

GEOGRAPHICAL INFORMATION SYSTEMS (B.S.)

This program is offered through the College of Science (<https://catalog.uidaho.edu/colleges-related-units/science/>). Students must earn a grade of 'C' or better in all Geography courses. Required course work includes the university requirements (see regulation J-3 (<https://catalog.uidaho.edu/general-requirements-academic-procedures/j-general-requirements-baccalaureate-degrees/>)) and:

Code	Title	Hours
MATH 143	College Algebra	3
CS 212	Practical Python	3
STAT 251	Statistical Methods	3
ENGL 313	Business Writing	3
or ENGL 317	Technical Writing II	3
GEOG 100 & 100L	Introduction to Planet Earth and Introduction to Planet Earth Lab	4
GEOG 165	Human Geography	3
GEOG 200	World Cultures and Globalization	3
GEOG 385	Foundations of GIS	3
GEOG 390	Cartographic Design & Geovisualization	3
GEOG 475	Intermediate GIS	3
GEOG 479	GIS Programming	3
GEOG 493	Senior Capstone in Geography	3
Select one of the following:		3-4
MATH 160	Survey of Calculus	
MATH 170	Calculus I	
MATH 175	Calculus II	
Select 3 credits from the following in human geography:		3
GEOG 260	Introduction to Geopolitics	
GEOG 330	Urban Geography	
GEOG 345	Global Economic Geography	
GEOG 350	Sustainability of Global Development	
GEOG 360	Population Dynamics and Distribution	
GEOG 365	Geopolitics and Conflict	
Select 3 credits from the following in physical geography:		3
GEOG 301	Meteorology	
GEOG 317	Tree Rings and Environmental Change	
GEOG 401	Climatology	
GEOG 410	Biogeography	
GEOG 430	Climate Change Ecology	
Select one course from the following in human-environment interactions:		3
GEOG 420	Land, Resources, and Environment	
GEOG 435	Climate Change Mitigation	
GEOG 455	Societal Resilience and Adaptation to Climate Change	
GEOG 488	Geography of Energy Systems	
Select 6 additional credits in Geography courses.		6

Choose 3 GIS courses out of the following List. Note GEOG 424 and GEOG 483 can only count for one bin.	9
GEOG 407	Spatial Analysis and Modeling
GEOG 414	Socioeconomic Applications of GIS
GEOG 424	Hydrologic Applications of GIS and Remote Sensing
GEOG 483	Remote Sensing IMAGE ANALYSIS/GIS Integration
FIRE 407	GIS Application in Fire Ecology and Management
Choose 2 Remote Sensing courses from the following list. Note GEOG 424 and GEOG 483 can only count for one bin.	4
FOR 472	Remote Sensing of the Environment
or GEOG 424	Hydrologic Applications of GIS and Remote Sensing
or GEOG 483	Remote Sensing IMAGE ANALYSIS/GIS Integration
REM 475	Remote Sensing Application with Unmanned Aerial Systems (UAS)
REM 476	Unmanned Aerial Systems (UAS) Operations
Choose 1 Data Analytics course from the following list.	3
STAT 431	Statistical Analysis
MIS 350	Managing Information
MIS 440	Data Visualization for Managerial Decision Making
MIS 453	Database Design
Free electives	19
Total Hours	90-91

Courses to total 120 credits for this degree

Fall Term 1	Hours	
ENGL 101	Writing and Rhetoric I	3
GEOG 100	Introduction to Planet Earth	3
GEOG 100L	Introduction to Planet Earth Lab	1
MATH 143 OR MATH 160 OR MATH 170 OR MATH 175		3
Oral Communication Course		3
Social and Behavioral Ways of Knowing Course		3
Hours	16	
Spring Term 1	Hours	
ENGL 102	Writing and Rhetoric II	3
GEOG 165	Human Geography	3
GEOG 200	World Cultures and Globalization	3
MATH 160	Survey of Calculus	4
or MATH 170	or Calculus I	
or MATH 175	or Calculus II	
Humanistic and Artistic Ways of Knowing Course		3
Hours	16	
Fall Term 2	Hours	
ENGL 313	Business Writing	3
or ENGL 317	or Technical Writing II	
STAT 251	Statistical Methods	3
Geography Major, Elective Course		3
Scientific Ways of Knowing Course		4
Hours	13	
Spring Term 2	Hours	
CS 212	Practical Python	3
GEOG 385	Foundations of GIS	3
GEOG 260	Introduction to Geopolitics	3
or GEOG 330	or Urban Geography	
or GEOG 345	or Global Economic Geography	
or GEOG 350	or Sustainability of Global Development	
or GEOG 360	or Population Dynamics and Distribution	
or GEOG 365	or Geopolitics and Conflict	
GIS Elective, Major Elective Course		3

2 Geographical Information Systems (B.S.)

Remote Sensing, Major Elective Course		3
Hours		15
Fall Term 3		
GEOG 390	Cartographic Design & Geovisualization	3
GEOG 301	Meteorology	3
or GEOG 317	or Tree Rings and Environmental Change	
or GEOG 401	or Climatology	
or GEOG 410	or Biogeography	
or GEOG 430	or Climate Change Ecology	
GIS, Major Elective Course		3
Humanistic and Artistic Ways of Knowing Course		3
Elective Course		3
Hours		15
Spring Term 3		
GEOG 420	Land, Resources, and Environment	3
or GEOG 435	or Climate Change Mitigation	
or GEOG 455	or Societal Resilience and Adaptation to Climate	
or GEOG 488	Change or Geography of Energy Systems	
GEOG 475	Intermediate GIS	3
American Diversity Course		3
Elective Course		3
Elective Course		3
Hours		15
Fall Term 4		
GEOG 479	GIS Programming	3
GEOG 493	Senior Capstone in Geography	3
Geography, Major Elective Course		3
GIS, Major Elective Course		3
Elective Course		3
Hours		15
Spring Term 4		
Remote Sensing, Major Elective Course		3
Data Analytics, Major Elective Course		3
Elective Course		3
Elective Course		3
Elective Course		3
Hours		15
Total Hours		120

The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the Registrar's Office regarding your official degree/certificate completion status.

1. The ability to write clearly and to verbally explain problems and issues in geographic science and related human and environmental topics in an effective manner and with supportive visual and statistical materials.
2. The ability to understand empirical research reports and most methodology in the science of geography and related fields.
3. The ability to use GIS to map and analyze spatial patterns and relationships in a wide variety of data types.
4. The ability to use basic statistics and data analysis for constructing models of cause and effect.
5. The ability to design research methods to both problem-solve and to provide sound analysis for addressing practical and policy related questions.