



**MOLLOY  
UNIVERSITY**

School of Arts & Sciences  
Department of Biology, Chemistry  
and Earth & Environmental Science

### **Earth and Environmental Science: Geoscience B.S.**

Students in the Earth and Environmental Science program are trained to fully understand the extent of Earth's environmental concerns and what we need to foster in order to reverse the trends of depleting natural resources or impacts on the quality and resiliency of Global ecosystems. In the Geoscience track, students focus on the study of the physical earth sciences: geology, ocean, atmosphere, and climate science, and the various ways that the physical environment impacts human activity.

#### **Essential Skills:**

1. Inquiry and analysis
2. Critical and creative thinking
3. Written and oral communication
4. Quantitative literacy
5. Information literacy
6. Teamwork and problem solving

**Honor Society:** The Biology, Chemistry and Environmental Science Department at Molloy University offers eligible students membership in [Chi Beta Phi](#) Scientific Honor Society affiliated with The American Association for the Advancement of Science (AAAS) since 1935 and includes 17 chapters in nine states.

**Student Clubs:** Molloy N.A.T.U.R.E. Club; Molloy E.A.R.T.H. Club

**Related Student Opportunities & Centers:** Center for Environmental Research and Coastal Oceans Monitoring (CERCOM); the Sustainability Institute

#### **Employment Information:**

Representative Job Titles Related to this Major Include: Geoscientist, Oceanographer, Meteorologist, Geologist, Earth Scientist, GIS Data Manager, Field Technician, Natural Hazards Manager, National Security Officer, Engineer, Educator, and more

Representative Employers to the Major Include: Local, state, and national governments and government agencies such as NOAA, US Coast Guard and US Navy, USGS, and DOE. Environmental consulting firms. Non-profit and for-profit organizations. Natural Hazards Management, Resource Extraction, and Energy industries.

#### Further Resources:

See the following resources: [National Association of Colleges & Employers: Career Readiness Defined](#), [AAC&U, What Can I Do with This Major?](#), and [Molloy Undergraduate Catalog](#).

FIRST YEAR			
Fall Courses		Spring Courses	
BIO 1260 General Biology I	4	BIO 1270 General Biology II	4
CHE 1320 Inorganic Chemistry I	4	CHE 1330 Inorganic Chemistry II	5
ENV 1010 Intro to Env Issues	3	MAT 1180* or General Education	3
FST 1000 Freshman Studies	1	ENV 1020 Found Earth Sys Sci	3
ENG 1100 English Composition	3		
<b>Total Credits</b>	<b>15</b>	<b>Total Credits</b>	<b>15</b>

SECOND YEAR			
Fall Courses		Spring Courses	
ESC 2000-level (Oceanography/Geomorphology/ Physical Geol. / or Earth's Atm)	3	ESC 2000-level (Oceanography/Geomorphology/ Physical Geol. / or Earth's Atm) x2	6
CHE 2000 Organic Chemistry I	4	ENV 2570 Sci Research Techniques	2
BIO 1500 Ecology or BIO1510 Mar Bio	3	General Education Requirement x2	6
MAT 1150A Statistics	3	PED 1220 Physical Fitness	1
General Education Requirement	3		
<b>Total Credits</b>	<b>16</b>	<b>Total Credits</b>	<b>15</b>

THIRD YEAR			
Fall Courses		Spring Courses	
ENV 4800 Research in ENV/ESC	3	ENV 4910 Research Thesis	2
MAT 2210 Calculus I	4	ENV/ESC 2000/3000 Level Elective	3
ENV/ESC 2000/3000 Level Elective	3	General Education Requirement	3
General Education Requirement	3	Elective	3
ENV 3300 Data Analysis ENV	3	ETH 2550 Environmental Ethics	3
<b>Total Credits</b>	<b>16</b>	<b>Total Credits</b>	<b>14</b>

FOURTH YEAR			
Fall Courses		Spring Courses	
ENV 4600 Internship	3	ENV 4900 Seminar	2
PHY 2700 General Physics I	4	ENV/ESC 2000/3000 Level Elective	3
CORE	4	General Education Requirement x2	6
General Education Requirement	3	Elective	3
Elective	1		
<b>Total Credits</b>	<b>15</b>	<b>Total Credits</b>	<b>14</b>
<b>Total Credits to Graduate</b>			<b>120</b>

**Notice:**

This 8-semester plan is not a contract, either expressed or implied, between the University and the student, but represents a flexible program of the current curriculum which may be altered periodically to carry out the academic objectives of the University. The University specifically reserves the right to change, delete or add to any 8-semester plan at any time within the student's period of study at the University.