

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

Animal Science

11:067:142, 3 credits Fall, 2020

This course will be offered in a Synchronous Remote format.

Class meetings will be held “live” on Monday and Wednesday from 3:55 – 5:15 PM using Canvas Zoom.

To access the course, log into the Canvas web site (<https://canvas.rutgers.edu>). For more information about course access or support, contact the Canvas Help Desk via email at help@canvas.rutgers.edu or call 877-361-1134.

CONTACT INFORMATION:

Instructor and Course Coordinator: Barry W. Jesse

Office Location: 213C Bartlett Hall (once the pandemic is over!)

Contact via Email: barry.jesse@rutgers.edu

PREREQUISITES: None

Guest Speakers:

Dr. Bill Belden Topic: Biotechnology	326 Foran Hall	beldenwj@rutgers.edu ;	848-932-5617
Dr. Anna Hausmann Topic: Animal Health	213D Bartlett Hall	anna.hausmann@rutgers.edu	848-932-9240
Dr. Karyn Malinowski Topics: World of Horses, Equine Industry	155 ASB II	karynmal@njaes.rutgers.edu ;	848-932-9419
Dr. Sara Malone Topics: Companion Animals, Animal Behavior, Animal Welfare	118 Bartlett Hall	s.malone@rutgers.edu	848-932-9100
Dr. Dave Reimer Topic: Working Safely with Animals	Nelson Bio Labs	reimerd@las.rutgers.edu ;	848-445-7394
Dr. Mehmet Uzumcu Topic: Lab Animals	119 Bartlett Hall	uzumcu@rutgers.edu ;	848-932-6912
Dr. Michael Westendorf Topic: Dairy Cattle	213F Bartlett Hall	michael.westendorf@rutgers.edu ;	848-932-9408
Dr. Carey Williams Topic: Nutrition	213E Bartlett Hall	carey.williams@rutgers.edu	848-932-5529
Dr. Aparna Zama Topic: Physiology	105 Bartlett Hall	zama@sebs.rutgers.edu ;	848-932-8495

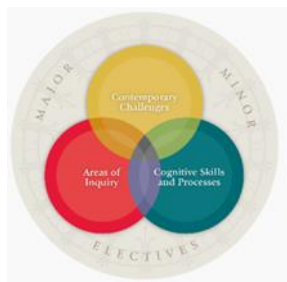
COURSE WEBSITE, RESOURCES AND MATERIALS:

- Lecture notes, supplementary readings and videos will be posted on <https://canvas.rutgers.edu>. Login to the site using your NetID and password. If you are enrolled in the course you'll find the course listed on the Courses tab.
- The text book for the class is Introduction to Animal Science, 6th edition, by W. Stephen Damron. Pearson Publishing, 2018. This textbook is highly recommended, **but not required.**
- Technology requirements
 - Computer (Macintosh – OS X or newer, or PC – Windows 8 or newer) with high-speed internet connection
 - Speakers
 - Built-in or external webcam
 - Built-in or external microphone
 - More information on [Canvas Basic Computer Specifications](#) and [Supported Browsers](#).

COURSE DESCRIPTION:

This course presents fundamental principles and functions important in animal science. The scientific underpinnings of modern animal science are presented, with emphasis on nutrition, reproduction, animal domestication and behavior, animal welfare, genetics, and growth. The course deals with domestic animals, including both companion animals and livestock.

LEARNING GOALS:



CORE CURRICULUM LEARNING GOALS:

This course meets the Core Curriculum requirement for **Natural Sciences [NS]**. On completion, students will be able to understand and apply basic principles and concepts in the physical or biological sciences, and also to explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis."

PROGRAM LEARNING GOALS:

Program Learning Goal 2. Apply biological and chemical principles and quantitative reasoning to concepts presented in core subject areas in Animal Science such as physiology, nutrition, genetics, and reproduction.

Assessment: Based on weekly quizzes and biweekly exams.

COURSE LEARNING GOALS:

By the end of this course you will

- 1) Gain an appreciation of the contributions that animals and animal products make to human well-being.
- 2) Understand the role that basic and applied science play in modern day animal science.
- 3) Obtain an overview of the varying Animal Science fields and their application to companion animals, lab animals and livestock.

ASSIGNMENTS & GRADING:

Grading

7 exams @ 50 points each 350 points (71.4%)

14 quizzes @ 10 points each 140 points (28.6%)

490 total points (100%)

Grade cutoffs:	A \geq 90%
	B+ \geq 85%
	B \geq 80%
	C+ \geq 75%
	C \geq 70%
	D \geq 60%
	F \leq 60%

Both exams and quizzes will be conducted online in Canvas. Quizzes will be held every Monday beginning the second week of classes (note that the Tuesday after Labor Day, September 8th, is Monday classes!), and exams will be offered every other Wednesday beginning the 3rd week of classes. Quizzes will be available for a six hour window every Monday beginning at 5:15 PM until 11:15 PM. Once you begin the quiz you will have 30 minutes to complete it – meaning you should start no later than 10:45 PM to have the full hour of time. Exams will be available within a 12 hour window every other Wednesday, also beginning at 5:15 PM. Again, within that 12 hour period you will have 80 minutes to complete the exam once you start it. Optional chat rooms in Canvas will be available on the from 6:00-7:00 PM on alternate Wednesdays for questions and answers – more to follow on that. *For technical difficulties during the quizzes and exams, contact the Canvas help desk for assistance at 877-361-1134, or help@canvas.rutgers.edu.* Note that make-up exams are not given. However, if you have a legitimate medical excuse for missing an exam, please submit appropriate documentation to me as soon as possible. Also, if you have standing religious observations / holidays, please contact me immediately at the start of the semester.

Extra Credit Opportunity:

There is an opportunity to obtain extra credit during the semester. In order to receive 10 *additional points, the value of one quiz, you must complete the entire process to obtain medical clearance to work with animals.* The procedure to obtain medical clearance to work with animals is a pdf file entitled Working With Animals and located under the Main menu on the [Department of Animal Science](#) home page. We will discuss this in class prior to being open for submission.

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/>.

COURSE SCHEDULE:

Module #	Date	Lecture Topic	Readings	Quiz & Exam Schedule
1	9/2	Intro; Animal Ag & Animal Products Dr. Jesse	Chapter 1 - Introductory lecture Livestock Farmers, Without Options, Turn To Euthanasia; NPR, 16 May, 2020 Farmers Find Ways To Save Millions Of Pigs From Being Euthanized; NPR, 5 June 2020	
2	9/8 Monday classes	Future of Animal Science Dr. Jesse	Chapter 2 – Value of Animals to Humanity How will cultured meat and meat alternatives disrupt the agricultural and food industry? AT Kearney Market Research Report, June 2019 The rise and rise of Impossible Foods: Plant-based meat maker will now sell its flagship burgers in Kroger's 1,700 US stores; The Daily Mail, 5 May, 2020	Quiz 1 - Module 1, 9/8/2020
	9/9	Working Safely With Animals Dr. Reimer	Lecture notes	Chat room – 9/9/2020
3	9/14	Animal Diseases / Herd Health Dr. Hausmann	Chapter 14 – Animal Health	Quiz 2 – Module 2, 9/14/2020
	9/16	Animal Behavior / Animal Welfare Dr. Malone	Chapter 13 – Animal Behavior	Exam 1 – Modules 1 & 2, 9/16/2020
4	9/21	Reproductive Physiology I Dr. Zama	Chapter 11 – Animal Reproduction	Quiz 3 - Module 3, 9/21/2020
	9/23	Reproductive Physiology II Dr. Zama	Chapter 12 – Lactation	Chat room – 9/23/2020
5	9/28	Nutrition I Dr. Williams	Chapter 5 – Introduction to Nutrition	Quiz 4 - Module 4, 9/28/2020
	9/30			Exam 2 – Modules 3 & 4, 9/30/2020

Module #	Date	Lecture Topic	Readings	Quiz & Exam Schedule
6	10/ 5	Nutrition II Dr. Williams	Chapter 6 – The Gastrointestinal Tract and Nutrition	Quiz 5 – Module 5, 10/5/2020
	10/ 7	Nutrition III Dr. Williams	Chapter 7 – Feedstuffs Classification	Chat room – 10/7/2020
7	10/12	Animal Genetics I Dr. Jesse	Chapter 8 – Genetics	Quiz 6 – Module 6, 10/12/2020
	10/14	Animal Genetics II Dr. Jesse	Chapter 9 – Animal Breeding	Exam 3 – Modules 5 & 6, 10/14/2020
8	10/19	Biotechnology Dr. Belden	Chapter 10 – Biotechnology and Genetic Engineering	Quiz 7 – Module 7, 10/19/2020
	10/21	Animal Domestication Dr. Jesse	Lecture notes Chapter 28 – Animal Welfare and Animal Rights	Chat room – 10/21/2020
9	10/26	Companion Animals Dr. Malone	Chapter 23 – Pet and Companion Animals	Quiz 8 – Module 8, 10/26/2020
	10/28			Exam 4 - Modules 7 & 8, 10/28/2020
10	11/ 2	Poultry Dr. Jesse	Chapter 18 – Poultry	Quiz 9 – Module 9, 11/2/2020
	11/ 4	Swine Dr. Jesse	Chapter 19 – Swine	Chat room, 11/4/2020
11	11/ 9	Lab Animals Dr. Uzumcu	Lecture notes	Quiz 10 - Module 10, 11/9/2020
	11/11	Sheep & Goats Dr. Jesse	Chapter 20 – Sheep and Goats	Exam 5 – Modules 9 & 10, 11/11/2020
12	11/16	<i>Virtual Farm Tour-Sheep, goats & swine</i>		Quiz 11 – Module 11, 11/16/2020
	11/18	Beef Cattle Dr. Jesse	Chapter 16 – Beef Cattle	Chat room – 11/18/2020
13	11/23	<i>Virtual Farm Tour-Cattle and Horses</i>		Quiz 12 - Module 12, 11/23/2020
	11/25			Exam 6 – Modules 11 & 12, 11/25/2020
14	11/30	The World of Horses Dr. Malinowski	Chapter 21 – Horses	Quiz 13 – Module 13, 11/30/2020
	12/ 2	Equine Industry Dr. Malinowski	Lecture notes	Chat room – 12/2/2020
15	12/ 7	Dairy Cattle Dr. Westendorf	Chapter 17 – Dairy Cattle	Quiz 14 – Module 14, 12.7/2020
	12/ 9			Exam 7 – Modules 13 – 15, 12/9/2020

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/

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/

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.