

Accelerated Bachelor of Science in Earth and Environmental Systems, Geospatial Systems Track

B.S. to M.S. GIS Professional Concentration

This accelerated program gives outstanding bachelor's degree students in the Geosciences a "fast-track" option to pursue their Master of Science Geographic Information- Professional Concentration degree. Students accepted into an accelerated undergraduate program may take departmentally approved graduate coursework as part of their undergraduate curriculum. These credits will count towards both their bachelor's and master's degrees and can fulfill major requirements, upper-division requirements, and/or free electives. For details on accelerated programs at Idaho State University, please see (Degree Requirements (<https://coursecat.isu.edu/undergraduate/degreerequirements/>)).

Students accepted into the accelerated program may take up to 12 credit hours of 5000-level courses during the last two semesters of their bachelor's program that will apply to both the bachelor's and master's degree requirements. Students have to meet all requirements for both the bachelor's degree and master's degree. Once accepted into an accelerated degree program, it is strongly recommended for students to stay in close communication with their advisor regarding pursuit of acceptance into the Graduate School and the master's degree program at Idaho State University. Acceptance into an accelerated program during the bachelor's degree program is the first step in the admissions process. A separate application to the Graduate School is necessary for all accelerated programs. For more information regarding application and admission to the Graduate School at Idaho State University, please see the Graduate Admissions section of the graduate catalog (<http://coursecat.isu.edu/graduate/graduateadmissions/>).

Additional requirements for students in this program are:

Students must earn at least a "B" (3.0) in each graduate-level course counted for the program.

Eligibility for this program:

1. Completion of at least 64 undergraduate credits applicable to the Bachelor of Science in Earth and Environmental Systems, Geospatial Systems Track at the time of application.

2. Overall GPA of at least 3.0 on a 4.0 scale at the time of application.

Application Process to take undergraduate and graduate courses in a student's senior year: Students who wish to enroll in this program should apply no later than the end of the second semester of the year prior to their intended undergraduate degree conferral.

Applications should be sent to geology@isu.edu with the following:

1. A letter of intent to express how this accelerated program will enhance your academic and professional pathways to success
2. 2 letters of recommendation
3. Include "Accelerated BS to MSGIS" in the subject line of the email

Graduate School Application Process: Students will apply to the graduate school to become a MSGIS student during the year prior to their intended undergraduate degree conferral.

* Meeting these eligibility requirements does not guarantee acceptance into the accelerated master's degree.

Program Admissions Requirements

There are no program admission requirements for the BS Earth and Environment Systems, Geospatial Systems Concentration.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1170		4
Objective 4		6
Objective 5 - BIOL 1101, BIOL 1101L, and CHEM 1111		8
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		39

Major Requirements

Code	Title	Credits
The required Core Courses provide a solid background in Geosciences and other subjects. Environmental Systems include physical, biological and human systems; thus, the program incorporates course work in Biological Sciences, Physical and Social Sciences, and Mathematics. Some of these courses may satisfy General Education requirements.		
GEOL 2204 & 2204L	Fluid Earth and Fluid Earth Lab	4
GEOL 2205 & 2205L	Solid Earth and Solid Earth Lab	4
GEOL 3392	Geosciences Careers Seminar	1
GEOL 3313	Earth Materials I	4
GEOL 4403	Principles of Geographic Information Systems	3
GEOL 4429 or GEOL 4430	Watershed Hydrology Principles of Hydrogeology	3-4
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4

BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5

Geospatial Systems Concentration

This concentration combines courses in Geospatial Sciences, Environmental Geosciences, and supporting fields. This emphasis track will train students interested in geotechnology-related careers with government agencies, private companies, and academic institutions.

MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
MATH 3350	Statistical Methods	3
GEOL 4404	Advanced Geographic Information Systems	3
GEOL 4407	GPS/GNSS Applications in Research	3
GEOL 4408	GeoTechnology Seminar	2
GEOL 4409	Remote Sensing	3
GEOL 4427	Information Technology for GIS	3
GEOL 4428	Programming for GIS	3
Select two courses from the following:		6
GEOL 3310	Geologic Field Methods	
GEOL 4410	Science in American Society	
GEOL 4418	Introduction to Unmanned Aerial Systems	
GEOL 4452	Sedimentation-Stratigraphy	
GEOL 4480	Special Topics in GIS	
GEOL 4481	GeoTechnology Internship	
GEOL 4482	Independent Problems and Studies in Geology	
HIST 4430	Global Environmental History	
HIST 4432	U.S. Environmental History	
POLS 4455	Environmental Politics and Policy	
PHIL 4455	Environmental Ethics	
SOC 4435	Environmental Sociology	
CS 3310	Databases	
CS 3332	Data Science and Applied Machine Learning	
CS 4433	Applied Neural Networks	

Or other approved course in related fields

In the last 2 semesters of their Bachelor's Degree, students may take up to 12 credits of coursework listed in the core and elective sections of the MSGIS program.

Total Credits **66-67**

ENGL 3307 (<https://coursecat.isu.edu/search/?P=ENGL%203307>) Professional and Technical Writing is recommended for all students.

Degree Totals

Code	Title	Credits
	Program Admission Requirements	0
	General Education	39
	Major Requirements (Required General Education credits removed)	58-59
	Upper Division Free Electives	0

Free Electives	22-23
Total Credits	120

ISU Degree Requirements (<https://coursecat.isu.edu/undergraduate/degree requirements/>)

ISU General Education (<https://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>)

Major Academic Plan (MAP) (<https://www.isu.edu/advising/maps/>)

Master of Science in Geographic Information Science
(<https://coursecat.isu.edu/graduate/scienceengineering/geosciences/msgis/>)