

Natural Resources and Environmental Science

MAJOR REQUIREMENTS

NRES ANCHOR COURSES

NRE 201 - Intro to Environmental Science

Introductory course into the major including the science and policy of natural resources, career pathways in the environment, and a field trip for a taste of real world experience.

NRE 471 - Senior Capstone Project

Students work in teams on a real world project applying their knowledge, skills, and abilities.

NRE 320 - Extended Field Experience

This is an experiential learning course. Choose between 15 days in Kentucky or 15 days in Costa Rica.

NRE 399/NRE 395 - Internship/Research Project

Provides real world experience in the student's chosen concentration area.

PRE-MAJOR MATH AND SCIENCE COURSES

MA 123 Calculus I

BIO 148/152 Biology I & II

CHE 105/111 Chemistry & Lab

STA 296 Statistics

UK Core Courses

NATURAL SCIENCES

- EES 220 – Geology
- FOR 340 – Ecology
- FOR 325 – Botany
- PLS 366 – Soils
- FOR 435 – Conservation Biology
- FOR 460/EES 385 – Hydrology

SOCIAL SCIENCES

- ECO 201 – Economics
- PHI 336 – Environmental Ethics
- NRE 381 – Environmental Policy
- NRE 355 – Geospatial Applications
- AEC 326 – Environmental Law
- AEC 445 – Environmental Economics

Students then choose TWO concentration areas (one analytic area and one environmental area)

ANALYTIC AREA

(3 courses in one of the following topics)

- Economics/Policy
- Field/Laboratory Analysis
- Environmental Education/Communication
- GIS/Computer Mapping
- Individualized (*Choose Your Own Pathway*)

ENVIRONMENTAL AREA

(3 courses in one of the following topics)

- Forestry
- Geology
- Conservation Biology
- Environmental Planning
- Sustainable Agriculture
- Individualized
- Soils
- Water
- Wildlife

NRES EXPERIENTIAL LEARNING EXAMPLES

NRES INTERNSHIPS

KY Department of Fish and Wildlife (KY)
Kentucky Wildlife Center (KY)
Glasgow Water Company (KY)
LFUCG Division of Water Quality (KY)
Raven Run Nature Sanctuary (KY)
Salato Wildlife Education Center (KY)
KY Dept. of Environmental Protection (KY)
KY Division of Mine Reclamation (KY)
Eco-Tech Consultants (KY)
Stantec Consulting (KY)
Aquatic Resources Management (KY)
American Chemical Technologies (KY)
Louisville Gas and Electric (KY)
TerraCycle (NJ)

Savannah River Nuclear Solutions (SC)
Teton Science School (WY)
National Aquarium in Baltimore (MD)
Canoe Kentucky (KY)
The Sonoran Institute (AZ)
Colorado Ocean Coalition (CO)
Cook Inlet Aquaculture Association (AK)
NOAA Fisheries Service (FL)
Student Conservation Association (IA, CO)
US Department of Fish and Wildlife (various)
National Resources Conservation Service (TX)
US Army Corps of Engineers (KY)
US Forest Service (KY)
Mammoth Cave National Park (KY)

RESEARCH

- UK Herpetology Lab
- UK Rhizophere Lab
- UK Hymenoptera Institute
- REU Univ. of Florida
- UK Department of Forestry (bats, trees, fire, urban forestry...)
- UK Department of Biology (birds, turtles, salamanders...)

EDUCATION ABROAD

- Thailand (Crops, Soils, Marine Biology)
- Iceland (Geothermal Energy)
- Germany (Sustainability)
- Belize (Sustainable Agriculture)
- Peru and Mongolia (Peace Corps)
- South Africa (Ecology and Global Change)
- New Zealand (Env. Management)
- Spain, England, Ireland, Costa Rica, Tanzania, and more!

STUDENTS CHOOSE BETWEEN TWO FIELD STUDY COURSES

KENTUCKY

(Robinson Forest and some travel)

- Three weeks in May (weekends off)
- 1-2 instructors plus guest speakers
- Activities and lectures (hands-on)
- Based in one location
- Topics: Hydrology, wildlife, soils, vegetation, stream restoration, forest measurements

COSTA RICA

(Travel to 6+ locations across the country)

- 15 days in July/August
- 1-2 instructors plus guest speakers
- Tours, activities, and lectures
- Travel every few days
- Topics: Tropical biology, sustainable agriculture, deforestation, ecotourism