

**ANSC 3311**  
**Anatomy and Physiology**  
**Spring 2019**

**Instructor:**

Dr. Jamie Boyd

Assistant Professor

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Office Hours: MW 12-3, H 11-2:30, or by appointment

Lecture: MWF 8:00-8:50am

Location: RAS 130

**Course description:** General principles of anatomy and physiology of farm animals, emphasizing ruminant and equine digestive physiology.

**Required Text:** Functional Anatomy and Physiology of Domestic Animals. 4<sup>th</sup> edition. 2009. Reece, Wiley-Blackwell.

**Purpose of the course:** The course is designed to introduce students to the basic and fundamental concepts of domestic animal anatomy and physiology. By learning and understanding fundamental concepts, students will be able to apply this knowledge to other advanced Animal Science courses.

**Student learning outcomes:**

1. Students will demonstrate knowledge of domestic animal anatomy and physiology at the introductory level.
2. Be able to discuss species differences as related to various organ systems structure and function.
3. Understand the integration of organ systems in the function of the total body.

**Departmental Projected Learning Outcomes:**

1. Demonstrate the basic skills of interpreting research data gathered in an agricultural context,
2. Apply critical thinking skills to mitigate potential challenges in diverse animal sciences and related agricultural industries,
3. Develop problem solving skills, and
4. Demonstrate the ability to communicate through written, spoken, and graphical methods.

**Assessment measures:** At the end of this course, students should have a basic understanding of the concepts and principles of animal anatomy and physiology. Each student's success of achieving these results will be based on a minimal of 60% or better on all exams, quizzes, and other assignments.

**Recommendations for Success:** In order to succeed in this class, I recommend that you dedicate at a minimum two hours of study time per class hour each week. The material covered in this course cannot be learned adequately in only a couple days, it is cumulative and each day's material will build on the previous day.

**Accommodations:**

It is the SRSU policy to provide reasonable accommodations to students with disabilities. If you would like to seek any accommodations for this course, please contact Mary Schwartze at the Counseling and Accessibility Services Office: Ferguson Hall 112 phone: (432) 837-8203 as soon as possible to ensure that such accommodations are implemented in a timely fashion

**Academic integrity:** Students are expected to submit original work without unauthorized assistance. Academic dishonesty, which includes cheating, unauthorized collaboration, plagiarism, fabrication, multiple submissions, and aiding and abetting, will result in a grade of 0 on the work in question. Subsequent instances of academic dishonesty may result in more serious sanctions.

**Examinations and grading:** The grade you earn is your responsibility! **There will be no extra-credit opportunities.** Your course grade will be based on the following components:

**Exams and Quizzes:** There will be four exams administered in class throughout the semester. The dates of the exams are noted on the syllabus. The fourth exam will be a comprehensive final exam. There will also be 9 quizzes throughout the semester. Quizzes will be scheduled on a weekly basis. There will be no make-up exams or quizzes without prior approval or a valid doctor's excuse. You must talk to me "live". Voice or email messages are not considered valid excuses.

**Physiology in the News:** Select either a popular press source or newsworthy publication in which an article on animal physiology is published. Write a 1.5 to 2-page review of this article, where you provide a short introduction, a summary of what the article says and then a paragraph of your thoughts and opinions on the topic or research presented in the article. Below you will find the rubric that will be used in grading your papers, so please briefly review this before you write your first review. You are not required, but are encouraged to utilize other reference material in your article review. **The review will be due in class on the designated date. You must also staple a copy of the original article to your review for submission.**

**Rubric:**

- Clearly and effectively respond to the assignment (10pt)
- Demonstrate a thorough understanding and interpretation of the article by summarizing and addressing relevant questions raised by the article (5pt)
- Introduction (5pt)
- Body of the summary (15pt)
- Conclusion (10pts)
- Correct grammar, word usage, spelling, and punctuation (5pt)

**Other Considerations:** Exams may include multiple choice, fill in the blank, short answer, identification, diagrams, and matching questions. Common abbreviations for terms may be used on exams, quizzes, and assignments after the abbreviation has been defined by using the complete term once. If you find this note, send me an email labeled "extra credit" by February 1st for a five point bonus on your next quiz. Cell phones, internet capable watches, and programmable calculators are not permitted during exams or quizzes. This class may include dissections. Students uncomfortable with this concept should speak to me as soon as possible. The final exam is comprehensive (non-negotiable). Due dates for all assignments will be announced in class or on the attached class schedule. **Late assignments will be accepted for 4 days following the initial due date and time with a 20% penalty per day late. No cell phones use allowed in class.**

**Points available:**

|   |                     |
|---|---------------------|
| 3 1 hour exams (100 pts each)                 | 300 points          |
| 8 quizzes (10 pts each)                       | 80 points           |
| Other assignments/quizzes (variable points) * | ? points            |
| Physiology in the News (3 @ 50pts each)       | 150 points          |
| Final Exam-Cumulative                         | 150 points          |
| <b>Total</b>                                  | <b>680-? Points</b> |

**Grading scale: (% of total class points)**

A = 90-100%

B = 80-89.99%

C = 70-79.99%

D = 60-69.99%

F = 59.99% or below

**Schedule of class sessions:** This information should be treated as an outline. There will be some alterations in the sequence of topics.

**Scheduled Weekly Quizzes are indicated below with (\*)**

| <u>Date</u> | <u>Lecture (Chapter)</u>             |
|-------------|--------------------------------------|
| Jan 23      | Introduction (1)                     |
| 25          | No Class                             |
| 28          | No Class                             |
| 30          | Epithelial tissue (1)                |
| Feb 1*      | Connective tissue (1)                |
| 4           |                                      |
| 6           | Endocrine system (6)                 |
| 8*          |                                      |
| 11          |                                      |
| 13          | <b>Exam 1</b>                        |
| 15          | Nervous system (4)                   |
| 18          |                                      |
| 20          | Skeletal system (7)                  |
| 22*         |                                      |
| 25          | Joints (7)                           |
| 27          |                                      |
| Mar 1*      | <b>Physiology in the News 1- due</b> |
| 4           | Muscle (8)                           |
| 6           |                                      |
| 8*          |                                      |
| 11          |                                      |
| 13          | <b>Exam 2</b>                        |
| 15          | Hematology (3)                       |
| 18          | Spring Break                         |
| 20          | Spring Break                         |
| 22          | Spring Break                         |
| 25          |                                      |
| 27          | Cardiovascular system (9)            |
| 29*         |                                      |
| Apr 1       |                                      |
| 3           | Respiratory system (10)              |

|               |  |
|---------------|--|
| 5*            |  |
| 8             |  |
| 10            | <b>Exam 3</b>  |
| 12            | Urinary system (11) <b>Physiology in the News 2- due</b> |
| 15            |  |
| 17            |  |
| 19            | Good Friday- No Class                                    |
| 22            | Digestive systems (12)                                   |
| 24            |  |
| 26*           |  |
| 29            | Reproductive system                                      |
| May 1         |  |
| 3*            | <b>Physiology in the News 3- due</b>                     |
| 6             |  |
| 8             | Review and Wrap-up                                       |
| <b>May 10</b> | <b>8-10am Final Exam</b>                                 |

**Instructor's bibliography:**

Anatomy and Physiology of Farm Animals. 7<sup>th</sup> edition. 2009. Frandson, Wilke, and Fails. Wiley-Blackwell.  
 Veterinary Anatomy and Physiology. A clinical laboratory manual. 2<sup>nd</sup> edition. 2011. Cochran. Delmar Publishing.  
 Introduction to Anatomy and Physiology. 2012. Rizzo. Delmar Publishing.  
 Principles of Animal Physiology. 2<sup>nd</sup> edition. 2008. Moyes and Schulte. Pearson Education, Inc.  
 Seely's Anatomy and Physiology. 10<sup>th</sup> edition. 2013. Vanputte, Regan, and Russo. McGraw-Hill.  
 Spurgeon's Color Atlas of Large Animal Anatomy. 2006. McCracken, Kainer, and Spurgeon. Wiley-Blackwell.  
 Ruminant Anatomy: A Photo Atlas. 2013. Dunn. Clemson University.  
 Companion Animal Anatomy: A Photo Atlas. 2014. Dunn. Clemson University.