GEOGRAPHIC INFORMATION
SCIENCE
Prepare for a Career in Information Technology

Welcome to the University of Illinois Urbana-Champaign

The Department of Geography at the University of Illinois at Urbana-Champaign (UIUC) offers an undergraduate program in Geographic Information Science (GIS). The GIS program emphasizes how digital geographic information is created, analyzed and used to examine economic, environmental, physical and social phenomena. The intent of the GIScience program is to provide students with an in-depth knowledge of GIS principles, and expertise with contemporary software packages in order to prepare graduates for work in GIScience businesses. There is growing demand for students with knowledge about the earth’s systems and how geographic information systems are used to enhance business, to protect the environment, and to manage the massive amounts of spatial data that are becoming widely available on the world wide web.

Geographic Information Science Option

Required Courses
GEOG 371 Spatial Analysis
GEOG 379 Introduction to Geographic Information Systems
GEOG 473 Cartography
GEOG 477 Introduction to Remote Sensing
GEOG 479 Advanced GIS

3 of the following 4 courses:
GEOG 101 Geography of Developing Countries
GEOG 102 Weather and Climate
GEOG 103 Physical Geography
GEOG 104 Social and Cultural Geography

A minimum of 4 courses from:
GEOG 280 Social Statistics
GEOG 205 Business Location Decision-making: Theory and Practice
GEOG 460 Interpretation of Aerial Photographs
GEOG 468 Biological Modeling
GEOG 469 Spatial Ecosystem Modeling
GEOG 470 Introduction to Quantitative Analysis
GEOG 476 Applications of GIS to Environmental Problems
GEOG 478 Techniques of Remote Sensing Image Analysis

Career Opportunities
Visit these websites to view current job listings to see what you need to study to work in the information technology sector.

http://careers.geocomm.com
www.giscareers.com
www.gjc.org
www.geojobsource.com

Internship Program
Geography Interns with Geological Survey (GIGS) is a program for undergraduate geography majors to work as paid interns with the Illinois State Geological Survey (ISGS).

This offers an opportunity for students to apply classroom knowledge derived from GIScience courses to real-world problems being studied by a major Illinois state
agency. Other students have interned with local companies, such as the Institute for Technology Development, local planning agencies such as Champaign County Planning Commission, state agencies in Springfield such as the Illinois Department of Natural Resources, and numerous city agencies in the Chicago suburbs.

**Facilities**
The Department of Geography has two computer labs available for students in the GIScience option. One is a state of the art classroom with 30 HP workstation connected to a server for formal instruction. A second lab has 14 additional computers that are available for students to work on homework assignments. Both computer labs provide students with access to state-of-the-art software, such as ArcGIS, Erdas Imagine, and Stella.

ArcGIS software is used to manage geographic information about places at scales from local communities to global ecosystems. Erdas Imagine software is used to inventory and monitor the earth’s environment with images collected by earth orbiting satellites.

**Other Equipment**
The geography department has other equipment available to support undergraduate students, such as a large format plotter which can be used to create a portfolio from your classroom assignments, which is useful when interviewing for jobs in the GIScience industry.