regional planning through the use of GIS technology, particularly Arc/Info. Students will be introduced to various urban planning projects taking place in various local agencies. *This course is **not** for Geography students.

677 (1-4) Individual Study
A study assignment for a student to meet specific objectives for the student's needs. It could be a term paper, readings, reports, field report, or mapping project.
Pre: permission of instructor

678 (3) Geographic Research and Writing
Required of MS professional degree candidates. To acquaint students with the geographer's perspective and methods of inquiry; to examine types of geographic research; to develop student's ability in producing research papers; to give students experience in writing research paper s and to provide students experience in professional oral presentation.

680 (3) Philosophy of Geography
The history and development of geographic thought from ancient times to the late 20th century.

681 (3) Environmental Issues
This course surveys various environmental issues within the United States with an emphasis on state and federal legislation and policies. The forces prompting environmental legislation, its subsequent implementation and modification by the courts, and various perspectives about the problems, their possible solutions, and the assessment of current efforts are discussed.

690 (1-4) Topics in Meteorology/Climatology
The focus of this/these course(s) will be on Meteorology/Climatology. This course may be repeated up to three times.

694 (1-2) Alternate Plan Paper
Student culminating experience in lieu of a thesis.

698 (1-6) Internship
An applied work and learning practicum. The student will provide a written report on his/her own learning. The work supervisor will be consulted regarding students' accomplishments.

699 (3-6) Thesis
A culminating project related to basic or applied research.

GEOLOGY

College of Science, Engineering & Technology
Chemistry and Geology Department
N242 Trafton • 507-389-1963

Geology is the science of the earth. It concerns itself with the materials that constitute the earth, their disposition and structure, the processes of work both on and within the earth, and both the physical and biological history of the earth.

The following graduate courses are offered and may be used to supplement existing graduate programs or may be part of a multidisiplinary studies program.

COURSE DESCRIPTIONS

501 (1-3) Field Studies
Students will learn the basis and methods of geological field studies and then participate in a field trip to an area of significant geological importance. Vehicles for transportation to and from the field site are required. A special student field trip is anticipated to offset vehicle and equipment costs. Students will be responsible for lodging and food.

550 (3) Hydrogeology
This course introduces physical and chemical studies of hydrogeology. The main area of discussion will included the physical and chemical attributes of aquifiers, movement of groundwater and solute through soils and rocks, and reactions between earth materials and pollutants in groundwater systems. The class includes extensive use of MODFLOW and MT3D, the two most commonly used groundwater modeling programs currently available.

590 (2) Workshop

591 (1-6) In-Service
A course designed to upgrade the qualfications of a person on the job. Content is variable. The course can be repeated for credit.

677 (1-4) Independent Study

GERONTOLOGY MS

College of Social & Behavioral Sciences
Gerontology Program
111 Armstrong Hall • 507-389-6307

Gerontology is the scientific study of the biological, psychological and social aspects of aging. The Gerontology program, in cooperation with the Center on Aging, coordinates the delivery of the curriculum in human aging and facilitates activities of education, research and service which create, disseminate and apply knowledge about aging. The primary purpose of the graduate curriculum in aging is to provide a knowledge base in gerontology which, when combined with professional knowledge and skills, prepares the student for practice