



COURSEWORK

To meet graduation requirements, students complete courses in four broad categories: core courses for the major, concentration-specific courses, general education courses, and electives. More information about the Natural Resources & Environmental Sciences (NRES) major can be found at nres.illinois.edu.

Degree Title: Bachelor of Science in Natural Resources & Environmental Sciences

Minimum Hours Required for Graduation: 126 Credit Hours

NRES CORE COURSES

Our core applied-science courses gives all our students a solid interdisciplinary foundation for success in college and skills for their careers.

- NRES 102: Introduction to NRES
- NRES 201: Introductory Soils
- NRES 219: Applied Ecology
- NRES 285, 294, etc: Field Experience Courses*
- NRES 287: Environment and Society**
- NRES 325: Natural Resource Policy Management
- NRES 348: Fish and Wildlife Ecology
- NRES 421: Quantitative Methods
- NRES 454: GIS in Natural Resource Management
- NRES 456: Integrative Ecosystem Management

NRES CONCENTRATIONS

Choose one of our four Concentrations (see following pages for course listings)

- Fish, Wildlife & Conservation Biology
- Human Dimensions of the Environment
- Ecosystem Stewardship & Restoration Ecology
- Environmental Science & Management

GENERAL EDUCATION

- Animal Biology
- Plant Biology
- Calculus I
- Intro to Statistics
- General Chemistry I & II
- Earth Systems, Geology, Microbiology, or Physics
- Composition I and Advanced Composition
- Public Speaking
- Cultural Studies (3 courses): Western, Non-Western, U.S. Minority
- Humanities and the Arts (2 courses)
- Social and Behavioral Sciences: Consumer & Resource Economics and 1 other course
- Foreign Language to the 3rd level (can be fulfilled in high school)

ELECTIVES

- Choose from hundreds of courses in NRES and across campus

*FIELD EXPERIENCE COURSES (NRES 285, 293, 294, 295 or 396)

Choose multiple courses in this very popular category. Includes Natural Resource Field Experience courses, Study Abroad, Internships, and Undergrad Research or Thesis courses.

Examples: Mammal Field Techniques, Owl Migration & Education, Illinois Sustainability & Policy, Bahamas Coral Reefs, Wildlife Conservation in Africa, Environmental Sustainability in Mexico, Forest Ecology Techniques, Fish & Wildlife Field Techniques, Spring Local Flora, Hands-on Native Plant Care, Soil Judging, etc. Course offerings vary by semester. For current semester offerings, see courses.illinois.edu.

** Fulfills both Western and Social & Behavioral Science Gen Eds

**Want to learn more about Natural Resources & Environmental Sciences?
Visit nres.illinois.edu!**

FISH, WILDLIFE AND CONSERVATION BIOLOGY CONCENTRATION

This concentration emphasizes the ecology, conservation, and sustainable management of fish and wildlife species, as well as understanding interactions among humans, wild animals, and their habitats. Includes coursework in conservation of threatened and endangered species, animal behavior, identification of animals and plants, and advanced ecology.

Required Courses:

- NRES 407: Wildlife Population Ecology
- NRES 409: Fishery Ecology and Conservation

Choose at Least One Biology Course:

- NRES 461: Ornithology
- NRES 442: Mammalogy
- NRES 463: Ichthyology
- NRES 464: Herpetology

Choose at Least One Plant Course:

- NRES 302: Dendrology
- NRES 415: Native Plant ID and Floristics
- IB 335: Systematics of Plants
- HORT 301: Woody Landscape Plants I

Choose at Least One Specialization Course:

- NRES 362: Ecology of Invasive Species
- NRES 418: Wetland Ecology & Management
- NRES 419: Environment and Plant Ecosystems
- NRES 420: Restoration Ecology
- NRES 429: Aquatic Ecosystem Conservation
- NRES 465: Landscape Ecology
- NRES 485: Stream Ecosystem Management
- ANSC 366: Animal Behavior
- IB 451: Conservation Biology

HUMAN DIMENSIONS OF THE ENVIRONMENT CONCENTRATION

This concentration emphasizes human-environment interactions on multiple levels, as well as applied policy and management implications. Includes coursework in behavior change science, natural resource economics, environmental and conservation psychology, communications, social impact assessment, environmental policy, and environmental law.

Required Courses:

- NRES 340: Environmental Social Science Research Methods
- NRES 310: Natural Resource Economics
- NRES 472: Environmental Psychology

Choose at Least Two Social Science, Planning & Policy Courses:

- NRES 223: Watching the Environment
- NRES 423: Politics of International Conservation and Development
- NRES 424: U.S. Environmental Justice & Policy
- NRES 428: Valuing Nature
- NRES 210: Environmental Economics
- ACE 406: Environmental Law
- NRES 430: Communication in Environmental Social Movements
- GGIS 496: Climate and Social Vulnerability
- NRES 370: Environmental Sustainability
- SOC 447: Environmental Sociology

Choose at Least One Conservation, Environmental Science, or Ecology Course:

- NRES 302: Dendrology
- NRES 362: Ecology of Invasive Species
- NRES 402: Ecohydrology and Water Management
- NRES 407: Wildlife Population Ecology
- NRES 409: Fishery Ecology and Conservation
- NRES 415: Native Plant ID and Floristics
- NRES 418: Wetland Ecology & Management
- NRES 420: Restoration Ecology
- NRES 423: Politics of International Conservation and Development
- NRES 429: Aquatic Ecosystem Conservation
- NRES 474: Soil and Water Conservation
- NRES 485: Stream Ecosystem Management
- UP 406: Urban Ecology

ECOSYSTEM STEWARDSHIP AND RESTORATION ECOLOGY CONCENTRATION

This concentration emphasizes the restoration and management of forests, grasslands, aquatic ecosystems, and agroecosystems. Includes coursework in restoration, landscapes, plant ecology, invasive species, community ecology, and ecosystem science.

Required Courses:

- NRES 419: Environment and Plant Ecosystems
- NRES 420: Restoration Ecology
- NRES 465: Landscape Ecology

Choose at Least Two Ecology Courses:

- NRES 302: Dendrology
- NRES 362: Ecology of Invasive Species
- NRES 415: Native Plant ID & Floristics
- NRES 431: Plants and Global Change
- NRES 462: Ecosystem Ecology
- NRES 452: Community Ecology
- NRES 441: Biogeography

Choose at Least One Ecosystem or Management Course:

- NRES 401: Watershed Hydrology
- NRES 402: Ecohydrology & Water Management
- NRES 418: Wetland Ecology & Management
- NRES 427: Modeling Natural Resources
- NRES 429: Aquatic Ecosystem Conservation
- NRES 485: Stream Ecosystem Management
- CEE 432: Stream Ecology
- CPSC 437: Principles of Agroecology
- IB 361: Ecology and Human Health
- IB 451: Conservation Biology
- UP 405: Watershed Ecology and Planning
- UP 406: Urban Ecology

ENVIRONMENTAL SCIENCE AND MANAGEMENT CONCENTRATION

This concentration emphasizes the biological, chemical, and physical features of the environment. It is designed for students interested in the management of soil and water resources, and who want to protect and improve environmental quality. Includes coursework in environmental chemistry and microbiology, ecohydrology, and soil and water sciences.

Required Courses:

- NRES 351: Introduction to Environmental Chemistry
- NRES 475: Environmental Microbiology
- NRES 402: Ecohydrology and Water Management or NRES 401: Watershed Hydrology

Choose at Least Two Soil & Water Science Courses:

- NRES 429: Aquatic Ecosystem Conservation
- NRES 471: Pedology
- NRES 485: Stream Ecosystem Management
- NRES 487: Soil Chemistry
- NRES 488: Soil Fertility and Fertilizers
- NRES 490: Surface Water System Chemistry
- ABE 454: Environmental Soil Physics
- NRES 406: Fluvial Geomorphology
- GGIS 459: Ecohydraulics

Choose at Least One Environmental Quality Course:

- NRES 403: Watersheds and Water Quality
- NRES 438: Soil Nutrient Cycling
- NRES 474: Soil & Water Conservation
- ATMS 449: Biogeochemical Cycles
- CPSC 336: Tomorrow's Environment
- CPSC 431: Plants and Global Change
- ESE 320: Water Planet, Water Crisis
- GEOL 380: Environmental Geology
- IB 485: Environmental Toxicology & Health
- ETMA 352: Land and Water Management Systems
- UP 405: Watershed Ecology and Planning

TAKE IT TO THE NEXT LEVEL

MINORS

Adding a minor is a great way to gain knowledge and experience in an additional field of interest. NRES offers three minors: Natural Resource Conservation; Spatial & Quantitative Methods; and Wildlife & Fisheries Conservation.

Other popular minors: Environmental Economics & Law, Leadership Studies, Business, Global Studies, Urban Studies, Animal Science, Sustainability Energy & Environment, Computer Science, Statistics, and more.

CERTIFICATES

Certificates are like ‘mini-minors.’ NRES offers three: Natural Resource Conservation, Wildlife & Fisheries Conservation, and ‘Wicked’ Environmental Problems.

Other popular certificates: International Development, Sustainability & Justice, Environmental Writing, Geographic Information Science (GIS), Data Science, and more.

SAMPLE 8-SEMESTER PLAN

For students placed in CHEM 101 and MATH 112 and completed 3 years of high school foreign language.

	FALL SEMESTER	CREDIT HOURS	SPRING SEMESTER	CREDIT HOURS
FRESHMAN	NRES 102	3	CHEM 102 and 103	4
	RHET 105 or CMN 101	3-4	MATH 234 or 220	4-5
	MATH 112	3	RHET 105 or CMN 101	3-4
	CHEM 101	3	Gen Eds, Electives, or Minor	3
	ACES 101	2	TOTAL FOR SEMESTER	14-16
	TOTAL FOR SEMESTER	14-15		
SOPHOMORE	CHEM 104 and 105	4	NRES 287	3
	IB 104 or IB 150 & IB 151	4-5	IB 103	4
	NRES 219	3	NRES 201	4
	Gen Eds, Electives, or Minor	3	ACE 100 or ECON 102	3-4
	TOTAL FOR SEMESTER	14-15	Gen Eds, Electives, or Minor	3
			TOTAL FOR SEMESTER	17-18
JUNIOR	NRES 348	3	NRES 325	3
	NRES 454	4	NRES 421	3
	GGIS 103, GEOL 107, PHYS 101 or 211, or MCB 100	3-5	Advanced Composition	3
	Field Course	1-2	Field Course	1-2
	Statistics 100	3-4	Concentration Course(s)	3-4
	Concentration Course(s)	3-4	Gen Eds, Electives, or Minor	3
	TOTAL FOR SEMESTER	17-18	TOTAL FOR SEMESTER	16-18
SENIOR	Concentration Courses	6-8	NRES 456	3
	Electives or Minor	9-12	Concentration Courses	6-8
	TOTAL FOR SEMESTER	16-18	Electives or Minor	6-7
			TOTAL FOR SEMESTER	16-18