ENVIRONMENTAL SCIENCES, BS (CALS)

REQUIREMENTS

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin-Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (https://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext) section of the Guide.

General Education

- Breadth—Humanities/Literature/Arts: 6 credits
- Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
- Breadth—Social Studies: 3 credits
- Communication Part A & Part B *
- Ethnic Studies *
- Quantitative Reasoning Part A & Part B *

* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

In addition to the University General Education Requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies, Science, and Capstone), but courses counted toward university requirements may also be used to satisfy a college and/or a major requirement; similarly, courses counted toward college requirements may also be used to satisfy a university and/or a major requirement.

COLLEGE REQUIREMENTS FOR ALL CALS BS DEGREE PROGRAMS

Code	Title	Credits
Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.		
Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.		
First year seminar (https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSFirstYearSeminarCourses)		1
International studies (https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSInternationalStudiesCourses)		3
Physical science fundamentals		4-5
CHEM 103	General Chemistry I	
or CHEM 108	Chemistry in Our World	
or CHEM 109	Advanced General Chemistry	
Biological science		5
Additional science (biological, physical, or natural)		3
Science breadth (biological, physical, natural, or social)		3
CALS Capstone Learning Experience: included in the requirements for each CALS major (see "major requirements") (https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSCapstoneRequirement)		

REQUIREMENTS FOR THE MAJOR

Courses may not double count within the major (unless specifically noted otherwise), but courses counted toward the major requirements may also be used to satisfy a university requirement and/or a college requirement. A minimum of **15 credits** must be completed in the major that are not used elsewhere.

MATHEMATICS AND STATISTICS

This major requires calculus. Prerequisites may need to be taken before enrollment in calculus. Refer to the Course Guide for information about calculus prerequisites.

Code	Title	Credits
Complete one of the following:		4-10
MATH 221	Calculus and Analytic Geometry 1 (Recommended)	
MATH 171 & MATH 217	Calculus with Algebra and Trigonometry I and Calculus with Algebra and Trigonometry II	
MATH 211	Survey of Calculus 1	
Complete one of the following:		3
STAT 240	Data Science Modeling I	
STAT 324	Introduction to Statistics for Science and Engineering	
STAT 371	Introductory Applied Statistics for the Life Sciences	
Total Credits		**7-13**

CHEMISTRY

Code	Title	Credits
General Chemistry (complete one of the following options):		5-10
CHEM 103 & CHEM 104	General Chemistry I and General Chemistry II	
CHEM 109	Advanced General Chemistry	

CHEM 115 & CHEM 116	Chemical Principles I and Chemical Principles II	
Organic Chemistry (complete one of the following options):		3
CHEM 341	Elementary Organic Chemistry	
CHEM 343	Organic Chemistry I	
Total Credits		**8-13**

BIOLOGY

Code	Title	Credits
Complete one of the following:		10
BIOLOGY/ BOTANY/ ZOOLOGY 151 & BIOLOGY/ BOTANY/ ZOOLOGY 152	Introductory Biology and Introductory Biology	
BOTANY/ BIOLOGY 130 & ZOOLOGY/ BIOLOGY 101 & ZOOLOGY/ BIOLOGY 102	General Botany and Animal Biology and Animal Biology Laboratory	
BIOCORE 381 & BIOCORE 382 & BIOCORE 383 & BIOCORE 384	Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory and Cellular Biology and Cellular Biology Laboratory	
Total Credits		**10**

PHYSICS

Code	Title	Credits
Complete one of the following:		4-5
PHYSICS 207	General Physics (Recommended)	
PHYSICS 103	General Physics	
PHYSICS 201	General Physics	
Total Credits		**4-5**

MAJOR FOUNDATION

Code	Title	Credits
Complete one of the following:		3
GEOSCI/ ENVIR ST 106	Environmental Geology	
SOIL SCI/ ENVIR ST/ GEOG 230	Soil: Ecosystem and Resource	
SOIL SCI 250	Introduction to Environmental Science	
Total Credits		**3**

MAJOR CORE

Complete at least one course and 3 credits from each of the following areas:

Ecology

Code	Title	Credits
AGROECOL 370	Grassland Ecology	3
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology (Recommended)	4
BOTANY 455	The Vegetation of Wisconsin	4
DY SCI 471	Food Production Systems and Sustainability	3
ENTOM 450	Basic and Applied Insect Ecology	3
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	3
ENTOM 490	Biodiversity and Global Change	3
ENVIR ST/ ZOOLOGY 510	Ecology of Fishes	3
ENVIR ST/ ZOOLOGY 511	Ecology of Fishes Lab	2
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
F&W ECOL 410	Silviculture: Applied Forest Ecology	3
F&W ECOL/AN SCI/ ZOOLOGY 520	Ornithology	3
F&W ECOL/AN SCI/ ZOOLOGY 521	Birds of Southern Wisconsin	3
F&W ECOL 550	Forest Ecology	3
F&W ECOL 551	Forest Ecology Lab	1
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	2
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3
LAND ARC/ ENVIR ST 581	Prescribed Fire: Ecology and Implementation	3
PLANTSCI 300	Cropping Systems	3
PLANTSCI 334	Greenhouse Cultivation	2
PLANTSCI 335	Greenhouse Cultivation Lab	1
SOIL SCI 323	Soil Biology	3
ZOOLOGY 304	Marine Biology	2
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources	2-3

Physical Environment

Code	Title	Credits
ATM OCN 310	Dynamics of the Atmosphere and Ocean I	3
ATM OCN/ ENVIR ST/ GEOG 322	Polar Regions and Their Importance in the Global Environment	3
ATM OCN/ ENVIR ST/GEOG/ GEOSCI 335	Climatic Environments of the Past	3
ATM OCN/ ENVIR ST 355	Introduction to Air Quality	3

ATM OCN 425	Global Climate Processes	3
ATM OCN/ ENVIR ST 520	Bioclimatology	3
BSE 365	Measurements and Instrumentation for Biological Systems	3
BSE/ENVIR ST 367	Renewable Energy Systems	3
BSE 460	Biorefining: Energy and Products from Renewable Resources	3
CIV ENGR 320	Environmental Engineering	3
CIV ENGR/G L E 421	Environmental Sustainability Engineering	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
ENVIR ST/ POP HLTH 502	Air Pollution and Human Health	3
GEOG/GEOSCI 320	Geomorphology	3
GEOG/ATM OCN/ ENVIR ST 332	Global Warming: Science and Impacts	3
GEOG/BOTANY 338	Environmental Biogeography	3
GEOG/GEOSCI 420	Glacial and Pleistocene Geology	3
GEOSCI 304	Geobiology	3
GEOSCI 551	Paleoceanography	3
GEOSCI/G L E 627	Hydrogeology	3-4
GEOSCI/G L E 629	Contaminant Hydrogeology	3
PLANTSCI/ ATM OCN 532	Environmental Biophysics	3
POP HLTH/ ENVIR ST 471	Introduction to Environmental Health	3
SOIL SCI 301	General Soil Science	3
SOIL SCI 302	Meet Your Soil: Soil Analysis and Interpretation Laboratory	1
SOIL SCI/ ENVIR ST 324	Soils and Environmental Quality	3
SOIL SCI 327	Environmental Monitoring and Soil Characterization	3
SOIL SCI 430	Soil Pollution and Human Health	3
SOIL SCI/ F&W ECOL 451	Environmental Biogeochemistry	3
SOIL SCI 621	Soil and Environmental Chemistry	3
SOIL SCI/ CIV ENGR/ M&ENVTOX 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3

Geospatial Sciences

Code	Title	Credits
ATM OCN 575	Climatological Analysis	3-4
COMP SCI 220	Data Science Programming I	4
ENVIR ST/ CIV ENGR/ LAND ARC 556	Remote Sensing Digital Image Processing	3
F&W ECOL 458	Environmental Data Science	3
GEOG 370	Introduction to Cartography	4
GEOG/ENVIR ST/ F&W ECOL/ G L E/GEOSCI/ LAND ARC 371	Introduction to Environmental Remote Sensing	3
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	4
GEOSCI/CIV ENGR/ ENVIR ST/G L E 444	Practical Applications of GPS Surveying	2
LAND ARC 311	Introduction to Design Frameworks and Spatial Technologies	2
LAND ARC 511	Geodesign Methods and Applications	3
SOIL SCI 585	Using R for Soil and Environmental Sciences	3
SOIL SCI/ENVIR ST/ LAND ARC 695	Applications of Geographic Information Systems in Natural Resources	3

Environmental Policy & Social Perspectives

Code	Title	Credits
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E 246	Climate Change Economics and Policy	3
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
AMER IND/ ENVIR ST 306	Indigenous Peoples and the Environment	3
AMER IND/ ENVIR ST/ GEOG 345	Caring for Nature in Native North America	3
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
C&E SOC/CURRIC/ ENVIR ST 405	Education for Sustainable Communities	3
C&E SOC/ENVIR ST/ GEOG 434	People, Wildlife and Landscapes	3
C&E SOC/ENVIR ST/ SOC 540	Sociology of International Development, Environment, and Sustainability	3
C&E SOC/SOC 541	Environmental Stewardship and Social Justice	3
ENVIR ST 349	Climate Change Governance	3
ENVIR ST/ GEOG 439	US Environmental Policy and Regulation	3-4
ENVIR ST/ PHILOS 441	Environmental Ethics	3-4
GEOG/ ENVIR ST 339	Environmental Conservation	4
GEOG/ URB R PL 305	Introduction to the City	3-4
GEOG/ENVIR ST/ HISTORY 460	American Environmental History	4
GEOG/ ENVIR ST 537	Culture and Environment	4
GEOSCI/ ENVIR ST 411	Energy Resources	3
LSC 340	Misinformation, Fake News, and Correcting False Beliefs about Science	3

URB R PL/ ECON/ENVIR ST/ POLI SCI 449	Government and Natural Resources	3-4

MAJOR ELECTIVES

Students may consult with their environmental sciences advisor regarding pathways to complete the major electives requirement. Students must complete 12 credits of electives either by:

1. distributing 12 credits across at least three categories;
2. focusing 12 credits in a single category.

Distributed Electives

Students choosing the Distributed Electives path must complete a total of **12 credits** of Environmental Sciences Electives from the categories below, including **at least one course** from **each** category (Ecology, Physical Environment, Geospatial Sciences)[1].

Ecology

Code	Title	Credits
AGROECOL 370	Grassland Ecology	3
BOTANY 455	The Vegetation of Wisconsin	4
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	4
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	3
ENTOM 450	Basic and Applied Insect Ecology	3
ENTOM 490	Biodiversity and Global Change	3
ENVIR ST/ ZOOLOGY 510	Ecology of Fishes	3
ENVIR ST/ ZOOLOGY 511	Ecology of Fishes Lab	2
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
F&W ECOL 410	Silviculture: Applied Forest Ecology	3
F&W ECOL/AN SCI/ ZOOLOGY 520	Ornithology	3
F&W ECOL/AN SCI/ ZOOLOGY 521	Birds of Southern Wisconsin	3
F&W ECOL 550	Forest Ecology	3
F&W ECOL 551	Forest Ecology Lab	1
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	2
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3
LAND ARC/ ENVIR ST 581	Prescribed Fire: Ecology and Implementation	3
PLANTSCI 300	Cropping Systems	3
PLANTSCI 334	Greenhouse Cultivation	2
PLANTSCI 335	Greenhouse Cultivation Lab	1
SOIL SCI 323	Soil Biology	3
ZOOLOGY 304	Marine Biology	2
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources	2-3
ZOOLOGY 320	Field Marine Biology	3

Physical Environment

Code	Title	Credits
ATM OCN 310	Dynamics of the Atmosphere and Ocean I	3
ATM OCN/ ENVIR ST/ GEOG 322	Polar Regions and Their Importance in the Global Environment	3
ATM OCN/ ENVIR ST/GEOG/ GEOSCI 335	Climatic Environments of the Past	3
ATM OCN/ ENVIR ST 355	Introduction to Air Quality	3
ATM OCN 425	Global Climate Processes	3
ATM OCN/ ENVIR ST 520	Bioclimatology	3
BSE 365	Measurements and Instrumentation for Biological Systems	3
BSE/ENVIR ST 367	Renewable Energy Systems	3
BSE 460	Biorefining: Energy and Products from Renewable Resources	3
CIV ENGR 311	Hydroscience	3
CIV ENGR 320	Environmental Engineering	3
CIV ENGR 324	Environmental Engineering Thermodynamics	3
CIV ENGR/G L E 421	Environmental Sustainability Engineering	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
ENVIR ST/ POP HLTH 502	Air Pollution and Human Health	3
GEOG/GEOSCI 320	Geomorphology	3
GEOG/ATM OCN/ ENVIR ST 332	Global Warming: Science and Impacts	3
GEOG/BOTANY 338	Environmental Biogeography	3
GEOG/GEOSCI 420	Glacial and Pleistocene Geology	3
GEOSCI 304	Geobiology	3
GEOSCI 551	Paleoceanography	3
GEOSCI/G L E 627	Hydrogeology	3-4
GEOSCI/G L E 629	Contaminant Hydrogeology	3
PLANTSCI/ ATM OCN 532	Environmental Biophysics	3
POP HLTH/ ENVIR ST 471	Introduction to Environmental Health	3
SOIL SCI 301	General Soil Science	3
SOIL SCI 302	Meet Your Soil: Soil Analysis and Interpretation Laboratory	1
SOIL SCI/ ENVIR ST 324	Soils and Environmental Quality	3
SOIL SCI 327	Environmental Monitoring and Soil Characterization	3

SOIL SCI 430	Soil Pollution and Human Health	3
SOIL SCI/ F&W ECOL 451	Environmental Biogeochemistry	3
SOIL SCI 621	Soil and Environmental Chemistry	3
SOIL SCI/ CIV ENGR/ M&ENVTOX 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3

Geospatial Sciences

Code	Title	Credits
ATM OCN 575	Climatological Analysis	3-4
ENVIR ST/ CIV ENGR/ LAND ARC 556	Remote Sensing Digital Image Processing	3
F&W ECOL 458	Environmental Data Science	3
GEOG 370	Introduction to Cartography	4
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	4
GEOG 378	Introduction to Geocomputing	4
GEOG 560	Advanced Quantitative Methods	3
GEOG 578	GIS Applications	4
GEOG 579	GIS and Spatial Analysis	4
GEOSCI/CIV ENGR/ ENVIR ST/G L E 444	Practical Applications of GPS Surveying	2
GEOG 523	Advanced Paleoecology: Species Responses to Past Environmental Change	3
LAND ARC 311	Introduction to Design Frameworks and Spatial Technologies	2
LAND ARC 511	Geodesign Methods and Applications	3
SOIL SCI 585	Using R for Soil and Environmental Sciences	3
SOIL SCI/ENVIR ST/ LAND ARC 695	Applications of Geographic Information Systems in Natural Resources	3

Focused Electives

Students choosing the Focused Electives path must complete a total of **12 credits** of Environmental Sciences Electives from **one** of the following categories (Ecology, Physical Environment, Geospatial Sciences, or Environmental Policy & Social Perspectives).[1]

Ecology

Code	Title	Credits
AGROECOL 370	Grassland Ecology	3
DY SCI 471	Food Production Systems and Sustainability	3
BOTANY 455	The Vegetation of Wisconsin	4
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	4
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	3
ENTOM 490	Biodiversity and Global Change	3
ENTOM 450	Basic and Applied Insect Ecology	3
ENVIR ST/ ZOOLOGY 510	Ecology of Fishes	3
ENVIR ST/ ZOOLOGY 511	Ecology of Fishes Lab	2
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
F&W ECOL 410	Silviculture: Applied Forest Ecology	3
F&W ECOL/AN SCI/ ZOOLOGY 520	Ornithology	3
F&W ECOL/AN SCI/ ZOOLOGY 521	Birds of Southern Wisconsin	3
F&W ECOL 550	Forest Ecology	3
F&W ECOL 551	Forest Ecology Lab	1
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	2
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3
LAND ARC/ ENVIR ST 581	Prescribed Fire: Ecology and Implementation	3
PLANTSCI 300	Cropping Systems	3
PLANTSCI 334	Greenhouse Cultivation	2
PLANTSCI 335	Greenhouse Cultivation Lab	1
SOIL SCI 323	Soil Biology	3
ZOOLOGY 304	Marine Biology	2
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources	2-3
ZOOLOGY 320	Field Marine Biology	3

Physical Environment

Code	Title	Credits
ATM OCN 310	Dynamics of the Atmosphere and Ocean I	3
ATM OCN/ ENVIR ST/ GEOG 322	Polar Regions and Their Importance in the Global Environment	3
ATM OCN/ ENVIR ST/GEOG/ GEOSCI 335	Climatic Environments of the Past	3
ATM OCN/ ENVIR ST 355	Introduction to Air Quality	3
ATM OCN 425	Global Climate Processes	3
ATM OCN/ ENVIR ST 520	Bioclimatology	3
BSE 365	Measurements and Instrumentation for Biological Systems	3
BSE/ENVIR ST 367	Renewable Energy Systems	3
BSE 460	Biorefining: Energy and Products from Renewable Resources	3
CIV ENGR 311	Hydroscience	3
CIV ENGR 320	Environmental Engineering	3

CIV ENGR 324	Environmental Engineering Thermodynamics	3
CIV ENGR/G L E 421	Environmental Sustainability Engineering	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
ENVIR ST/ POP HLTH 502	Air Pollution and Human Health	3
GEOG/GEOSCI 320	Geomorphology	3
GEOG/ATM OCN/ ENVIR ST 332	Global Warming: Science and Impacts	3
GEOG/BOTANY 338	Environmental Biogeography	3
GEOG/GEOSCI 420	Glacial and Pleistocene Geology	3
GEOSCI 304	Geobiology	3
GEOSCI 551	Paleoceanography	3
GEOSCI/G L E 627	Hydrogeology	3-4
GEOSCI/G L E 629	Contaminant Hydrogeology	3
PLANTSCI/ ATM OCN 532	Environmental Biophysics	3
POP HLTH/ ENVIR ST 471	Introduction to Environmental Health	3
SOIL SCI 301	General Soil Science	3
SOIL SCI 302	Meet Your Soil: Soil Analysis and Interpretation Laboratory	1
SOIL SCI/ ENVIR ST 324	Soils and Environmental Quality	3
SOIL SCI 327	Environmental Monitoring and Soil Characterization	3
SOIL SCI 430	Soil Pollution and Human Health	3
SOIL SCI/ F&W ECOL 451	Environmental Biogeochemistry	3
SOIL SCI 621	Soil and Environmental Chemistry	3
SOIL SCI/ CIV ENGR/ M&ENVTOX 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3

Geospatial Sciences

Code	Title	Credits
ATM OCN 575	Climatological Analysis	3-4
ENVIR ST/ CIV ENGR/ LAND ARC 556	Remote Sensing Digital Image Processing	3
F&W ECOL 458	Environmental Data Science	3
GEOG 370	Introduction to Cartography	4
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	4
GEOG 378	Introduction to Geocomputing	4
GEOG 523	Advanced Paleoecology: Species Responses to Past Environmental Change	3
GEOG 560	Advanced Quantitative Methods	3
GEOG 578	GIS Applications	4
GEOG 579	GIS and Spatial Analysis	4
GEOSCI/CIV ENGR/ ENVIR ST/G L E 444	Practical Applications of GPS Surveying	2
LAND ARC 311	Introduction to Design Frameworks and Spatial Technologies	2
LAND ARC 511	Geodesign Methods and Applications	3
SOIL SCI 585	Using R for Soil and Environmental Sciences	3
SOIL SCI/ENVIR ST/ LAND ARC 695	Applications of Geographic Information Systems in Natural Resources	3

Environmental Policy & Social Perspectives

Code	Title	Credits
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E 246	Climate Change Economics and Policy	3
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
AMER IND/ ENVIR ST 306	Indigenous Peoples and the Environment	3
AMER IND/ ENVIR ST/ GEOG 345	Caring for Nature in Native North America	3
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
C&E SOC/CURRIC/ ENVIR ST 405	Education for Sustainable Communities	3
C&E SOC/ENVIR ST/ GEOG 434	People, Wildlife and Landscapes	3
C&E SOC/ENVIR ST/ SOC 540	Sociology of International Development, Environment, and Sustainability	3
C&E SOC/SOC 541	Environmental Stewardship and Social Justice	3
ENVIR ST 349	Climate Change Governance	3
ENVIR ST/ GEOG 439	US Environmental Policy and Regulation	3-4
ENVIR ST/ PHILOS 441	Environmental Ethics	3-4
GEOG/ URB R PL 305	Introduction to the City	3-4
GEOG/ ENVIR ST 339	Environmental Conservation	4
GEOG/ENVIR ST/ HISTORY 460	American Environmental History	4
GEOG/ ENVIR ST 537	Culture and Environment	4
GEOSCI/ ENVIR ST 411	Energy Resources	3
LSC 340	Misinformation, Fake News, and Correcting False Beliefs about Science	3
URB R PL/ ECON/ENVIR ST/ POLI SCI 449	Government and Natural Resources	3-4

[1] Students may consult their environmental sciences advisor regarding alternate ways to complete the major electives requirement.

CAPSTONE [1]

Code	Title	Credits
CIV ENGR 515	Hydroclimatology for Water Resources Management	3
BOTANY/ENVIR ST/ F&W ECOL/ ZOOLOGY 516	Conservation Biology	3
ENVIR ST/ SOIL SCI 575	Assessment of Environmental Impact	3
F&W ECOL/ A A E 430	Decision Methods for Natural Resource Managers	3
LAND ARC 668	Restoration Ecology	3
PL PATH 315	Plant Microbiomes	4
PLANTSCI 510	Senior Capstone Experience	2
SOIL SCI 499	Soil Management	3
PLANTSCI 376 & PLANTSCI 378	Tropical Horticultural Systems and Tropical Horticultural Systems International Field Study	4

[1] Students may speak with their environmental science advisor about alternatives (e.g., courses, directed study, senior thesis) to complete the capstone. To be approved, the alternative must be taken for a minimum of 3 credits, clearly focused on environmental science, and approved by the Environmental Sciences Administrative Committee. Students must consult with their environmental sciences advisor and fill out all necessary paperwork before registering.

UNIVERSITY DEGREE REQUIREMENTS

Total Degree	To receive a bachelor's degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.
Residency	Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. "In residence" means on the UW–Madison campus with an undergraduate degree classification. “In residence” credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.
Quality of Work	Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.