



## Animal Science Concentration

### (Animal and Veterinary Sciences, B.S.)

The Animal Science curriculum provides career training for students wanting to go directly into employment, but also qualifies students to pursue an advanced degree. Students will take courses focused in the basic sciences and all areas of animal science including livestock and domestic animals from production to processing. 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 made EKU graduates successful with finding employment with high earning potential. Areas of study include the following:

#### Disciplines

- Nutrition
- Feeds and Feeding
- Genetics
- Reproduction and AI certification
- Livestock Evaluation
- Carcass Grading
- Anatomy and Physiology
- Animal Diseases
- Behavior and Welfare
- Forages and Grazing Management
- Business Planning
- Farm Management
- Applied Basic Research

#### Species

- Beef: Cow/calf, stocker/backgrounding, finishing
- Companion Animal and Exotics
- Dairy: Robotic milking, heifer development, calf care
- Equine
- Poultry
- Sheep
- Swine: Farrow to finish

There are many opportunities for Animal Science students to extend their education beyond the classroom through competition teams such as the Dairy Challenge Team or The Animal Science Quadrathlon Team. Students will also have the opportunity to travel and network with industry professionals through annual trips to the American Society of Animal Science Conference as well as various species and discipline conferences throughout the year.

### Career Opportunities

A wide array of jobs are available in the public and private sector including state local and federal government agencies, private and commercial business, agriculture management, research, sales, and finance. The practical instruction and hands-on application you will receive enables you to be an immediate asset to employers or prepared to manage your own business. You will join the ranks of successful EKU graduates in areas such as pharmaceutical and feed sales, farm management, biotechnology research and development, communication and marketing consultant, food science, agriculture finance and banking, extension and 4-H agents, government agency employees, and pursuing advanced degrees. The U.S. Bureau of Labor Statistics and the U.S. Department of Agriculture predict the animal scientist job market to continue to grow at a faster than average rate. Animal science graduates are essential to maintaining the nation's priorities of food security, sustainable energy, and environmental quality.

Students graduating from the Animal Science Program will also be qualified to pursue advanced degrees in graduate research allowing them to specialize in any of the above areas and further increase their earning potential.

### 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 EKU 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 EKU'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 Animal Science Concentration**

<b>Freshman (1st semester) 14 hrs</b>			<b>Freshman (2nd semester) 16-18 hrs</b>		
§GSD 101	Foundations of Learning	3	AGR 225	Evaluation and Selection of Livestock -OR-	
AGR 125	Principles of Animal Science	3	AGR 330	Animal Products (spring only)	3
AGR 126	Animal Science Laboratory	1	BIO 111	Cell and Molecular Biology	4
BIO 112	Ecology and Evolution	4	MAT Elective		3-5
Gen. Ed. 1A (ENG 101)		3	Gen. Ed. 1B (ENG 102)		3
			Gen. Ed. 3A (Arts)		3
<b>Sophomore (1st semester) 15 hrs</b>			<b>Sophomore (2nd semester) 16-18 hrs</b>		
AGR 321	Feeds and Feeding (fall only)	4	AGR 308	Agricultural Economics	3
AGR	Experiential Learning	1		Animal Science Elective	3-4
CHE 111	General Chemistry I	3	CHE 112	General Chemistry II	3
CHE 111L	General Chemistry Lab I	1	CHE 112L	General Chemistry Lab II	1
ECO 120	Economic Reasoning and Issues	3	STA 215	Introduction to Statistical Reasoning -OR-	
Gen. Ed. 1C (Oral Communications)		3	STA 270	Applied Statistics	3-4
			Gen. Ed. 3B (Humanities)		3
<b>Junior (1st semester) 15-16 hrs</b>			<b>Junior (2nd semester) 14-15 hrs</b>		
AGR 304	Pest Management (fall only)	4		Agribusiness Elective	3
AGR 305	Professional Skills Seminar	1		Animal Production Elective	3-4
	Animal Science Elective	3-4		Animal Science Elective	3-4
CHE 361	Organic Chemistry I	3	Gen. Ed. 6 (Diversity)		3
CHE 361L	Organic Chemistry Lab I	1		Elective	0-3
Gen. Ed. 5A (History)		3			
<b>Senior (1st semester) 13-15 hrs</b>			<b>Senior (2nd semester) 14 hrs</b>		
	Animal Production Elective	3-4	AGR 411	Senior Seminar	1
AGR	Experiential Learning	1	AGR	Capstone	3
	Science Elective	3-5	AGR	Experiential Learning	2
Gen. Ed. 6 (Diversity)		3		Animal Science Elective	3-4
Elective		0-3		Animal Science Elective	3-4
Elective		0-2		Elective	0-3

§ Course must be taken in the semester indicated

**UNIVERSITY GRADUATION REQUIREMENTS.....39 hours**

- General Education.....36 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.....31-33 hours**

AGR 125, AGR 126(1), AGR 304(4), AGR 305(1), AGR 308, AGR 321(4), AGR 411(1); AGR 499 or AGR 509; Plus one course from (agribusiness elective): AGR 310, AGR 350, AGR 440; Plus three hours from (AGR experiential learning): AGR 301(1-6), AGR 302, AGR 349(1-6); Plus two course from (animal production elective): AGR 255, AGR 326(4), AGR 327(4), AGR 328(4), AGR 329(4), AGR 332, AGR 380(4).

**Animal Science Concentration Requirements.....15-19 hours**

AGR 225 or AGR 330; Plus four courses from (animal science elective): AGR 312(4), AGR 372(2-6), AGR 373, AGR 374, AGR 375(4), AGR 376(4), AGR 377, AGR 421.

**Supporting Course Requirements.....23-30 hours**

BIO 111(4), BIO 112(4), CHE 111, CHE 111L(1), CHE 112, CHE 112L(1), CHE 361, CHE 361L(1), ECO 120; Plus one MAT course from (MAT elective): MAT 112A/B, MAT 114, MAT 120, MAT 122 (5), MAT 211, MAT 234(4); Plus two courses from: AGR 374, BIO 315(4), BIO 320(4), BIO 348, BIO 546(4), CHE 362, CHE 362L(1), CHE 430, CHE 431, PHY 131(5), PHY 132.

**Free Electives.....0-11 hours**

**Total Curriculum Requirements**

**120-122 hours**