

COURSE OUTLINE
ANSC 100 – ANIMAL SCIENCE AND INDUSTRY
Dual Credit

An introduction to farm and companion animal production and its affiliated industries. Emphasis will be placed on the biological nature of animals, infrastructures and economic uniqueness of affiliated industries, animal products and services, and the management of animal enterprises. 3 credits (2 lecture hours). Fall Semester

Objectives of the Course:

Upon completion of this course students should be able to:

1. Describe the nature and uniqueness of the nations livestock and pet industries and their affiliated infrastructures.
2. Understand the biological processes involved with animal production.
3. Distinguish qualitative and quantitative differences, for select animal products.
4. Comprehend and practice basic principles of animal husbandry.

Text: Animal science and Industry, Duane Acker and Merle Cunningham, Prentice Hall, 1991

Method of Evaluation: 4 Unit tests (40%), 5 laboratory assignments (25%), subjective lab, competency grade (15%), and final exam (20%).

Lecture Syllabus

Unit I – Animal Agriculture:

- An Introduction to Animal Agriculture
 - o Animal contributions to human needs
 - o Trends in consumption
 - o Economic importance
 - o Profile of U.S. industry

Unit II – Animal Biology:

- Reproduction
- Genetics
- Mating Systems
- Nutrients and their Functions
- Digestion and Nutrition
- Growth and Development
- Lactation
- Behavior
- Immunology

Unit III – Animal Science:

- Livestock Production
- Kinds of operations
- Breeds of animals
- Selection and breeding
- Sire management
- Female reproduction
- Youngstock management
- Pasture and range management
- Feedlot management
- Marketing
- Business management
- Health care

Unit IV – Contemporary Topics:

- Biotechnology
- Animal rights
- Health and safety (Human)
- Environmental quality

Laboratory Syllabus

Week

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| 1 | Animal Handling and Facilities |
| 2 | Field Trip to end-product facility (abbatoir, creamery, racetrack, etc.) |
| 3 | Development of a Herd Recording System |
| 4 | Identifying and Weighing Procedures |
| 5 | Setting Objectives and Developing a Herd Inventory |
| 6&7 | Development of a Herd Breeding Plan |
| 8&9 | Development of a Herd Nutrition Plan |
| 10 | Development of a Herd Health Program |
| 11 | Herd Management Practices (hoof trimming, vaccinating, de worming, Etc.) |
| 12 | Herd Management Practices |
| 13 | Fitting for Marketing |
| 14 | Field Trip to a working facility |
| 15 | Building and Facility Design |