

## DEPARTMENT OF GEOGRAPHY

Add new courses:

### GEOG 312 – First Steps in GIS Programming

3 Credit Hours

For first-time GIS programmers. Design and implement simple to complex sequences of calculations on geospatial information. Use Python scripts to automate GIS data preparation, analysis, and mapping.

Contact Hour Distribution: 2 hours lecture, 2 hours lab.

Grading Restriction: Letter grade only.

Recommended Background: Prior or concurrent course in geographic information systems (GIS).

### GEOG 313 – Geospatial Field Methods of UAVs, LiDAR, and GPS

3 Credit Hours

This course is a field and laboratory-based course to teach students how to use UAVs, LiDAR, and GPS to obtain, process, and analyze geospatial data. It will include local partners to work on a project during the semester.

(DE) Prerequisite: 311 or consent of instructor.

### GEOG 496 – Field Experience for Sustainability

3 Credit Hours

Placement of students in campus, community, government agencies, or businesses where concepts and principles of sustainability can be learned experientially and put into practice. Course introduces students to different types of methods and techniques used in Sustainability.

Add new secondary cross listed course:

### GEOG 443 – Sustainable Cities and Landscapes

3 Credit Hours

(See Geology 443.)

Geology is primary.

Add new minors:

### Climate Change Minor

Minor Requirements

The Climate Change Minor consists of a minimum of 15 credit hours.

Prerequisite:

Select one course:

GEOG 131 – Weather, Climate and Climate Change

GEOG 204 – Understanding Climate Change

Select five courses:

EEB 419 – Global Change Ecology  
EEB 433 – Plant Ecology  
GEOG 333 – Climate Change and Human Response  
GEOG 334 – Meteorology  
GEOG 430 – Global Environments of the Quaternary  
GEOG 431 – Environmental History from Lake Sediments  
GEOG 432 – Environmental History from Tree Rings  
GEOG 434 – Climatology  
GEOG 439 – Plants, People, and Climate in North America  
GEOG 453 – Extreme Weather Climatology  
GEOG 456 – Global Climate Change  
GEOG 494 – Undergraduate Research Experience  
(GEOG 494 requires permission of the instructor and must be for climate-related research.  
Undergraduate experience courses in other departments may be substituted with approval of Dr. Kelsey Ellis, who will help manage research experience courses included in the minor.)

Note:

Geography majors and second majors cannot take the Climate Change minor.

Geographic Information Science Minor

Minor Requirements

A minor in the Geographic Information System (GIS) consists of 15 hours.

Complete 6 hours:

GEOG 311 – Geovisualization and Geographic Information Science

GEOG 411 – Intermediate Geographic Information Science

Select 9 hours:

GEOG 409 – GIS for Environmental and Socio-Economic Applications

GEOG 413 – Remote Sensing of the Environment

GEOG 414 – Spatial Data Management for Socioeconomic and Environmental Applications

GEOG 420 – GIS in the Community

GEOG 454 – GIS for Terrain Analysis

GEOG 510 – Geographic Software Design

GEOG 512 – Environmental Modeling and Geospatial Analysis

GEOG 513 – Topics in Remote Sensing

GEOG 517 – Geographic Information Management and Processing

GEOG 518 – GIS Project Management

Note:

Geography majors and second majors cannot take the Geographic Information Systems minor.

## Urban Studies Minor

### Minor Requirements

The Urban Studies Minor consists of a minimum of 15 credit hours.

Complete:

GEOG 341 – Contemporary Urban Spaces

Complete 12 hours as specified from the following two groups.

Select 6-9 hours:

GEOG 441 – Cities as Economic Engines

GEOG 442 – Urban Spaces and Urban Society

GEOG 443 – Sustainable Cities and Landscapes

GEOG 445 – Cities in a World System

GEOG 446 – The Livable City

GEOG 449 – Geography of Transportation

Select 3-6 hours:

AFST 480 – African American Communities in Urban America

ANTH 436 – Cities and Sanctuaries of the Greek and Roman World

ARCH 515 – Seminar in Urban Design Theory

CLAS 439 - Pompeii

HIAS 494 – History of Tokyo

POLS 321 – Urban Politics and Process

Note: Geography majors and second majors cannot take the urban Studies minor.

Sustainability Major, BA, revise prerequisites:

Prerequisites (14-15 hours)

Complete:

ECON 201 – Introductory Economics: A Survey Course\*

GEOG 206 – Sustainability: Reducing our Impact on Planet Earth

Formerly:

Prerequisites (17-18 hours)

Complete:

ECON 201 – Introductory Economics: A Survey Course\*

GEOG 206 – Sustainability: Reducing our Impact on Planet Earth

SOCI 250 – Introduction to Global Studies\*

Revise Sustainability Major Requirements credit hours:

Major Requirements

The major consists of 36-37 hours.

Formerly:

The major consists of 33-34 hours.

Sustainability Major, BA, Capstone Experience, Revise to:

VI. Capstone Experience

Complete:

GEOG 499 – Practicing Geography

GEOG 496 – Field Experience for Sustainability

Formerly:

Complete:

GEOG 499 – Practicing Geography