

Geology — Earth System Science Option (ESYS)

Freshman

Fall	Hours	Spring	Hours
ENGL 1100 English Composition I	3	ENGL 1120 English Composition II	3
GEOL 1100 Dynamic Earth	4	GEOL 1110 Earth and Life Through Time	4
CHEM 1030 Fundamentals Chemistry I	3	CHEM 1040 Fundamental Chemistry II	3
CHEM 1031 Fundamental Chemistry I Laboratory	1	CHEM 1041 Fundamental Chemistry II Laboratory	1
CORE HISTORY I	3	CORE HISTORY II	3
14		14	

Sophomore

Fall	Hours	Spring	Hours
BIOL 1020 Principles of Biology	3	BIOL 1030 Organismal Biology	3
BIOL 1021 Principles of Biology Laboratory	1	BIOL 1031 Organismal Biology Laboratory	1
GEOL 2010 Mineralogy and Optical Crystallography	5	BIOL 3030 Evolution and Systematics	3
MATH 1610 Calculus I	4	ESS Elective	4
CORE LITERATURE I	3	ESS Elective	4
16		15	

Junior

Fall	Hours	Spring	Hours	Summer	Hours
PHYS 1500 General Physics I	4	PHYS 1510 General Physics II	4	ESS Elective*	4
GEOL 3060 Lunar and Planetary Geology	3	BIOL 3060 Ecology	4		
GEOL 3200 Introduction to Paleobiology	3	GEOG 5210 Climatology	3		
CORE FINE ARTS	3	GEOL 5220 Geomorphology	3		
CORE SOCIAL SCIENCE ¹	3				
16			14		4

Senior

Fall	Hours	Spring	Hours
ESS Elective	4	ESS Elective	3
GEOG 5830 Geographic Information Systems	4	ESS Elective	3
CORE HUMANITIES	3	CORE SOCIAL SCIENCE	3
GEOL 4740 Senior Seminar	2	CORE LITERATURE II	3

	ESS Elective	3
	13	15

Total Hours: 121

* **ESS Elective** (BIOL 3075 Introduction to Oceanography, offered at Dauphin Island Sea Lab in summer, is recommended.)

1 GEOG 1010 is suggested for majors.

EARTH SYSTEM SCIENCE ELECTIVES

GEOL 2050 Igneous and Metamorphic Petrology

GEOL 3400 Structural Geology

GEOG 5400 Geography of Natural Hazards

GEOL 4010 Sedimentary Petrology

GEOL 4260 Introduction to Geochemistry

GEOG 5510 Human-Environment Interaction

GEOL 4300 Geodynamics

GEOG 5550 Geography of Water Resources

GEOL 4930 Directed Studies in Undergraduate Research

GEOG 5600 Global Resources and the Environment

GEOL 5100 Hydrogeology

GEOG 5820 Aerial Photography and Remote Sensing

GEOL 5600 Applied Geophysics

BIOL 2500 Human Anatomy and Physiology I

BIOL 2501 Human Anatomy and Physiology I Laboratory

BIOL 2510 Human Anatomy and Physiology II

BIOL 2511 Human Anatomy and Physiology II Laboratory

BIOL 3040 Biology of Marine Systems

BIOL 3075 Introduction to Oceanography (Dauphin Island Sea Lab)

BIOL 3100 Plant Biology

BIOL 3200 General Microbiology & BIOL 3201 General Microbiology Laboratory

BIOL 4010 Invertebrate Biodiversity

BIOL 4020 Vertebrate Biodiversity

BIOL 5090 Conservation Biology

BIOL 5150 Population and Community Ecology

CHEM 2030 Survey of Organic Chemistry

CHEM 2070 Organic Chemistry I

CHEM 2071 Organic Chemistry I Laboratory

CHEM 2080 Organic Chemistry II

CHEM 2081 Organic Chemistry II Laboratory

CHEM 3050 Analytical Chemistry

CHEM 3160 Survey of Physical Chemistry

PHYS 3500 Physics of the World Around Us

NATR 5050 Urban Ecology

NATR 5310 Environmental Ethics

CIVL 3220 Water and Waste Treatment