BS with a Major in Earth and Environmental Sciences

Program Codes:
20FT1174BS

Degree Requirements

To earn a Bachelor of Science in Liberal Arts and Sciences degree from UIC, students need to complete university, college, and department degree requirements. The Department of Earth and Environmental Sciences degree requirements are outlined below. Students should consult the College of Liberal Arts and Sciences section for additional degree requirements and college academic policies.

Code	Title	Hours
Summary of Requirements		
Required Prerequisite and Collateral Courses		26
Core Courses		20
Selective Courses		19
General Education and Electives to reach minimum Total Hours		55
Total Hours		**120**

General Education

See General Education and Writing-in-the-Discipline in the College of Liberal Arts and Sciences section for information on meeting these requirements. Students should consult the course lists below and their advisors to determine which courses are counted toward the General Education and Writing-in-the-Discipline requirements.

Required Prerequisite and Collateral Courses

Code	Title	Hours
Required Courses		
Select one of the following options in general physics:		4
PHYS 131	Introductory Physics for Life Sciences I [a]	
PHYS 141	General Physics I (Mechanics) [a]	
CHEM 122	Matter and Energy [b]	3
CHEM 123	Foundations of Chemical Inquiry I [a,b]	2
MATH 180	Calculus I [a,c]	4
MATH 181	Calculus II [a]	4
Select one of the following:		5
CHEM 124 & CHEM 125	Chemical Dynamics and Foundations of Chemical Inquiry II [a,b]	
CHEM 130	Survey of Organic and Biochemistry [a]	
Select one of the following courses in general physics or biology:		4
PHYS 132	Introductory Physics for Life Sciences II [a]	
PHYS 142	General Physics II (Electricity and Magnetism) [a]	
BIOS 110	Biology of Cells and Organisms [a]	
BIOS 120	Biology of Populations and Communities [a]	
Total Hours		**26**

a *These courses are approved for the Analyzing the Natural World General Education category.*
b *General Education credit is given for successful completion of both CHEM 122 and CHEM 123 or CHEM 124 and CHEM 125.*
c *MATH 180 fulfills the LAS Quantitative Reasoning requirement.*

Core Courses

Code	Title	Hours
Required Courses		
EAES 101	Global Environmental Change [a]	4
EAES 111	Earth, Energy, and the Environment [a]	4
EAES 200	Field Work in Missouri [a]	2
EAES 230	Earth Materials	4
EAES 285	Earth Systems	4
EAES 290	Communication in Earth and Environmental Sciences [b]	2
Total Hours		**20**

a *This course is approved for the Analyzing the Natural World General Education category.*
b *EAES 290 fulfills the Writing-in-the-Discipline requirement.*

Selective Courses

Students must select at least 19 hours with at least one course from each of the following groups. In order to reach the 19 hours, one course can be chosen, with permission of the director of undergraduate studies, from an approved list of courses in environmental studies offered in other departments; these courses must be at the 200 level or above.

Code	Title	Hours
Courses		
Group I: Earth Materials		3-10
EAES 320	Mineralology	
EAES 430	Petrology	
EAES 473	Soils and the Environment	
Group II: Surface Environments and Processes		3-10
EAES 350	Sedimentary Environments	
EAES 470	Environmental Geomorphology	
EAES 475	Hydrology/Hydrogeology	
Group III: Geochemistry and Geobiology		3-10
EAES 360	Introduction to Paleontology	
EAES 415	Environmental Geochemistry	
EAES 416	Organic Geochemistry	
EAES 418	Introduction to Biogeochemistry	
EAES 460	Earth System History	
EAES 466	Principles of Paleontology	
Group IV: Geophysical and Mathematical Methods		3-10
EAES 420	Earth and Environmental Data Science	
EAES 440	Structural Geology and Tectonics	

EAES 444	Geophysics	
EAES 448	Plate Tectonics	
EAES 480	Modern Statistics in Earth and Environmental Sciences	
EAES 484	Planetary Science	
Approved summer course in geological or environmental field methods (4-6 hours)		
Total Hours		**19**

Recommended Plan of Study

Course	Title	Hours
First Year		
Fall Semester		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
CHEM 122	Matter and Energy	3
CHEM 123	Foundations of Chemical Inquiry I	2
EAES 101	Global Environmental Change	4
Foreign Language		4
	Hours	**16**
Spring Semester		
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
CHEM 124	Chemical Dynamics	3
CHEM 125	Foundations of Chemical Inquiry II	2
EAES 111	Earth, Energy, and the Environment	4
Foreign Language		4
	Hours	**16**
Second Year		
Fall Semester		
EAES 230		4
MATH 180	Calculus I	4
Foreign Language		4
EAES 290	Communication in Earth and Environmental Sciences	2
	Hours	**14**
Spring Semester		
Select one of the following:		4
PHYS 131	Introductory Physics for Life Sciences I	
PHYS 141	General Physics I (Mechanics)	
Foreign Language		4
EAES 285		4
EAES 200		2
	Hours	**14**
Third Year		
Fall Semester		
Select one of the following:		4
PHYS 132	Introductory Physics for Life Sciences II	
PHYS 142	General Physics II (Electricity and Magnetism)	
BIOS 110	Biology of Cells and Organisms	
BIOS 120	Biology of Populations and Communities	
MATH 181	Calculus II	4
Group I,II,III,IV EAES required course		3
General Education Requirement course		3
	Hours	**14**
Spring Semester		
Group I,II,III,IV EAES required course		3-4
Group I,II,III,IV EAES required course		3-4
Elective		3
General Education Requirement course		3
General Education Requirement course		3
	Hours	**15-17**
Fourth Year		
Fall Semester		
Group I,II,III,IV EAES required course		3-4
Electives		6
General Education Requirement course		3
General Education Requirement course		3
	Hours	**15-16**
Spring Semester		
Group I,II,III,IV EAES required course		3-4
Group I,II,III,IV EAES required course		3-4
Electives		10
	Hours	**16-18**
	Total Hours	**120**