

# GEOGRAPHIC INFORMATION SCIENCE MINOR

## Geographical Sciences (GEOG)

2108M LeFrak Hall  
301-405-4073  
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www.geog.umd.edu (<http://www.geog.umd.edu>)

The Minor Program in Geographic Information Sciences is designed to give students the technical skills needed to acquire, manage and analyze geospatial data. Almost everything we do involves geospatial information such as deciding where to live and travel. Influenced by computer technology, the academic disciplines of geographic information science includes such areas as geospatial visualization, remote sensing, big geospatial data handling, mobile GIS, and web mapping among others, and has evolved dramatically in the past few decades. The fields of GIS-computer systems that manage and analyze different forms of digital geospatial data, and remote sensing-the science of obtaining geographic information from aircraft and satellites, have been growing at an extraordinary rate. Digital cartography has revolutionized traditional cartography to vastly improve map making and visualization of geographic information in a multimedia environment. Students in the minor program will receive extensive training in all of these exciting areas and join the next generation of geospatial scientists. These skills are in great demand in fields such as environmental, sustainable development, urban planning, governmental sectors, military intelligence, engineering, modeling, and computer science related fields.

## Requirements

- All credits for the minor must be taken in the Department of Geographical Sciences at the University of Maryland, College Park.
- All courses must be completed with a grade of "C" or better.
- No more than six credits are to be included in the minor and student's major, supporting courses, and college requirements.
- Must complete 15 credits in Geography

See undergraduate advising office for more information: LeFrak Hall 2108, 301-405-4073.

Course	Title	Credits
<b>Required Courses</b>		
GEOG372	Remote Sensing	3
GEOG373	Geographic Information Systems	3
Two courses from the following:		6
GEOG416	Conceptualizing and Modeling Human-Environmental Interactions	
GEOG473	Geographic Information Systems and Spatial Analysis	
GEOG475	Computer Cartography	
GEOG476	Object-Oriented Computer Programming for GIS	
GEOG498	Topical Investigations (GEOG498I Algorithms for Geospatial Computing)	
Other similar course		
GEOG306	Introduction to Quantitative Methods for the Geographical Environmental Sciences	3
or BIOM301	Introduction to Biometrics	

or BMGT230	Business Statistics
or CCJS200	Statistics for Criminology and Criminal Justice
or ECON321	Economic Statistics
or EDMS451	Introduction to Educational Statistics
or GVPT422	Quantitative Political Analysis
or INST314	Statistics for Information Science
or JOUR405	Breaking News With Numbers: Statistics for Journalists
or PSYC200	Statistical Methods in Psychology
or SOCY201	Introductory Statistics for Sociology

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Total Credits 15