

# Accelerated Bachelor of Science Earth and Environmental Systems, Environmental Systems Concentration

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

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, Environmental Systems Concentration 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](mailto: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.

## B.S. Earth and Environmental Systems, Environmental Systems Concentration

### Program Admissions Requirements

There are no program admission requirements for the B.S. Earth and Environmental Systems, Environmental 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
<b>Students must fulfill Objective 7 or Objective 8</b>		<b>3</b>
Objective 7		
Objective 8		
Objective 9		3
<b>Total Credits</b>		<b>39</b>

### 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 3315	Evolution of the Earth's Surface	4
GEOL 4403	Principles of Geographic Information Systems	3
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

### Environmental Systems Concentration

This concentration combines courses in Ecology, Environmental Geosciences, and supporting fields. This emphasis track will train students interested in field-related careers who need to understand the environmental relations between geologic and living systems.

CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170	Calculus I	4
MATH 3350	Statistical Methods	3
GEOL 4451	Field Methods in Environmental Sciences	3

Select two courses from the following: 7-8

GEOL 4402	Geomorphology	
GEOL 4417	Introduction to Soils and Critical Zone Processes	
GEOL 4429	Watershed Hydrology	
GEOL 4430	Principles of Hydrogeology	
GEOL 4452	Sedimentation-Stratigraphy	

Or other approved courses in related fields

Select one course from the following: 4

BIOL 4462 & 4462L	Freshwater Ecology and Freshwater Ecology Lab	
BIOL 4489	Field Ecology	
GEOL 4490	Ecosystem Ecology and Global Changes	

Select one elective from the following: 2-3

GEOL 3310	Geologic Field Methods	
GEOL 4410	Science in American Society	
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	

Or other approved courses 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 64-66**

Students who are considering graduate studies in a Geosciences field should consider also taking BIOL 3316 (<https://coursecat.isu.edu/search/?P=BIOL%203316>) Biometry Laboratory, PHYS 1111 (<https://coursecat.isu.edu/search/?P=PHYS%201111>) General Physics I with PHYS 1113 (<https://coursecat.isu.edu/search/?P=PHYS%201113>) General Physics I Laboratory or PHYS 1111 (<https://coursecat.isu.edu/search/?P=PHYS%201111>) General Physics I with PHYS 2213 (<https://coursecat.isu.edu/search/?P=PHYS%202213>) Engineering Physics I Laboratory.

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)	52-54
	Upper Division Free Electives	17
	Free Electives	10-12
	<b>Total Credits</b>	<b>120</b>

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/msgeographicinfoscience/>)**