



# Medical Botany

DEPT OF BIOLOGICAL & ENVIRONMENTAL SCIENCES

## Careers with a Medical Botany Degree:

- Agricultural plant scientist
- Agronomist
- Chief grower
- Conservationist
- Enthobotanists
- Environmental biologist
- Forest ecologist
- Graduate school
- Horticulturist
- Industrial ecologist
- Interpretive naturalist
- Mycologist
- NASA
- Plant breeder
- Research assistant
- Soil and water conservationist
- Technical assistant
- Toxicologist
- Wetland conservationist

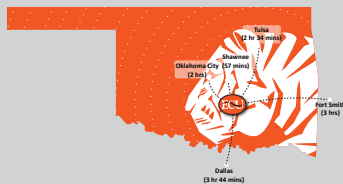


A Bachelor of Science in Medical Botany empowers students to apply coursework in Botany, Zoology, Genetics, Physiology, Microbiology, Medical Botany, Entomology and Plant Ecophysiology. It provides flexibility through electives so that many path options are available all with the goal in mind of students understanding the complex relationship between plants and humans. Ultimately, this deep understanding will enable students to enter graduate school or employment so that they may transform their futures in biotech, agribusiness, pharmacology, medicine, homeopathy, horticulture, law, Native American affairs, research, industry and others into successful futures.



## How Me the Money!

Graduates with a Biology degree typically earn between \$29,000 and \$60,000 for entry-level jobs. As a college graduate, you can earn an average of 75% more than those with only a high school degree, per *The Chicago Tribune!* (NACE 2021 Salary Report)



East Central University  
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Ada, Oklahoma 74820

[www.ecok.edu/BIO](http://www.ecok.edu/BIO)  
580-559-5497

Campus Tours:  
[ecok.edu/take-a-tour](http://ecok.edu/take-a-tour)  
580-559-5628  
[ecutiger@ecok.edu](mailto:ecutiger@ecok.edu)



# Department of Biological & Environmental Sciences

## > Meet the Medical Botany Faculty



### Leah Dudley, Ph.D.

- Plant Eophysiolgist
- B.S. in Biology, Ph.D. in Biology
- Office: PES 168 / 580-559-5495 / ldudley@ecok.edu
- Courses Taught: Botany, Medical Botany, Ecology, Ethnobotany Evolution, 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.



### Carl Gilbert, Ph.D.

- Microbiologist
- B.S. in Zoology, M.S. in Microbiology and Food Safety, Ph.D. in Molecular Microbiology and Microbial Physiology
- Office: PES 102 / 580-559-5549 / cgilbert@ecok.edu
- Courses Taught: General Zoology, General Microbiology, Science Teaching Methods, Food Microbiology, Microbial Physiology
- Research Interest: Improved methods of teaching biology at the college level and improved methods in food safety.



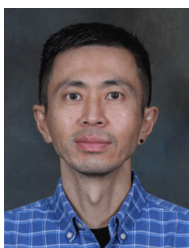
### Alisha Howard, Ph.D.

- Geneticist
- B.S. in Biochemistry and Molecular Biology, B.S. in Chemistry (A.C.S. certified), Ph.D. in Biochemistry and Molecular Biology
- Office: PES 164 / 580-559-5792 / ahoward@ecok.edu
- Courses Taught: General Biology, Genetics, Intro to Biotechnology, Biochemistry of Human Disease, Research Methods/BioEthics, Genomics and Bioinformatics, Immunology
- Research Interest: We are using the viral oncoprotein tax from human T-cell leukemia virus to identify new host-virus interactions important in viral gene activation.



### April Nesbit, Ph.D.

- Molecular Biologist
- B.S. in Biochemistry, Ph.D. in Biomolecular Chemistry
- Office: PES 170 / 580-559-5501 / anesbit@ecok.edu
- Courses Taught: General Biology, General Microbiology, Forensics, Immunology, Biochemical Genetics, Cell and Molecular Biology, Advanced Molecular Biology, Biology Senior Seminar
- Research Interest: Regulation of alternative metabolism in E. coli, identifying bacteria isolates from Blue River, isolating bacteria that produce antibiotics



### 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.



Biology



## Department of Biological & Environmental Sciences

**Dean:** Dr. Ken Andrews,  
College of Health & Sciences

**Chair:** Dr. Mike Bay

**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:** 3,000

**Undergraduate Majors:** 70+

**Student to Faculty Ratio:** 13 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:** 60+

**Athletics:** NCAA Division II

Men's:	Football	Cross Country
	Baseball	Track & Field
	Basketball	

Women's:	Basketball	Soccer
	Volleyball	Cross Country
	Softball	Track & Field

**We educate and empower students to understand and transform our world.**

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