

Syllabus Animal Physiology II

AVS 4670 - 6670

3 Credits

Fall 2018

Time and location: MWF 10:10 - 11:00 am, P&A room B-112

Instructor: Dr. Celina Checura,
121 P&A Building
Email: cchecur@clermson.edu
Note: Include name and class number with all correspondence!

Teaching Assistant: Andrea DeCarlo, adecarl@g.clemson.edu

Office Hours: By appointment with Instructors or TA.

Course Description: This course is designed for the advanced study of the physiological systems of domestic animals as these systems relate to the integrated functions of the body. It exposes students to advanced physiological concepts and current literature perspectives on a variety of body systems and processes. This course also integrates targeted student learning outcomes related to critical thinking to increase and enhance students critical thinking skills (*). Major topics include Neurophysiology; Digestion, absorption, and metabolism; Endocrinology, reproduction, and lactation; Muscle physiology. **Students are expected to have completed introductory coursework in physiology (AVS 3010 or similar) and biochemistry.**

The course is based on the idea that students can and should take responsibility for their own learning. Because this is an upper-level course, lectures will be interactive and will build on, rather than just summarize assigned readings, and therefore, the course requires active involvement of students in all facets of the learning experience. The knowledge derived from the readings and engaged learning experiences should be reflected in the student participation in class discussions, assignments, and exams.

* **Critical Thinking** is the process of reflective judgment which manifests itself in reasoned consideration of evidence, context, methods, standards, and conceptualizations for the purpose of deciding what to believe or what to do (The Delphi Report: Executive Summary: (1990), ERIC Doc ED315 423). This course is being offered as a Clemson Thinks2 (CT2) seminar course. The CT2 initiative at Clemson is part of the university's strategic plan; its objective is to create engaged learning environments that promote critical thinking skills among students.

The **syllabus and grading** scheme are deemed “**tentative**”. Every effort will be made to adhere to this schedule. Considerable effort has been made to assure the accuracy of the following information – but we reserve the right to modify or rearrange content because of circumstances beyond our control. **Exams will be given on the dates specified below.**

Textbook Resource: This textbook is only used as guidance as you are expected to work with current scientific literature for most of your projects: *Dukes' Physiology of Domestic Animals, 13th Edition*, William O. Reece (*Editor*), Howard H. Erickson (*Associate Editor*), Jesse P. Goff (*Associate Editor*), Etsuro E. Uemura (*Associate Editor*), June 2015, ©2015, Wiley-Blackwell. This textbook is available as an ebook from the Clemson library system (<https://ebookcentral.proquest.com/lib/clemson/detail.action?docID=1895471>). Printed and digital copies of this book are also available at commercial retailers.

Recommended database: scientific journals/articles: [Web of Science - All Databases](#)

Learning Outcomes:

1. Students should be able to **interpret and analyze** scientific literature in Animal Physiology.
2. They should **evaluate** the background and methodology used in the literature, compare different and opposing lines of thought, including their own conclusions (**inference**) derived from the work.
3. Students should be able to **explain** points 1 and 2 in written and oral presentations.
4. Recognizing that scientific knowledge could change over time, particularly with the use of new technologies, students should acknowledge the critical thinking process in scientific work and how it could lead to the right or wrong conclusions if not carefully assessed. Thus, they learn to always consciously go back to their work and **self-consciously monitor their cognitive activities.**
5. **By going through points 1 to 4 for each body system; students should be able to:**
 - a) Identify and name the components of that system
 - b) Describe the physiological process that govern that body system
 - c) Explain how the body system adapts to changes
 - d) Explain the interaction with other body systems

Instructional Strategies:

Information for this course will be presented in the context of 1) readings from the textbook and scientific articles, 2) Power Point (PP) presentations by the instructor, 3) presentations by student groups, 4) reports from student groups, 5) homework, 6) interactive class discussion. Groups will be randomly assigned for each unit/body system, presentations will last 10 min. Rubrics for the reports and homework will be provided at the beginning of each body system section.

Evaluation Criteria:

The final grade for this course will be based upon:

- a) **Exams** (3 regular exams and one optional final exam)
- b) **Quizzes**
- c) **Group presentations:** one per body system
- d) **Evaluation of group presentations,** one per each presentation other than the student's own.
- e) **Homework** one assignment per body system, other assignments.
- f) Attendance and class participation.

Description:

- a) **Exams** will cover material outlined on the PP presentations, assigned readings, and material presented during class discussions, and **may** include material presented by other student groups. **The Final Exam** (Comprehensive / cumulative) is optional and will become or replace the (ONE) lowest or missing Exam 1, 2, or 3 grade. No makeup exams will be given for any of the (3) exams. Anyone missing an exam must take the comprehensive final and the final exam will count as the makeup for the missed exam.
- b) **Quizzes:** there will be lecture quizzes every few lectures for each section. The quizzes will be in Canvas, please, bring your computer to class. In addition, you could access the quiz remotely if you are missing class that day. The quiz will typically have 5 questions from the previous lectures, valued 1 point each. The quiz will automatically open in Canvas for few minutes at the beginning of class time, and will also close automatically even if you didn't finish answering the questions. If you are not able to access the quiz you should contact the instructor. Under certain circumstances, a makeup quiz could be offered within a week of the original quiz time.
- c) **Group presentation:** Groups will be randomly assigned for each unit/body system. The instructor will assign a scientific publication to each undergraduate group for oral presentation to the class. Rubrics for the presentation will be posted in Canvas for each body system section. Each group presentation is worth 20 points.
- d) **Evaluation of group presentations.** Each student should evaluate their classmates and graduate student presentations following a format provided by the instructor. Each evaluation is worth 2 points. The comments will be summarized by the instructor and/or TA and will be sent back to the presenting group. The number of evaluations, and therefore the points assigned, depend on the number of groups and presentations we could fit in the semester. Only students with a justified absence will be considered to make up for missing evaluations. The makeup will be in the form of a written assignment.
- e) **Homework** will be completed outside of class time and includes:
 - 1. Creating 5 multiple choice questions reflecting what you consider the most important points of the body system studied (individual and confidential homework). Rubrics will be posted in Canvas.
 - 2. Other assignments announced by the instructor in Canvas and/or during class.
- f) **** Attendance** will affect your final grade by way of **one letter grade** being subtracted from your course total if you have **3 or more "unexcused absences"**.

Course grades will be based on the following point system:

Exam 1	100 pts
Exam 2	100 pts
Exam 3	100 pts
Quizzes	35 pts; may vary with schedule changes
Group presentations	60 pts; may vary with schedule/enrollment changes
Evaluation of presentations	42 pts; may vary with schedule/enrollment changes
Homework	34 pts; may vary with schedule changes
Total Course Points =	471 pts; may vary with schedule/enrollment changes

Extra points:

20 extra points will be given to students taking two online tests for the Critical Thinking Program; one at the beginning and one at the end of the semester. The points will be given independently of the score on the test as far as you spend a reasonable amount of time on the tests; the first test will be scheduled during class, or should be completed before August 30th, and the second test is scheduled for the week of December 3rd to 7th.

5 extra points will be given to everybody if at least 80% of the class completes the course evaluation before December 7th. Considering those 5 points will increase the final grade, the only rounding up to the next letter grade will be if you have a grade equal or larger than X9.5 (for example 89.6; 79.7, etc). If you got X9.4 your letter grade will stay within the bracket established in the chart below:

Grading Scale

A = > 90.0%
B = 80.0 – 89.9%
C = 70.0 – 79.9%
D = 60.0 – 69.9%
F = < 60.0%

Professional Etiquette Guidelines:

- 1. All assignments are due by the listed deadline.** (Late assignments will receive a full letter grade reduction for each day late).
- 2. Assignments should be typed up in a neat professional manner**
 - a) Word documents and written communication should be neatly typed and formatted (i.e. 12 pt font and a common font style. e.g. Arial, TNR; 1” margins)
 - b) Include your name, course, date, and assignment title with all assignments submitted
 - c) Use quality (not quantity) writing and proper grammar to clearly communicate your understanding / obtainment of assignment objectives!! Poorly written assignments will receive a 10% deduction.
- 3. Include your name and course number in all e-mail correspondence** (*I teach multiple sections of different courses so knowing which class you are in will assist me in responding to your questions in a timely manner*)
- 4. Practice good professional behavior in all communications**

5. As a common courtesy to everyone in class, **cellular telephones and any other communication or messaging devices are to be turned off during class time or left at home. This includes online chatting and other non-class related laptop activities. Abuse of this last policy will result in an unexcused absence and a zero being assigned for one homework grade. (Note: Text messaging, online chatting, and doing homework on laptops during class are considered an abuse of this policy.)**

Attendance Policy:

Students are expected to attend every class meeting, arrive on time, and actively participate in class discussions. Regular and punctual attendance at all class sessions is the personal responsibility of each student. Class attendance will be determined by the presence of signatures on an attendance sheet that will be passed around at the beginning of class or by calling the class roll – individuals who arrive late and fail to sign the attendance sheet will be considered absent for the day. Absences will only be excused for genuine medical emergencies or legitimate causes as **determined by the professor**. Examples include death in the immediate family and personal conditions requiring hospitalization or emergency treatment. Personal illnesses such as colds, general fatigue, or general sickness are not typically excused unless a doctor note is presented.

To have an absence classified as “excused”, the student must adhere to the following procedures:

1. Contact the professor **prior to the class!** (...or as soon as possible after class if prior contact is not possible)
2. Provide a written request explaining the nature of the absence (e.g. e-mail)
3. Provide “official documentation” specific to the reason for the absence (e.g. doctor’s note) within 1 week of the absence. Extensions for official documentation may be provided if verbally agreed upon with the professor within the 1-week time frame.

Copies of pharmacy receipts or prescriptions do not count as official documentation.

After receiving the above information, the professor will inform the student if the absence will be classified as excused!

An accumulation of 3 unexcused absences will result in a reduction of one letter grade (10% on an individual’s overall class average). If a student should have to miss class due to official participation in University activities they should adhere to the above stated guidelines, notify the professor at least 1 week prior to the event and make arrangements for missed material. **No makeup credit will be provided for unexcused absences from regularly scheduled exams, missed quizzes/assignments, or in-class projects.**

“If the professor is late to class, students are expected to wait at least 15 minutes from the time class was to have started, after which they may be excused from class unless the professor has given advance warning and instructions to wait.”

Course Calendar

Date	Day	Topic	Points	Ex. pts
8/22/2017	W	Syllabus		
8/24/2017	F	California Critical Thinking Test (CCTT)		10
8/27/2028	M	Neurophysiology		
8/29/2018	W	Neurophysiology		

8/31/2018	F	Neurophysiology, Quiz	5	
9/3/2018	M	Neurophysiology		
9/5/2018	W	Neurophysiology		
9/7/2018	F	Neurophysiology, Quiz	5	
9/10/2018	M	Neurophysiology		
9/12/2018	W	In Class preparation for presentation 2		
9/14/2018	F	Groups 1, 2, 3	20	
9/17/2018	M	Groups 4, 5, 6	14	
9/19/2018	W	Grad St presentation		
9/21/2018	F	Exam Review, Homework Due	10	
9/24/2018	M	Exam 1	100	
9/26/2018	W	Digestion, Absorption, and Metabolism		
9/28/2018	F	Digestion, Absorption, and Metabolism		
10/1/2018	M	Digestion, Absorption, and Metabolism, Quiz	5	
10/3/2018	W	Digestion, Absorption, and Metabolism		
10/5/2018	F	Digestion, Absorption, and Metabolism		
10/8/2018	M	Digestion, Absorption, and Metabolism, Quiz	5	
10/10/2018	W	Digestion, Absorption, and Metabolism		
10/12/2018	F	Groups 1, 2, 3	20	
10/15/2018	M	Groups 4, 5, 6	14	
10/17/2018	W	Grad St presentation		
10/19/2018	F	Exam Review, Homework Due	10	
10/22/2018	M	Exam 2	100	
10/24/2018	W	Endocrinology, Reproduction, and Lactation		
10/26/2018	F	Endocrinology, Reproduction, and Lactation		
10/29/2018	M	Endocrinology, Reproduction, and Lactation, Quiz	5	
10/31/2018	W	Endocrinology, Reproduction, and Lactation		
11/2/2018	F	Fall Break		
11/5/2018	M	Endocrinology, Reproduction, and Lactation		
11/7/2018	W	Endocrinology, Reproduction, and Lactation, Quiz	5	
11/9/2018	F	Endocrinology, Reproduction, and Lactation		
11/12/2018	M	Groups 1, 2, 3	20	
11/14/2018	W	Groups 4, 5, 6	14	
11/16/2018	F	Grad St presentation, Homework Due	10	
11/19/2018	M	Thanksgiving Holiday		
11/21/2018	W	Thanksgiving Holiday		
11/23/2018	F	Thanksgiving Holiday		
11/26/2018	M	Muscle Physiology		
11/28/2018	W	Muscle Physiology		

11/30/2018	F	Exam review, Homework Due, Quiz	9	
12/3/2018	M	Exam 3	100	
12/5/2018	W	California Critical Thinking Test (CCTT)		10
12/7/2018	F	Exam review, course evaluation due		5
12/11/2018	T	Final Exam (Optional) at 3 pm		

Message from Student Accessibility Services:

Clemson University is committed to providing educational opportunities for all students and assisting them in making their college experience fully accessible and positive. In compliance with Section 504 of the Rehabilitation Act of 1973 and the [Americans with Disabilities Act of 1990](#), as [amended in 2008](#), Clemson recognizes a student with a disability as anyone who has a physical or mental impairment that substantially limits one or more major life activity.

Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to this class should let the professor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848, by emailing studentaccess@lists.clemson.edu, or by visiting Suite 239 in the Academic Success Center building. **Students who receive Academic Access Letters are strongly encouraged to contact their professors as early in the semester as possible so that accommodations can be made in a timely manner.** It is the student's responsibility to follow this process each semester. You can access further information here: <http://www.clemson.edu/campus-life/campusservices/studentaccess>.

Academic Integrity (from University Announcements)

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

Academic Integrity Policy

1. Any breach of the principles outlined in the Academic Integrity Statement is considered an act of academic dishonesty.
2. Academic dishonesty is further defined as:
 - a) Giving, receiving, or using unauthorized aid on any academic work;
 - b) Plagiarism, which includes the copying of language, structure, or ideas of another and attributing the work to one's own efforts;
 - c) Attempts to copy, edit, or delete computer files that belong to another person or

- use of Computer Center account numbers that belong to another person without the permission of the file owner, account owner or file number owner;
3. All academic work submitted for grading contains an implicit pledge and may contain, at the request of an instructor, an explicit pledge by the student that no unauthorized aid has been received.
 4. It is the responsibility of every member of the Clemson University community to enforce the Academic Integrity Policy.

The Clemson University Title IX (Sexual Harassment) Statement:

Clemson University is committed to providing a higher education environment that is free from sexual discrimination. Therefore, if you believe you or someone else that is part of the Clemson University community has been discriminated against based on sex, or if you have questions about Title IX, please contact the Title IX Coordinator Alesia Smith who is also the Executive Director of Equity Compliance, at 110 Holtzendorff Hall, 864-656-3181 (voice) or 864-656-0899 (TDD). The Title IX Coordinator is the person(s) designated by Clemson University to oversee its Title IX compliance efforts. More on Title IX policy: <http://www.clemson.edu/campus-life/campus-services/access/title-ix/> .

Inclement Weather or Class Cancellation Statement: If class is canceled due to inclement weather or other unforeseen circumstances, students will be responsible to give their presentations or exams during the next class meeting period. Because assignments are to be uploaded in Canvas, class cancellation does not alter the homework deadline. The instructor may communicate with the class via Canvas or email to notify changes that may occur due to class cancellation

Important notice!!! The syllabus and grading scheme are deemed “tentative”. Every effort will be made to adhere to this schedule. Considerable effort has been made to assure the accuracy of the information – but we reserve the right to modify or rearrange content because of circumstances beyond our control.

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Graduate students will follow the above Syllabus (AVS 4650) with some modifications on their duties and responsibilities for each unit.

- Graduate students will select a scientific publication (paper) for class presentation; one per unit. These papers need to be approved by the instructor for quality and to avoid duplication.
- Exams or quizzes may include extra/different questions for graduate students.