

EARTH AND ENVIRONMENTAL SCIENCE MAJOR (B.S.)

A minimum of 120 credits of coursework is required for the baccalaureate degree with a minimum 2.0 overall GPA, and a minimum 2.0 major GPA. However, more than 120 credits may be required depending upon the major field of study.

Program Requirements

Students must complete 42 credits of General Education requirements (<http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/general-ed-ba-bs>) and 3-9 credits of World Languages and Cultures Requirements (<http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/world-languages-cultures-requirement>).

Code	Title	Credits
Major Requirements		
EAES 105	Physical Geology	4
EAES 220	Mineralogy	4
EAES 240	Historical Geology	4
EAES 302	Structural Geology	3
EAES 320	Igneous Metamorphic Petrology	4
EAES 342	Invertebrate Paleobiology	4
EAES 441	Stratigraphy	4
EAES 404	Field Geology	6
Math Collateral		
Select one of the following sequences:		7-8
Math Sequence A		
MATH 111	Applied Precalculus	
	or MATH 112	Precalculus Mathematics
MATH 116	Calculus A	
Math Sequence B		
MATH 122	Calculus I	
& MATH 221	and Calculus II	
Physics Collateral		
Select one of the following sequences:		8
PHYS 191	University Physics I	
& PHYS 192	and University Physics II	
PHYS 193	College Physics I	
& PHYS 194	and College Physics II	
Chemistry Collateral		
CHEM 120	General Chemistry I	4
CHEM 121	General Chemistry II	4
Major Electives		
Select 11 credits from the list below:		11
Total Credits		67

Major Electives

Code	Title	Credits
EAES 200	Geomorphology	3
EAES 201	Understanding Weather and Climate	4
EAES 204	Geology Field Trip	1
EAES 210	Introduction to GIS and Remote Sensing	3

EAES 211	Aerial Photograph Interpretation	3
EAES 212	Map Reading and Cartography	4
EAES 230	Hydrology	3
EAES 250	Introduction to Marine Sciences	4
EAES 301	Climatology	3
EAES 310	Geographic Information Systems (GIS)	3
EAES 311	Fundamentals of Remote Sensing of Environment	3
EAES 321	Economic Geology	3
EAES 322	Environmental Geochemistry	3
EAES 330	Fluvial Geography	3
EAES 331	Geohydrology	3
EAES 332	Hydroclimatology	3
EAES 340	Sedimentology	4
EAES 341	Principles of Soil Science	3
EAES 350	Oceanography	3
EAES 361	Environmental Policy	3
EAES 403	Meteorology	4
EAES 443	Geology of the Vertebrates	4
EAES 451	Coastal Marine Geology	4
EAES 452	Dynamic Beach Processes	2
EAES 453	Tidal Marsh Sedimentations	2
EAES 454	Human Impact on the Coastal Zone	4
EAES 455	Field Methods in Oceanography	2
EAES 456	Physical Oceanography	4
EAES 459	Independent Study in the Marine Sciences	1-4
EAES 460	Environmental Law	3
EAES 470	The Geology of New Jersey	3
EAES 494	Independent Study in Geoscience	1-4
EAES 499	Select Topics in Earth Environmental Studies: Glacial Deposits, Climate Archive Resource Potential	1-4
PHMS 490	Field Methods in the Marine Sciences	4
PHYS 280	Astronomy	4