

**COURSE NAME; NUMBER; SEMESTER; MEETING DAYS, TIMES, AND PLACE.**

Production Animal Management  
11:067:336 Spring, 2019  
Tuesday Classes (T 6-7; 5:35-8:35)  
Foran Hall Room 138b

**CONTACT INFORMATION:**

Instructor(s): Michael Westendorf  
Office Location: 213F Bartlett Hall, 84 Lipman Drive  
Phone: 848-932-9408  
Email: Michael.westendorf@rutgers.edu  
Office Hours: By Appointment



**COURSE WEBSITE, RESOURCES AND MATERIALS:**

- Sakai site

**COURSE DESCRIPTION:**

Students will attain knowledge and experience about livestock production systems. Students will be required to incorporate and synthesize material from previous courses in physiology, nutrition, breeding and genetics, reproduction, management, and economics. This knowledge will be the basis for studying contemporary livestock systems, beef, dairy, sheep, goats, swine, and poultry. Economics of production and systems will be studied as will basic management for all species. Attention will also be given to growing sectors of animal agriculture such as small farming systems, niche markets, and organic production.

**LEARNING GOALS:**

1. Gain a perspective for the animal agriculture industries in New Jersey and around the United States in order to better understand both the future of agriculture and its diversity. (PLG 1)  
Assessment: Quizzes, tests.
2. Apply subject matter knowledge related to physiology, nutrition, genetics, reproduction, and economics in studying contemporary livestock systems. (PLG 2)  
Assessment: Quizzes, tests.
3. Develop critical thinking skills to identify both scientific and practical questions related to animal agriculture, analyze and interpret data related to those questions, and develop solutions to contemporary problems. (PLG 5)  
Assessment: Paper writing and presentation.
4. Develop oral and written communication skills to effectively deliver scientific and technical information to animal agriculture practitioners and scientists as well as the public. (PLG 6)  
Assessment: Paper writing and presentation.

**ASSIGNMENTS/RESPONSIBILITIES, GRADING & ASSESSMENT:**

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. Attendance is strongly suggested to keep up with material and to take quizzes and exams. There will be a midterm and a final exam.

Lecture:

Attendance	10%	Class Projects/Homework	15%*
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Papers	15%	Two Quizzes	20%
Midterm Examination	20%	Final Examination	20%

Writing assignments will be based on content with consideration to technical writing.

\*Each student will participate in a group that will be expected to prepare and present a contemporary topic to the class. The presentation schedule and topics are below.

## ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

## ABSENCE POLICY

Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

## COURSE SCHEDULE:

### Lecture Schedule

January 22 - Livestock Industry Overview

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 29 – Government issues, Ed Wengryn New Jersey Farm Bureau

1. Farm issues
2. Animal agriculture issues
2. Governmental Control

February 5 - Breeding and Genetics – Mike Westendorf

1. Heritability, Heterosis, Breeding Value
2. Purebred Breeding Systems
3. Crossbreeding Systems
4. DNA Testing

February 12 - Animal Health – John Higgins, Veterinarian, Acorn Embryo

1. Health Management
2. Embryo Transfer

February 19 - Poultry Production and Environmental Management – Dan Wunderlich, NJDA

1. Quiz One
2. Physiology of Egg Production
3. Meat Birds/Egg Birds
4. Environmental Management

February 26 - Growth

1. Gain
2. Yield, Fat, Lean, Marbling
3. Male, female, neutered, purebreds/crossbreds

4. Growth Promotants
5. Markets

March 5 - Young Stock Management – Group 2

1. Neonatal Care/colostrum
2. Growth and Development
3. Systems

March 12 - Lactation

1. Exam 1
2. Lactation Biology
3. Milk Production in Different Species
4. Dairy Production

March 26 - Forages - Group 3

1. Pasture Management and Evaluation
3. Hay Production
4. Silage Production

April 2 - Reproductive Management of Domestic Livestock – Larry Katz – Group 4

1. Artificial Insemination
2. Reproductive Technologies and Farm Animal Production
3. Management of Breeding Herds, Flocks, etc.
4. Physiology of pregnancy and gestation

April 9 - Animal Systems - Group 5

1. Quiz Two
2. Beef – Joanne Powell
2. Dairy – Mike Westendorf

April 16 - Animal Systems – Group 6

3. Sheep and Goats
4. Swine
5. Other

April 23 - Animal Behavior, Animal Waste - Group 7

April 30 Student paper presentations, preparation for the final exam

## **FINAL EXAM/PAPER DATE AND TIME**

Online Final exam Schedule: <http://finalexams.rutgers.edu/>

Oral presentations only

**CLASS E-MAIL LIST – LECTURE**

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## **GROUP TEACHING RESPONSIBILITIES**

- Group 1 – Bartlett Hall Bulletin Board
- Group 2 – Raw Milk: Pros and Cons
- Group 3 - A2 Milk
- Group 4 – Genomics in Animal Breeding and Selection
- Group 5 – Influence of Climate in Agriculture Production
- Group 6 – Revitalizing Sheep Production
- Group 7 – Poultry Identification

## **ACADEMIC INTEGRITY**

The university's policy on Academic Integrity is available at <http://academicintegrity.rutgers.edu/academic-integrity-policy>. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

## **STUDENT WELLNESS SERVICES**

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ [www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

## Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / [www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

## Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

## Scarlet Listeners

(732) 247-5555 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.