Course Information

Course Number: 11:067:336

Credits: 3 plus a 2 credit laboratory required for Animal Science Majors (Animal Industry Option: Specialization in Production and Management). This is a laboratory course requiring regular contact with animals. Through on-farm projects students will gain better mastery over domestic animal management.

Concurrent: Animal Industry Option students will take this course along with 11:067:338 Production Animal Management Laboratory

Prerequisite: Open to Junior and Senior Students, or by permission of instructor

Required Courses: 11:067:330 - Animal Nutrition

Recommended Courses:

11:067:142 - Animal Science
11:067:327 - Animal Reproduction
01:119:101-102 - General Biology
11:373:121 - Principles and Applications of Microeconomics

Course Objective

Students will attain knowledge and hands on experience in livestock production systems. Students will be required to incorporate and synthesize material from previous courses. Students will also have the opportunity to work directly with Extension Professionals for part of this course.

Grading and Examinations

Required homework and class projects will be described thoroughly in class. Included in this will be assignments to update the Animal Science Bulletin Board with animal production and economics information. Class projects requiring independent work will be given. Students will not be graded directly for attendance, but attendance is strongly suggested to keep up with material and to take unannounced quizzes. There will be a midterm and a final exam. These will have both take home and in class portions.
Lecture:
Homework/Papers/Quizzes/Attendance                         60%

Midterm Examination                                                    20%

Final Examination                                                         20%

Laboratory Grading:

Homework/Class Projects/Participation                          80%

Field Trip Attendance                                                    20%

Group Papers, Four student groups will research and present a contemporary animal science topic. These will be presented later in the semester. Topics will be determined by the instructors. Each of these groups will also be responsible for updating the class bulletin board in Bartlett Hall.

Hoard's Dairyman Judging Contest

Course Outline

January 20 - Livestock Industry – Mike Westendorf, Joanne Powell
1. Course outline, structure, projects, expectations
2. Consumer Trends in Animal Product Consumption
3. History of Industry/Breeds in America
4. Contemporary Systems, where, how many, etc.
5. Animal Efficiencies

January 27 – Government issues, Ed Wengryn New Jersey Farm Bureau
1. Farm issues
2. Animal agriculture issues
2. Governmental Control

February 3 - Breeding and Genetics – Mike Westendorf
1. Heritability, Heterosis, Hybrid Vigor
2. Purebred Breeding Systems
3. Crossbreeding Systems
4. DNA Testing

February 10 - Poultry Production and Environmental Management – Dan Wunderlich
1. Quiz 1
2. Physiology of Egg Production
3. Meat Birds/Egg Birds
4. Environmental Management
February 17 - Animal Health – John Higgins
   1. Health Management
   2. Embryo Transfer

February 24 - Young Stock Management, Mike Westendorf, Joanne Powell, John Kirby
   1. Neonatal Care/colostrum
   2. Growth and Development
   3. Systems

March 3 - Growth - Joanne Powell
   1. Gain
   2. Yield, Fat, Lean, Marbling
   3. Male, female, neutered, purebreds/crossbreds
   4. Growth Promotants
   5. Markets

March 10 - Lactation - Dave Lee
   1. Exam 1
   2. Lactational Biology
   3. Milk Production in Different Species
   4. Dairy Production

March 24 - Reproductive Management of Domestic Livestock – Larry Katz
   1. Artificial Insemination
   2. Reproductive Technologies and Farm Animal Production
   3. Management of Breeding Herds, Flocks, etc.
   4. Physiology of pregnancy and gestation

March 31 - Forage & Crops – Steve Komar and Bill Bamka
   1. Quiz 2
   2. Pasture Management and Evaluation
   3. Soil Testing
   4. Weeds and Poisonous Plants
   5. Crop Production

April 7 - Hay and Silage Production – Ryck Suydam and Clint Burgher
   1. Examination
   2. Producing and Marketing Quality Hay
   3. Corn Silage Production – Clint Burgher

April 14 - Animal Systems – Mike Westendorf, Joanne Powell
   1. Beef – Joanne Powell
   2. Dairy – Mike Westendorf
   3. Sheep and Goats – Mike Westendorf
   4. Swine - Mike Westendorf
   5. Other

April 21 - Animal Behavior, Animal Waste – Not confirmed
2. Animal Waste Management - Mike

April 28 - Student project presentations, preparation for the final exam

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**Laboratory Schedule**

**January 21 – Overview**

1. Swine growth experiment
2. Field trips
3. Embryo Transfer
4. Presentation

**January 28 – Identification Lecture**

**February 4 – Lecture - Environmental and Nutrient Management/Clint Burgher**

**February 11 - Weigh and allot pigs to treatments/fill feeders**

**February 18 – Farm Bureau Trip ??**

**February 25 – Weigh pigs and fill feeders**

**March 4 – Middlebush Farm Field Trip**

**March 11 - Weigh pigs and fill feeders**

**March 25 - Weigh pigs and fill feeders**

**April 1 - Field Trip - John Higgins Embryo Transfer**

**April 8 - Weigh pigs and fill feeders**

**April 15 – Field Trip - John Higgins Embryo Transfer**

**April 22 - Finish growth experiment**

**May 1 – Growth Experiment Analysis; Class discussion**

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**Class Projects**

1. Term papers
2. Paper presentation
3. Bulletin Board Maintenance
4. Swine Project – Lab Only
<table>
<thead>
<tr>
<th>Name</th>
<th>Email Address</th>
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<tbody>
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# Domestic Livestock Production Class Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Class Projects</th>
<th>Bulletin Board Schedule*</th>
<th>Swine Care Schedule**</th>
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<tbody>
<tr>
<td>1</td>
<td>KATHERINE FENYAR, ALYSSA LEHMAN, CHRISTOPHER MAZZACANO**, STEVEN RABEL</td>
<td>April 7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ALMEIDA SCHYVON, ADDA GUTMAN, JENNIFER ROSE</td>
<td>April 14</td>
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<tr>
<td>3</td>
<td>CHRISTOPHER ALESSI, FAYE KIMMEL, ALEXANDER WALSH**, TARA ZARZECKI</td>
<td>April 21</td>
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<td>4</td>
<td>JACLYN BATES, BRENNA CAMMARANO**, AARON TOLLIVER, SAMANTHA WASHINGTON</td>
<td>April 28</td>
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** Lecture Only