### **Term Information**

| Effective Term | Autumn 2017 |
|----------------|-------------|
| Previous Value | Autumn 2015 |

## **Course Change Information**

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

Change in course content and removal of quarter system course references from the exclusion.

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

To better align content with the course description, reduce redundancy across existing foundational courses within the department, and strengthen content that

aims to promote an understanding of modern science through an animal systems approach.

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 requrest contingent upon the approval of other course or curricular program request? Yes

Please identify the pending request and explain its relationship to the proposed changes(s) for this course (e.g. cross listed courses, new or revised

#### program)

Requested changes are contingent upon approval of ANIMSCI 2300H, the honors version of the course, and ANIMSCI 2100. Specifically, content currently covered in ANIMSCI 2200.01 & 2300H (animal industries overview and management practices) will be included in the reinvisioned ANIMSCI 2100. In turn, content of the animal products will be removed from ANIMSCI 2100 and covered in 2200.01 to extend basic scientific principles underlying animal products. 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<br>as it applies to the molecular, cellular, and physical underpinnings of domesticated animal form and<br>function. The online course is not open to students with a declared AnimSci major. |
| Semester Credit Hours/Units          | Fixed: 3  |

### **Offering Information**

| Length Of Course   | 14 Week, 12 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 |
| 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                 | Not open to students with credit for 2300H.               |
| Previous Value             | Not open to students with credit for 2300H (200H) or 200. |

### **Cross-Listings**

**Cross-Listings** 

# Subject/CIP Code

Subject/CIP Code Subsidy Level Intended Rank 01.0901 Baccalaureate Course 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 | • Evolution of domesticated species and the process of their domestication   |  |  |
|--------------------|--|--|--|
| ·                  | Animal behavior and welfare  |  |  |
|                    | <ul> <li>Nutrition: nutrient requirements, physiology, and the importance of different digestive strategies</li> </ul> |  |  |
|                    | <ul> <li>Organization of biological systems from molecular structures to physical features</li> </ul>                  |  |  |
|                    | • Genetics & application of genetics for animal breeding: natural versus artificial selection                          |  |  |
|                    | <ul> <li>Biotechnology: progress, applications, and limitations</li> </ul>   |  |  |
|                    | <ul> <li>Principles of reproduction and assisted reproductive technologies</li> </ul>                                  |  |  |
|                    | <ul> <li>Lactation strategies: nutritional and immunological support of the young</li> </ul>                           |  |  |
|                    | • Food & Fiber: Eggs   |  |  |
|                    | Food & Fiber: Milk   |  |  |
|                    | Food & Fiber: Muscle   |  |  |
|                    | Food and Fiber: Fiber  |  |  |
| Previous Value     |  |  |  |
| Flevious value     | 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  |  |  |
|                    | <ul> <li>Animal form and function: pseudo-ruminants</li> </ul>   |  |  |
|                    | <ul> <li>Animal form and function: hind-gut fermenters</li> </ul>  |  |  |
|                    | <ul> <li>Animal form and function: simple nonruminants</li> </ul>  |  |  |
|                    | • Animal form and function: avians   |  |  |
|                    | <ul> <li>Animal form and function: aquatics</li> </ul>   |  |  |
|                    | <ul> <li>Global status of the animal industries</li> </ul>   |  |  |
| Attachments        | • 2100_2200_CourseChange_2016.pdf: Rational  |  |  |
| Allaciments        | Cover Letter. Owner: Lyvers Peffer,Pasha A)  |  |  |
|                    | • ANIMSCI 2200 01 Syllabus AU 17 Proposed.pdf: Proposed Syllabus   |  |  |
|                    | (Syllabus. Owner: Lyvers Peffer,Pasha A)   |  |  |
|                    | • ANIMSCI 2200 01 Syllabus_SP_16.pdf: Current Syllabus   |  |  |
|                    | (Syllabus. Owner: Lyvers Peffer, Pasha A)  |  |  |
|                    |  |  |  |

# Comments

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

Last Updated: Neal,Steven Michael 09/14/2016

# **Workflow Information**

| Status           | User(s)  | Date/Time           | Step                   |
|------------------|--|---------------------|------------------------|
| Submitted        | Lyvers Peffer, Pasha A   | 07/11/2016 10:58 AM | Submitted for Approval |
| Approved         | Neal,Steven Michael  | 09/14/2016 02:22 PM | Unit Approval          |
| Approved         | Neal,Steven Michael  | 09/14/2016 02:22 PM | College Approval       |
| Pending Approval | Nolen,Dawn<br>Vankeerbergen,Bernadet<br>te Chantal<br>Hanlin,Deborah Kay<br>Jenkins,Mary Ellen Bigler<br>Hogle,Danielle Nicole | 09/14/2016 02:22 PM | ASCCAO Approval        |

#### ANIM SCI 2200.01: Introductory Animal Sciences SPRING Semester, 2016

- Lecture: Monday, Wednesday and Friday; 1:50-2:45 am, 103 Kottman Hall
- Instructor: Pasha A Lyvers Peffer, Department of Animal Sciences 214 Animal Sciences Building <u>lyvers-peffer.1@osu.edu</u>, 292-3896 Office hours: Wednesday 11:30-1:00.
- Assistants: Alex Tebbe 202 Plumb Hall <u>atebbe2@gmail.com</u> Office hours: Tuesday & Thursday 10:00-11:00

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-10:<br/>1465250107; ISBN-13: 978-1465250100

**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 todays 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.

| Week | Торіс  | 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         | JAN 20-JAN 22    |  |
| 3    | Animal Behavior and Welfare  | Chapter 3 and 16  | JAN 27-JAN 29    |  |
| 4    | Nutrition: physiology, and the importance of different digestive strategies.   | Chapter 4         | FEB 3-FEB 5      |  |
| 5    | Nutrition: nutrient requirements<br>(FEB 5: Last day to drop the course without receiving a W)   | Chapter 4         | FEB 10-EXAM I    |  |
| 6    | Organization of biological systems from molecular structures to<br>physical features.<br>Genetics & application of genetics for animal breeding: natural<br>versus artificial selection. | Chapter 5         | FEB 17-FEB 19    |  |
| 7    | Genetics continued<br>Biotechnology: progress, applications and limitations.   | Chapter 5         | FEB 24-FEB 26    |  |
| 8    | Principles of reproduction and assisted reproductive technologies.   | Chapter 6         | MAR 2-MAR 4      |  |
| 9    | Lactation strategies: Nutritional and immunological support of the young.  | Chapter 7         | MAR 9-EXAM II    |  |
| 10   | SPRING BREAK: NO CLASS (MAR 14-MAR 18)   |                   | ENJOY YOUR BREAK |  |
| 11   | Animal form and function: Large Ruminants<br>(MAR 25: Last day to drop the course and receive a W)   | Chapter 8 and 9   | MAR 23-MAR 25    |  |
| 12   | Animal form and function: Small Ruminants & Pseudo-<br>ruminants   | Chapter 10 and 14 | MAR 30-APR 1     |  |
| 13   | Animal form and function: Hind-gut fermenters  | Chapter 12        | APR 6-APR 8      |  |
| 14   | Animal form and function: Simple nonruminants & Avians   | Chapter 11 and 13 | APR 13-EXAM III  |  |
| 15   | Animal form and function: Aquatics   | Chapter 15        | APR 20-APR 22    |  |
| 16   | Did we cover everything?   |                   |                  |  |

#### Lecture and Reading Schedule

2

**Evaluation** Four exams will be given during the semester. Three lecture midterms worth 100 points each and a lecture final worth 150 points. As the course progresses, concepts learned early will contribute to greater understanding of new concepts, thus this course is **comprehensive**. **Exam will reflect the comprehensive nature of material.** 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 two course quiz grades.

| Evaluation | POINTS |                           |
|------------|--------|---------------------------|
| Exam I     | 100    | FEBRUARY 10 (1:50-2:45)   |
| Exam II    | 100    | MARCH 09 (1:50-2:45)      |
| Exam III   | 100    | APRIL 13 (1:50-2:45)      |
| Quizzes    | 150    | REFER TO LECTURE SCHEDULE |
| FINAL EXAM | 150    | MAY 3 (4:00-5:45)         |
| Total      | 600    |                           |

\*Exams will not be returned. You may review exams in the instructor's office during office hours. An exam is available for review prior to the succeeding exam.

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 one attempt to access and complete the Quizzes*.

*Carmen quizzes are available by 5:00 pm on Wednesday and are due by 11:55pm on Friday*. Carmen quizzes are open book and open notes; however, you are to complete the assignment without assistance from others and completion of the quiz is to reflect your own efforts. You will need to study and understand the course material before completing the assignment, just as you would for any other class. *Quizzes are timed at 20 min, similar to what would occur within a class setting.* 

**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 |                     | _  |
|------------|---------------------|--|
| А          | 73-76.9             | С  |
| A-         | 70-72.9             | C-   |
| B+         | 67-69.9             | D+   |
| В          | 60-66.9             | D  |
| B-         | <60                 | Е  |
| C+         |                     |  |
|            | A-<br>B+<br>B<br>B- | A     73-76.9       A-     70-72.9       B+     67-69.9       B     60-66.9       B-     <60 |

#### 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 (<u>http://carmen.osu.edu</u>) 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.

**Content:** Download and print a copy of the course notes prior to attending class. These notes do not represent a full copy of the lecture notes – but an abridged version to facilitate note taking during lectures. You must attend lectures to obtain the material required to complement these slides.

**Grades:** Mid-term Exams and quiz grades are displayed in Carmen. You should keep record of your course grades and this syllabus to determine your overall course grade and the associated letter grade.

#### **Course Policies**

Attendance Policy: Your are expected to attend class and be punctual. Attendance is not officially recorded, but you should be prepared to accept the impact of non-attendance on your course performance if you choose not to attend. *Neither the instructor nor TA will provide material to you in your absence. You will need to request missed notes from a class peer.* 

In cases of exams, you must contact the instructor prior to the exam if you will be absent. 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 (FEB 12, MAR 11, and APR 15 for Exam I, II, and III 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 with no excuse, you will receive an E for the course.

On the day of the exam you should make every effort to be present at the start of the exam. Once exams have been handed-out, and the first exam is turned in by a student, no additional exams will be handed out in class. Any student requesting an exam after the first exam is turned in will not be allowed to take the exam and will receive a 0. *There are no exceptions to this policy.* 

**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.

## <u>DON'T</u>

- 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 distractive 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.

Every students is entitled to full participation of this class without disruption. Please be amicable to your fellow classmates and respect one another's class time. Disruptive behavior will not be tolerated. Students who engage in disruptive conduct will receive a warning. Continuation of disruptive behavior that results in impairment of teaching or learning processes of other will result in disenrollment from the course.

**Respecting Intellectual Property:** Course materials are the property of the instructors. Students may not distribute provided course material 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 are not permitted to make video or audio recordings of lectures. *You are not permitted to take and sale notes or sale any course material for commercial purposes or financial gain.* If you would like to share your course notes with your fellow peers enrolled in the course, use the Carmen Drop-box function to post your notes. Student notes, which are posted to Carmen are not reviewed by the course instructor for accuracy.

## 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:** As stated by Ohio State University's Office of Academic Affairs, 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." If I suspect that a student has committed academic misconduct. If COAM determines that you have violated the University's *Code of Student Conduct*. If COAM determines that you have violated the University's *Code of Student Conduct*. If COAM determines that you have violated the University's *Code of Student Conduct*. If coamittee 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 <a href="http://oaa.osu.edu/coam.html">http://oaa.osu.edu/coam.html</a>.

As stated by COAM, academic misconduct encompasses, but is not limited to, the following:

- 1. Violation of course rules;
- 2. Violation of program regulations;
- 3. Knowingly providing or receiving information during a course exam or program assignment;
- 4. Possession and/or use of unauthorized materials during a course exam or program assignment;
- Knowingly providing or using assistance in the laboratory, on field work, or on a course assignment, unless such assistance has been authorized specifically by the course instructor or, where appropriate, a project/research supervisor;
- 6. Submission of work not performed in a course: This includes (but is not limited to) instances where a student fabricates and/or falsifies data or information for a laboratory experiment (i.e., a "dry lab") or other academic assignment. It also includes instances where a student submits data or information (such as a lab report or term paper) from one course to satisfy the requirements of another course, unless submission of such work is permitted by the instructor of the course or supervisor of the research for which the work is being submitted;
- 7. Submitting plagiarized work for a course/program assignment;
- 8. Falsification, fabrication, or dishonesty in conducting or reporting laboratory (research) results;
- 9. Serving as or asking another student to serve as a substitute (a "ringer") while taking an exam;
- 10. Alteration of grades in an effort to change earned credit or a grade;
- 11. Alteration and/or unauthorized use of university forms or records.

Every effort has been made to provide clear and accurate information within this syllabus. Should events required that information contained herein must be modified, announcements will be made in class. It is your responsibility to acquire any information provided during times of absence.

#### ANIM SCI 2200.01: Introductory Animal Sciences AUTUMN Semester, 2017

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

Instructor: Pasha A Lyvers Peffer, Department of Animal Sciences 214 Animal Sciences Building <u>lyvers-peffer.1@osu.edu</u>, 292-3896 Office hours: Tuesday 11:30-1:00.

#### Assistants:

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-10: 1465250107; ISBN-13: 978-1465250100

**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:

Successful students will

- 1. appreciate the evolution, domestication, and production of animals
- 2. relate structure, form and function, growth and development of animal systems from the cellular to the organismal level.
- 3. demonstrate knowledge of animal well-being, anatomy, physiology, genetics, nutrition, and reproduction.
- 4. reflect on the chemical and biological underpinnings of animal products

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 supports animal use and products. 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.

**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 todays 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.

| Week | Topic   | Text             | Assignment Due  |
|------|---|------------------|-----------------|
| 1    | Importance of domesticated animals to humans  | Chapter 1        |                 |
| 2    | Evolution of domesticated species and the process of their  | Chapter 2        | AUG 31-SEPT 2   |
|      | domestication   |                  |                 |
| 3    | Animal Behavior and Welfare   | Chapter 3 and 16 | SEPT 7-9        |
| 4    | Nutrition: Role, function, and requirements of nutrients and an introduction to metabolism and thermoregulation                                 | Chapter 4        | SEPT 14-16      |
| 5    | Nutrition: physiology, and the importance of different digestive<br>strategies. (XXX: Last day to drop the course without<br>receiving a W)     | Chapter 4        | SEPT 21-EXAM I  |
| 6    | Organization of biological systems from molecular structures to<br>physical features. The chemical & biological hierarchy of living<br>systems. | Chapter 5        | SEPT 28-30      |
| 7    | Genetics & application of genetics for animal breeding: natural versus artificial selection.  | Chapter 5        | OCT 5-7         |
| 8    | Genetics continued<br>Biotechnology: progress, applications and limitations.  | Chapter 5        | OCT 12-14       |
| 9    | Principles of reproduction and assisted reproductive technologies.  | Chapter 6        | OCT 19-EXAM II  |
| 10   | Lactation strategies: Nutritional and immunological support of the young. (XXX: Last day to drop the course and receive a W)                    | Chapter 7        | OCT 26-28       |
|      | Food & Fiber: Eggs  |                  | NOV 2-4         |
| 11   | Food & Fiber: Milk  |                  | NOV 9-11        |
| 12   | Food & Fiber: Muscle to Meat  |                  | NOV 16-EXAM III |
| 13   | Food & Fiber: Fiber   |                  | NOV 30-DEC 2    |
| 14   | Did we cover everything?  |                  |                 |
| 15   | FINAL EXAM  |                  | DEC 17-FINAL    |

### Lecture and Reading Schedule

**Evaluation** Four exams will be given during the semester. Three lecture midterms worth 100 points each and a lecture final worth 150 points. As the course progresses, concepts learned early will contribute to greater understanding of new concepts, thus this course is **comprehensive**. **Exam will reflect the comprehensive nature of material**. 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 two course quiz grades.

| Evaluation | POINTS |                            |
|------------|--------|----------------------------|
| Exam I     | 100    | SEPTEMBER 21 (11:30-12:25) |
| Exam II    | 100    | OCTOBER 19 (11:30-12:25)   |
| Exam III   | 100    | NOVEMBER 16 (11:30-12:25)  |
| Quizzes    | 150    | REFER TO LECTURE           |
| SCHEDULE   |        |                            |
| FINAL EXAM | 150    | DECEMBER 17 (4:00-5:45)    |
| Total      | 600    |                            |

# \*Exams will not be returned. You may review exams in the instructor's office during office hours. An exam is available for review prior to the succeeding exam.

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 one attempt to access and complete the Quizzes*.

*Carmen quizzes are available by 5:00 pm on Wednesday and are due by 11:55pm on Friday*. Carmen quizzes are open book and open notes; however, you are to complete the assignment without assistance from others and completion of the quiz is to reflect your own efforts. You will need to study and understand the course material before completing the assignment, just as you would for any other class. *Quizzes are timed at 20 min, similar to what would occur within a class setting.* 

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 |    | Percentage |    |
|------------|----|------------|----|
| 93-100     | А  | 73-76.9    | С  |
| 90-92.9    | A- | 70-72.9    | C- |
| 87-89.9    | B+ | 67-69.9    | D+ |
| 83-86.9    | В  | 60-66.9    | D  |
| 80-82.9    | B- | <60        | Е  |
| 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 (<u>http://carmen.osu.edu</u>) 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.

**Content:** Download and print a copy of the course notes prior to attending class. These notes do not represent a full copy of the lecture notes – but an abridged version to facilitate note taking during lectures. You must attend lectures to obtain the material required to complement these slides.

Grades: Mid-term Exams and quiz grades are displayed in Carmen. You should keep record of your course grades and this syllabus to determine your overall course grade and the associated letter grade.

## **Course Policies**

Attendance Policy: Your are expected to attend class and be punctual. Attendance is not officially recorded, but you should be prepared to accept the impact of non-attendance on your course performance if you choose not to attend. *Neither the instructor nor TA will provide material to you in your absence. You will need to request missed notes from a class peer.* 

In cases of exams, you must contact the instructor prior to the exam if you will be absent. 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 23, OCT 21, and NOV 18 for Exam I, II, and III 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 with no excuse, you will receive an E for the course.

On the day of the exam you should make every effort to be present at the start of the exam. Once exams have been handedout, and the first exam is turned in by a student, no additional exams will be handed out in class. Any student requesting an exam after the first exam is turned in will not be allowed to take the exam and will receive a 0. *There are no exceptions to this policy.* 

**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.

### <u>DON'T</u>

- 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 distractive 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.

Every students is entitled to full participation of this class without disruption. Please be amicable to your fellow classmates and respect one another's class time. Disruptive behavior will not be tolerated. Students who engage in disruptive conduct will receive a warning. Continuation of disruptive behavior that results in impairment of teaching or learning processes of others will result in initiation of the process for your disenrollment from the course.

**Respecting Intellectual Property:** Course materials are the property of the instructors. Students may not distribute provided course material 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 are not permitted to make video or audio recordings of lectures. *You are not permitted to take and sale notes or sale any course material for commercial purposes or financial gain.* If you would like to share your course notes with your fellow peers enrolled in the course, use the Carmen Drop-box function to post your notes. Student notes, which are posted to Carmen are not reviewed by the course instructor for accuracy.

## **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: As stated by Ohio State University's Office of Academic Affairs, 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." If I suspect that a student has committed 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 http://oaa.osu.edu/coam.html.

As stated by COAM, academic misconduct encompasses, but is not limited to, the following:

- 1. Violation of course rules;
- 2. Violation of program regulations;
- 3. Knowingly providing or receiving information during a course exam or program assignment;

- 4. Possession and/or use of unauthorized materials during a course exam or program assignment;
- 5. Knowingly providing or using assistance in the laboratory, on field work, or on a course assignment, unless such assistance has been authorized specifically by the course instructor or, where appropriate, a project/research supervisor;
- 6. Submission of work not performed in a course: This includes (but is not limited to) instances where a student fabricates and/or falsifies data or information for a laboratory experiment (i.e., a "dry lab") or other academic assignment. It also includes instances where a student submits data or information (such as a lab report or term paper) from one course to satisfy the requirements of another course, unless submission of such work is permitted by the instructor of the course or supervisor of the research for which the work is being submitted;
- 7. Submitting plagiarized work for a course/program assignment;
- 8. Falsification, fabrication, or dishonesty in conducting or reporting laboratory (research) results;
- 9. Serving as or asking another student to serve as a substitute (a "ringer") while taking an exam;
- 10. Alteration of grades in an effort to change earned credit or a grade;
- 11. Alteration and/or unauthorized use of university forms or records.

Every effort has been made to provide clear and accurate information within this syllabus. Should events require that information contained herein must be modified, announcements will be made in class. It is your responsibility to acquire any information provided during times of absence.



July 6, 2016 CFAES Academic Affairs 100 Agricultural Administration Columbus, OH 43210

On behalf of the Department of Animal Sciences Academic Affairs Committee, I am submitting course change requests for ANIM SCI 2100 (Appreciation of Production and Companion Animals) and ANIM SCI 2200.01/2300H (Introductory Animal Sciences/Honors Introductory Animal Sciences). Specifically, the request is for a change in lecture content, and changes in course offering length, format, credit hours, and course title for ANIMSCI 2100.

#### Original Content

ANIM SCI 2100 provides a broad overview of the domesticated animals, their related industries, and the products of these systems (food, fiber, milk, eggs, and companionship). In the first seven weeks, the course begins with a review of biological and chemical aspects of animal systems, and then discusses the resulting products that are obtained from animal systems. During the second seven weeks, the focus is on the companion animal industries. The discussion of companion animals includes the care, social and ethical considerations of companion animal use, and industry structure. Students gain a broad foundation of animal husbandry, management systems, and contributions of animals to human society.

Animal Sciences 2200.01 is a study of the basic principles of evolution & domestication, genetics, breeding, reproduction, nutrition, behavior, and biotechnology as it applies to the molecular, cellular, and physical underpinnings of domesticated animal form and function. Students are introduced to the foundations of biological systems and diversity and how knowledge in this area is applicable toward appropriate management of domesticated animals. Animals explored in depth include horses, cattle, pigs, poultry (chickens, ducks, geese, etc.), sheep, goats, and llamas. Students consider how the study of animals has advanced from early scientific discoveries and gain an appreciation of how human intervention has shaped animal form and function. Through the study of animal systems from the local to global arena, students 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. The first 10 weeks of the course focuses on the molecular, cellular, and organismal aspects of aforementioned scientific disciplines. The remaining weeks of the course consider application of these principles within domesticated animal industries, at the organismal level.

#### Proposed Content

Specifically, content of the animal industries and current animal management practices will be removed from ANIMSCI 2200.01 and covered in ANIMSCI 2100. In turn, content of the animal products will be removed from ANIMSCI 2100 and covered in 2200.01 to extend basic scientific principles to animal morphology.

#### <u>Rationale</u>

ANIMSCI 2100 provides an overview of the companion animal industries, comparable discussions of the food production industries are lacking. Reorganization of the content to include this information provides students a context to reflect on the similarities and differences, value, and societal contributions of the collective animal industries as directed by the animal's primary use and fulfills the original goals of the course to consider domesticated animals, their related industries, and their economic impact. Discussions of animal products in ANIMSCI 2200.01 provides a context to focus on the chemical and biological aspects of animal systems from a molecular and cellular context to strengthen the goals of the course, which aim to promote an understanding of

modern science through an animal systems approach.

The requested changes in lecture content aligns with already established course descriptions. Accordingly, including content of production animal industries in ANIMSCI 2100 supports the role of this course in providing an overview of the size and scope of companion animal and production animal systems. Including discussions of animal products in ANIMSCI 2200.01 reinforces an understanding of the principles, theories and methods of modern sciences and the role of scientific discoveries in shaping animal form and function.

In addition, changes in course offering length, format, credit hours, and course title for ANIMSCI 2100 is proposed. The title of the re-envisioned course is proposed as Animal Systems and will be designated as 2200.03. Currently, ANIMSCI 2200.01 is the required introductory course. Re-numbering of the course is requested to facilitate enrollment in 2200.01 prior to enrollment in 2200.03. The course will be offered as a 7 week session course, online, at 2 credit hours. A reduction in credit hours is supported by a reduction in course content that occurs with the removal of topics on biological and chemical aspects of animal systems, which are topics also covered in ANIMSCI 2200.01.

Thank you for your consideration of these course change requests.

Sincerely,

Jasha A Typers Typer

Pasha A. Lyvers Peffer Associate Professor Academic Affairs, Chair