ANIM SCI 200 INTRODUCTORY ANIMAL SCIENCES 5 Credit hrs

Lecture:
M,W,F 10:00-10:48 103 Kottman Hall; R 10:00-10:48 164 Howlett Hall

Laboratory:
T 8:00-9:48 (Section 01); 10:00-11:48 (Section 02); 1:00-2:48 (Section 03)
Please reference attached laboratory schedule for location

Primary Instructor:
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Office Hours: Open door policy, however, students are encouraged to make an appointment.

Teaching Assistants:
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Course Description: Introductory Animal Sciences is a Natural Science, general education, course that utilizes a biological systems based approach to equip a broad range of students with the knowledge and critical thinking skills required to address questions concerning the maintenance, reproduction, physiology, and performance of domestic animals utilized for human benefit. Introductory Animal Sciences embodies fundamental concepts in areas of genetics, reproduction, nutrition, behavior, and biotechnology; and students are introduced to the molecular and cellular mechanisms that underscore the function of biological systems and how knowledge in this area is applicable toward advancement of domestic animals. Students will consider how the study of animals has advanced from early scientific discoveries and explore the contribution of animals toward advancements in agriculture and medical biotechnology, as well as the local and global impacts of the application of new biotechnologies to the animal industries and the impacts of the animal industries on society and the environment. The focus will be on traditional agricultural species including: cattle, sheep, swine, poultry, and horses; as well as non-traditional species including: llamas, alpacas, and aquatics.

Course Goal: This course will foster students' understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment.

Course Objectives:
Students who complete this course will:
1) Understand the basic facts, principles, theories and methods of modern science.
2) Learn key events in the history of science
3) Provide examples of the inter-dependence of scientific and technological developments.
4) Discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

Upon completion of this course, students will:
- Be familiar with the historical, social, and biological contexts that govern the study of animals.
- Understand basic principles of genetics, breeding, reproduction, physiology, nutrition, behavior, and biotechnology.
- Appreciate the molecular, cellular, and physical underpinnings of animal form and function.

- Develop the ability to critically evaluate concepts in science as they are applied to the study of animals.
- Construct innovative approaches to, and solutions of, problems encountered when maintaining animals for human benefit.
- Appreciate the agricultural and medical uses of animals and social attitudes regarding how animals are used.
- Have a broad understanding of biotechnology and it's uses toward advancing the health and well-being of animals
- Be informed about the uses of animal models for advancing scientific discovery.
- Consider positive and negative implications of applying modern technology to animal systems.

Texts: Introductory Animal Sciences relies on numerous resources to provide the most current, relevant information in a rapidly advancing area. Textbooks will be on reserve in the Food, Agricultural, and Environmental Sciences Library. Journal articles will be available through Carmen (see below).

EXAMS, ASSIGNMENTS, and GRADING POLICY:

Exams (300 points): Three exams, each worth 100 points, will be given during the quarter. Material taught in lectures is cumulative and essential themes and concepts taught during the course may appear on any exam. Exams will consist of mixed format (i.e., multiple choice, fill in the blank, short answer/discussion, essay). Quality (spelling, legibility, etc.) and completeness of answers will be assessed in determining the grade.

Integrative paper (100 points): Students will develop a paper throughout the quarter to expand their knowledge and comprehension of the biological processes which support the success of a selected animal in its domestic or captive environment. Students may choose an animal which has been domesticated, in the process of domestication, or maintained in captivity. Before selecting an animal, however, it should verified that there is adequate, reliable information available to address the following topics:

Section 1: Introduction (importance and benefit to man) & history (include domestication if applicable) Due April 06
Section 2: Behavior Due April 20
Section 3: Genetics & Reproduction Due May 04
Section 4: Nutrition Due May 18

To address each of these topics, students will write a 1-2 page mini-paper that will be submitted on select dates throughout the quarter (see above for deadlines). Papers are to be written using guidelines for writing in scientific style. Charts, diagrams, or tables will not count toward the 1-2 page written requirements, but may be used in support of findings. Students are required to use peer-reviewed text and/or journal references and must document the sources for each of the topics using the format below. Each mini-paper will be collected, graded, and returned with comments/suggestions for improvement. After all sections have been returned, students will compile all topics into a final report for submission. For the final submission an introduction and conclusion should be included, resources documented at the end of the report, and any charts, diagrams, or tables included as an appendix. A minimum of 4 references are required for the completed report. The reports and final paper are to be typed in 12 point font (Times New Roman or Arial), double spaced, with 1 inch margins. Each submission is worth 20 points. The final report is due May 25.

Once an animal has been chosen, students must use that animal for the entire course of the paper. Again, it is very important that it is verified that there will be adequate peer-reviewed information available to complete the reports.

References are to be cited using the following format:

Journal
Barker SB, Knisely JS, McCain NL, Best AM. 2005. Measuring stress and immune response in healthcare professionals following interaction with a therapy dog: a pilot study. Psychol. Rep. 96:713-29.

Text
Ackerman L. The genetic connection: A guide to health problems in purebred dogs. Lakewood, CO:AAHA Press. 2005;68-9.

References are to be cited within the text as (Barker, et al., 2005) or (Ackerman, 2005).

Resources for conducting a literature search and writing in scientific style are provided through Carmen.

Laboratory (100 points): Laboratories are designed to familiarize students with food producing animals and equines as well as common practices used in maintaining these animals. Concepts covered in lecture will be emphasized through hands-on-experiences.

Each laboratory will be concluded with a quiz. Due to the hands-on activities of the laboratories, there will not be an opportunity to make-up missed quizzes. Students must gain prior approval before attending a different laboratory section in order to receive credit for the laboratory.

Students are expected to be active participants in the laboratories.

Participation (50 points): Students are expected to be active participants in the class and laboratories. Students should be prepared to contribute to group activities that will emphasize concepts learned. In addition, students may be asked to complete an exit ticket prior to leaving class. For the exit ticket students will write their name and a question or comment regarding recently covered topics. The exit tickets will be collected and select questions or comments addressed at the beginning of the subsequent lecture.

Grading policy: Grading will consist of objective (multiple-choice, fill in the blank) or subjective (discussion, integrative paper) assessment. For subjective grading, the quality and completeness of the answer/assignment relative to all other answers/assignments in the class will determine the score. For example, an excellent response to a short discussion exam question worth 5 points would receive the entire 5 points; a very good response, 4 points; an acceptable (average) response, 3 points; below average, 2 points; well below average, 1 point; and unacceptable, 0 points.

Item	Total Points Possible
Examinations	300
Integrative paper	100
Laboratory quizzes	100
Class participation	50
Total	550

Overall grades will be based on the total points earned as a percentage of total points possible and letter grades assigned as follows:

Percentage	Grade	Percentage	Grade
93-100	A	73-76.9	C
90-92.9	A-	70-72.9	C-
87-89.9	B+	67-69.9	D+
83-86.9	B	59-66.9	D
80-82.9	B-	≤58.9	E
77-79.9	C+		

Academic Misconduct: The Committee on Academic Misconduct investigates all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations and assignments. All instances of alleged misconduct will be reported to the committee. For additional information, see the Code of Student Conduct (http://www.studentaffairs.osu.edu/info_for_students/csc.asp).

Attendance Policy: Attendance to lectures and laboratories is mandatory. Students will be unable to make-up missed activities. If an emergency should warrant that a lecture or laboratory be missed, prior notification must be given to the instructor (lecture) or teaching assistants (laboratories).

E-Mail Etiquette: The use of e-mail has made the classroom professor more approachable and accessible to the student. However, students should realize that e-mail should not always be used as a casual form of communication and professional relationships should be maintained when using e-mail for a class. Below are guidelines that students should follow when drafting an e-mail. The instructor reserves the right to not respond to e-mails that are inappropriate. E-mails will be answered in a timely manner, however, students are encouraged to visit with the instructor in person if an immediate response is required.

DO

- Include a descriptive statement in the subject line.
- Use proper salutations when beginning an e-mail.
- Be concise in the body of the e-mail, use complete sentences and proper grammar.
- Use an appropriate closure at the end of each e-mail followed by first and last name.
- If replying to an e-mail, reference the original e-mail and its content.
- Be selective of the choice of words. Emotions are difficult to convey in text and without the benefit of facial expressions sentiment can be lost in the words that are chosen.

DON'T

- Use all capital letters; this conveys a tone of ANGER.
- Use e-mail as a format to criticize other individuals.
- Ask for a grade via e-mail. Grades will not be discussed by e-mail. If a graded item needs to be discussed, and appointment to do so should be made.
- E-mail to inquire when grades will be posted. Grades will be posted promptly, however, students should recognize that grading assignments and exams requires considerable time to ensure uniformity and fairness.
- Send an e-mail out of frustration or anger. Learn to save the e-mail as a draft and review at a later time when emotions are not directing the content.

Punctuality: Punctuality is a necessity as tardiness is disruptive to the entire class. Students who are repeatedly tardy are subject to a reduction in participation points assessed toward the final grade.

Cell Phones: Interruptions are distractive to learning. All cell phones must be turned OFF or placed in Etiquette Mode and stored out of sight during class period. Text-messaging during class is unacceptable.

Appropriate Dress: Please note that the laboratories consist of hands-on activities with animals. Dress appropriately for such activities. Open toe shoes are not allowed. Students may elect to bring a change of clothes for the labs.

Disability Services: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-33-7, TDD 292-0901; http:/www.ods.ohio-state.edu/.

SECRETS TO SUCCESS

Attend class regularly
Be an active participant in lecture and laboratory activities
Ask for clarification
Review material after class
Prepare for exams in advance, do not wait until the last minute to study
Seek help early in the quarter if experiencing difficulty with the material
Get to know other students in the class; they can be the best learning tool
Don't be afraid to venture into what is not familiar.

SCHEDULE

Lecture MWRF		Lab T
Week No.	Topic	Activity*
1	• Course requirements & expectations • Overview of the importance of animals to humans: economical, social, agricultural, and medical uses.	Animal Center Tours Dublin
2	• Introduction to the animal industries of the world: current status and perceptions of food animal and equine industries.	Animal Center Tours Dublin
3	• Introduction to the animal industries of the world: current status and perceptions of food animal and equine industries.	Animal Center Tours Dublin
4	• Process of domestication and a historical perspective of how animal science has evolved. • Animal form and function: the role of animals in agriculture and medicine as directed by their physiology.	Ultrasound technology for assessing body composition in swine
5	• Animal form and function: the role of animals in agriculture and medicine as directed by their physiology.	Muscle/meat quality
6	• Contribution of genetics and environment toward the establishment of animal behaviors.	Equine behavior

	• Organization of biological systems from molecular structures to physical features: DNA as the blueprint of life.	
7	• Genetics & application of genetics for animal breeding. • Biotechnology: progress, applications and limitations.	Genetic, physiological, and environmental factors of wool quality
8	• Principles of reproduction and assisted reproductive technologies.	Artificial insemination technology in the beef cattle industry
9	• Nutrition: nutrient requirements, physiology, and the importance of different digestive strategies. • Animals as a source of nutraceuticals.	Avian digestive physiology
10	• Lactation strategies: Nutritional and immunological support of the young and provision of food for humans.	Mammary physiology

* Lab date/activities are subject to change depending on animal availability. Buses are available for transport of students to the Animal Centers. All remaining labs will be held in the Animal Science building arena.

EXAM SCHEDULE

	DATE
Exam I	04/18
Exam II	05/12
FINAL EXAM (9:30-11:18 103 Kottman Hall)	06/03

ON-LINE RESOURCES

Introductory Animal Sciences has been developed for Carmen accessibility. To access, visit http://carmen.osu.edu. Log-in using your e-mail user name and password and under Spring 2009 quarter select ANIM SCI 200.

The following information is available through ANIM SCI 200 for Carmen:

Calendar: Displays important dates including exam dates and due dates for class and lab activities
Discussion: Allows students to interact with others enrolled in the course; post questions regarding lectures, labs, exams, papers, etc. The discussion board is not to be used to critique the behavior of peers. Items posted to the discussion board will be viewable to all students enrolled in ANIM SCI 200 as well as the instructor and teaching assistants.
Grades: Access grades as well as the class mean and standard deviation for completed assignments.
Content: Download and print a copy of the Power Point slides prior to attending class. Note that these slides do not contain a full copy of the lecture notes – but an abridged version to facilitate note taking by students during lectures. Students must attend lectures to obtain the material required to compliment these slides.
Articles: Material presented during the course draws from several sources. Articles used in development of the course are available for download.
Links: This section contains links to broader categories of information concerning the study of animals. Students are encouraged to explore these resources, however, the content of these websites is not endorsed by the course instructor.
Glossary: Includes a comprehensive list of commonly used class terms and their definition.