



*Courses in the College of Letters and Sciences*

**GEOGRAPHY COURSES (722) AND GEOLOGY COURSES (616)**

**SPECIALIZED COURSES**

**722-520 Meteorology And Climate -- 3 cr**

Begins with fundamental relationships among earth, sun and air. Common myths concerning weather phenomena are dispelled through in-depth explanation in everyday language of the physical laws that govern atmospheric functioning. The course terminates with a survey of world climate regions.

Prereq: 722-210 or consent of instructor.

**722-523 Water Resources -- 3 cr**

Following a treatment of the character, process- involvement, and distribution of water, the significance of water as a resource in a modern society will be considered. The course will culminate in an evaluation of the development-management, use, and conservation of water within the contexts of the hydrologic cycle and watershed. Field trips are normally taken.

Prereq: 722-210 or consent of instructor.

**722-537 Recreation Regions And Systems -- 3 cr**

Initial segments of the course focus upon an evaluation of spatial elements of the recreation phenomenon and the development of recreation areas for the express purpose of providing a background for subsequent analysis of existing recreation plans and formulation of a conceptual framework for the development of future recreation regions. Field trips are normally taken.

Prereq: 722-230 or consent of instructor.

**722-550 Regional Analysis And Planning -- 3 cr**

After an overview of the techniques of regional analysis, the role of state, regional, and county governments in development planning is discussed with emphasis upon short/long range planning and zoning. The decision making role of citizens, elected officials, and planners within a planning context is an integral part of the course. Field trips are normally taken.

Prereq: 722-210, 722-230, and 722-270, or consent of instructor.

**722-577 Remote Sensing of the Environment -- 3 cr**

An introduction to the images, sensors and techniques used to gather and process data on the Earth and the other planets, including aerial photography, electro-optical scanners and radar systems. The course will focus on the fundamentals of utilizing remotely sensed data in studying both natural and human induced processes impacting the Earth's surface. Computer applications will be extensively utilized. Field trips are normally taken.

Prereq: 722-320 or 722-310 or consent of instructor.

**722-620 Human And Climate Interactions -- 3 cr**

The course objective is to distinguish between natural climate change and change induced by human activities. Topics covered include human modifications to cloud cover, global warming, and ozone problems. Another emphasis is to better understand the impacts of severe weather on human activities and the potential threats of future climate change. At least one field trip is usually taken.

Prereq: 722-320/520 or an equivalent course or consent of instructor.

**722-630 Geography Of Race & Ethnicity In The United States -- 3 cr**

The course will take a geographical approach to the study of ethnic groups in the United States. Native American, African American, Hispanic American, and Asian American groups will be studied systematically. Major topics will include mobility, cultural regions, and the cultural landscape created by the various ethnic groups.

Prereq: 722-230 or 722-261 or 722-344.

**722-640 Applied GIS: Application For Business And Industry -- 3 cr**

This course will provide the background necessary to apply Geographic Information Systems software to solve applied business problems. The specific educational objectives of this course are: 1) To gain a conceptual understanding of Geographic Information Systems. 2) To provide the student with "hands on" problem solving skills emphasizing, site location, target marketing, sales territory development and networking routing.

Prereq: 722-270, 722-370, 722-340 or permission of instructor.

**722-644 Urban Land Use Planning -- 3 cr**

A study of the historical, social and political framework of the urban land planning process with primary emphasis on the United States. Exposure to professional planning approaches and techniques and a critical analysis of plans and planners are stressed. Field trips are normally taken.

Prereq: 722-344 or 880-352 or 820-446/646 or 230-438/638 or consent of instructor.

**722-652 Cultural Ecology And Sustainable Development -- 3 cr**

This course will discuss the history of the subdiscipline of cultural ecology within geography and teach about indigenous and traditional societies' knowledge systems from a variety of world cultures. It will use ancient and modern examples of indigenous methods of natural resource management and show how these are being applied internationally to present day environmental problems and to sustainable development

approaches.

Prereq: 722-230 or 722-252 or consent of instructor.

**722-675 Air Photo Interpretation -- 3 cr**

An introduction to the use of aerial photographs for measurement purposes, and the identification, classification, and mapping of agricultural, urban, industrial, and landform patterns through the use of aerial photographic techniques. Field trips are normally taken.

**722-690 Workshop -- 1-8 cr**

**722-691 Travel Study -- 1-3 cr**

**722-694 Seminar -- 1-3 cr**

**722-696 Special Studies -- 1-3 cr**

Repeatable once for a maximum of 6 credits.

**722-790 Workshop -- 1-6 cr**

**722-794 Seminar -- 1-3 cr**

**722-798 Individual Studies -- 1-3 cr**

**722-799 Thesis Research -- 1-6 cr**

Students must complete a Thesis Proposal Form in the Graduate Studies Office before registering for this course.

**616-501 Environmental Geology -- 3 cr**

A study of the physical and cultural problems associated with earthquakes, volcanism, disposal, contaminant hydrogeology, nonrenewable resources, and environmental health. An analysis of various engineering solutions and land use planning approaches concerning these problems will be examined. At least one field trip will be required. Possibly one or two optional field trips will be taken in which students will have to make a deposit to cover the cost of chartering a vehicle. Two lectures and one two-hour lab each week. The course will be offered during the Fall semester of even numbered years. Prereq: 616-100 or 722-210 or consent of instructor.

**616-690 Workshop -- 1-3 cr**

Repeatable.

Prereq: Consent of instructor.

**616-694 Seminar -- 1-3 cr**

**616-696 Special Studies -- 1-3 cr**

Repeatable.

Prereq: Consent of instructor.