

APPLIED ENVIRONMENTAL SCIENCE

The Green Mountain College Applied Environmental Science major has two primary objectives: the development of strong scientific skills and the application of these skills to the mission of sustainability. Sterling College's institutional mission of developing leaders in the field of environmental stewardship aligns well with these emphases, and Sterling's breadth of life sciences courses would support the Biology Concentration for this major.

Students can complete Applied Environmental Science major, Biology Concentration, by using the following equivalent courses:

Green Mountain College course	Credits	Sterling College course	Credits
AES1000 Challenges of Applied Environmental Science	1	By Independent Study	Variable
BIO1031 Biology I: Ecology	4	NS107A Foundations of Ecology	4
Choose one of the following two courses:	4	Choose one of the following courses:	3-4
BIO1035 Biology II: Machinery of Life BIO2014 Biology III: Biodiversity		NS247 Soil, Plants and Microbes I NS328 Vertebrate Natural History NS312 Field Ornithology NS314 Field Botany of Flowering Plants NS380A Botany of Cryptogams	
Take all of the following courses:		Take all of the following courses:	
BIO2005 Sophomore Seminar	1	By Independent Study	Variable
CHE1021 General Chemistry I	4	Take at Community College of Vermont	4
CHE2021 Organic Chemistry I	4	Take at Community College of Vermont	4
GLG1011 Introduction to Geology	4	NS260 Geology	4
ENV2010 Introduction Geographic Information Systems	4	SS308 Introduction to GIS	3
ECO2023 Economics of the Environment	3	SS210 Economics and the Environment	3
SLA/PHI1045 Environmental Ethics	3	By Independent Study	Variable
AES3000 Junior Seminar	1	By Independent Study	Variable
Choose one of the following two courses:	4	Take the following course:	4
BIO/SFS3031 Soil Ecology GLG2031 Soils		NS348 Soil, Plants and Microbes II	

Take all of the following courses:		Take all of the following courses:	
AES3090 Practicum/Internship	3	SS300 Practicum in Environmental Stewardship	4-6
AES4010 Science Policy and the Environment	3	SS202 Environmental Policy & Law	3
AES4070 Senior Capstone	3	INT422/423 Senior Year Research Project (over two semesters)	6-12
Choose one of the following two math tracks:		Choose one of the following two math tracks:	
Calculus Track: MAT1031 Calculus I & MAT1032 Calculus II	6	Calculus Track: Take at Community College of Vermont	6
Modeling Track: SLA/WFC2020 Data Analysis and Modeling & MAT3300 Environmental Modeling	6	Modeling Track: By Independent Study	6
Total Credits	50		54-57

CONCENTRATION (9-16 credits)

Sterling can support one of the four following concentration areas:

1. **Biology**
2. Chemistry; Geology; Math (not available at Sterling)

BIOLOGY CONCENTRATION

Choose one of the following two courses:		Take the following course:	
BIO1035 Biology II: Machinery of Life* BIO2014 Biology III: Biodiversity* *If not used in the core for the major	4	NS247 Soil, Plants and Microbes I	4
BIO Electives at the 3000-4000 level	9-12	Natural Science electives at the 300-400 level Choice from: NS328 Vertebrate Natural History NS312 Field Ornithology NS314 Field Botany of Flowering Plants NS380A Botany of Cryptogams NS301 Field Ecology NS402 Conservation Biology NS305 Wetlands Ecology NS/SS363/4 Research in Tropical Ecosystems	9-12

In addition, all students are required to complete 33 credits of upper division work (300-400 level courses), and meet the [Sustainable Liberal Arts](#) requirements.