

ENG 691 (1-3) Colloquium

Advanced studies in language, literature, film, or theory. Permission required.

ENG 693 (2) Introductory Workshop for TA's

Introductory workshop in composition pedagogy for first-year teaching assistants.

ENG 694 (1-2) Alternate Plan Paper

Independent capstone experience, focusing on secondary research sources; paper may have other guidelines specific to the program option.

ENG 698 (1-6) Internship

On-site field experience, the nature of which is determined by the specific needs of the student's program option.

ENG 699 (1-4) Thesis

Independent capstone experience, guidelines of which are determined by the requirements of a particular program option.

ENVIRONMENTAL SCIENCES MS

College of Science, Engineering & Technology

Biological Sciences

242 Trafton Science Center S • 507-389-2786

Graduate Coordinator: Beth Proctor, Ph.D.

The Graduate Program in Environmental Sciences offers the student the opportunity for study in the areas of environmental quality, restoration and natural resources. These areas encompass a broad range of practical problems which cross the boundaries of applied natural sciences, mathematics, economics, management and law.

This program provides flexibility and a multidisciplinary basis. This is accomplished by drawing on the expertise from many departments at Minnesota State University, Mankato. The focus of research and/or teaching available in the Environmental Sciences Program includes: Environmental Monitoring, Environmental Toxicology, Environmental Microbiology, and Environmental Assessment.

The Master's Thesis Option is strongly encouraged, however, a non-thesis option is also available.

Admission. In addition to meeting the general admission requirements of College of Graduate Studies and Research, students must have completed the following courses with a minimum grade of C: One year of Chemistry, College Algebra, General Ecology, and Plant Science or Animal Diversity. Students lacking some of the admission requirements may be conditionally admitted to the program. Conditionally admitted students are given one academic year to complete coursework deficiencies.

Graduate Assistantships. Environmental Sciences is a Program in the Department of Biological Sciences. Graduate assistantships are available through the Department of Biological Sciences.

Occupational Outlook. There are diverse opportunities for employment in the area of environmental sciences. Numerous opportunities exist in environmental analysis and monitoring of environmental media (water, soil, air, indoor air, organisms, food, biological fluids, etc.). There are positions available in the regulation and monitoring of agricultural activities such as management of feed lots and septic systems; and in water planning on the county, regional, and state level. Moreover, there are positions in industrial (work place environment), data management, chemical evaluation, quality control and quality assurance and geographic information systems (GIS).

There is also a need for persons with Environmental Science coupled with emphasis in Business, Economics, Political Science, and/or Urban and Regional Studies.

Potential employers include the Environmental Protection Agency (EPA); U.S. Geological Survey; the Department of Agriculture; the Food and Drug Administration (FDA); other federal, state and local government agencies, as well as private industry. Many of these employers study chemicals to determine if they are harmful, their mode of action, how they move in the environment, and whether they are carcinogenic or teratogenic (causing cancer or birth defects). The Environmental Sciences Program works with the EPA, as well as other federal and state agencies, to secure grants which support faculty and graduate student research. These contacts may lead to internships and/or permanent employment opportunities for graduates.

Professional positions are usually available for persons with hands-on experience in analytical instrumentation used in the detection of environmental contaminants, environmental modeling, data management including quality control and quality assurance, and geographic information systems. Employment is often secured through contacts with advisors, industry, internships and other links between the

Environmental Sciences Program with state and federal agencies and institutions. Students also interview for jobs at meetings held by such professional organizations as the American Chemical Society. The Career Development and Counseling Center at Minnesota State University, Mankato is another source of job information and offers workshops that help students prepare credentials and interview skills.

Advising, Thesis Track (30 Credits). At the end of the first academic year the student should select a permanent advisor, an area of emphasis and a research thesis topic. The student with his/her advisor should select members from the graduate faculty to serve on the advisory committee. The advisory committee usually consists of 3-5 graduate faculty members. The advisory committee must include two members of the Department of Biological Sciences. The advisory committee is chaired by the student's advisor reviews and approves the coursework, research and thesis. A thesis will prepare students for the more technical fields or doctoral programs.

Advising, Alternate Plan Paper (34 Credits). At the end of the first academic year, the student should select a permanent advisor and an area of specialization. The student with his/her advisor should select members from the graduate faculty to serve on the advisory committee. The advisory committee usually consists of 3-5 graduate faculty members. The advisory committee must include two members of the graduate faculty from the Department of Biological Sciences. The advisory committee reviews and approves the student's course work and Alternate Plan Paper.

ENVIRONMENTAL SCIENCE MS**Required Core (16 credits)**

ENVR 540	Environmental Regulations (3)
ENVR 550	Environmental Pollution and Control (3)
ENVR 560	Analysis of Pollutants (4)
BIOL 510	Human Ecology (3)
ENVR 600	Environmental Assessment (3)

Required Environmental Science**Electives (6 credits)**

Choose **two** courses from the following:

URSI 604	Zoning & Legal Issues (3)
URSI 609	Applied Urban Analysis (3)
URSI 661	Long-Range & Strategic Planning (3)
URSI 662	Operational Planning (3)
GEOG 673	GIS For Planners (3)
GEOG 681	Environmental Issues (3)
POL 669	Public Policy Analysis (3)
POL 670	Urban Law (3)

Required Electives

The remaining coursework will be drawn from other programs across University offerings.

Required Thesis or Alternate Plan Paper

ENVR 694	APP (1-2)
ENVR 699	Thesis (3-6)

Additional Requirements:

A maximum of 9 credits can be taken of ENVR 600- level courses such as, independent study, internship, seminar, in-service, thesis and/or alternate plan paper. All courses must be approved (in advance) by the student's advisor and must be pertinent to the student's career goals. Independent study and internship credits from other programs **cannot** be used for electives in Environmental Sciences. Fifty percent of the coursework must be at the 600 level (excluding thesis and APP credits).

COURSE DESCRIPTIONS**ENVR 540 (3) Environmental Regulations**

This lecture course introduces students to major federal environmental statutes, including the Clean Water Act; Clean Air Act; Safe Drinking Water Act; Resource, Conservation and Recovery Act; CERCLA (Superfund); Federal Insecticide, Fungicide and Rodenticide Act; Toxic Substances Control Act; Endangered Species Act; and Food, Drug and Cosmetic Act. In addition, several state of Minnesota environmental statutes will be discussed.

(F)

ENVR 550 (3) Environmental Pollution & Control

This is a lecture course focusing on the sources and control of pollutants in air, soil, water, and groundwater. Hazardous waste treatment and the effects of pollutants on human health are also discussed.

(F)

ETHNIC AND MULTI-CULTURAL STUDIES

ENVR 560 (4) Analysis of Pollutants

This is a lecture/lab class designed to give students “hands-on” experience with various methods of environmental analysis coupled with the development of a research proposal. The class research project requires the collection and analysis of samples using methods approved by the Environmental Protection Agency. Quality control and Quality Assurance methods are emphasized.
(S)

ENVR 583 (1-2) Seminar

Each major will present a seminar on his/her research and also have the option to attend semester-long seminars on special topics.

ENVR 591 (1-2) In-Service

ENVR 600 (3) Environmental Assessment

This lecture course introduces students to the National Environmental Policy Act and requirements for Environmental Impact Statements and Environmental Assessment Worksheets at the federal and state level. Phase I Environmental Assessment of land and buildings, an International Perspective on Environmental Assessments, and Economic and Social Impact Assessment are also discussed.

ENVR 619 (2-3) Selected Topics in Environmental Science

ENVR 677 (1-6) Individual Study

Individual Research Project.
(F,S)

ENVR 694 (1-2) Alternate Plan Paper

(F,S)

ENVR 698 (1-12) Internship

Experience in applied Environmental Sciences according to a prearranged training program.
(F,S)

ENVR 699 (1-6) Thesis

(F,S)

ETHNIC AND MULTI-CULTURAL STUDIES MS

*College of Social & Behavioral Sciences
Department of Ethnic Studies
109 Morris Hall • 507-389-2798*

Chair: Yueh-Ting Lee, Ph.D.

Wayne Allen, Ph.D.; Hanh Huy Phan, MS; Yueh-Ting Lee, Ph.D.; Joann Quinones-Perdomo, Ph.D.; Luis Posas, Ph.D.

The Department of Ethnic Studies, an interdisciplinary program, is academically committed to promoting multicultural and ethnic knowledge, values, and skills both within and outside the United States and to preparing our students for effective functioning across the culturally diverse and global community. The Ethnic and Multi-Cultural Studies Program (EMCS) with an MS degree is offered to meet the diverse needs of students concerning scholarly academic work, practical application of knowledge and personal growth. Our EMCS graduate program will provide students with multi-ethnic and cross-cultural knowledge, values, and skills from American and global perspectives.

First, students will gain factual knowledge by taking courses focusing on different ethnic, racial, and cultural groups as well as discrimination, immigration, stereotypes, and other important issues. Second, they will learn how to understand and appreciate the different values and beliefs each cultural or ethnic group has. Third and most importantly, students in this program will be expected to gain the following skills – e.g., (a) research skills, writing skills, and/or computer/statistical analysis skills, (b) human resources management and leadership skills, (c) counseling skills, and (d) cultural competency skills or cross-cultural training, and diversity management skills. There is a strong emphasis on competency in applied skills because advocacy must have practical application as its foundations to be credible.

Admission requirements:

1. An undergraduate GPA of at least 3.0 on a 4.0 scale;
2. A baccalaureate degree from an accredited college or university;
3. At least 9 credits in ethnic and cross-cultural areas. This requirement may be waived if the applicant can show relevant work (related to other social sciences) or other experiences that provide the necessary background to pursue graduate work in EMCS;

4. Have knowledge of or skills in two languages (i.e., English plus preliminary level of another language – i.e., six credits of undergraduate language courses), but this may be subject to arrangement and discussion between the applicant and the Department); and
5. When students do not meet the normal admission requirements, they may be recommended for admission by the department subject to removal of deficiencies or other conditions.

Credits

Thesis Plan – 33 credits

Alternate Plan Paper – 34 credits

Required Core from the following (15 credits, 12 credits must be 600 level):

ETHN 500 Cultural Pluralism (3) **OR**
ETHN 510 Foundation of Oppression
ETHN 502 Ethnic Research Method/Skills (3) **OR**
ETHN 501 Applied Cultural Research **OR**
ANTH 531 Applied Cultural Research
ETHN 603 Seminar in Ethnic/Cross-Cultural Studies (3) **OR**
ANTH 603 Seminar in Applied Anthropology
ETHN 650 Helping Across Culture (3) **OR**
CSP 648 Counseling in a multicultural society)
ETHN 660 Cross-Cultural Training and Diversity Management (3)
ETHN 695 Ethnic-Race Implications (3)
ETHN 697 Internship (1-6)

Required supporting core (9 credits) – one course from each of three groups. Two courses must be on the 600 level*

Group 1. Choosing one of the following research courses:

ANTH 602 Seminar in Research Method (3)
POL 600 Research Method (3)
PSY 610 Research Design and Statistics (4) **OR**
GEOG 576 Spatial Statistics (3)*
SOC 605 Seminar in Sociological Research (3)
WOST 620 Feminist Research (3)

Group 2. Choosing one of the following HR management/leadership courses:

EDAD 644-03 Seminar on leadership studies (3) **OR**
EDAD 668 Human Resources Management (2) **PLUS**
EDAD 669 Human Resources Topics (1)
POL 662 Human Resources Management (3)
PSY 563 Survey of Industrial/Organizational Psychology (4)*
URSI 650 Urban Administration Services (3)

Group 3. Choosing one of the following counseling courses:

CSP 665 Counseling Theories (3) **OR**
CSP 571 Interpersonal Helping Skills (3)* **OR**
CSP 618 Introduction to Professional Community Counseling (3)
REHB 640 Theories in Rehabilitation (3) **OR**
REHB 651 Rehabilitation Counseling Techniques (3)
PSY 683 Behavioral Assessment (4)

Required Electives (6-9 credits)

ETHN 520 African American Studies (3)
ETHN 530 American Indian Studies (3)
ETHN 540 Asian American Studies (3)
ETHN 550 Latino/Hispanic Studies (3)
ETHN 560 Urban Minority Problems (3)
ETHN 570 Women of Color (3)
ETHN 580 Social Justice in Ethnicities and Gender (3)
ETHN 586 Racial and Ethnic Politics (3)
ETHN 590 Racial/Ethnic Families in the U.S. (3)
ETHN 595 Selected Topics (3)
ETHN 630 Liberation Theory (3)
ETHN 640 Environmental Justice (3)
ETHN 696 Individual Studies (3)*

Required Written Comprehensive and Oral Exam plus thesis or APP

ETHN 698 Alternate Plan Paper (1-2)
ETHN 699 Thesis (3-6)

At least 18 credits (or 6 courses) must be 600 level, excluding APP or thesis. Students are allowed to take only ONE 500 level as part of their supporting cores in Part II. If they take a 500 level (see) in Part II as a supporting core in part II, students must take ETHN 696 – Individual Studies (see *) in their required electives in Part III.