

BA in Geography with Emphasis in Geographic Information Sciences

Degree Program Description

Geographers are interested in a wide range of topics and often work in interdisciplinary teams that analyze challenges like environmental change, resource use, and economic issues in an increasingly interdependent world. The study of Geographic Information Systems trains students to address the variety of technologies revolutionizing geographic analysis such as GIS, Global Positioning Systems, remote sensing, computer assisted cartography and spatial statistics. Geography prepares students for a variety of professions including careers in environmental impact assessment, mapping, remote sensing, geographic information analysis, government service, military intelligence, as well as education. Geographers are interested in a wide range of topics and often work in interdisciplinary teams that analyze challenges like environmental change, resource use, and economic issues in an increasingly interdependent world. Geography majors receive marketable skills during their undergraduate experience. Recent graduates work for companies such as ESRI and Garmin. MU geography graduates have also found employment with government agencies, including the National Park Service, National Geospatial-Intelligence Agency, U.S. Geological Survey, Missouri Department of Natural Resources, and Missouri Department of Transportation.

Major Program Requirements

The study of GIS prepares students to address the variety of technologies revolutionizing geographic analysis such as GIS, Global Positioning Systems, remote sensing, computer assisted cartography and spatial statistics. Students are required to take three courses (normally nine hours) in the emphasis. Two additional courses (six additional hours) are selected from a secondary emphasis area.

In addition to University (<https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/>), general education (<https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/>), and College of Arts and Science (<https://catalog.missouri.edu/collegeofartsandscience/#undergraduatetext>) requirements, students must also meet the following major program requirements. All major requirements in the College of Arts and Science must be completed with grades of C- or higher unless otherwise indicated.

GEOG 3040	Introduction to Geographic Information Systems GIS	3
GEOG 3830	Remote Sensing	3
GEOG 4130	The Geospatial Sciences in National Security	3
GEOG 4710	Spatial Analysis in Geography	3
GEOG 4740	Location Analysis and Site Selection	3
GEOG 4790	Geographic Information Systems for the Social Sciences	3
GEOG 4810	Landscape Ecology and GIS Analysis I	3
GEOG 4860	Advanced Remote Sensing	3

GEOG 4940	Advanced Geographic Information Systems (GIS II)	3
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Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.

First Year			
Fall	CR	Spring	CR
ENGLISH 1000*		3 GEOG 1200	3
GEOG 1100		3 GEOG 1800	3
GEOG 1100 (Physical Science)		4 Math and Quantitative Reasoning	3
Humanities		3 Missouri State Law Requirement, Social Science from Arts and Science	3
SSC 1150		2 Biological, Physical, Mathematical Science	3
		15	15
Second Year			
Fall	CR	Spring	CR
GEOG 1550		3 GEOG 3040	3
Behavioral Science		3 Geography, Secondary Emphasis	3
Humanities, First Writing Intensive		3 Humanities from Arts and Science	3
Second Language Requirement		4 Second Language Requirement	4
Social Science, 2000-level		3 Second major, minor, certificate, or elective	3
		16	16
Third Year			
Fall	CR	Spring	CR
GEOG 2610		3 Geography GIS Emphasis, 3000-level	3
Geography GIS Emphasis, 3000-level		3 Geography Writing Intensive, 3000-level	3
Second Language Requirement		4 Behavioral Science, 2000-level	3
Second major, minor, certificate, or elective		3 Biological, Physical, or Mathematical Science	3
Second major, minor, certificate, or elective		3 Second major, minor, certificate, or elective	3
		16	15
Fourth Year			
Fall	CR	Spring	CR
Geography, GIS Emphasis, 3000-level		3 GEOG 4990	3
Humanities, 2000-level		3 Geography, Secondary Emphasis, 3000-level	3
Social Science		3 Second major, minor, certificate, or elective	3
Second major, minor, certificate, or elective		3 Second major, minor, certificate, or elective	3
Second major, minor, certificate, or elective		3	
		15	12
Total Credits: 120			

* Denotes General Education and A&S Foundation Requirements