BS Degree Requirements- Biology with Focus on Environmental Sciences (62 to 66 credit hours)

Students with **6** credits of Advanced Placement may omit the Bio **121** General Biology course.

Introductory Biology Core:

Required hours

BIO 121 General Biology		4
BIO 345 Ecology and Evolution	(Fall)	3
BIO 305 Integrative Biology Laboratory	(Spring)	3

^{*}note that as of 2012, students must achieve a C+ or better in at least two core courses prior to being allowed to declare this Biology major

Introductory Earth Science Core:

select 2 of the following:

	6-7 credits
EAR 101 Dynamic Earth	4
EAR 102 History of Earth and Life	3
EAR 106 Environmental Geology	3
EAR 111 Climate Change-Past and Present	3
EAR 117 Oceanography	3
EAR 203 Earth System Science	4

Additional Requirements in Cognate Sciences and Math (17 to 19 credit hours)

Either MAT 285/286 or MAT 295/296	6 or 8
Or MAT 285 or 295, plus Statistics	6 or 7
And	
2 semesters General Chemistry with laboratories	8
1 semester Organic Chemistry lecture (CHE 275)	3

Upper Division Requirements:

Select 24 credit hours from the following. At least 15 hours must be in Biology courses. One course must be a laboratory. (Appropriate substitutions may be made by petition to the Environmental Science Advisor, Dr. Doug Frank.)

Upper Division	Laboratory:
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choose one of the

following:

2-4 credits

BIO 405	Introduction to Field Biology	4
BIO 417	Animal Behavior/Evolution Laboratory	3
BIO 432	Environmental Microbiology Laboratory	3
BIO 453	Ecology Laboratory	3
CIE 471	Environmental Chemistry and Analysis	3

Others by petition

Upper Division Electives

in combination with lab must total to 24 credits

BIO 405 Introduction to Field Biology	4
BIO 409 Microbiology	4
BIO 415 Conservation Biology	3
BIO 417 Animal Behavior/Evolution Laboratory	3
BIO 432 Environmental Microbiology laboratory	3
BIO 451 Ecology	3
BIO 453 Ecology Laboratory	3
BIO 454 Evolution	3
CIE 471 Environmental Chemistry and Analysis	3
CIE 472 Applied Environmental Microbiology	3
CIE 554 Principles of Environmental Toxicology	3
CIE 555 Hazardous Waste Management	3
CIE 561 Air Resources I	3
EAR 314 Mineralogy	4
EAR 317 Sedimentary Processes and Systems	3
EAR 325 Introduction to Paleobiology	3
EAR 333 Structural Geology	4
EAR 345 Global Change: The Geologic Record	3
EAR 402 Introduction to Geophysical Methods	3
GEO 305 Population Change	3
GEO 314 Hazardous Geographic Environments	3
GEO 215 Global Environmental Change	3
GEO 316 River Environments	3
GEO 317 Geography of Mountain Environments	3
GEO 318 Tropical Environments	3
GEO 319 Cold Environments	3
GEO 322/LAS 329 Globalization and Environ. in Latin America	3
GEO 326 The Geography of Climate and Weather	3
GEO 353 Geographies of Environmental Justice	3
GEO 354/HST 384 American Environ. History and Geography	3
GEO 356 Environmental Ideas and Policy	3

GEO 383/683 Geographic Information Systems GEO 386 Quantitative Geographical Analysis GEO 555 Biogeography	
Required Senior Capstone Course	
BIO/EAR 428 (Capstone Environmental Seminar)	3

Additional Available Courses

Several courses in the College of Environmental Science and Forestry also will be available for students in this program, such as:

EFB 415 (Ecological Biogeochemistry)	3
EFB 505 (Microbial Ecology)	3
EFB 524 (Limnology)	3
EFB 525 (Limnology Laboratory)	1
FCH 515 (Methods of Environmental Chemical Analysis)	3
FEG 352 (Introduction to Remote Sensing)	3