

Environmental Studies

Credentials

Geographic Information Systems (GIS) Skills Certificate	16-17 cr.
Environmental Science Technician Certificate	31 cr.
Environmental Studies AAS Degree	61-65 cr.

Major Description

With more focus on “green” energy, technology and sustainability, Schoolcraft’s environmental studies programs prepare students for entry into this fast-growing field. Through the study of the environment, related sciences, communication and geographic information systems, students can pursue a skills certificate in Geographic Information Systems (GIS), an Environmental Science Technician Certificate, or an Associate in Applied Science degree in Environmental Studies. Students in the certificate or AAS program can complete a spring field experience in their final semester to apply the knowledge and skills learned at Schoolcraft in a real-world situation.

Environmental Studies: Geographic Information Systems Skills Certificate

Schoolcraft program code #CRT.00376

Geographic Information Systems (GIS) are sophisticated programs that incorporate both geospatial and tabular data to create products that can help users understand a problem or issue. GIS is used by professionals in all levels of government, business, engineering, public health, utilities, education, transportation, planning, emergency management, and other fields. Possible disciplines which employ GIS include biology, geography, anthropology, sociology, political science, and criminal justice. Students that complete the Geographic Information Systems Skills Certificate will have a basic understanding of GIS and the variety of its applications.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

First Year - Fall Semester

Course #	Course Title	Credits
GEOG 212	Environmental Science	3
GEOG 225	Introduction to Geographic Information Systems (GIS)	4
CIS 225	Database Management Systems	3
	Total Credits: 10	

First Year - Winter Semester

Course #	Course Title	Credits
ENVR 245	Applications in Geographic Information Systems (GIS)	3
GEOG Elective	<i>Select one</i>	
GEOG 135	Earth Systems	4
GEOG 217	Water Resources	3
	Total Credits: 6-7	

PROGRAM TOTAL 16-17 CREDITS

Environmental Science Technician Certificate

Schoolcraft program code #1YC.00276

Environmental science technicians provide technical assistance to engineers and scientists by performing tasks such as sample collection, laboratory testing, monitoring and data management. The environmental science technician applies scientific and technical skills and knowledge to specific tasks. Students in this program will develop their written and oral communication skills and computer skills as well as participate in practical hands-on training in the field and laboratory. They will have the opportunity to problem solve and apply their classroom knowledge to real world situations. The environmental science technician program provides students with the necessary background to be successful environmental science technicians.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

First Year - Fall Semester

Course #	Course Title	Credits
GEOG 212	Environmental Science	3
GEOG 225	Introduction to Geographic Information Systems (GIS)	4
CIS 225	Database Management Systems	3
MATH 113	Intermediate Algebra for College Students	4
	Total Credits: 14	

First Year - Winter Semester

Course #	Course Title	Credits
ENVR 107	Soil Mechanics	4
ENVR 245	Applications in Geographic Information Systems (GIS)	3
GEOG 135	Earth Systems	4
GEOG 217	Water Resources	3
	Total Credits: 14	

First Year - Spring Semester

Course #	Course Title	Credits
ENVR 233	Environmental Studies Field Experience	3
	Total Credits: 3	

PROGRAM TOTAL 31 CREDITS

Environmental Studies AAS Degree

Schoolcraft program code # AAS.00176

The environmental studies program is an interdisciplinary program that concentrates on the identification of environmental problems and the analysis of the complex interactions of human populations with the earth. The program includes discussions of technology and how it impacts the environment. Program courses incorporate the concept of sustainable development, a form of economic development that encourages economic growth while at the same time improving quality of life and preserving the environment. The capstone course is a Field Experience course where students apply classroom knowledge to a field environmental issue. Students in the environmental studies program can transfer to a four-year environmental studies or environmental science program.

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree. Students seeking transfer to a baccalaureate program should request transfer guides provided by the department.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

First Year - Fall Semester

Course #	Course Title	Credits
GEOG 212	Environmental Science	3
GEOG 225	Introduction to Geographic Information Systems (GIS)	4
CIS 225	Database Management Systems	3
MATH 113	Intermediate Algebra for College Students	4
	Total Credits: 14	

First Year - Winter Semester

Course #	Course Title	Credits
ENVR 107	Soil Mechanics	4
ENVR 245	Applications in Geographic Information Systems (GIS)	3
GEOG 135	Earth Systems	4
GEOG 217	Water Resources	3
	Total Credits: 14	

First Year - Spring Semester

Course #	Course Title	Credits
ENVR 233	Environmental Studies Field Experience	3
	Total Credits: 3	

Environmental Studies AAS Degree (continued)

Second Year - Fall Semester

Course #	Course Title	Credits
English Communication	Select first within a set of General Education English Communication courses*	3
Recommended:	ENG 101 – English Composition 1	
Humanities	Select General Education Humanities course*	1-4
ENVR 230	Energy Resources	3
BIOL 101	General Biology	4
Social Science	Select General Education Social Science course*	3
Recommended:	POLS 105 – Survey of American Government	
	Total Credits: 14-17	

Second Year - Winter Semester

Course #	Course Title	Credits
English Communication	Select second within a set of General Education English Communication courses*	3
Recommended:	ENG 102 – English Composition 2	
GEOG 203	Weather and Climate	3
CHEM 111	General Chemistry 1	4
Elective	Select two courses not previously taken from list	6-7
	Total Credits: 16-17	

Electives

Course #	Course Title	Credits
ANTH 112	Introduction to Anthropology	3
ANTH 201	Cultural Anthropology	3
CJ 113	Introduction to Criminal Justice Systems	3
GEOG 133	World Regional Geography	4
HS 101	Introduction to Homeland Security	3
HS 201	Organizational and Facility Security	3
POLS 105	Survey of American Government	3
POLS 109	State and Local Government	3
SOC 205	Social Problems	3

PROGRAM TOTAL 61-65 CREDITS

*Please check Schoolcraft General Education requirements to determine course options.



It is the policy of Schoolcraft college that no person shall, on the basis of race, religion, color, gender, age, marital status, disability, sexual orientation, and/or national origin, be subjected to discrimination during or be excluded from participating in or be denied the benefits of any program or activity or in employment.

