

## Term Information

Effective Term Autumn 2015  
*Previous Value* Summer 2012

## Course Change Information

**What change is being proposed? (If more than one, what changes are being proposed?)**

Add an on-line section of the course in addition to the in-person section already offered.

**What is the rationale for the proposed change(s)?**

To offer a self-paced learning media to students that prefer distance learning flexibility.

**What are the programmatic implications of the proposed change(s)?**

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

None

**Is approval of the request contingent upon the approval of other course or curricular program request?** No

**Is this a request to withdraw the course?** No

## General Information

Course Bulletin Listing/Subject Area Animal Sciences  
Fiscal Unit/Academic Org Animal Sciences - D1132  
College/Academic Group Food, Agric & Environ Science  
Level/Career Undergraduate  
Course Number/Catalog 2200.01  
Course Title Introductory Animal Sciences  
Transcript Abbreviation Animal Sci Intro  
Course Description A study of the basic principles of genetics, breeding, reproduction, nutrition, behavior, and biotechnology as it applies to the molecular, cellular, and physical underpinnings of domesticated animal form and function.  
Semester Credit Hours/Units Fixed: 3

## Offering Information

Length Of Course 14 Week  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? Yes  
Is any section of the course offered 100% at a distance  
Less than 50% at a distance  
*Previous Value* No  
Grading Basis Letter Grade  
Repeatable No  
Course Components Lecture  
Grade Roster Component Lecture  
Credit Available by Exam No  
Admission Condition Course No  
Off Campus Never  
Campus of Offering Columbus

## Prerequisites and Exclusions

### Prerequisites/Corequisites

### Exclusions

### [Previous Value](#)

The on-line course is not open to students with a declared Animal Sciences major.  
Not open to students with credit for 2300H (200H) or 200.

## Cross-Listings

### Cross-Listings

## Subject/CIP Code

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01.0901

### Subsidy Level

Baccalaureate Course

### Intended Rank

Freshman, Sophomore

## Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

## Course Details

### Course goals or learning objectives/outcomes

- 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, and performance of domestic animals
- Be familiar with the historical, social, and biological contexts that govern the study of animals
- Understand basic principles of genetics, breeding, reproduction, 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 uses of animals and social attitudes regarding how animals are used
- Have a broad understanding of biotechnology and its uses toward advancing the health and well-being of animals
- Consider positive and negative implications of applying modern technology to animal systems

## **Content Topic List**

- Process of domestication and a historical perspective of how animals and animal sciences have evolved
- Animal behavior and welfare
- Nutrition: nutrient requirements, physiology, and the importance of different digestive strategies
- Organization of biological systems from molecular structures to physical features
- Genetics & application of genetics for animal breeding: natural versus artificial selection
- Biotechnology: progress, applications, and limitations
- Principles of reproduction and assisted reproductive technologies
- Lactation strategies: nutritional and immunological support of the young
- Animal form and function: ruminants
- Animal form and function: small ruminants
- Animal form and function: pseudo-ruminants
- Animal form and function: hind-gut fermenters
- Animal form and function: simple nonruminants
- Animal form and function: avians
- Animal form and function: aquatics
- Global status of the animal industries

## **Attachments**

- ANIM SCI 2200\_01 On\_Line ASCC Feedback.pdf: Feedback Address  
*(Cover Letter. Owner: Lyvers Peffer, Pasha A)*
- ANIM SCI 2200.01 ONLINE SYLLABUS.pdf: OnLINE Syllabus  
*(Syllabus. Owner: Lyvers Peffer, Pasha A)*
- ANIMSCI 2200 01 Syllabus AU 2014.pdf: In-Person Syllabus  
*(Other Supporting Documentation. Owner: Lyvers Peffer, Pasha A)*

## **Comments**

- Please see feedback email. *(by Hogle, Danielle Nicole on 02/04/2015 10:56 AM)*
- We want to keep the exclusion that restricts enrollment in the on-line section to non-majors. The CFAES Assessment and Scheduling Coordinator has communicated with the registrar and a reserve cap will be used to put the exclusion place. *(by Lyvers Peffer, Pasha A on 12/16/2014 02:52 PM)*
- The exclusion: (1) Don't you want to keep this language "Not open to students with credit for 2300H (200H) or 200"? (2) The new exclusion re: on-line version will appear for any 2200.01 (whether on-line or not). Please verify with registrar that this could be electronically enforced (if that is what you wish) depending on the mode of offering of the course. *(by Vankeerbergen, Bernadette Chantal on 12/15/2014 04:26 PM)*
- Please make the changes requested by COAA. *(by Neal, Steven Michael on 12/10/2014 04:41 PM)*

**COURSE CHANGE REQUEST**  
2200.01 - Status: PENDING

Last Updated: Neal,Steven Michael  
03/09/2015

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Lyvers Pepper,Pasha A	12/04/2014 10:35 AM	Submitted for Approval
Revision Requested	Neal,Steven Michael	12/10/2014 04:41 PM	Unit Approval
Submitted	Lyvers Pepper,Pasha A	12/13/2014 09:38 AM	Submitted for Approval
Approved	Neal,Steven Michael	12/15/2014 11:20 AM	Unit Approval
Approved	Neal,Steven Michael	12/15/2014 11:20 AM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	12/15/2014 04:27 PM	ASCCAO Approval
Submitted	Lyvers Pepper,Pasha A	12/16/2014 02:52 PM	Submitted for Approval
Approved	Neal,Steven Michael	01/14/2015 03:06 PM	Unit Approval
Approved	Neal,Steven Michael	01/14/2015 03:06 PM	College Approval
Revision Requested	Hogle,Danielle Nicole	02/04/2015 10:56 AM	ASCCAO Approval
Submitted	Lyvers Pepper,Pasha A	02/27/2015 04:37 PM	Submitted for Approval
Approved	Lyvers Pepper,Pasha A	03/09/2015 04:45 PM	Unit Approval
Approved	Neal,Steven Michael	03/09/2015 04:51 PM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler Hogle,Danielle Nicole	03/09/2015 04:51 PM	ASCCAO Approval



February 27, 2015

Dear ASCC Natural and Mathematical Sciences Panel Members,

The feedback following review of Animal Science 2200.01 by the ASCC Natural and Mathematical Sciences Panel has been considered and the following concerns addressed or considered as follows:

Work closely with ODEE (<https://odee.osu.edu/course-development>). ODEE will help make sure that the course adheres to the necessary standards (e.g., syllabus includes all the necessary information). Some of the concerns of the Panel include the points below:

- Syllabus should provide IT support for students.
- Make sure that the distance learning version of the course is ODS-compliant.
- How is the on-line advising handled?
- How does one monitor an on-line exam when students can use their notes?
- How is integrity of exams managed?

The course syllabus has been formatted using the ODEE course syllabus template. A statement has been included in the syllabus of IT support. I met with Marcia Ham, who was referred to me by Jennifer Simmons, Associate Director of Distance Education, on February 26 to discuss the concerns noted above. Marcia reviewed the syllabus in advance of the meeting and provided feedback on best practices for moving this course toward an on-line version. Marcia commented that the selection of SoftChalk was considered by some, including ODS, an ideal platform for distance education courses. The course will use SoftChalk developed lessons included within Carmen as items and will use CarmenConnect for on-line office hour sessions. As Marcia and I discussed, CarmenConnect will allow for personal, one-on-one or group office hour sessions through establishing a meeting room and inviting distance enrolled students. Students are also encouraged to attend in-person office hours if able, but in-person attendance is not required. Marcia and I also discussed the importance of students establishing a sense of community with other distance enrolled students. As supported in the literature, students must feel inter-connected with others or there is a risk of student failure in a distance learning course due to isolation. To maximize interaction beyond office hours, a blog will be established for the course through u.osu.edu. Regarding the integrity and monitoring of on-line exams, exams for the on-line version are comparable to the in-person offerings. Exams completed on-line are planned for 1.5 minutes per question for multiple-choice questions and 2 minutes per question for short-answer, fill-in-the-blank responses. Exam questions are (will be) formatted following best practices in writing multiple-choice questions for critical thinking as defined in the literature, and questions span Blooms domains of learning. The style of questions used in the exams and the time restriction placed on exams requires students to be knowledgeable of the material and does not support the use of outside resources for a student to complete the exam within the allotted time. Embedding the exams within Carmen allows the questions and responses to be randomized. Randomization minimizes incidences of students working together to complete the exam when in close proximity.



Provide the syllabus used for the in-classroom version of the course as well as clarification if there are any differences between the in-classroom syllabus and the distance learning syllabus.

Syllabi for both the in-person and on-line sections are now uploaded through curriculum.osu.edu.

Are students who take the online course eligible to take the lab?

The associated lab is a separate course (ANIM SCI 2200.02). Students who meet the pre-requisites for the lab are permitted to enroll in the lab. As discussed below, the decision to offer a separate section of ANIM SCI 2200.01 that is on-line instead of offering the course with a new course number conserves the prerequisite structure of courses.

Clarify the extent to which the quizzes contribute to the final grade. Should the quizzes be included in the "evaluation" section of the syllabus?

Quizzes are included under the category of Assignments in the Evaluation Summary and total 150 points out of 550 points possible. The term assignment is removed and quiz used in lieu for clarification.

How has the material been adapted for online offering and how is it different?

The on-line and in-person course content does not differ, only the mode of offering. The in-person content will be captured through text, image, and video applications and customized for eLearning using SoftChalk. SoftChalk was selected over other platforms for ease of use by students and facilitators, it is planned for Carmen integration, and it offers many different interactive learning resources that will help keep students engaged.

Make the distinction between 50% and 100% at a distance. What will be the difference?

The Course Change Request notes both 100% at a distance and less than 50% at a distance. Both options were selected as the course request is for a new section of the current ANIM SCI 2200.01 at 100% distance. Thus, the course will be offered fully in-person (less than 50% at a distance as 0% was not an option) and fully on-line (100% at a distance).

Provide clarification as to why Animal Science majors are not able to take this course. If it is not identical to the in-class course then it should have a different course number.

Based on course records, 45 to 65% of the students who enroll in the course are declared Animal Sciences majors. Most of the declared majors are first-year freshmen or sophomores. Introductory Animal Sciences is considered a cornerstone course for students entering the major and deciding if the major is a fit for their future career aspirations. Based on surveys of Animal Sciences student demographics (94% of our students are traditional students entering college directly from high school, 65% of our students prefer face-to-face communication, and 26% of students find it difficult to motivate themselves in subjects not of perceived interest) it was deemed that majors be required to complete the course in-person. The in-person offering meets the learning



and motivation styles of our early students, sets a framework for students to establish a learning community with their peers that will be important as they progress through the major, and impacts program retention. Students enrolled in the course that are not declared Animal Science majors commonly complete the course at a more advanced academic rank. The offering of an on-line course for students that are already integrated into the university and more academically mature offers flexibility, but the more intangible aspects of an in-person course offering for student success are not necessarily needed by this population.

The on-line and in-person course content does not differ, only the mode of offering and thus the learning environment. The departmental and college Academic Affairs Committee reviewed and considered offering the on-line version as a separate course with a unique number. The decision to maintain the same number is that students may elect to complete the on-line course as a non-major and then enroll as a major. The current prerequisite structure of many of our courses requires completion of ANIM SCI 2200.01. Having a unique number for the on-line course will result in the prerequisite structure of many courses needing amended.

Sincerely,

Pasha A Lyvers Peffer  
Associate Professor, The Ohio State University



# **SYLLABUS: ANIM SCI/2200.01 INTRODUCTORY ANIMAL SCIENCES AUTUMN 2015**

## **Course overview**

Introductory Animal Sciences is a Natural Science (Biological Science), general education, course that promotes an understanding of modern science through a biological systems based approach. Students learn of the relationship between science and technology, consider the implications of scientific discoveries, and acquire the knowledge and critical thinking skills required to evaluate the potential of science and technology to address problems from a global arena as they pertain to domestic animals used for human benefit. The course embodies fundamental concepts in areas of genetics, reproduction, nutrition, behavior, and biotechnology. 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 appropriate management of domesticated animals. Students will consider how the study of animals has advanced from early scientific discoveries. Through the study of animal systems from the local to global arena, students will appreciate the use of animals and their contributions across diverse populations and understand the local and global impacts of the application of new technologies to the animal industries.

As a Natural Science (Biological Science) course, students will learn how systematic observations of the natural world have helped define current concepts of science and the role of controlled experimentation in support of early scientific theories through discussions of behavior. An understanding of the foundations of modern science will be acquired through discussions of cell theory, heredity, physiological ecology, energy transfer, and evolutionary strategies of today's domesticated species. Students will gain an appreciation of how human intervention has shaped animal form and function throughout history and the role of technology; addressing the implications of biotechnologies current and future applications.

## **Instructor**

Instructor: Pasha A Lyvers Peffer

Email address: [lyvers-peffer.1@osu.edu](mailto:lyvers-peffer.1@osu.edu)

Phone number: 614-292-3897

Distance Office Hours: Wednesday, 3:00-4:00 & Thursday 9:00-10:00.

In-Person Office Hours: Tuesday 9:00-10:00 & Wednesday 2:00-3:00

## **Notes**

Not open to Animal Sciences majors. GE Nat Sci Bio course.



## Course description

A study of the basic principles of genetics, breeding, reproduction, nutrition, behavior, and biotechnology as it applies to the molecular, cellular, and physical underpinnings of domesticated animal form and function.

## Course learning outcomes of Animal Sciences

By the end of this course, students should successfully be able to:

- relate structure, form and function, growth and development of animal systems from the cellular to the organismal level.
- demonstrate knowledge among anatomy, physiology, genetics, nutrition, and reproduction.
- discuss practices applicable to animal management systems.
- assess the practices of respectful management of animals and the environment.

## Course learning outcomes of the GE Natural Sciences

By the end of this course, students should successfully be able to:

- understand the basic facts, principles, theories and methods of modern science.
- relate key events in the history of science.
- provide examples of the inter-dependence of scientific and technological developments.
- discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world

## Course materials

### Required

ANIMAL SCIENCES, Peffer and Day. Kendall Hunt Publishing; Dubuque, IA:2014. ISBN: [9781465250100](#) (print)

## Course technology

*Introductory Animal Sciences* is a distance learning (DL) course. All materials are formatted in learning modules accessed via the internet through Carmen. You must be enrolled within the university (OSU) to participate in the course. You must have access to a computer with the required hardware (internet) and software applications (Microsoft Office applications and Adobe Reader) to access and download on-line learning content.

### Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Carmen

## Technology skills necessary for this specific course

- CarmenConnect text and audio chat. CarmenConnect offers video chat for webcam equipped devices. If you do not have video capabilities, you may connect with audio chat only.
- Collaborating in u.osu.edu course blog

## Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Microphone: built-in laptop or tablet mic or external microphone

**NEED HELP:** Office of Distance Education and eLearning (<http://resourcecenter.odee.osu.edu/>) has assembled various resources to assist students with technology services. In addition you may contact the IT Service Desk at 8-HELP (614-688-HELP) or [8HELP@osu.edu](mailto:8HELP@osu.edu).

## Grading and faculty response

Three exams will be given during the semester - two midterms worth 100 points each and a final worth 150 points. **Midterm exams will be non-comprehensive. The final exam will be comprehensive of material learned throughout the semester.** Exams will consist of mixed format questions. In addition, 150 points will be earned through course quizzes and 50 points through participation in the course blog.

While *Introductory Animal Sciences* is offered for independent, self-paced study, quiz and exam deadlines are predetermined to guide progress through learning modules. Quizzes are completed online using Carmen and may be completed using any computer that allows access the Carmen site for ANIM SCI 2200.01. However, **it is not recommended to use wireless internet access** due to the fact that the internet connection may be lost during the course of completing the quiz. Quizzes may be accessed immediately upon completion of modules or sub-modules or may be accessed separately through the Activities link on the course Carmen page once the learning module has been accessed. Quizzes must be completed prior to the deadlines stated in the Topic and Reading Schedule outline. Carmen quizzes are open resource. However, you will need to study and understand the course material before completing the quiz, just as you would for any other class. The quizzes are timed and you will not be able to spend a long time on each question. You are expected to complete the quiz without assistance from others and completion of the quiz is expected to reflect your own efforts.

Exams will be available on Carmen for one week during the dates outlined in the schedule. Exams are timed and you will have 90 minutes each for exams I and II and 180 minutes to complete the final exam once the exam is opened. You are expected to complete the exams without assistance from others and completion of the exam is expected to reflect your own efforts.

## Grades

Evaluation Assignment	Points	Deadlines
Exam I	100	September 17-24
EXAM II	100	October 22-29
Quizzes	150	REFER TO TOPIC SCHEDULE
Participation	50	
FINAL EXAM	150	December 8-15
<b>Total</b>	<b>550</b>	

*See topic schedule, below, for additional dates*

## Late assignments

Quizzes must be completed prior to the deadlines stated in the Topic and Reading Schedule outline. If you miss an exam and have a valid, documented excuse you will be given an alternate make-up exam date.

## Grading scale

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

93–100: A  
 90–92.9: A-  
 87–89.9: B+  
 83–86.9: B  
 80–82.9: B-  
 77–79.9: C+  
 73–76.9: C  
 70–72.9: C-  
 67–69.9: D+  
 60–66.9: D  
 Below 60: E

## Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

### Grading and feedback

There are ***no make-up assignments, quizzes, or exams***. After the quiz and/or exam deadlines, the evaluation items are no longer available for a grade. You should be prepared to complete quizzes and exams in advance of the deadline. Quizzes are graded automatically through Carmen and quiz scores post upon quiz submission. You may access your quiz and your responses at any time once the quiz is submitted. Exam scores will post within **7 days** of submission. You should contact me for any questions concerning a quiz or exams score and you can generally expect feedback within **5 days**.

### E-mail

I will reply to e-mails within **48 hours during Monday-Friday**. For e-mails sent during **Saturday-Sunday**, you can expect a response no later than the following Tuesday.

### u.osu.edu

I will check and reply to messages and/or comments of the blog every **48 hours during Monday-Friday**.

## Attendance, participation, and discussions

### Student participation requirements

Because this is a distance-education course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: AT LEAST ONCE PER WEEK**  
Be sure you are logging in to the course in Carmen each week, including weeks with holidays or weeks with minimal online course activity. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Office hours: OPTIONAL**  
Office hours, distance or in-person, are optional. If you wish to discuss the course with me outside of these scheduled times, please contact me at the beginning of the week to schedule an alternate meeting times.
- **Participating in u.osu.edu: 2+ TIMES PER WEEK**  
As participation, each week you can expect to post at least twice weekly.

## Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** You are expected to maintain a professional relationship in your written communications and use appropriate grammar, spelling, and punctuation.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. Be cautious of punctuation or writing in all caps that can convey a tone of anger.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the u.osu.edu site.

## Other course policies

### Academic integrity policy

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

**If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct.** If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))

- *Eight Cardinal Rules of Academic Integrity* ([www.northwestern.edu/uacc/8cards.htm](http://www.northwestern.edu/uacc/8cards.htm))

## Accommodations for accessibility

### Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Office for Disability Services at [614-292-3307](tel:614-292-3307) or [ods@osu.edu](mailto:ods@osu.edu) to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

### Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [Carmen \(Desire2Learn\) accessibility](#)

## Course schedule (tentative)

Week	Topic	Text	Deadlines
1	Importance of domesticated animals to humans	Chapter 1	
2	Evolution of domesticated species and the process of their domestication	Chapter 2	SEPT 5
3	Animal Behavior and Welfare	Chapter 3 and 16	SEPT 12
4	Nutrition: nutrient requirements, physiology, and the importance of different digestive strategies.	Chapter 4	<b>EXAM</b>
5	Organization of biological systems from molecular structures to physical features.	Chapter 5	SEPT 26
6	Genetics & application of genetics for animal breeding: natural versus artificial selection.	Chapter 5	OCT 3
7	Biotechnology: progress, applications and limitations.	Chapter 5	OCT 10
8	Principles of reproduction and assisted reproductive technologies.	Chapter 6	OCT 17

9	Lactation strategies: Nutritional and immunological support of the young.	Chapter 7	<b>EXAM</b>
10	Animal form and function: Ruminants	Chapter 8 and 9	OCT 31
11	Animal form and function: Small Ruminants & Pseudo-ruminants	Chapter 10 and 14	NOV 7
12	Animal form and function: Hind-gut fermenters	Chapter 12	NOV 14
13	Animal form and function: Simple nonruminants & Avians	Chapter 11 and 13	NOV 21
14	Animal form and function: Aquatics	Chapter 15	DEC 5
15	Did we cover everything?		
	<b>Final Exam</b>		DEC 15

**ANIM SCI 2200.01: Introductory Animal Sciences  
Fall Semester, 2014**

**Lecture:** Monday, Wednesday and Friday; 11:30-12:25am, 103 Kottman Hall

**Instructor:** Pasha A Lyvers Peffer, Department of Animal Sciences  
[lyvers-peffer.1@osu.edu](mailto:lyvers-peffer.1@osu.edu), 292-3896  
Office hours: Tuesday, 9:00-10:00 & Wednesday 2:00-3:00.

**Prerequisites:** Not open to students with credit for 2300H. GE Nat Sci Bio course.

**Text:** Required: ANIMAL SCIENCES, Peffer and Day. Kendall Hunt Publishing; Dubuque, IA:2014. ISBN: 9781465250100

**Goals and Objectives:** Introductory Animal Sciences is a Natural Science (Biological Science), general education, course that promotes an understanding of modern science through a biological systems based approach. Students learn of the relationship between science and technology, consider the implications of scientific discoveries, and acquire the knowledge and critical thinking skills required to evaluate the potential of science and technology to address problems from a global arena as they pertain to domestic animals used for human benefit.

**Learning Objectives:**

1. relate structure, form and function, growth and development of animal systems from the cellular to the organismal level.
2. demonstrate knowledge among anatomy, physiology, genetics, nutrition, and reproduction.
3. discuss practices applicable to animal management systems.
4. assess the practices of respectful management of animals and the environment.

**How students meet objectives through this course:** The course embodies fundamental concepts in areas of genetics, reproduction, nutrition, behavior, and biotechnology. 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 appropriate management of domesticated animals. Students will consider how the study of animals has advanced from early scientific discoveries. Through the study of animal systems from the local to global arena, students will appreciate the use of animals and their contributions across diverse populations and understand the local and global impacts of the application of new technologies to the animal industries.

**Course Description:** A study of the basic principles of genetics, breeding, reproduction, nutrition, behavior, and biotechnology as it applies to the molecular, cellular, and physical underpinnings of domesticated animal form and function.



**Goals and Objectives of the GE Natural Science Category:** Courses in natural sciences foster an understanding of the principles, theories and methods of modern sciences, the relationship between science and technology, and the effects of science and technology on the environment.

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students learn key events in the history of science.
3. Students provide examples of the inter-dependence of scientific and technological developments.
4. Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world

**How students meet the GE Natural Science objectives through this course:** Students will learn how systematic observations of the natural world have helped define current concepts of science and the role of controlled experimentation in support of early scientific theories through discussions of behavior. An understanding of the foundations of modern science will be acquired through discussions of cell theory, heredity, physiological ecology, energy transfer, and evolutionary strategies of today's domesticated species. Students will gain an appreciation of how human intervention has shaped animal form and function throughout history and the role of technology; addressing the implications of biotechnologies current and future applications.

### Lecture and Reading Schedule

Week	Topic	Text	Assignment Due
1	Importance of domesticated animals to humans	Chapter 1	
2	Evolution of domesticated species and the process of their domestication	Chapter 2	SEPT 5
3	Animal Behavior and Welfare	Chapter 3 and 16	SEPT 12
4	Nutrition: nutrient requirements, physiology, and the importance of different digestive strategies.	Chapter 4	<b>EXAM</b>
5	Organization of biological systems from molecular structures to physical features.	Chapter 5	SEPT 26
6	Genetics & application of genetics for animal breeding: natural versus artificial selection.	Chapter 5	OCT 3
7	Biotechnology: progress, applications and limitations.	Chapter 5	OCT 10
8	Principles of reproduction and assisted reproductive technologies.	Chapter 6	OCT 17
9	Lactation strategies: Nutritional and immunological support of the young.	Chapter 7	<b>EXAM</b>
10	Animal form and function: Ruminants	Chapter 8 and 9	OCT 31
11	Animal form and function: Small Ruminants & Pseudo-ruminants	Chapter 10 and 14	NOV 7
12	Animal form and function: Hind-gut fermenters	Chapter 12	NOV 14
13	Animal form and function: Simple nonruminants & Avians	Chapter 11 and 13	NOV 21
14	Animal form and function: Aquatics	Chapter 15	DEC 5
15	Did we cover everything?		
	<b>Final Exam</b>		DEC 15

**Evaluation** Three exams will be given during the semester. Two lecture midterms worth 100 points each and a lecture final worth 150 points. **Midterm exams will be non-comprehensive. The final exam will be comprehensive of material**

**taught throughout the semester.** Exams will consist of mixed format questions and **exams will not be returned.** In addition, 150 points will be earned through course quizzes submitted through Carmen. You will be allowed to drop your lowest course quiz.

Evaluation	POINTS	
Exam I	100	SEPTEMBER 17 (11:30-12:25)
Exam II	100	OCTOBER 22 (11:30-12:25)
Quizzes	150	REFER TO LECTURE SCHEDULE
FINAL EXAM	150	DECEMBER 15 (12:00-1:45)
<b>Total</b>	<b>500</b>	

Assignments completed online using Carmen may be completed using any computer that allows you to access the Carmen site for ANIM SCI 2200.01. However, **it is not recommended to use wireless internet access** due to the fact that the internet connection may be lost during the course of completing the assignment. **You will be given two attempts to access and complete the Quizzes.**

**Carmen quizzes are available following Wednesdays lecture and are due by 11:00pm on Friday.** Carmen quizzes are open book and open notes. However, you will need to study and understand the course material before completing the quiz, just as you would for any other class. The quizzes are timed and you will not be able to spend a long time on each question. You are expected to complete the quiz without assistance from others and completion of the quiz is expected to reflect your own efforts.

**Grade Scale:** 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	60-66.9	D
80-82.9	B-	<60	E
77-79.9	C+		

### SECRETS TO SUCCESS

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

**Course Management System** This course uses Carmen (<http://carmen.osu.edu>) to manage course content and grades. Students are expected to check this site frequently to receive updates regarding the course. Note, important information delivered during lecture may not be posted to Carmen and Carmen is not a substitute for class attendance.

## Course Policies

**Attendance Policy:** You are expected to attend class and be punctual. Attendance is not officially recorded, but may be considered in final grade decisions. If an emergency should warrant that a lecture be missed, prior notification should be given to the instructor. On dates of scheduled exams, the instructor must be contacted the day of the absence. In case of an illness, you must be seen by and **receive written documentation from a professional health care provider on the day of the absence**. Routine specialist appointments (optometrist, dentist, etc.) are not accepted as an excused absence for an exam. In instances of a **death in the family, documentation in the form of a death certificate, obituary notice, or funeral remembrance card is required**. **Request for excuse of absence for University sanctioned events must pre-approved by the instructor**. You are responsible for submitting appropriate documentation for absences within two lecture periods from the absence.

**Exam Policy:** If you miss an exam and have a valid, documented excuse (as noted above in the attendance policy), you will be given an opportunity to attend a make-up exam. **Make-up exams are available at 4:00 pm on the Friday following the regularly scheduled mid-term (SEPT 19 and OCT 24 for Exam I and Exam II, respectively). There are no alternative make-up exam dates**. If your absence is not considered valid for missing an exam or if you do not attend the make-up exam date, you will receive a grade of 0. Validity of the excuse is up to the instructor's discretion. Missing an exam due to minor illness, transportation issues, faulty alarm clocks, etc. will result in a grade of zero. If you miss the final exam, you will receive an E for the course.

**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 I have included guidelines from Bloomsbury's guide on email etiquette that you should follow when drafting your e-mail. **I will not respond to e-mails that I consider inappropriate. I will respond to appropriate emails in a timely manner, do not expect an immediate reply. If you require an immediate response consider visiting with me in person.**

### 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 your first and last name.
- If replying to an e-mail, reference the original e-mail and its content.
- Be selective of your choice of words. Emotions are difficult to convey in text and without the benefit of facial expressions your sentiment can be lost in the words you choose to write.

### DON'T

- Use all capital letters; this conveys a tone of ANGER.
- Use e-mail as a format to criticize other individuals.
- Ask for your grade via e-mail. **Grades will not be discussed by e-mail**. If you need to discuss a graded item make an appointment to do so in my office.
- E-mail to inquire when grades will be posted. We will work toward submitting grades promptly, however, 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 total points assessed toward the final grade.

**Technology Devices:** Use of electronic devices can be distracting to learning, not only for those using the devices but also for other students in the class. All portable communication devices must be turned **OFF** or placed in **Etiquette**

**Mode** and stored out of sight during class period. You are permitted to use a tablet or related device to access or take notes during class. You are not permitted to use any electronic device to perform non-class related activities (social networking, instant messaging, checking email, surfing the internet, gaming, etc.). Should the use of accepted electronic devices become a distraction to other students or should it be found that the devices are used for non-class related activities; the further use of such devices will be prohibited. The use of electronic devices is strictly prohibited during exams.

**Respecting Intellectual Property:** Course materials are the property of the instructors. Students may not distribute provided course material, except to other students enrolled within the same course, without the permission of the instructor. Course material includes, but is not limited to, lecture documents, written or transcribed notes, video or audio recordings, etc. You must receive written permission from the instructor prior to recording lectures.

### University Policies

**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 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

**Academic Misconduct:** Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me or visit [oaa.osu.edu/coam/home.html](http://oaa.osu.edu/coam/home.html).