

- **Certificate in Environmental Methods
(13 credit hours required)**

Students will develop basic skills in acquiring, analyzing, and interpreting field data. It is designed to give students experience in a broad array of techniques and protocols.

- o Courses:

- ENV 508 Introduction to Geographic Information Systems
 - ENV 513 Aquatic Ecology
 - ENV 545 Molecular Techniques for Environmental and Aquatic Studies
- Select one of the following:**
- ENV 550 Human Health and the Environment
 - ENV 589 Remote Sensing of the Environment
 - ENV 595 Environmental Science and Bioremediation Techniques

- **Certificate in Environmental Agriculture
(12 credit hours required)**

Students will develop basic skills in Environmental Agriculture principles and practices. The overall impact of this certificate program will give students experiences within a broad conceptual framework for more sustainable agriculture systems.

- o Courses:

- ENV 519 Sustainable Ag Systems
 - ENV 525 Organic Agriculture
- Pick two of the following:**
- ENV 507 Agroforestry: Local and Global Perspectives
 - ENV 508 Introduction to GIS
 - ENV 535 Urban Agriculture
 - ENV 540 Ornamental/Landscape Plants
 - ENV 542 Plant Propagation and Crop Production Systems
 - ENV 511 Livestock Production Practices
 - AQU 522 Principles of Aquaculture
 - AQU 560 Water Quality Management

ADMISSION REQUIREMENTS:

Regular admission into the program requires:

- a baccalaureate degree, an undergraduate GPA of 3.0 or greater
- GRE score of 296 or greater (verbal+quantitative).

More information about Graduate Program admission can be found online at <https://kysu.edu/academics/graduate-studies/>

Applicants with lower GPA or GRE scores may be given consideration if they have significant work experience in the field or have successfully completed certain graduate-level courses.

DID YOU KNOW?

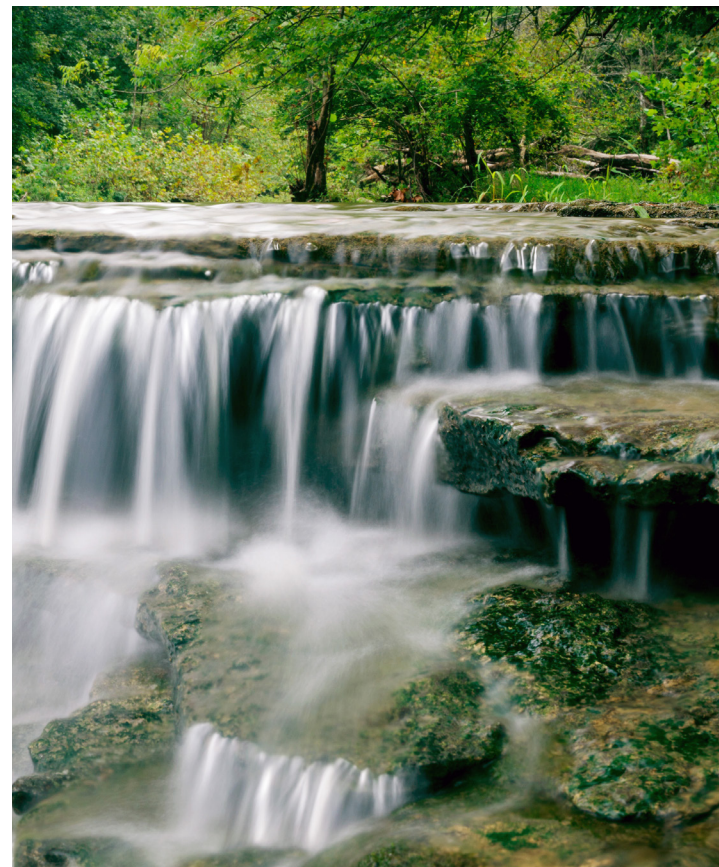
The U.S. Department
of Agriculture predicts

57,900

average annual job openings for
graduates with bachelors degrees
or higher in areas including food,
agriculture & environment.

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. Kentucky State University, University of Kentucky, U.S. Department of Agriculture, and Kentucky Counties, Cooperating. 2019

ENVIRONMENTAL STUDIES



MASTER OF SCIENCE IN ENVIRONMENTAL STUDIES



**COLLEGE OF AGRICULTURE,
COMMUNITIES, AND
THE ENVIRONMENT
AND LAND GRANT PROGRAM**

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The goal of the **Master of Science in Environmental Studies (MES) Program** is the pursuit and dissemination of knowledge in the interdisciplinary field of environmental studies, including the interaction of environmental effects on agriculture and forestry ecosystems. Learning to restore the balance between humanity and our changing environment requires an understanding of the interactions between ecology, sociology, economics, and other disciplines.

For more information:
Masters in Environmental Studies Program
 Dr. John Sedlacek
 (502) 597-6582
john.sedlacek@kysu.edu

MES GRADUATE RESEARCH ASSISTANTSHIPS:

- Dr. Ken Andries - goat breeding, production, forage
- Dr. George Antonious - pesticide residues, bioremediation, erosion management
- Dr. Richard Cristan - Forestry
- Dr. Shawn Lucas - organic vegetable production, farmscaping, bioenergy
- Dr. Maheteme Gebremedhin - environmental science, soil science
- Dr. Buddhi Gyawali - land use and cover change, farm diversification and productivity, climate change adaptation and mitigation, application of GIS and remote sensing in ecosystems studies
- Dr. Hideka Kobayashi- orchid breeding, cold adaptation
- Dr. Ibukun Ogunade - livestock nutrition
- Dr. Farida Olden - gene expression, nutrigenomics, honeybee disorders
- Dr. Kirk Pomper - fruit horticulture production, plant breeding, biodiversity, fermentation, distillation
- Dr. John Sedlacek - conservation biological control, beneficial insect biodiversity, entomology
- Dr. Avinash Tope - food safety in produce, fermentation and distillation
- Dr. Thomas Webster - honeybee pathology, colony collapse disorder
- Dr. Leigh Whittinghill - Urban Agriculture

MES COURSES: Required Courses:

- | | |
|-------------|---|
| ENV 501 | Intro to Environmental Studies |
| ENV 502 | Population and Community Ecology |
| ENV 503 | Student Team Project |
| ENV 506 | Experimental Design and Applied Statistics or ENV 509 Biostatistics |
| ENV 511 | Energy and the Environment |
| ENV 699 | MES Capstone Project (if Capstone Student) |
| ENV 600/601 | MES Research and Thesis (if Thesis Student) |

ELECTIVE COURSES:

- | | |
|---------|---|
| ENV 507 | Agroforestry: Local/Global Perspectives |
| ENV 508 | Intro to GIS |
| ENV 513 | Aquatic Ecology |
| ENV 515 | Environmental Ethics |
| ENV 516 | Environmental Justice |
| ENV 517 | Environmental and Resource Economics |
| ENV 519 | Sustainable Agriculture Systems |
| ENV 525 | Organic Agriculture |
| ENV 540 | Ornamental/Landscape Plants |
| ENV 542 | Plant Propagation and Crop Production Systems |
| ENV 545 | Molecular Techniques for Env. and Aqua. Studies |
| ENV 550 | Human Health and the Environment |
| ENV 551 | Livestock Production Practices |
| ENV 555 | Food Microbiology and Safety |
| ENV 560 | Agricultural and Environmental Policy |
| ENV 585 | Special Topics |
| ENV 589 | Remote Sensing of the Environment |
| ENV 595 | Environmental Science and Bioremediation |

MES CERTIFICATES

The MES program offers 3 certificate programs to allow students to focus on specific areas of environmental studies which will assist in greater job readiness and competitiveness of students after graduation. These certificates are available to anyone that has a bachelor's degree and wishes additional training as well and can be completed by any student regardless of area of study.

- **Certificate in Environmental Policy and Decision Making (12 credit hours required)**
 Students will develop basic skills in acquiring, analyzing, and interpreting complex legal issues associated with policy and decision making.
 - o Courses:
 - ENV 515 Environmental Ethics
 - ENV 516 Environmental Justice
 - ENV 560 Agricultural and Environmental Policy
 - ENV 565 Environmental Law