolor components of surface appearance.

5265 (formerly 5630). PRINCIPLES OF TEXTILE METROLOGY. (3 cr, §5630; prereq #)

Metrology as a dynamic and vital adjunct of the distribution and use of textile materials. Test evaluation, development, and use; interpretation of results; data reduction; case studies; investigative metrology.

5266 (formerly 5668). ETHNIC DRESS. (3 cr, §5668; prereq 3212 or 3661, Anth 1102, Soc 1001 or #)

Sociocultural analysis of ethnic dress (apparel, accessories, and body modification) with emphasis on cultural patterns of technology, aesthetics, ritual, morality, and symbolism. External and internal influences encouraging change examined.

5280. DIRECTED STUDY IN APPAREL SCIENCES AND DESIGN. (1-4 cr [max 8 cr]; prereq #)

Independent study in apparel sciences and design under tutorial guidance.

For Graduate Students

(For descriptions, see *Graduate School Bulletin*)

8280. DIRECTED STUDY IN APPAREL SCIENCES AND DESIGN

8290 READINGS IN APPAREL SCIENCES AND DESIGN

8662. LITERATURE OF DRESS I

8663. LITERATURE OF DRESS II

8664. FASHION THEORY AND ANALYSIS

8666. AESTHETIC CONCEPTS RELATED TO APPAREL DESIGN

8667. THEORETICAL ORIENTATIONS IN CLOTHING AND HUMAN BEHAVIOR

8668. METHODOLOGICAL ORIENTATIONS IN CLOTHING AND HUMAN BEHAVIOR

Youth Studies (YoSt)

(*School of Social Work*)

3100F. INTRODUCTION TO YOUTH WORK. (3 cr)
Exploration of settings in which youth work is done—schools, informal education, juvenile justice, mental and physical health organizations, religious organizations. Key issues, policy and programmatic responses, roles and tasks of youth worker, and career patterns are discussed for each setting. (Day only)

Course Descriptions

5120f,w,s,su. INDEPENDENT STUDY IN YOUTH STUDIES. (Cr or [max 12 cr]; prereq #)

Independent reading and/or research under faculty supervision. (Day and Extension)

5130f,w,s. SPECIAL TOPICS IN YOUTH STUDIES. (3-5 cr per qtr [max 15 cr]; prereq dependent on specific topic)

In-depth investigation of one area of youth studies. Teaching procedure and approach determined by specific topic and student needs. Topic announced in advance; inquire for details. (Extension only)

5132s. EXPERIENTIAL LEARNING. (3 cr; prereq CPsy 3303 or #)

Purpose and models of experiential learning in schools and agencies serving youth. Emphasis on how to develop, implement, and evaluate such programs. (Day and Extension)

5133w. YOUTH AND HEALTH. (3 cr; prereq Soc 1001, CPsy 3303, PubH 3004 or #)

Basic course on the medical and health status of youth. Age-specific morbidity data with respect to youth. Introduction of youth development concepts for use in sociomedical and sociohealth problem analysis and program development. (Day only)

5201-5202-5203f,w,s,su. PRACTICUM. (4 cr per qtr; prereq 3100, 5330 or CPsy 3303, #)

Two-hour seminar and 12 to 15 hours of fieldwork each week. Students reflect on and integrate knowledge about youth with ongoing experience in work with youth. (Day and Extension)

5230f,s. WORK WITH YOUTH—INDIVIDUAL. (3 cr per qtr; prereq Soc 1001, Psy 1001, CPsy 3303 or #)

Examination of basic assumptions underlying work with youth. Emphasis on how adolescents, in particular, learn to get along with themselves. Special issues and concerns of adolescents and of persons who work with them. This first course in a three-quarter sequence emphasizes work on a one-to-one basis. (Extension only)

5231f,w. WORK WITH YOUTH-FAMILY. (3 cr per qtr; prereq 5230, FSoS 5200 or #)

Emphasis on how adolescents learn to get along with themselves and their role in the family. Theories and techniques of therapy with adolescents and their families; practical methods of structural change; developing effective communication, decision-making, and problem-solving systems; winning the family's cooperation; the role of the therapist in family therapy. (Extension only)

5232w,s. WORK WITH YOUTH—GROUP. (3 cr per qtr; prereq 5230 or #)

Helps practitioners with adolescents to: 1) increase knowledge and understanding of adolescent group needs and associations; 2) increase knowledge of group process; and 3) enhance skill in working with groups of adolescents in the community, group living situations, and group therapy. (Extension only)

5330f. CHILD AND ADOLESCENT PSYCHOLOGY FOR PRACTITIONERS. (3 cr; prereq courses in

educational psychology, child or adolescent psychology) Application of theory and research about children and adolescents, including how findings can be used and how theories facilitate understanding of behavior. (Day only)

5331w. YOUTH AGENCIES, ORGANIZATIONS, AND SERVICE SYSTEMS. (3 cr; prereq two courses in sociology/anthropology, work experience in youth agency or organization)

Overview of major forms of youth agencies, organizations, systems. Emphasizes sociopolitical structures, legitimacy, ideologies, goals, programs, services; staff, legal, ethical issues, youth participation. (Extension only)

5401. COMMUNICATING WITH ADOLESCENTS ABOUT SEXUALITY. (3 cr; prereq 6 cr social sciences, experience working with youth or #)

Sexual development and experience, emphasizing how adults can be comfortable to communicate more effectively with young people. Sexual patterns, variations, roles, power, exploration, sex education. (Extension only)

5711. INTRODUCTION TO CONSULTATION IN YOUTH WORK. (3 cr; prereq at least two courses in

sociology and/or anthropology, major in human services profession, some paid or voluntary experience in youth or other human services organization) Overview of major conceptual models for understanding consultation and analyzing range of foci (program development, research, program evaluation, and clinical cases). Role of both consultant and consultee. Emphasis more on learning about process than on learning how to do consultation. Ethical issues emphasized. (Day only)

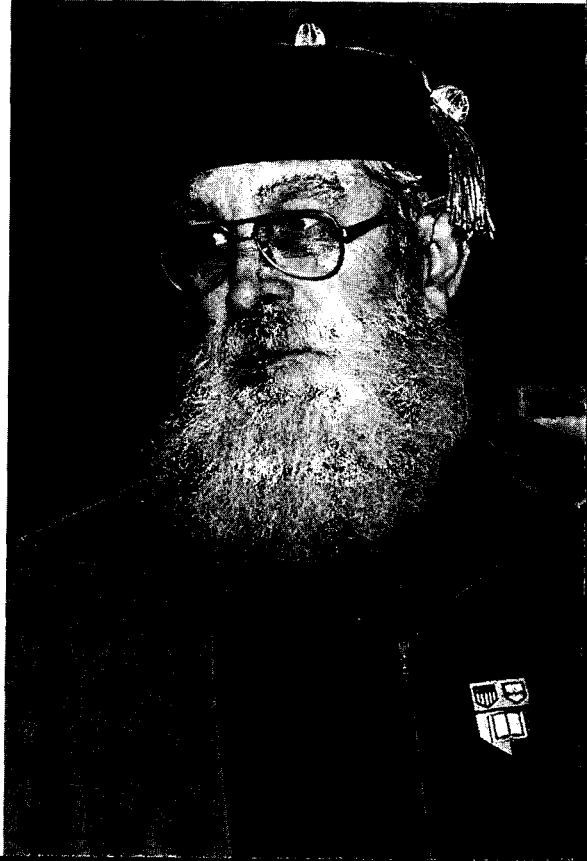
For Graduate Students

(For description, see *Graduate School Bulletin*)

8001-8002-8003. ADVANCED SEMINAR IN YOUTH STUDIES

College of Human Ecology

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Administration and Faculty

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Housing—Evelyn Franklin
Human Relationships: Family, Youth, and
Community—William Goodman
Interior Design—Delores Ginthner,
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Nutrition—Linda J. Brady

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Family Social Science

(290 McNeal Hall)

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¹Paul C. Rosenblatt
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Alcohol and Drug Counseling Education

Program

Philip Colgan
 Constance Fabunmi

Food Science and Nutrition

(225 Food Science and Nutrition)

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¹Recipient of the Horace T. Morse-Minnesota Alumni Association Award for Outstanding Contributions to Undergraduate Education

²General Mills Land-Grant Chair in Cereal Chemistry and Technology

³Kraft General Foods Chair in Food Science

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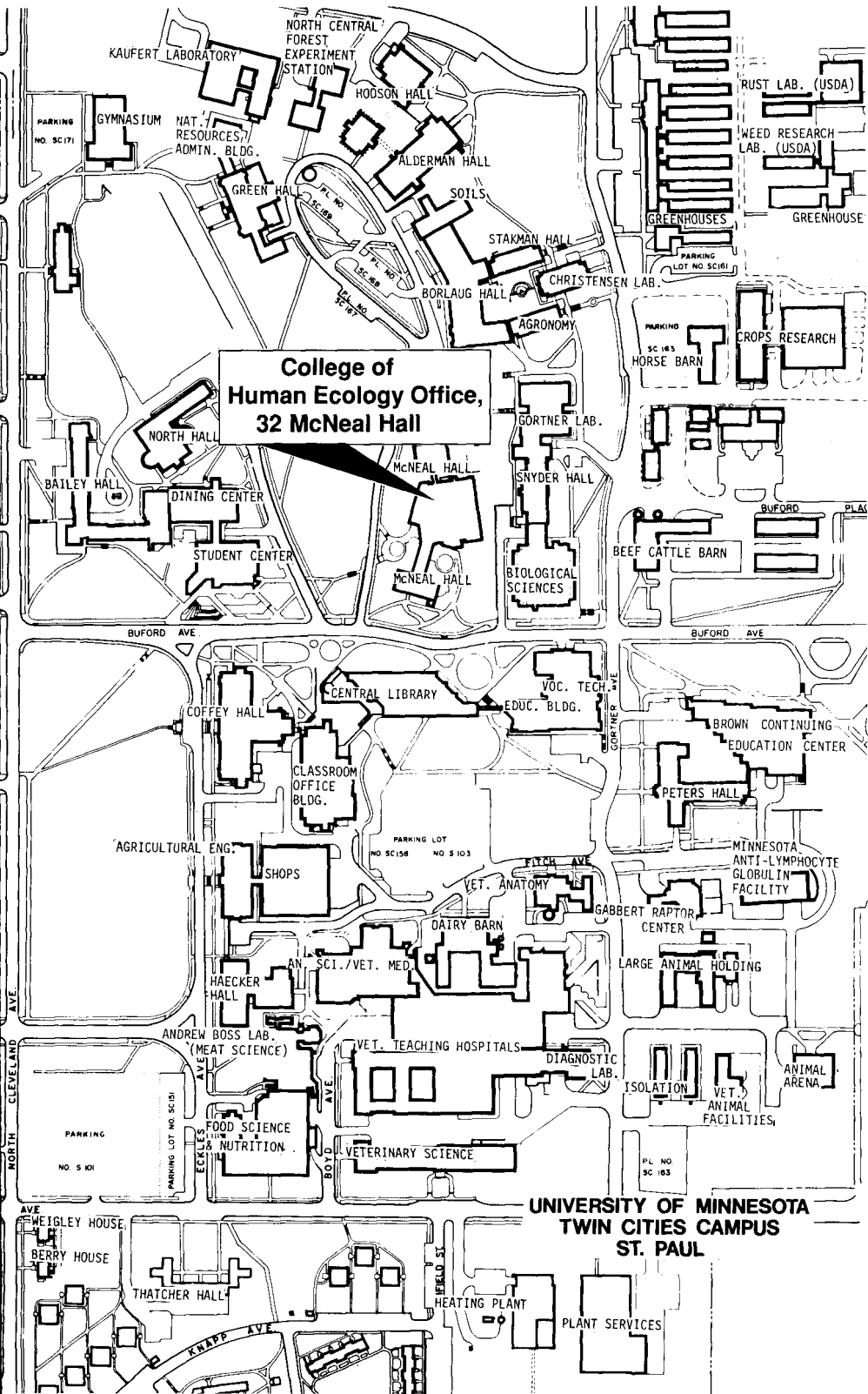
Coordinator and Instructor

Mary K. Burnison

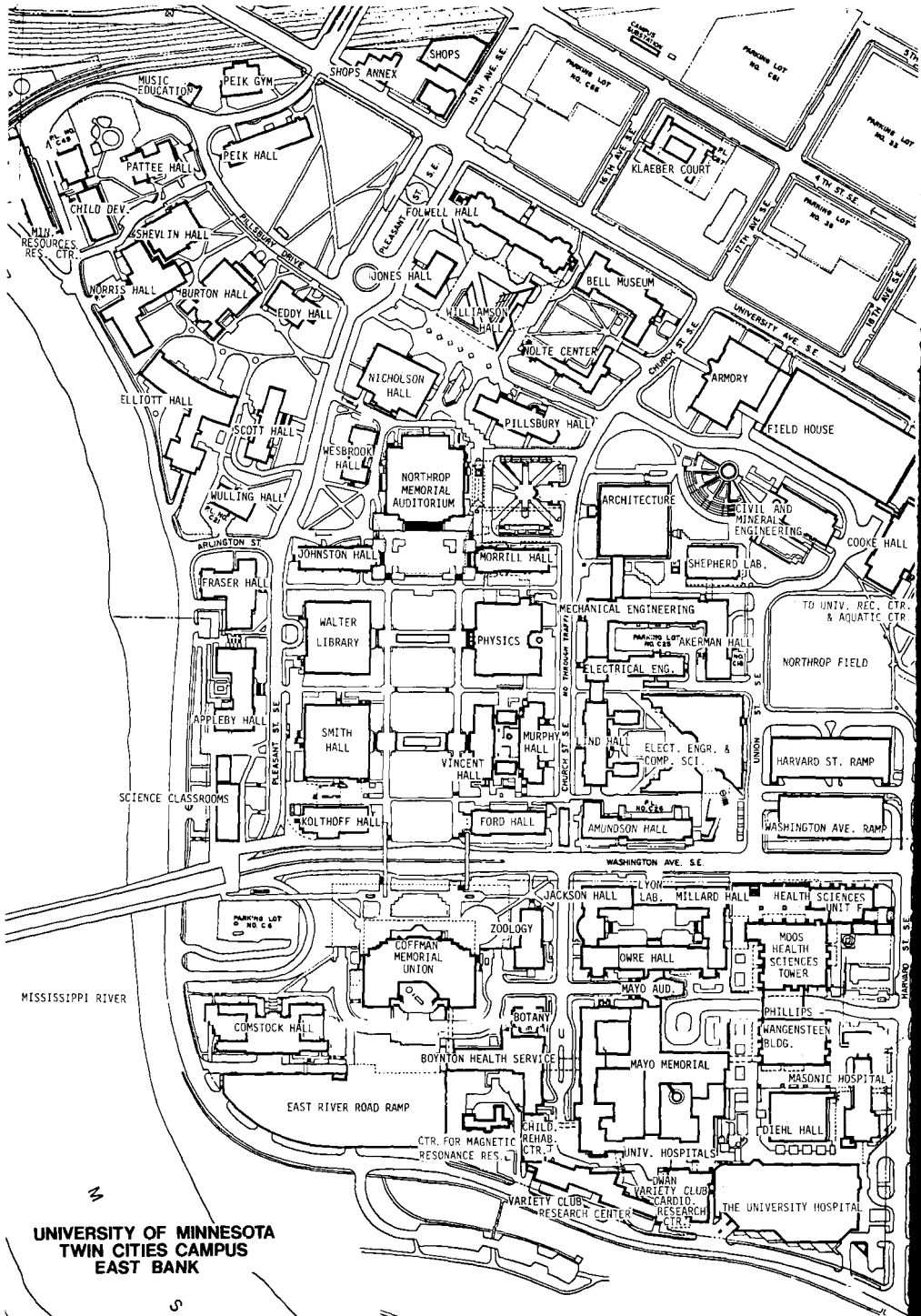
Nancy Johnston

Hugh Knox

Maura Sullivan

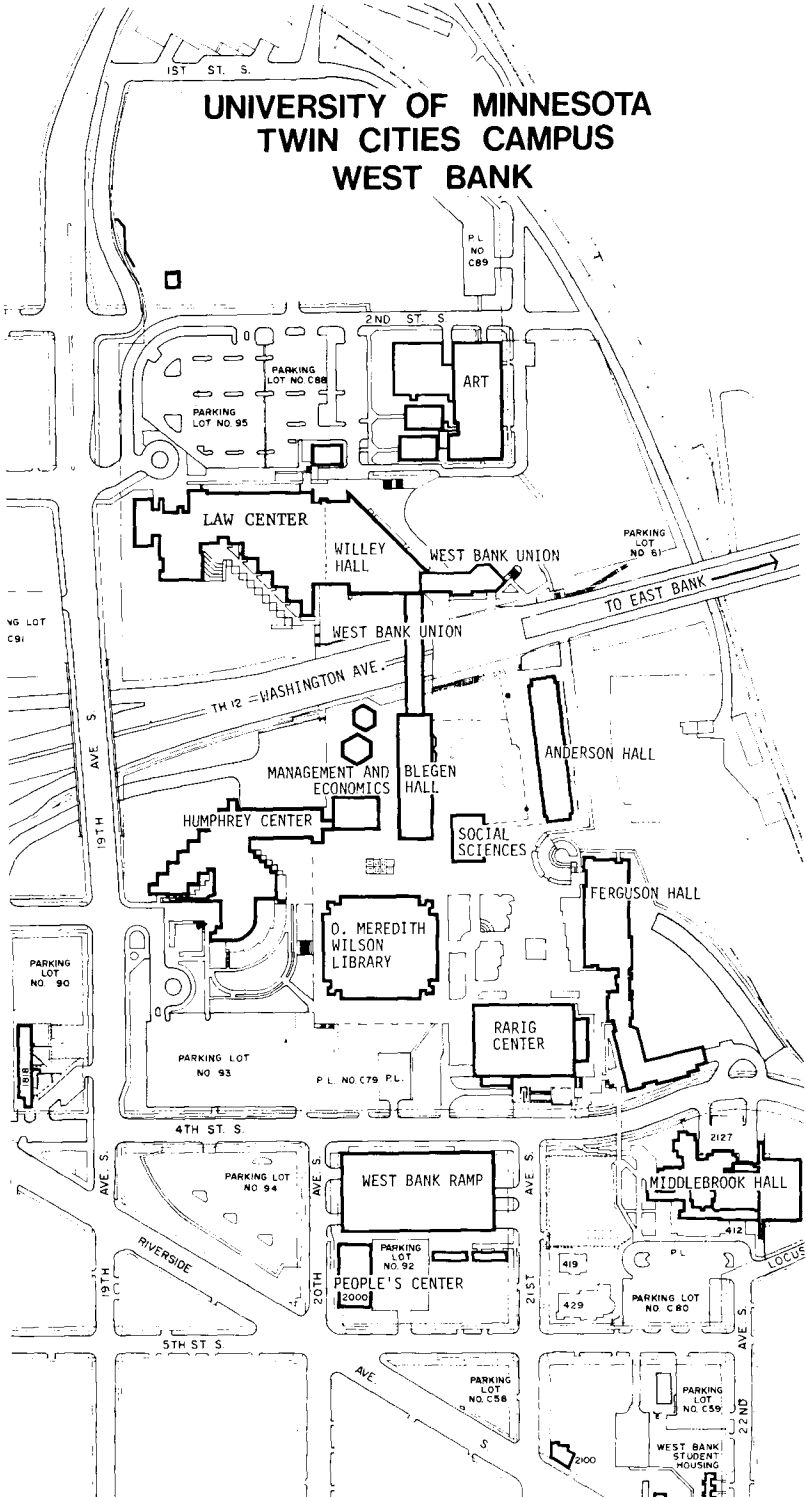


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