

**PSYC 4130: Physiological and Comparative Psychology**  
Spring Semester 2014; Mon/Wed/Fri, 9:05-9:55AM; Psychology, Room 309

**Instructor:** Jessica Groves-Chapman      **Office:** 617 Psychology  
**Email:** [jgroves@uga.edu](mailto:jgroves@uga.edu)      **Office Hours:** By Appointment ONLY  
**Course Website:** <https://uga.view.usg.edu/>

**Required Textbook:** Biological Psychology: An introduction to Behavioral, Cognitive, and Clinical Neuroscience (7<sup>th</sup> edition). Breedlove & Watson, ISBN 978-0-87893-927-5; other course material and websites will be posted on eLC periodically.

**Course Description:** The biological bases of human and nonhuman behavior, with emphasis on underlying physiological mechanisms, and on the development, evolution, and function of behavior.

**Objectives:**

By the end of the course students should have learned:

- Some of the historical, philosophical, and methodological issues associated with behavioral neuroscience
- Some of the methods used in the study of behavioral neuroscience
- Some of the fundamentals of neuroscience
- Some general and recent knowledge regarding behavioral neuroscience
- Some general and recent knowledge regarding study of animal behavior
- The laboratory component of this course will provide the student with in depth exposure to basic neuroanatomy and comparative animal behavior, and will illustrate principles of sensory processing that supplement material presented in class

**Course Prerequisites:** PSYC 3990

**Requirements:**

- A. 40% → Quizzes (4 total): Format is mostly multiple-choice, but may include a small number of short answer. Each quiz will cover no more than 4 chapters. Quizzes are not “officially” cumulative, but will build on understanding of previous material. Quizzes may be on-line or in class.
- B. 30% → In-class Application Activities (6 total): Generally, these will be group activities completed in-class, but may include individual out-of-class preparatory work.
- C. 30% → Final Project: (Due during the Final Exam)  
Details will be provided within the first few weeks of class.

**Grading Scale:**

<u>Percentage</u>	<u>Grade</u>	<u>Percentage</u>	<u>Grade</u>
94%	A	77 - 79.9%	C+
90 - 93.9%	A-	74 - 76.9%	C
87 - 89.9%	B+	70 - 73.9%	C-
84 - 86.9%	B	65 - 69.9%	D
80 - 83.9%	B-	0 - 64.9%	F

\*Grades will not be rounded up, nor will your grade be changed at the end of the course because you need it to be higher. If you are having problems during the course with the material or the grades you are achieving please come and see me immediately and we will brainstorm how best to help you.

\*A grade of incomplete is only assigned in extremely unusual circumstances. Such situations require extensive documentation and approval of faculty supervisors. It is only an option if a student is passing the class and is typically only awarded when a student has completed the majority of the class work and is only missing one or two exams or assignments. If a grade of incomplete is approved, a written plan for completion of the coursework must be developed by the instructor and student and approved by the faculty supervisor.

### Attendance and Absences:

Attendance is not part of your grade, but it is strongly recommended that you come to every class. You are responsible for all lecture material, announcements, in-class work, and quizzes from any class that you miss. That includes announcements regarding assignments, readings, changes to the syllabus, etc. If you miss class please check eLC or contact a fellow student for any important updates. DO NOT email me to inquire about what was covered that day, I will not respond.

#### ***“What if I miss a quiz?”***

As a general rule, quizzes CANNOT be made up. The only exception is below:

- If you have a documented, university-approved reason for missing a quiz, you will be allowed a make-up quiz (format may differ from normal). You must talk to me at least one week ahead of time unless the absence is an emergency that makes doing so impossible.

#### ***“What if I miss an in-class application activity?”***

- AA's CANNOT be made up. I have tentatively planned for 9 total AA's throughout the semester, with only 6 counting towards your final grade. The dates of these AA's are subject to change, please check eLC periodically for updates to the schedule.

### Group Work:

For in-class group work, you will work with the same team all semester. A single copy of each assignment will be turned in by each group and all members will receive the same grade.

If asymmetrical contribution becomes a significant problem, the instructor reserves the right to conduct confidential peer-evaluations where members will evaluate and explain the contributions of their team members.

### Academic Honesty:

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, “A Culture of Honesty,” and the Student Honor Code. All academic work must meet the standards described in “A Culture of Honesty” found at: [www.uga.edu/honesty](http://www.uga.edu/honesty). Lack of knowledge of the academic honesty policy is NOT a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

<u>Date</u>	<u>Topic</u>	<u>Required Reading:</u>
<b>JANUARY</b>		
M 6	Introduction to Course & Animal Use in Research	
W 8	Defining Biological Psychology	Chapter 1
F 10	Functional Neuroanatomy	Chapter 2
M 13	Functional Neuroanatomy, continued	Chapter 2
W 15	<i>AA 1 – Sheep and rat brain exploration</i>	
F 17	Neurophysiology	Chapter 3
M 20	<b>MLK Holiday – *NO CLASS*</b>	

W	22	Neurophysiology	Chapter 3	
F	24	Neurotransmitters & Neuropharmacology	Chapter 4	
M	27	Neurotransmitters & Neuropharmacology	Chapter 4	
W	29	Hormones & the brain	Chapter 5	
F	31	Hormones & the brain	Chapter 5	*Possible guest lecture

## **FEBRUARY**

M	03	Evolution of the brain and behavior	Chapter 6	
W	05	Evolution of the brain and behavior	Chapter 6	
F	07	<i>AA 2 - TBD</i>		
M	10	Life-span development of the brain and behavior	Chapter 7	
W	12	Sensory Processing: Touch and Pain	Chapter 8	
F	14	<i>AA 3 - TBD</i>		
M	17	Touch and Pain, continued	Chapter 8	
W	19	Hearing, Vestibular Perception, Taste, and Smell	Chapter 9	
F	21	Hearing, Vestibular Perception, Taste, and Smell	Chapter 9	
M	24	<i>AA 4 - TBD</i>		
W	26	Vision: From Eye to Brain	Chapter 10	
F	28	Vision: From Eye to Brain	Chapter 10	

## **MARCH**

M	03	Motor Control and Plasticity	Chapter 11	
W	05	Motor Control and Plasticity	Chapter 11	*Possible guest lecture
F	07	<i>AA 5 - TBD</i>		
M	10	<b>SPRING BREAK -- *NO CLASS*</b>		
W	12	<b>SPRING BREAK -- *NO CLASS*</b>		
F	14	<b>SPRING BREAK -- *NO CLASS*</b>		
M	17	The Brain and Sex	Chapter 12	
W	19	Homeostasis	Chapter 13	
F	21	Biological Rhythms: Sleep and Dreaming	Chapter 14	
M	24	<i>AA 6 - TBD</i>		
W	26	Emotions, Aggression, and Stress	Chapter 15	
F	28	Emotions, Aggression, and Stress	Chapter 15	*Possible guest lecture
M	31	Learning and Memory	Chapter 17	

## **APRIL**

W	02	Learning and Memory	Chapter 17	
F	04	<i>AA 7 - TBD</i>		
M	07	Learning and Memory	Chapter 17	
W	09	Attention and Higher Cognition	Chapter 18	

F	11	AA 8 - TBD	
M	14	Psychopathology	Chapter 16
W	16	Psychopathology	Chapter 16
F	18	Psychopathology	Chapter 16
M	21	AA9 - TBD	
W	23	Language	Chapter 19
F	25	Final Project questions and Course Overview	
M	28	<b>LAST DAY OF CLASSES</b>	
T	29	<b>READING DAY</b>	
<b>MAY</b>			
F	02	<b>FINAL EXAM; 8 AM - 11 AM</b>	

*Note: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. All changes will be posted to eLC new.*

#### **Disability Resources:**

If you have a disability and require reasonable classroom accommodations, please see me after class or make an appointment during office hours. If you plan to request accommodations for a disability, please register with the Disability Resource Center at 114 Clark Howell Hall, (706) 542-8719, [dstest@uga.edu](mailto:dstest@uga.edu).