

ECOLOGY

DEPT OF BIOLOGICAL & ENVIRONMENTAL SCIENCES



Careers with an Ecology Degree:

Field/Research Technician
Laboratory Assistant
Intern
Park Naturalist
Wildlife Specialist
Volunteer Coordinator
Program Scientist
Teacher
Forester
Natural Resource Mgr.
Wildlife Biologist
Field Ecologist
Environmental Consultant

*Ecology degree prepares student to apply for advanced degree or to work in government and/or nonprofit organizations along with conservation of natural resources.

Ecology is the study of organisms, including humans, and a diverse array of interactions with their environment. Ecologists work with organisms over a broad scale from bacteria in soils to landscape ecosystem processes. Ecologists inform us about threats to biodiversity due to invasive organisms, increased water system health through wetland filtration, organisms such as horseshoe crabs that provide vital medicine (hemolymph that treats leukemia), when we are at risk for diseases like Lyme disease, ways to protect our at-risk species so that we can bring them back like the Bald Eagle, ways to increase forest health, management solutions for agriculture and so much more. Graduating with a concentration in Ecology prepares you for a diversity of careers, including research, writing, policy, ngo's, consulting, government and more.

> Department Coursework

Coursework in this program includes a variety of courses that align with the Ecological Society of America. Courses include Zoology, Chemistry, Organic Chemistry, Biostatistics, Comparative Vertebrate Anatomy, Animal Parasitology, Field Methods, Herpetology, Plant Physiology, Wildlife Management, Human Physiology, Ecology, and Undergraduate Research Experience. A lot of learning happens in the field with hands-on experience.



East Central University

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Ada, Oklahoma 74820



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> MEET THE ECOLOGY FACULTY



Leah Dudley, Ph.D.

- Plant Eophysiologist
- B.S. in Biology, Ph.D. in Biology
- Office: PES 152 / 580-559-5495 / ldudley@ecok.edu
- Courses Taught: Botany, Medical Botany, Ecology, Ethnobotany, General Biology, Mycology, Plant Ecophysiology, and Evolution
- Research Interest: My research generally explores how plants deal with a drying world, using dichotomies such as male versus female plants of

dioecious species and outcrossing vs. selfing plant mating systems to test predictions. I meld tools and ideas from both plant ecophysiology and evolution in both field and greenhouse environments from extreme montane environments to lowland prairies. Currently, I am applying these themes to a culturally relevant agricultural system, The Three Sisters. I am addressing how plant-pollinator interactions are influenced by polyculture (bean, corn & squash) compared to monoculture growing conditions under varying soil water availability.



George Wang, Ph.D.

- Community Ecologist
- B.S. in Zoology, M.S. in Biology, Ph.D. in Environmental and Evolutionary Biology
- Office: PES 104 / 580-559-5694 / gwang@ecok.edu
- Courses Taught: Evolution, General Biology, General Ecology, General Zoology, Human Anatomy, Medical Terminology
- Research Interest: I am a community ecologist interested in plant-insect interactions. I conduct field-and-laboratory based experiments

to examine the effects of various biotic and abiotic factors on insect performance and community dynamics.



Biological & Environmental Sciences

Dean: Dr. Ken Andrews
Chair: Dr. Alisha Howard
Degree: Bachelor of Science
Concentrations: 7
Minors: 2
Faculty: 8 full-time & 2 part-time
Organizations: 4
Scholarships: 25
Location: 158 PES Building

ECU at a Glance

Undergraduate Enrollment: 3,300
Undergraduate Majors: 58
Student to Faculty Ratio: 17 to 1
Average Class Size: 22
Faculty with PhDs: 65%
States Represented: 28
Countries Represented: 30+
Year Founded: 1909
Campus Size: 140 acres
Area Location: Ada, Oklahoma

Tiger Spirit

Mascot: Roary the Tiger
School Colors: Orange & Black
Student Organizations: 35+
Athletics: NCAA Division II

Men's:	Women's:
Football	Basketball
Baseball	Volleyball
Basketball	Softball
Cross Country	Soccer
Track & Field	Cross Country
Golf	Track & Field
	Golf

To prepare students for tomorrow's world through a dynamic & diverse learning experience.

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