

## GEOGRAPHY (GEOG)

**103. Introduction to Geography.** Credit 3 hours. This course surveys the basic concepts of geography. Introduces the student to physical and cultural aspects of geography and describes the interaction of humans and their environment. (Summer, Fall, Spring)

**126. Environmental Conservation and Geography.** Credit 3 hours. This course explores the interactions between humanity and the environment that have led to current environmental problems. Topics to be explored include: biodiversity, global climate change, human population growth, and natural resource conservation. (As Needed)

**301. Geography of Europe.** Credit 3 hours. Prerequisite: Sophomore standing or consent of the Department Head. A survey and analysis of the physical and cultural environments of the European continent. emphasis on the physical landscape, climate, settlement patterns, culture, land use, urbanization, and economic development. (As Needed)

**305. Field Methods and Map Reading.** Credit 3 hours. Prerequisite: Geography 103 or consent of the Department Head. Techniques of geographic field research and the interpretation and analysis of maps. Students will use instruments such as compasses, transits, handheld GPS units, and clinometers to gather data. (As Needed)

**306. The Atmosphere.** Credit 3 hours. Prerequisite: Geography 103 or consent of Department Head. This course provides an examination of the processes and operations in the atmosphere, world climatic patterns, and classification of climates. (As Needed)

**309 [205]. Introduction to Physical Geography.** Credit 3 hours. Prerequisites: Geography 103 or consent of the Department Head. A survey of the earth-sun relationships, elements of weather and climate, climatic regions, landforms, vegetation, and soils of the earth. Emphasis will be placed on the interaction of humans with the physical landscape. (As Needed)

**322 [131]. Geography of Louisiana.** Credit 3 hours. Prerequisite: Sophomore standing or consent of the Department Head. Examines the physical and cultural geography of Louisiana with an emphasis on the physical geographical elements and the geographical implications of the state's varied cultural heritage. (Summer, Fall, Spring)

**326. Environmental Impact Assessment.** Credit 3 hours. Prerequisite: Geography 103 or consent of Department Head. The course examines and evaluates the impacts of large scale projects on the quality of the environment. The legal requirements for the preparation of an environmental impact statement (EIS) as prescribed by the National Environmental Policy Act of 1969 will be addressed. (As Needed)

**343/533 [433/533]. Geographic Information Systems (GIS) I.** Credit 3 hours. Prerequisites: Geography 103 and Math 241 or consent of the Department Head. An introduction to the theory, principles, and capabilities of Geographic Information Systems. Extensive hands-on experience with the ArcGIS© software package. One hour lecture and two hours lab. (As Needed)

**355/555 [455/555]. Cartography.** Credit 3 hours. Prerequisite: Geography 103 or consent of the Department Head. The course is designed to serve as a foundation for geographic analysis. The course will focus on the basic principles of cartography. Topics include projections, cartometric procedures, map symbolization, color use guidelines, and map typography. (As Needed)

**370/560 [460/560]. Remote Sensing and Aerial Photo Interpretation I.** Credit 3 hours. Prerequisites: Geography 103 and Math 241 or consent of the Department Head. An introduction to the fundamental principles and practices of aerial photography, remote sensing, photogrammetry, and photo interpretation. One hour lecture and two hours lab per week. (As Needed)

**400/500. Independent Study.** Credit 1-3 hours. Prerequisite: Consent of Department Head and Junior standing. Student works with an instructor on a one-to-one basis and prepares a research report on an appropriate topic. May be repeated in one to three hour credits for a total of 6 hours. New materials are investigated in each repeat.

**401/501. Historical Geography of the United States.** Credit 3 hours. Prerequisite: Junior standing, or consent of the Department Head. An historical study of the changing geographic aspects of the land area of the United States from the pre-Columbian era to the present. Emphasis is placed upon the sequence of land occupation and utilization in various regions of the country. Especially recommended to teachers of the social studies. (As Needed)

**402/502. Geography of United States and Canada.** Credit 3 hours. Prerequisites: Junior standing or consent of the Department Head. The physical and cultural geography of the United States and Canada. Emphasis on the physical landscape, climate, settlement patterns, culture, land use, urbanization, and economic development. (As Needed)

**408/508. Geography of Natural Hazards and Disasters.** Credit 3 hours. Prerequisite: Geography 103 or consent of Department Head. Introduction to the geographic study of natural hazards and disasters. Topics include: hurricanes, earthquakes, tsunamis, and volcanoes.

**410. Cultural Geography.** Credit 3 hours. Prerequisites: Geography 103 and Junior standing or consent of the Department Head. A study of man-land relationships, with emphasis on the distribution of peoples and variations in cultural landscapes. (As Needed)

**431/531. World Regional Geography I.** Credit 3 hours. Prerequisite: Junior standing or consent of the Department Head. A regional geography of the developed world. Regions included are: Europe, the former Soviet Union, the United States, Canada, Australia, and Japan. Especially recommended for elementary and secondary education majors. (Summer, Fall, Spring)

**432/532. World Regional Geography II.** Credit 3 hours. Prerequisite: Junior standing or consent of the Department Head. A regional geography of the developing world. Regions included are: Latin America, Africa, the Middle East, and Asia, excluding Japan. Especially recommended for elementary and secondary school education majors. May be taken prior to or without Geography 431. (Summer, Fall, Spring)

**443/543. Advanced Applications of GIS.** Credit 3 hours. Prerequisite: Geography 433/533 or consent of the Department Head. The course focuses on the use and applications of GIS techniques in solving practical geographic problems. Extensive hands-on experience with the various extensions of the ArcGIS© software package. One hour lecture and two hours lab per week. (As Needed)

**470/570. Advanced Remote Sensing.** Credit 3 hours. Prerequisite: Geography 460/560 or consent of the Department Head. This course will cover the theory and application of image-processing techniques such as: data corrections, enhancements, transformations, and classification for digital imagery. One hour lecture and two hours lab per week. (As Needed)

**473/573. Raster GIS.** Credit 3 hours. Prerequisites: Geography 443/543 and Geography 470/570 or consent of the Department Head. An advanced course on the use of raster GIS for spatial query, problem analysis, modeling, and decision support. The remote sensing software packages, Imagine® and Imagine Analysis® by ERDAS, will be used to explore the procedures for processing digital satellite and air photo images and for developing modes for geographic analysis. One hour lecture and two hours lab per week. (As Needed)

**495/595. Special Topics Seminar.** Credit 3 hours. Prerequisites: Junior standing and consent of the Department Head. An in-depth study of selected topics in Geography that are not covered in existing courses. May be repeated for a total of six credit hours if content is different. (As Needed)

**698. Special Topics in Geography.** Credit 3 hours. Selected topics in areas not available in existing courses. May be new or unique issues or contemporary geographical topics relevant to various social and/or global issues. May be repeated for credit when different topics are studied. (As Needed)