

Pre-Veterinary Concentration

(Animal and Veterinary Sciences, B.S.)

The Pre-Veterinary Program at Eastern Kentucky University is administered by the Department of Agriculture. Students in the Pre-Veterinary program will take courses focused in animal science, biology, chemistry, mathematics, and physics. Many of the courses will include laboratories where students will receive hands-on training in animal handling and research. Animal science courses will include opportunities for students to work directly with both large and small animals. Hands-on-training is reinforced through practicums at the university farms and through cooperative education. Our small class size promotes interaction between students and faculty. We are small enough to care for you as an individual but large enough to provide every career opportunity. Our department's unique balance of these areas has led ECU to have one of the highest veterinary school acceptance rates in Kentucky.

Although Kentucky does not have a veterinary school, the state has 38 contract seats at Auburn University College of Veterinary Medicine, and 3 seats at Tuskegee University College of Veterinary Medicine. Admission to veterinary school is highly competitive and requires a strong GPA along with experience in the veterinary profession. Students will work directly with knowledgeable faculty advisor throughout their academic career and the application process.

Tips for success in the pre-vet program:

- **Meet Regularly with your academic advisor.** There is no standard list of Vet. School requirements, each schools' requirements will differ slightly. Your advisor can guide you to be sure specific program requirements have been fulfilled.
- **Dedicate yourself to good study habits.** Attend and participate in all lectures and laboratories. Veterinary School is highly competitive. A GPA of 3.4 or higher will give you a competitive edge.
- **Work with a veterinarian.** An exhibited depth and breadth of veterinary experience is necessary to help you become familiar with the field. This experience will also help develop the working relationship needed for a letter of recommendation that will be invaluable in preparing your application for acceptance to veterinary school.
- **Get involved.** Demonstrated time management, leadership, and teamwork skills are important to acceptance and success in the profession. The Department of Agriculture supports the Pre-Vet Club, Delta Tau Alpha Agriculture Honor Society, and several other student organizations that provide opportunities for extracurricular learning/fun experiences.

Career Opportunities

The Pre-Veterinary curriculum prepares students to meet entrance requirements for veterinary schools throughout the United States and abroad. The rigorous coursework also prepares students to pursue advanced degrees in veterinary science, animal science, human medicine, biomedical science, biotechnology, genetics, nutrition, microbiology, reproduction, behavior, or any of the other basic sciences. Students may also choose to pursue careers in pharmaceutical sales for marketing and distribution of medical supplies or in research working as a laboratory technician to assist in the collection and analysis of research data for government, university, or private laboratories.

Philosophy

The Department of Agriculture blends scientific theory with practical application and hands-on experiences. Current concepts and theories are presented in the classroom and then applied in the laboratory with the faculty member as the laboratory supervisor using a hands-on approach. Practicum classes at the university enterprises and through cooperative education are further utilized to reinforce the practical application of scientific theory. Professors are experienced, enthusiastic, and passionate about providing students the skills necessary to succeed with the ever-changing technology and environment.

Department Facilities & Student Organizations

The Animal and Veterinary Sciences Program at ECU is supported by excellent classroom laboratories and facilities at the A.B. Carter Building, including a modern computer laboratory, ag mechanics shop, animal and plant science biotechnology laboratories equipped for research in nutrition and genetics. Students will have the unique opportunity to work directly with animals and observe practical applications of agricultural practices and ECU's Meadowbrook Farm. Meadowbrook Farm consists of a 1,100-acre laboratory which supports our instructional and practicum hands-on learning program. Located only eight miles from campus with an on-site classroom, the farm gives students an opportunity to experience all aspects of modern production in beef, dairy, sheep, swine, and crop enterprises. Students have the opportunity to develop their extracurricular leadership skills through the Agriculture/Collegiate Farm Bureau Club, Block & Bridle Club, Delta Tau Alpha Agriculture Honor Society, Horticulture Club, Pre-Vet Club, and Sigma Alpha Sorority.

For More Information

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Suggested Curriculum Guide for Pre-Veterinary Concentration

Freshman (1st semester) 14-16 hrs			Freshman (2nd semester) 14-15 hrs		
GSD 101	Foundations of Learning	3	Animal Science Elective		3-4
AGR 125	Principles of Animal Science	3	^E BIO 111	Cell and Molecular Biology	3
AGR 126	Animal Science Laboratory	1	BIO 111L	Cell and Molecular Biology Lab	1
BIO 112	Ecology and Evolution	3	^E CHE 111	General Chemistry I	3
BIO 112L	Ecology and Evolution Lab	1	CHE 111L	General Chemistry Lab I	1
^E MAT Elective		3-5	Element 1A (ENG 101)		3
Sophomore (1st semester) 16 hrs			Sophomore (2nd semester) 16 hrs		
AGR 321	Feeds and Feeding	4	AGR 374	Genetics of Livestock Improvement	3
CHE 112	General Chemistry II	3	CHE 361	Organic Chemistry I	3
CHE 112L	General Chemistry Lab II	1	CHE 361L	Organic Chemistry Lab I	1
PHY 131	College Physics I	5	^E ECO 120	Economic Reasoning and Issues	3
Element 1B (ENG 102)		3	Element 1C (Oral Communications)		3
			Element 3A (Arts)		3
Junior (1st semester) 16 hrs			Junior (2nd semester) 12-17 hrs		
AGR 304	Pest Management	4	AGR 521	Animal Nutrient Metabolism	3
AGR 305	Professional Skills Seminar	1	Animal Production Elective		3-4
AGR 375	Reproduction of Domestic Animals	4	CHE 430	Biochemistry of Macromolecules	3
CHE 362	Organic Chemistry II	3	Science Elective		3-4
CHE 362L	Organic Chemistry Lab II	1	Free Elective		0-3
Element 3B (Humanities)		3			
Senior (1st semester) 11-17 hrs			Senior (2nd semester) 14-16 hrs		
AGR 301	Directed Work Experience -OR-	2	AGR 301	Directed Work Experience -OR-	1
AGR 349	Applied Learning in Agriculture		AGR 349	Applied Learning in Agriculture	
AGR 308	Agricultural Economics	3	AGR 310	Principles of Agribusiness Management	3
Animal Production Elective		3-4	AGR 411	Senior Seminar	1
Science Elective		3-5	AGR 499	Ag Advocacy and Issues Capstone -OR-	3
Free Elective		0-3	AGR 509	Ag Research Methods and Interpretation	
			Animal Science Elective		3-4
			Element 4A (Historical and Global Perspectives)		3
			Free Elective		0-1

^E Denotes that 3 credit hours from the course are/can be applied to fulfill Essential Education Requirements.

UNIVERSITY GRADUATION REQUIREMENTS.....33 hours

- Essential Education 30 hours
- Foundations in Learning (GSD 101; waived for transfers with 30+ hrs)3 hours
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)

MAJOR REQUIREMENTS

Core Courses.....48 hours

AGR 125, AGR 126(1), AGR 301 or AGR 349 (3), AGR 304(4), AGR 305(1), AGR 308, AGR 310 or AGR 350, AGR 321(4), AGR 374, AGR 375(4), AGR 411(1), AGR 421, AGR 499 or AGR 509, BIO 112, BIO 112L(1), CHE 112, CHE 112L (1), CHE 361, CHE 361L(1).

Pre-Veterinary Concentration Requirements.....11-16 hours

Choose two courses from animal science electives: AGR 312(4), AGR 372(2-6), AGR 373, AGR 376(4), AGR 377; Choose two courses from animal production electives: AGR 255, AGR 326(4), AGR 327(4), AGR 328(4), AGR 329(4), AGR 332, AGR 380(4).

Supporting Course Requirements.....20-25 hours

^EBIO 111/111L, ^ECHE 111/111L, CHE 362/362L, CHE 430, ^EECO 120, STA 215 or STA 270(4); Plus one course from ^EMAT elective: MAT 120, MAT 122 (5), MAT 211, MAT 234(4); Plus two courses from: BIO 320(4), BIO 331, BIO 348, BIO 546(4), CHE 431, PHY 132(5).

Free Electives0-8 hours

Total Curriculum Requirements

120-122 hours