NATURAL RESOURCES & ENVIRONMENTAL SCIENCES: ECOSYSTEM STEWARDSHIP & RESTORATION ECOLOGY, BS

for the degree of Bachelor of Science Major in Natural Resources & Environmental Sciences, Ecosystem Stewardship & Restoration Ecology Concentration

Ecosystem Stewardship and Restoration Ecology emphasizes the ecology, structure, and function of ecosystems, with a particular focus on plant communities and their interactions with the living and non-living parts of ecosystems. It is designed for students interested in the fundamental properties and practices underlying the restoration and management of soil, watershed, wetland, forest, and grassland ecosystems. The concentration includes coursework in the areas of restoration, landscape, and plant ecology, as well as courses focused on specific ecosystems (e.g. streams, wetlands, agroecosystems), invasive species, community ecology, and ecosystem science.

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Prescribed Course	es including Campus General Education	Hours		
Composition I and	Speech			
Select one of the following:				
RHET 105 & CMN 101	Writing and Research and Public Speaking (or equivalent) (see College Composition I requirement)			
CMN 111 & CMN 112	Oral & Written Comm I and Oral & Written Comm II			
Advanced Compos	ition			
Select from campus approved list				
Cultural Studies				
Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.				
Foreign Language				
Coursework at or a	bove the third level is required for graduation.			
Quantitative Reason	oning I			
Select one of the following:				
MATH 220	Calculus			
MATH 221	Calculus I			
MATH 234	Calculus for Business I			
Quantitative Reason	oning II			
Select one of the following:				
ACE 261				
CPSC 241	Intro to Applied Statistics			
ECON 202	Economic Statistics I			
PSYC 235	Intro to Statistics			

SOC 280	Intro to Social Statistics				
STAT 100	Statistics				
Natural Sciences and	l Technology				
CHEM 102	General Chemistry I	4			
& CHEM 103	and General Chemistry Lab I				
CHEM 104	General Chemistry II	4			
& CHEM 105	and General Chemistry Lab II	4			
IB 103 Introduction to Plant Biology					
Select one of the foll	3	4-5			
IB 104	Animal Biology				
or IB 150 & IB 151	Organismal & Evolutionary Biol and Organismal & Evol Biol Lab				
Select one of the foll	-	3-5			
GGIS 103	Earth's Physical Systems	0 0			
GEOL 107	Physical Geology				
PHYS 101	College Physics: Mech & Heat				
PHYS 211	University Physics: Mechanics				
MCB 100	Introductory Microbiology				
Humanities and the	, ,,				
Select from campus	approved list.	6			
Social and Behaviora	••				
ACE 100	Introduction to Applied Microeconomics	3-4			
or ECON 102	Microeconomic Principles				
Select one additional	course from campus approved list.	3-4			
Natural Resources and Environmental Sciences Required (Core)					
NRES 102	Introduction to NRES	3			
NRES 201	Introductory Soils	4			
NRES 219	Applied Ecology	3			
NRES 287	Environment and Society	3			
NRES 325	Natural Resource Policy Mgmt	3			
NRES 348	Fish and Wildlife Ecology	3			
NRES 421	Quantitative Methods in NRES	3			
NRES 454	GIS in Natural Resource Mgmt	4			
NRES 456	Integrative Ecosystem Management	3			
NRES 285	Field Experience	1,2			
One additional Field	Experience course	1-2			
NRES 285	Field Experience (repeatable)				
NRES 293	Professional Internship				
NRES 294	Resident Internship				
NRES 295	Undergrad Research or Thesis				
NRES 396	UG Honors Research or Thesis				
ACES Required					
ACES 101	Contemporary Issues in ACES	2			
Required Concentrat	ion				
Concentration prescreach concentration l	ribed courses. See specific requirements for isted below.	19-29			
Total Hours		126			
Codo	Tialo	Harres			
Code	Title	Hours			
Concentration Core F	•	2			
NRES 419 NRES 420	Env and Plant Ecosystems	3			
NRES 420 NRES 465	Restoration Ecology Landscape Ecology	3			
111120 700	Landscape Leology	3			

Concentration Elective Requirements

NRES 302 Dendrology NRES 362 Ecology of Invasive Species NRES 415 Native Plant ID and Floristics CPSC 431 Plants and Global Change IB 452 Ecosystem Ecology IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology	_		- 110401101110	
NRES 362 Ecology of Invasive Species NRES 415 Native Plant ID and Floristics CPSC 431 Plants and Global Change IB 452 Ecosystem Ecology IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology Urban Ecology	Т	wo Ecology Courses	3	6-7
NRES 415 Native Plant ID and Floristics CPSC 431 Plants and Global Change IB 452 Ecosystem Ecology IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology Urban Ecology		NRES 302	Dendrology	
CPSC 431 Plants and Global Change IB 452 Ecosystem Ecology IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology		NRES 362	Ecology of Invasive Species	
IB 452 Ecosystem Ecology IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology		NRES 415	Native Plant ID and Floristics	
IB 453 Community Ecology IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology		CPSC 431	Plants and Global Change	
IB 439 Biogeography One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		IB 452	Ecosystem Ecology	
One Ecosystem or Management Course NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology Urban Ecology		IB 453	Community Ecology	
NRES 401 Watershed Hydrology NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		IB 439	Biogeography	
NRES 402 NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology	0	One Ecosystem or Management Course		3-4
NRES 418 Wetland Ecology & Management NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 401	Watershed Hydrology	
NRES 427 Modeling Natural Resources NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 402		
NRES 429 Aquatic Ecosystem Conservation NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 418	Wetland Ecology & Management	
NRES 485 Stream Ecosystem Management CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 427	Modeling Natural Resources	
CPSC 437 Principles of Agroecology CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 429	Aquatic Ecosystem Conservation	
CEE 432 Stream Ecology IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		NRES 485	Stream Ecosystem Management	
IB 361 Ecology and Human Health IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		CPSC 437	Principles of Agroecology	
IB 451 Conservation Biology UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		CEE 432	Stream Ecology	
UP 405 Watershed Ecology and Planning UP 406 Urban Ecology		IB 361	Ecology and Human Health	
UP 406 Urban Ecology		IB 451	Conservation Biology	
3,		UP 405	Watershed Ecology and Planning	
		UP 406	Urban Ecology	
Total Concentration-Required Hours: 19-	19-21			

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. For more information, see the corresponding section on the Degree and General Education Requirements page.

First Year

First Semester	Hours	Second Semester Hours	
NRES 102		3 CHEM 102	3
ACES 101		2 CHEM 103	1
RHET 105 or CMN 101		4 CMN 101 or RHET 105	3
IB 104 or 150 and 151		4 MATH 234	4
Language Other than English (3rd level)		4 IB 103	4
		17	15

First Semester Hours Second Semester Hours	
NRES 219 3 NRES 287	3
CHEM 104 3 NRES 201	4
CHEM 105 1 Statistics course from degree list	3
ACE 100 or ECON 4 General 102 Education course	3
Natural Science 3 Free Elective course from course degree list	3
General 3 Education course	
17	16
Third Year	
First Semester Hours Second Semester Hours	
NRES 454 4 NRES 325	3
NRES 348 3 NRES 420	4
Ecosystem or 3 Ecology course Management course	3
Field Experience 2 General	3
course Education course	
Free Elective 3 Free Elective	3
course course	
15	16
Fourth Year	
First Semester Hours Second Semester Hours	
NRES 285 2 NRES 456	3
NRES 419 3 NRES 421	3
NRES 465 3 Ecology course	3
General 4 Free Elective Education course course	3
Free Elective 3 Free Elective course course	3
15	15

Total Hours 126

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Natural Resources & Environmental Sciences

Natural Resources & Environmental Sciences website (https://nres.illinois.edu)
W-503 Turner Hall
1102 S. Goodwin Ave.
Urbana, IL 61801
217-333-2770

NRES email (nres@illinois.edu)

College of Agricultural, Consumer & Environmental Sciences

ACES website (https://aces.illinois.edu/)
ACES Office of Academic Programs

128 Mumford Hall 1301 West Gregory Drive Urbana, IL 61801

Advising

Phone: 217-333-5824 NRES Advising email (nres-ssc@illinois.edu) Advising website (https://nres.illinois.edu/academics/undergraduate-degree/academic-resources/)