

Vehicle Assembly Plants in Alabama and Mississippi with a 50 Mile Buffer



## Admission

The courses in the GIS Certificate Program can either be taken at the undergraduate or graduate level

To pursue the undergraduate-level GIS certificate students must be currently enrolled at the University of Alabama or another four-year college or university or have two years of work experience in a field that deals with geographic information, such as geography, natural resources and land-use management, environmental analysis, regional and environmental planning, civil engineering, or business applications.

The requirement for the graduate-level GIS certificate is a bachelor degree in one of the above fields.



## Faculty

Sagy Cohen, Ph.D., University of Newcastle, 2010. Assistant Professor: GIS, Remote sensing, environmental modeling.

Ericson, Steven, Ph.D., Oklahoma State, 2014. Instructor: GIS, cultural geography, sports.

Luoheng Han, Ph.D., Nebraska, 1994. Professor and Senior Associate Dean: Remote sensing.

LaFevor, Matthew, Ph.D., Texas, 2014. Assistant Professor: GIS, Water management, field techniques, agro-ecology.

W. Craig Remington, M.S., Florida State, 1981. Adjunct Professor and Director of Cartographic Research Lab: GIS, cartography.

Joe Weber, Ph.D., GISP, Ohio State, 2001. Professor: GIS, transportation, national parks.

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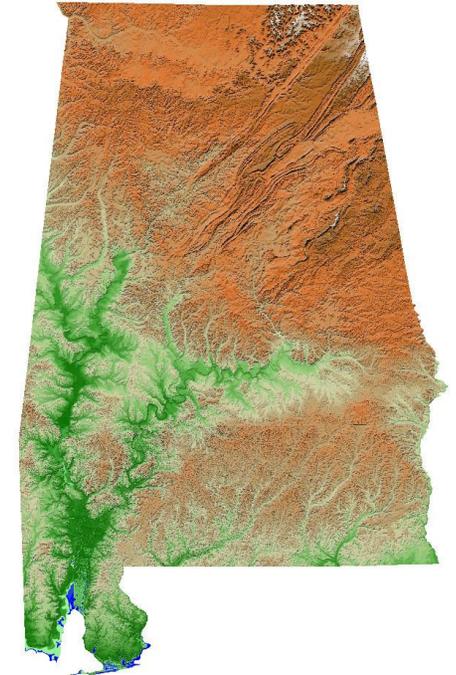
<http://geography.ua.edu/>

THE UNIVERSITY OF ALABAMA



Touching lives.

## GIS Certificate Program

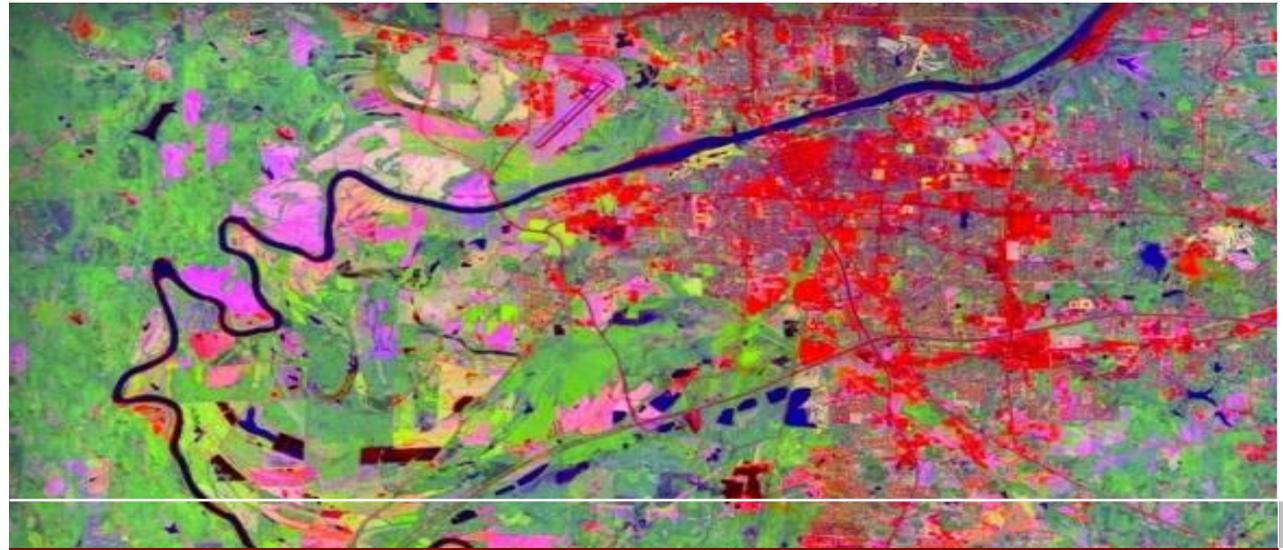
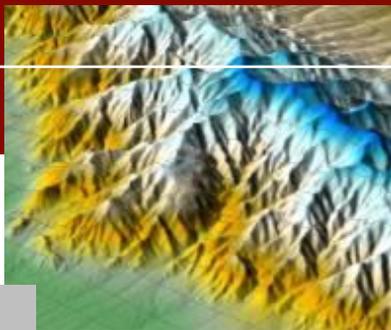


Compiled by the Cartographic Research Lab  
University of Alabama

# What is GIS?

Geographic Information System (GIS) is a computer-based information system that is capable of storing and analyzing spatial data. GIS integrates various map layers and non-spatial data and produces new spatial information for the decision-making process. GIS includes common database operations, spatial statistical analysis, computer graphics and visualization, and geographic analysis. Current satellite remote sensors provide GIS with the latest information about the earth environment. Today, GIS is not only taught and studied in colleges and universities, but applied in many areas ranging from emergency planning to landfill site selection, and from mapping wild life habitat to land use / land cover change detection.

Graduates of the GIS Certificate Program have found employment with state agencies, such as the Alabama Emergency Management Agency, Alabama Department of Environmental Management, city, county, and metropolitan planning organizations, and private engineering companies and environmental consulting firms.



*“Knowing where things are, and why, is essential to rational decision making.”*

- Jack Dangermond, Environmental Systems Research Institute (ESRI)

The objectives of the certificate in GIS are to provide participants with a concentrated geography background focusing on geographic information techniques, to prepare participants with technical skills in using GIS, and to qualify participants for applications of GIS in various areas.

### Required courses (12 hours):

GY 330 Computer Mapping and Graphics....4 hours  
GY 420/520 Remote Sensing I.....4 hours  
GY 430/530 Introduction to GIS.....4 hours

### Electives (8 hours):

GY 433/576 GIS Practicum.....4 hours  
GY 432/532 GIS Programing.....4 hours  
GY 431 GIS in Emergency Management.....4 hours  
GY 442 GIS in Biogeography.....4 hours  
GY 435/535 Remote Sensing II.....4 hours  
GY 436/536 Advanced GIS.....4 hours  
GY 437/537 GIS for Transportation.....4 hours  
GY 438/538 Applications of GIS.....4 hours

Prerequisites or permission to register may apply.

### Facilities and Resources:

The GIS and Remote Sensing Laboratory is a state-of-the-art computing facility serving students.

The Cartographic Research Laboratory is a self-supporting, non-profit facility, receiving funding through the sale of publications and through the completion of cartographic and GIS projects.

The Map Library is a regional depository for the USGS and DMA and includes over 250,000 maps and 70,000 aerial photographs.

The Surface Dynamics Modeling Lab (SDML) studies planetary surface processes and dynamics.

The Geography Department is a member of the University Consortium for GIS (UCGIS) and is a USGS/NGA Center of Excellence in Geospatial Sciences.

