

# Minor In Geographic Information Technology

## Degree Requirements

If a minor is required in your degree program, at least 9 (lower and/or upper-division) hours of courses in the minor must be completed at the University.

Minor in Geographic Information Technology (22 hrs)	Credit Hours
A minimum of 22 hours of Geographic Information Technology related classes.	22
The student must take all three core classes:	
GIT 460	
GIT 461 or 462	
CIS 110 or MET 420	
Three additional electives from the following:	
GEO 331	
GEO 332 or MET 370	
GY 301	
GIT 442	
GIT 461	
GIT 462	
or other GIT electives	

## Department Information

Department of Earth Sciences website  
<http://southalabama.edu/colleges/artsandsci/earthsci/>

The Department of Earth Sciences includes the disciplines of Geography, Geology, and Meteorology, and it offers a B.S. degree as well as a minor in each of these three majors. Students can also earn a GIS Certificate and/or a minor in Geographic Information Technology (GIT) Geography, which is both a natural and a social science, studies the location, spatial distribution, and spatial interaction of Earth's natural and human environments. Courses and research in the program encompass the broad subfields of Human Geography (for example, tourism, health, and social justice), Physical Geography (like climatology, natural hazards, and environmental geography), Regional Geography (International Economics and Relations), and Geographic Techniques, including Geographic Information Science and Technology (GIS/GIT) and Remote Sensing. Upon completing their degree, geography students are employed in government, industry, and nonprofits in multiple kinds of work environments (includes field, lab, computer, office and work).

Geology is an interdisciplinary physical science pertaining to the study of the Earth. Courses and research within the department address the chemical and physical properties of minerals, rocks, soils, sediments, and water; the processes that shape the Earth's surface; the stratigraphic, paleobiological, and geochemical records of Earth history; and the processes associated with deformation in the Earth's crust and mantle. Together an understanding is obtained of present-day, historical, and long-term feedbacks between global systems, as well as the origin and occurrence of our natural resources.

Meteorology is the study of atmospheric phenomena and the processes that cause weather. The science of meteorology is firmly rooted in basic physical laws governing mass, momentum, and energy. Many weather processes are simulated by

complex computer models; however, accurate weather analysis and forecasting often requires meteorologists to identify and conceptualize weather patterns often missed by automated techniques.

The programs of the Department of Earth Sciences are designed to give the non-major a background in Earth and atmospheric science and the human impact on the landscape as part of a general education. Students pursuing a degree in Geography, Geology, or Meteorology must also have a minor in another discipline.

The Department of Earth Sciences offers a departmental honors program that allows exceptional students to pursue independent research. Students work with a faculty committee to choose an Earth Sciences research project (Geography, Geology, Meteorology), develop a prospectus, and complete a senior thesis. Students completing this program graduate with departmental honors.

Requirements for successful completion of an honors degree in Geography, Geology, or Meteorology include a GPA of at least 3.50 at graduation and completion of ES 492 (Honors Earth Sciences Seminar), ES 497 (Senior Thesis Prospectus), and six hours of ES 499 (Senior Honors Thesis). These classes are in addition to those required for the major in Geography, Geology, or Meteorology. All honors courses are listed under the prefix ES. Students interested in Earth Sciences honors must apply for the program by their junior year. Complete requirements are available on the departmental web page.

All first-time freshmen must successfully complete CAS 100: First Year Experience as a degree requirement. Students must enroll during their first term at USA, except for summer-entry students who must enroll in the fall semester following entry. Students must demonstrate technology proficiency by passing the designated class in their major. GEO 331 for Geography majors, GY 301 for Geology majors, or MET 455 for Meteorology majors.

## **Graduate Studies**

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Although the Department of Earth Sciences has no graduate degree program, courses, including Geographic Information Technology (GIT), are offered at the graduate level for students enrolled in Biology, Public Administration, Marine Sciences and Environmental Toxicology, and others who need such course work. Contact the Department for more information.