

## INTRODUCTION

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**Course Description:** The first in a sequence of two courses providing an introduction to the subject of animal science. Emphasis is placed on a fundamental understanding of anatomy, physiology, nutrition, reproduction, genetics and behavior of domestic animals.

**Learning Objectives:** After completing this course, students should:

- 1) understand how domestic animals provide tangible (ex. food, fiber) and intangible products (ex. companionship) that are valuable to humans.
- 2) understand the biological principles that provide the basis for effective and efficient care and husbandry of domestic animals.

**Grading:**

1)	Two 1-h exams (100 pts each)	200 pts.
2)	Lab Practical Exam	100 pts.
2)	Cumulative Final Exam	150 pts.
3)	10 Quizzes (10 pts each)	100 pts.
4)	7 homework assignments (10 pts each)	70 pts.
5)	12 laboratory work sheets (10 pts each)	120 pts.

<b>TOTAL</b>	<b>740 pts.</b>
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A final grade will be assigned based on the percentage of total points accumulated throughout the course:

A = 90 and above	B = 80-89.9	C = 70-79.9
D = 60-69.9	E = less than 60	

Exams and quizzes must be taken at the time administered unless a valid university excuse is provided (see UK governing regulations for the definition of a valid university excuse or if you have any questions). Failure to abide by these regulations will result in a grade of 0 for that quiz or test.

**Recommended Text:** There is no required text book for this course. All of the class notes, handouts, etc. are posted on Blackboard. If you are enrolled in the course, you have access to Blackboard and you should learn how to use it. If you feel that an alternative source of information would be desirable, either of the following textbooks would be good:

Taylor and Field. **Scientific Farm Animal Production** (7th ed)  
 Gillespie. **Animal Science** (1st ed).

**SYLLABUS**

Introduction

- What is Animal Science?
- Efficiency and quality
- Scope of the Animal Industries in Kentucky and the USA
- Taxonomic classification of domestic species
- Phylogenetics and evolution of domestic species

Man's relationship to animals

- Domestication
- How man uses animals today
- Nutrients
- Animal food products in human nutrition
- The role of animals in the human food chain
- Efficiency of nutrient utilization

The biology of domestic animals

- Anatomy
  - Skeletal Anatomy
  - External body parts
  - Wholesale cuts of meat
- Reproduction
- Lactation
- Behavior
- Animal Nutrition
  - Simple stomached animals
  - Ruminants
- Metabolism
- Growth
- Genetics and Breeding

First Exam:           Thurs. Sept. 27, 8:00 AM

Second Exam:        Thurs. Nov. 1, 8:00 AM

Final:                 Thurs. Dec 13, 8:00 AM

**Laboratory Syllabus**

Session	Date	Topic	Exercise	location
1	Aug. 28,29,30	Animal Agriculture in Kentucky	Slide presentation	N-11 Agr. North
2	Sept. 4,5,6	Animal Food Products/ Meats	Meat plant tour	Purnell's Sausage Plant
3	Sept. 11,12,13	Keeneland September Yearling Sales	Tour sales pavilion, barns and track	Keeneland
4	Sept. 18,19,20	Animal Food Products/ Dairy Foods	Dairy plant tour	Winchester Farms
5	Sept. 25,26,27	Introduction to Animal Feedstuffs	Feed identification and processing	UK Feedmill
6	Oct. 2,3,4	Skeletal Anatomy I	Examination of skeletons	N-11 Agr. North
7	Oct. 9,10,11	Skeletal Anatomy II External Anatomy	Examination of skeletons and other materials	N-11 Agr. North
8	Oct. 16,17,18	Animal Digestive System	Dissection of Porcine and Ovine Digestive Tracts	N-11 Agr. North
9	Oct. 23,24,25	Ruminant Digestive Physiology I	Rumen microbe identification and incubation	N-11 Agr. North
10	Oct. 30,31, Nov.1	Ruminant Digestive Physiology II	Review data from session 8/ Balancing Rations Homework	N-11 Agr. North
11	Nov. 6,7,8	Animal Behavior	Feeding, Breeding, Maternal	Woodford Cty Sheep Unit
12	Nov. 13,14,15	Animal Reproductive System	Dissection of Bovine and Porcine Reproductive Tract	N-11 Agr. North
13	Nov. 27,28,29	Anatomy and Embryology of Chickens	Dissection of Chickens and Eggs	N-11 Agr. North
14	Dec. 4,5,6	Laboratory Practical Exam		N-11 Agr. North

**Laboratory Assignments**

Session	Topic	Worksheet	Homework
1	Animal Agriculture in Kentucky	Animal Agriculture in KY	Animal Agriculture in KY
2	Animal Food Products/ Meats	Meats Plant Tour	Nutrient Composition of Foods (in lecture)
3	Horse Sales	Keeneland Tour	
4	Animal Food Products/ Dairy foods	Dairy Plant Tour	
5	Introduction to Animal Feedstuffs	Feeds	Balancing Rations I
6	Anatomy I	Skeletal Anatomy I	External Anatomy
7	Anatomy II	Skeletal Anatomy II	
8	Animal Digestive System	Digestive Anatomy	Balancing Rations II
9	Ruminant Digestive Physiology I	Rumen microbes	Incubation Summary and Interpretation
10	Ruminant Digestive Physiology II		
11	Animal Behavior	Observing Behavior	On-line sire summaries (in lecture)
12	Animal Reproductive System	Reproductive Anatomy	
13	Anatomy and Embryology of Chickens	Avian Anatomy	
14	Laboratory Practical Exam		

Worksheets are to be completed during lab session and turned in at the end of that session  
Homeworks are to be turned in one week after they are assigned .