

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
ENGL 313 or ENGL 317	Business Writing Technical Writing II	3
MATH 143	Precalculus I: Algebra (or higher)	3
CS 212 or CS 120 or CS 112	Practical Python Computer Science I Computational Thinking and Problem Solving	3
STAT 251	Statistical Methods	3
GEOG 100	Introduction to Planet Earth	3
GEOG 100L	Introduction to Planet Earth Lab	1
GEOG 165 or GEOG 200	Human Geography 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 6 credits from the following Geography courses:		6
GEOG 330	Urban Geography	
GEOG 365	Geopolitics and Conflict	
GEOG 301	Meteorology	
GEOG 317	Tree Rings and Environmental Change	
GEOG 401	Climatology	
GEOG 410	Biogeography	
GEOG 430	Climate Change Ecology	
GEOG 435	Climate Change Mitigation	
GEOG 488	Geography of Energy Systems	
GEOG 350	Sustainability of Global Development	
Select 12 additional credits in GEOL, GEOG, or ESS.		12
Choose 3 GIS courses out of the following list. Note: GEOG 424 and GEOG 483 can only count once in the major.		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/GIS Image Analysis	
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 once in the major.		4-6
FOR 472	Remote Sensing of the Environment	

GEOG 424	Hydrologic Applications of GIS and Remote Sensing	
GEOG 483	Remote Sensing/GIS Image Analysis	
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		18
Total Hours		86-88

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	Precalculus I: Algebra (or higher)	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 or GEOG 200	Human Geography or World Cultures and Globalization	3
Humanistic and Artistic Ways of Knowing Course		3
GEOL/GEOG/ESS Elective		3
GEOL/GEOG/ESS Elective		3
Hours		15
Fall Term 2		Hours
ENGL 313 or ENGL 317	Business Writing or Technical Writing II	3
STAT 251	Statistical Methods	3
GEOL/GEOG/ESS Elective		3
Scientific Ways of Knowing Course		4
Hours		13
Spring Term 2		Hours
CS 212 or CS 120 or CS 112	Practical Python or Computer Science I or Computational Thinking and Problem Solving	3
GEOG 385	Foundations of GIS	3
GEOG 301 OR GEOG 317 OR GEOG 330 OR GEOG 350 OR GEOG 365 OR GEOG 401 OR GEOG 410 OR GEOG 430 OR GEOG 435		3
GEOG 301 OR GEOG 317 OR GEOG 330 OR GEOG 350 OR GEOG 365 OR GEOG 401 OR GEOG 410 OR GEOG 430 OR GEOG 435		3
Remote Sensing, Major Elective Course		3
Hours		15
Fall Term 3		Hours
GEOG 390	Cartographic Design & Geovisualization	3
GIS, Major Elective Course		3
Humanistic and Artistic Ways of Knowing Course		3
Elective Course		3
GIS Elective, Major Elective Course		3
Hours		15
Spring Term 3		Hours
GEOG 475	Intermediate GIS	3
American Diversity Course		3
Elective Course		4

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Elective Course	3
Elective Course	3
Hours	16
Fall Term 4	
GEOG 479 GIS Programming	3
GEOG 493 Senior Capstone in Geography	3
GEOG/GEOG/ESS 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
GIS, Major 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.