

Science Selection		Credits
	Science Selection* (See Science Selection below)	8
	Total Science Selection	8
Approved Elective		Credits
	Approved Elective**	3
	Total Approved Electives	3
Total credit hours required for this degree		66

* Science selection must include classes selected from Biology, Chemistry, Geology, and Physics.

** See your advisor for approved elective.

Approved Science Electives:

BIOL 220	General Botany
BIOL 222	Invertebrate Zoology
BIOL 223	Vertebrate Zoology
BIOL 224	Microbiology
BIOL 230	Environmental Conservation
BIOL 250	Systematic Botany
BIOL 260	Introduction to Cell Biology
CHEM 111	General Chemistry I
CHEM 112	General Chemistry II
CHEM 210	Organic Chemistry Survey
CHEM 251	Organic Chemistry I
CHEM 252	Organic Chemistry II
GEOL 110	Introduction to Geology
GEOL 111	Historical Geology
PHYS 211	General Physics I
PHYS 211L	General Physics I Lab
PHYS 212	General Physics II
PHYS 212L	General Physics II Lab

GEOGRAPHY

Associate of Science

General Education Core for Associate of Science (See Page 127)	27
NOTE: Math requirement must be MATH 160	
ENGL 211 or ENGL 218 requirement - Must take ENGL 211	
Lab Science Requirement included in Chemistry-core classes	

Geography – Core classes:		40-42
GEOG 112	World Regional Geography OR	
GEOG 145	Human Geography	3
GEOG 115	Map Use, Interpretation, and Design	4
GEOG 118	Introduction to Mapping Technologies	4
GEOG 111	Introduction to Physical Geography	4
GEOG 120	GPS and Surveying Methods	4
GEOG 151	Geographic Information Systems I	4
GEOG 251	Geographic Information Systems II	4
MATH 251	Statistics	4
COSC 185	Database Management Systems	3
	Approved Geography Electives**	6-8
Total credit hours required for this degree		67-69

**Approved Geography Electives		
GEOG 125	Weather and Climate	3
GEOG 130	Natural Hazards	3
GEOG 135	Energy and Natural Resources Geography	3
GEOG 140	Geography of the Four Corners	3
GEOG 230	Geographic Image Analysis	4
GEOL 110	Introduction to Geology	4
DRFT 150	Computer Aided Drafting (CAD)	4
COSC 214	Visual Basic I	3
COSC 118	Computer Programming Fundamentals I with C++	3
GEOG 295	GIS Topics	1-6
GEOG 299	GIS Special Problems	1-6
GEOG 285	GIS Internship	3
GEOG 280	Cooperative Education	3

GEOGRAPHIC INFORMATION SYSTEMS Certificate

The GIS certificate is appropriate for persons interested in developing skills in geospatial technologies to use in their current profession or for those seeking immediate employment as a technician.

GEOG 118	Introduction to Mapping Technologies	4
GEOG 115	Map Use, Interpretation & Design	4
GEOG 112	World Regional Geography OR	
	GEOG 145 Human Geography	3
COSC 125	Business Microcomputer Applications	3
GEOG 111	Introduction to Physical Geography	4
GEOG 120	GPS and Surveying Methods	4
GEOG 151	Geographic Information Systems I	4
COSC 185	Database Management Systems	3
Total Credit Hours		29