
Pre: ME 323, 324

612 (3) Reinforced Polymers

Mechanics, materials analysis, fabrication, characterization, performance of Reinforce Polymers.

Pre: ME 303

623 (3) Experimental Stress Analysis

Review of elastic stress-strain relationships; application of fundamental concepts of static and dynamic strain measurements by electrical means; theory and use of resistance gages, strain gage circuits and recording instruments; rosette analysis.

Introduction to phototlasticity.

Pre: ME 323

633 (3) Dynamics of Ground Vehicles

Theory and engineering principles of non-guided ground vehicles, both road and off-road. Analysis and evaluation of performance characteristics, handling behavior and ride quality. Emphasis is on fundamental principles and a unified method of approach to the analysis of various types of ground vehicles.

Pre: ME 341

640 (3) Advanced Design of Mechanical Devices

Systematic design of mechanisms, the creation of force functions, mechanisms with two or more degrees of freedom, systematic development of adjustable mechanisms, methods to achieve high speed in automatic machines.

Pre: ME 327

651 (3) Transport Phenomena

A survey of the transport of momentum, energy, and mass. Continuum approach. Equations of change. Applications.

655 (3) Advanced Fluid Mechanics

Detailed analysis of incompressible fluids, viscous/inviscid, laminar/turbulent and developing flows.

Pre: ME 321

665 (3) Combustion

Thermodynamics and chemical kinetics of combustion. Structure, propagation, and stability of flames. Environmental aspects.

Pre: ME 321, 329

669 (3) Advanced Energy Systems

Advanced selected topics in energy conversion, theory, design and applications. Individual projects dealing with various aspects of advanced energy systems and associated energy sources.

Pre: ME 324, 329

672 (3) Conduction Heat Transfer

Analytical and numerical techniques for analysis of problems involving steady-state and transient heat conduction in solids.

Pre: ME 324

677 (1-6) Individual Study

691 (4) In-Service

694 (1) Alternate Plan Paper Research

699 (1-4) Thesis

ENGLISH MA

ENGLISH EDUCATION MS

CREATIVE WRITING MFA

(DISCIPLINE-BASED)

College of Arts & Humanities

English Department

230 Armstrong Hall • 507-389-2117

Chair: Anne O'Meara, Ph.D.

Director of Graduate Study: Donna R. Casella, Ph.D.

John Banschbach, Ph.D., Suzanne Bunkers, Ph.D., Donna Casella, Ph.D., Terry Davis, MFA, William Dyer, Ph.D., Tina Edstam, Ph.D., Terrance Flaherty, Ph.D., Gwen Griffin, Ph.D., Kathy Hurley, Ph.D., Mary Susan Johnston, Ph.D., Danald Larsson, Ph.D., Nancy Mackenzie, DA, JoAnna Mink, D.A., Roland Nord, DA., Lisa Norris, MFA., Anne O'Meara, Ph.D., Dave Popowski, Ph.D., Kay Puttock, Ph.D., Richard Robbins, MFA, Roger Sheffer, D.A., Louisa Smith, Ph.D., Harry Solo, Ph.D., Stephen Stoyhoff, Ph.D., Richard Terrill, MFA

English at Minnesota State University offers five graduate programs; each is designed to meet the needs of a particular audience, so each has its own entrance requirements, curriculum, reading list, comprehensive examination format, and thesis/alternate plan requirements. It is important that prospective students discuss which program best meets their needs with the department chair, the department director of graduate study, or the individual program director. Students may begin work any semester in any of the programs, except in the M.F.A. in Creative Writing, which admits each Fall.

Graduate Assistantships. Graduate teaching assistantships are available during the academic year to full-time students. Assistants receive \$8,000 over two semesters and full tuition remission for up to 18 credits. For more information, contact the Department of English.

CREATIVE WRITING MFA

Contact: Richard Robbins, MFA

(Thesis Plan - 48 cr)

The M.F.A. program in Creative Writing meets the needs of students who want to strike a balance between the development of individual creative talent and the close study of literature and language. Candidates in the program will find it appropriate training for careers in freelance writing, college-level teaching, editing and publishing, arts administration, and several other areas.

Admission. Application Deadline: February 1. Applicants must submit a writing portfolio (10 pages of poetry or 20 pages of prose) and a 1-2 page personal statement directly to the English Department, Creative Writing Program. To enter the program without deficiency, candidates must have the equivalent of at least a minor in English (language, literature, linguistics). Students who enter with a small number of deficiencies may be allowed to make them up within their graduate program. Candidates whose native language is not English must have a TOEFL score of 550 or above. The GRE is not required for this program.

Research (2 cr)

ENG 672 Research and Publication in Creative Writing (2)

**Writing Seminars/Workshops
(minimum 12 cr)**

Choose 12 credits from the following:

ENG 542 Advanced Prose Nonfiction Writing (4)
ENG 543 Advanced Fiction Writing (4)
ENG 544 Advanced Poetry Writing (4)
ENG 546 Screenwriting (4)
ENG 594 English Workshop (4)
ENG 642 Seminar: Prose Nonfiction Writing (3)
ENG 643 Seminar: Fiction Writing (3)
ENG 644 Seminar: Poetry Writing (3)
ENG 649 Topics in Creative Writing (1-3)

Form and Technique (6 cr)

ENG 696 Form & Technique in Prose (3)
ENG 697 Form & Technique in Poetry (3)

Contemporary Genres (6 cr)

ENG 646 Contemporary Prose (3)
ENG 647 Contemporary Poetry (3)

Career Related (6 cr)

Choose 6 credits from the following:

ENG 516 Film Criticism (4)
ENG 541 Literary Criticism (4)
ENG 545 Advanced Critical Writing (4)
ENG 574 Research and Writing Technical Reports (4)
ENG 575 Editing Technical Publications (4)
ENG 577 Technical Documentation, Policies, and Procedures (4)
ENG 625 College Composition Theory (3)
ENG 649 Topics in Creative Writing (1-3)
ENG 680 Topics in Computer-Assisted Writing (3)
ENG 687 Theory and Practice of Translation (3)
ENG 690 Workshop for Teaching Assistants (1)
ENG 693 Introductory Workshop for Teaching Assistants (2)
ENG 698 Internship (1-8)

Electives (maximum of 12 cr)

Choose any three 600 level literature courses selected in consultation with an advisor.

Thesis

ENG 699 Thesis (4)

Additional Requirements:

All courses must be in English with the exception of those specifically approved by the Graduate Committee in English; 60% of all coursework must be taken at the 600 level. Students must take a two-part written examination based on a reading list. Students also are required to present a reading/oral defense as part of their thesis project, a book-length collection of writing in the student's chosen genre.

ENGLISH MA

TECHNICAL COMMUNICATION OPTION

Contact: Dr. Nancy MacKenzie
(Thesis Plan - 30 cr)
(Alternate Paper Plan - 34 cr)

Students choosing this option will find the degree prepares them to be professional information developers, technical writers, and editors who are skilled at using the written and spoken word, along with visuals, to effectively inform and instruct a wide range of audiences.

Entrance requirements include at least 18 semester hours in one or more of the following areas: literature, linguistics, speech communication, or mass communications. Candidates whose native language is not English must have a TOEFL score of 550 or above. The GRE is not required for this program.

Technical Communication (20 cr)

ENG 575 Editing Technical Publications (4)
ENG 577 Technical Documentation, Policies and Procedures (4)
ENG 673 Research and Theory for Technical Communicators (3)
ENG 678 Technical and Scientific Prose (3)
ENG 679 Topics in Technical Communication (3)
ENG 680 Topics in Computer-Assisted Writing (3)

Electives (3-10 cr)

Choose any 5/600 level English or related course, selected in consultation with an advisor.

Internship (3)

ENG 698 Internship (3)

Thesis or Alternate Plan Paper (1-4)

ENG 699 Thesis (3-4)
ENG 694 Alternate Plan Paper (1-2)

Additional Requirements:

The degree requires that 50% of all coursework must

be taken at the 600 level. Students also must demonstrate reading knowledge of a modern language or demonstrated competence in a computer programming language, and take a two-part written examination reflecting command of both theory and practical application. An oral defense is required of thesis writers.

LITERATURE OPTION

Contact: Dr. JoAnna Mink
(Thesis Plan - 30 cr)

Students choosing this option will find the degree appropriate preparation for doctoral work in English, for community college and private school teaching, and for entrance into advanced professional programs of study.

Entrance requirements include a minimum of 30 semester credit hours earned in language, literature, or related courses. Twenty credits should have been earned in upper-division courses. It is highly recommended that candidates have three credits in a major figure and an upper-level linguistics course. Students may be granted provisional admission with deficiencies. Candidates whose native language is not English must have a TOEFL score of 550 or above. The GRE is not required for this program.

Successful applicants who have not taken an upper-division theory/criticism class before entering are required to take a graduate-level theory course the Department of English (Literary Criticism or Film Criticism) as part of their program.

Literature/Film/Theory (15 cr)

ENG 650 Bibliography and Research in Literature (3)

Choose four courses from the following:

ENG 603 Seminar: Selected Authors (3)

ENG 605 Seminar: Shakespeare (3)

ENG 608 Seminar: British Literature to 1800 (3)

ENG 609 Seminar: British Literature after 1800 (3)

ENG 610 Seminar: American Literature to 1865 (3)

ENG 611 Seminar: American Literature after 1865 (3)

ENG 612 Seminar: Women in Literature (3)

ENG 635 Seminar: World Literature (3)

Electives (11-12 cr)

Choose any of 5/600 level English courses, selected in consultation with an advisor.

Thesis

ENG 699 Thesis (3-4)

Additional Requirements:

All courses in the student's master's program must be in English with the exception of courses specifically approved by the literature faculty and the Graduate Committee in English. Of the 30 credits required for

the master's degree, 20 must be at the 600 level. Students must take comprehensive examinations at the end of their program and orally defend the thesis. By the end of the program, the student is expected to demonstrate reading knowledge of a modern language by coursework or by examination. Two years of a modern language is generally sufficient to satisfy this requirement.

TEACHING ENGLISH AS A SECOND LANGUAGE (TESL) OPTION

Contact: Dr. Harry Solo
(Thesis Plan - 30 cr)
(Alternate Plan Paper - 34 cr)

Students choosing this option will find the degree appropriate preparation for teaching English as a second language, program administration, curriculum consulting, and publishing and materials development. It is designed for both native and non-native speakers of English.

To enter the program, students must have an undergraduate major or minor in a relevant field (for example, English, linguistics, or a modern language other than English). Candidates in the TESL track who are native speakers of English must have a minimum of two years of a foreign language at the college level. This language requirement for native speakers may be met in residence, but courses taken to fulfill them will not count toward the degree. Candidates whose native language is not English must have a TOEFL score of 550. The GRE is not required for this program.

This is an interdisciplinary program with required coursework in English and Modern Languages. It is also possible to earn certification in teaching English as a second language in grades K-12. For Master's candidates with an undergraduate licensure degree, the MA in TESL includes most of the courses needed for TESL certification. See the Department of Modern Languages for details.

Required TESL core (18 cr)

ENG 626 Bibliography and Research in TESL (3)

MODL 570 Theories and Methods of TESL I (4)

MODL 571 Theories and Methods of TESL II (4)

ENG 582 English Phonetics and Grammar for TESL (4)

ENG 686 Programming Development for Testing in TESL (3)

Linguistics and TESL Topics (9-11 cr)

Choose 3 courses from the following:

ENG 581 History of the English Language (4)

ENG 585 Language and Culture in TESL (4)

ENG 623 Language and the Teaching of English (3)

ENG 631 Language Planning and Language

		Policy (3)
ENG	632	Bilingualism and Second Language Contact (3)
ENG	633	Psycholinguistics and Second Language Learning (3)
ENG	634	Topics in TESL (3)
ENG	682	English Grammar (3)
ENG	684	Sociolinguistics (3)
ENG	685	Materials for TESL (3)
ENG	687	Theory and Practice of Translation (3)
ENG	689	Studies in English Linguistics (3)
C&I	517	Teaching Reading to ESL Students (3)
MODL	560	Modern Language Teaching Methods (4)

Electives (0-6 credits)

Elective courses are selected in consultation with an advisor from offerings in English, Modern Languages, Psychology, History, Political Science, Education, Anthropology, and Ethnic Studies, among other departments.

Thesis, Alternate Plan Paper or Research Seminar

ENG	699	Thesis (3-4)
ENG	694	Alternate Plan Paper (1-2)
ENG	627	Research Seminar (3)

Additional requirements:

The degree requires that 50% of all coursework be taken at the 600 level. Students must also pass a comprehensive examination based on coursework and a reading list. An oral presentation of the thesis will normally be required as well.

ENGLISH EDUCATION MS (DISCIPLINE-BASED)

Contact: Dr. John Banschbach
(Thesis Plan - 30 cr)
(Alternate Plan Paper - 34 cr)

The MS in English Education is designed for teachers of English language arts, curriculum directors, and department chairpersons. This program combines formal study of language, composition, literature, and professional education with individual reading and research. In the program, teachers and administrators develop a course of study appropriate to their individual professional goals.

Teaching licensure in the language arts is a prerequisite for this degree. This degree does not lead to initial teaching licensure. Students who desire initial licensure should consult the Master of Arts in Teaching (MAT.) program. An MAT. with an emphasis in English is available. Please see the section concerning the MAT. program listed in this bulletin.

Coursework for the degree includes 3 semester credits in Professional Education in addition to EDFN 600. Please consult the general description of the Master of Science Degree at the beginning of the Graduate Bulletin for a list of courses in Professional Education that

may be used.

Research (3 cr)

ENG	600	Introduction to Educational Research
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Linguistics (3-4 cr)

ENG	581	History of the English Language (4)
ENG	582	English Phonetics and Grammar for TESL (4)
ENG	585	Language and Culture in TESL (4)
ENG	623	Language and the Teaching of English (3)
ENG	631	Language Planning and Policy (3)
ENG	632	Bilingualism and Second Language Contact (3)
ENG	633	Psycholinguistics and Second Language Learning (3)
ENG	682	English Grammar (3)
ENG	684	Sociolinguistics (3)
ENG	687	Theory and Practice of Translation (3)
ENG	689	Studies in English Linguistics (3)

Literature Methodology (2-4 cr)

ENG	525	Topics in Children's Literature (2-4)
ENG	563	Adolescent Literature (2)
ENG	564	Teaching Literature in the Middle School (3)
ENG	661	Topics in Children's and Young Adult Literature (3)

Other coursework in English (6-16)

Graduate-level courses focused on teaching English include, but are not limited to, the following list: Children's Fantasy, Composition Theory, Workshop for Teaching Assistants, Teaching Creative Writing, Writing for Children, Teaching Writing, Topics in Computer-Assisted Writing, Language and the Teaching of English, and Children's Literature in Britain (a three-week course conducted in England).

Each semester the Department of English offers several other graduate-level courses in language study, creative writing, and British, American and World Literature. Most of these can be taken as part of a student's regular program.

Professional Education (6 cr)

Choose any 5/600 level Professional Education course (excluding EDFN 600) in consultation with an advisor.

Related Study (6 cr)

Choose any 5/600 level related course outside of English and Professional Education.

Research Project (1-4 cr)

ENG	694	Alternate Plan Paper (1-2) OR
ENG	699	Thesis (3-4)

Additional Requirements:

The degree requires that 50% of all coursework be taken at the 600 level. Students must take a three-part written examination on issues in English education, education, and the student's chosen specialty.

COURSE DESCRIPTIONS

500 (4) Chaucer

Readings in the major works of Chaucer, including The Canterbury Tales and Troilus and Criseyde.

501 (4) Milton

Study of Milton's development as a poet and prose writer, from his minor poetry to Paradise Lost, Paradise Regained, Samson Agonistes, Areopagitica, and selections from On Christian Doctrine.

502 (2-4) Women in Literature

Selected topics course on literature by and about women.

503 (2-4) Selected Authors

Content changes. May be repeated.

516 (4) Film Criticism

Trends in film theory and criticism. Practice in critical analysis.

525 (2-4) Topics in Children's Literature

Topics in genres such as fantasy and historical fiction and thematic topics such as survival or journeys. May be repeated with different subject matter.

526 (2-4) Selected Periods

Selected periods of literary study.

532 (2-4) Selected Studies in the Novel

Content changes. May be repeated.

535 (2-4) The World Novel

A study of selected novels from a variety of time periods and cultures, including Eastern and Western Europe, Asia, Africa, and Latin America.

541 (4) Literary Criticism

Theories of literature and its production and use.

542 (4) Advanced Prose Nonfiction Writing

Advanced workshop in writing personal essays and literary journalism.

Pre: Writing course or consent of instructor

543 (4) Advanced Fiction Writing

An advanced course in writing short stories and novels.

Pre: Writing course or consent of instructor

544 (4) Advanced Poetry Writing

An advanced course in writing poems.

Pre: Writing course or consent of instructor

545 (4) Advanced Critical Writing

An advanced course in writing critical essays.

Pre: Writing course or consent of instructor

546 (4) Screenwriting

Introduction to writing for the screen.

Pre: Writing course or consent of instructor

563 (2) Adolescent Literature

Motivation and interests of and materials for adolescent readers.

564 (3) Teaching Literature in the Middle School

Survey of books suitable for the Middle School classroom, covering a variety of topics and genres.

571 (4) Visual Technical Communication

Analysis and training focused on concepts and practices of visual design as they relate to technical and professional communication.

572 (4) Topics in Technical Communication

Topics in theory and practice of technical communication. Hands-on course which implements the theories discussed. May be repeated with different subject matter.

573 (4) Desktop Publishing

Overview of publishing and typography, conventions of desktop publishing, and hardware and software application tools for desktop publishing. Students need not have prior experience with DTP, but some word processing and microcomputer experience will be helpful. Course will meet in both PC and Macintosh labs.

574 (4) Researching and Writing Technical Reports

Practice in writing various types of reports for a variety of purposes and audiences. Includes study of primary and secondary research methods.

Pre: Eng 271 or equivalent

575 (4) Editing Technical Publications

Editing the content, organization, format, style, and mechanics of documents; managing the production cycle of documents, and discovering and learning microcomputer and software applications for technical editing tasks.

576 (4) On-line Documentation

Introduction to the conventions and strategies for publishing on-line documentation and for managing on-line documentation projects. Topics include analyzing users and tasks, designing and writing documents to be published on-line, testing on-line documents, and managing on-line documentation projects.

577 (4) Technical Documentation, Policies, and Procedures

Creating both on-line and hard copy documentation for products, with emphasis on computer software and hardware documentation for users. Attention also to policies and procedures as written for a range of uses, e.g. employee handbooks, manufacturing processes, and usability testing.

581 (4) History of the English Language

The development of English from its origins as a dialect of Proto-Indo-European to its current form, with consideration of its social history as well as its formal development.

582 (4) English Phonetics and Grammar for TESL

The English sound system and English sentence structure studied for the purpose of discovering how they can be taught to students of English as a second or foreign language.

585 (4) Language and Culture in TESL

A consideration of the cultural issues encountered by teachers of English as a second or foreign language in the U.S. and abroad.

592 (2-4) Selected Topics

Various topic-oriented courses in literature.

594 (1-6) English Workshop

Specialized workshops in topics such as computer-assisted writing, teaching the writing of poetry in the secondary school, or discipline specific writing.

595 (1-4) Special Studies

Specialized, in-depth study of topics such as Holocaust literature, environmental literature, or regional literature.

603 (3) Seminar: Selected Authors

Studies in selected authors in British, American, Multicultural or World Literature. May be repeated with different subject matter.

605 (3) Seminar: Shakespeare

Study of works of Shakespeare, including comedies, histories, tragedies, tragic-comedies, and some shorter poetic works, including sonnets.

608 (3) Seminar: British Literature to 1800

Studies in topics/periods in British Literature to 1800. Emphasizes close readings of primary works, analysis of pertinent secondary works, detailed class discussion, and analytical writing. May be repeated with different subject matter.

609 (3) Seminar: British Literature after 1800

Studies in topics/periods in British Literature after 1800. Emphasizes close readings of primary works, analyzing pertinent secondary works, detailed class discussion, and analytical writing. May be repeated with different subject matter.

610 (3) Seminar: American Literature to 1865

Analysis of topics/periods in American Literature before 1865. Emphasizes close reading of primary works, analysis of pertinent secondary works, detailed class discussion, and analytical writing. May be repeated with different subject matter.

611 (3) Seminar: American Literature After 1865

Analysis of topics/periods in modern and contemporary American Literature, i.e. fiction, nonfiction, poetry, and drama. Emphasizes close reading of

primary works, analysis of pertinent secondary works, detailed class discussion, and analytical writing. May be repeated with different subject matter.

612 (3) Seminar: Women in Literature

Study of selected works by women writers up through the twentieth century with attention to their works within cultural contexts. May be repeated with different subject matter.

623 (3) Language and the Teaching of English

Study of language issues for teachers of English. Intended for those teaching in “mainstream” classrooms populated by a majority of native speakers of English as well as those teaching English as a second or foreign language.

625 (3) College Composition Theory

Introduction to the major theories of the nature of composition and their pedagogical application.

626 (3) Bibliography and Research in TESL

Introduction to the types and principles of research in teaching English as a second or foreign language. Intended as an introduction to graduate study in the field and an orientation to the MA in TESL.

627 (3) Research Seminar

Critique/work group for class member’s Alternate Plan Paper’s and Master’s thesis goals. Provides students with an opportunity to be immersed in the research process and to select, organize, analyze, evaluate, and record information.

630 (2-3) Studies in Language and Literature

Topics in a broad range of English studies. May be repeated with different subject matter.

631 (3) Language Planning and Language Policy

Study of governmental efforts to influence or regulate language use, viewed from a world-wide perspective.

632 (3) Bilingualism and Second Language Contact

Study of the social environments where more than one language is spoken and the effects upon individuals of living in such environments.

633 (3) Psycholinguistics and Second Language Learning

Study of the relationship between language and the mind/brain with regard to the process of learning a second language.

634 (3) Topics in TESL

Topics in the area of teaching English as a second language. May be repeated with a different subject matter.

635 (3) Seminar: World Literature

Studies in selected national literature or in topics/periods of world literature. May be repeated with different subject matter.

642 (3) Seminar: Prose Nonfiction Writing

Workshop in writing personal essays and literary journalism.

Pre: consent of instructor for non-M.F.A. in creative writing students

643 (3) Seminar: Fiction Writing

Workshop in fiction writing.

Pre: consent of instructor for non-M.F.A. in creative writing students

644 (3) Seminar: Poetry Writing

Workshop in poetry writing.

Pre: consent of instructor for non-M.F.A. in creative writing students

646 (3) Contemporary Prose

Study and analysis of selected works in fiction and nonfiction since 1945.

647 (3) Contemporary Poetry

Study and analysis of poetry since 1945.

649 (1-3) Topics in Creative Writing

Topics relating to creative writing. May be repeated with different subject matter.

650 (3) Bibliography and Research in Literature

Cornerstone course of the MA in Literature program, providing the research and critical tools to enable students to concretely develop a focus for the thesis.

661 (2-3) Topics in Children's and Young Adult Literature

Topics of interest to the teacher or professional working in the field of children's and young adult literature. May be repeated with different subject matter.

662 (2-3) Topics in English Education

Topics such as writing assessment, teaching poetry, and teaching writing in the secondary schools. May be repeated with different subject matter.

670 (1-3) Independent Writing

Individualized study in writing. (Creative writing majors may take up to 3 credits total.)

672 (2) Research and Publication in Creative Writing

Exploration of the business of creative writing, and the tools for writing and research in the field.

673 (3) Research and Theory for Technical Communicators

Seminar for students engaged in conducting a major research project in the technical communication field. Emphasizes theoretical approaches to research, development and implementation of the individual research project, and presentation and publication opportunities in professional writing.

677 (1-4) Individual Study

Focused study on a topic not covered in regularly scheduled courses.

678 (3) Technical and Scientific Prose

Analysis of fiction and literary nonfiction that treats technical and scientific themes.

679 (3) Topics in Technical Communication

Topics relating to rhetorical theory in the workplace, including examination of how workplace cultures shape writing assumptions and approaches. May be repeated with different subject matter.

680 (1-3) Topics in Computer-Assisted Writing

Topics relating to the use of computers in pedagogy or technical communication. May be repeated with different subject matter.

682 (3) English Grammar

Advanced study of English syntax.

684 (3) Sociolinguistics

Study of the interaction of language use and social structures.

685 (3) Materials for TESL

Location and assessment of commercial materials and creation and publication of original materials to support instruction in English as a second or foreign language.

686 (3) Program Development and Testing in TESL

Setting up new programs in English as a Second or Foreign Language. Needs assessment, curriculum, and syllabus design. Principles of student and program evaluation.

687 (3) Theory and Practice of Translation

Literary and non-literary translation.

689 (1-4) Studies in English Linguistics

Studies in theoretical and applied linguistics. May be repeated with different subject matter.

690 (1-2) Workshop for Teaching Assistants

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

691 (1-3) Colloquium

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

693 (2) Introductory Workshop for Teaching Assistants

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

694 (1-2) Alternate Plan Paper

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

696 (3) Form and Technique in Prose

Study of the technical underpinnings of fiction and non-fiction genres.

697 (3) Form and Technique in Poetry

Study of the technical underpinnings of poetry.

698 (1-6) Internship

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

699 (3-4) 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*
S242 Trafton Science Center • 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, Watershed Assessment, and Water Resources.

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, students must have completed the following courses with a minimum grade of C: One year of Chemistry, College Algebra, General Ecology, and Botany or Zoology. Students NOT having 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. Environmental work has become much more technical. The hottest careers are overwhelmingly in the science and engineering fields. At the same time, environmental issues demand interdisciplinary training. In addition employers are demanding professionals with strong "people" and liberal arts skills: management, public speaking, writing, politics, economics and clear-headed problem solving skills. A

key trend in the environmental field is technical skills get you the job, but communication and management ability determines your rise in the ranks.

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 cr)

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 cr)

Choose **two** course from the following:

URSI	604	Zoning & Legal Issues
URSI	609	Applied Urban Analysis
URSI	661	Long-Range & Strategic Planning
URSI	662	Operational Planning
GEOG	681	Environmental Issues
POL	669	Public Policy Analysis
POL	670	Urban Law

Required Electives

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

Required Thesis or Alternate Plan Paper

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

Additional Requirements: