

PSYC 4140 Cognitive Neuroscience

Fall 2018 Monday/Wednesday/Friday 10:10am-11:00am (Room 111, Psychology Building)

INSTRUCTOR:

Dr. Brett A. Clementz , Distinguished Research Professor of Psychology and Neuroscience

Email: clementz@uga.edu

Office location: Room 612, Psychology Building

Office hours: Monday 11:00am-noon; Wednesday 11:00am-noon; by appointment

Elizabeth Edge, Graduate Teaching Assistant

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The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

CLASS DESCRIPTION:

Purpose: This course will offer a survey of the fundamental concepts and current research perspectives in brain and behavioral science. Through reading of the assigned book, discussion of past and current writings published in the scientific literature, lectures, and in-class discussions, we will discuss the origins and principles of cognitive neuroscience and the types of research conducted in the field. Major areas in brain and behavioral science will be covered, including neural communication, motor control, sensory processing, perception, how we recognize objects and navigate the environment, memory and learning, and executive functions/decision making. It is assumed that students at least have a rudimentary understanding of the basics of biological psychology and cognitive neuroscience. The instructor can provide overview supplementary readings if students are interested.

Assigned Book:

Banich MT & Compton RJ. (2018). Cognitive Neuroscience (4th Ed). Cambridge University Press (New York and London). Book is available as an eTextbook (\$30), hardcover (\$130), and paperback (\$60).

It is your responsibility to read the assigned material before the day on which it will be discussed. I will assume that you have done the reading, so that members of the class (including the instructor) can supplement the material with additional information of relevance and interest to the topics under discussion.

GRADING:

Grades will be primarily assigned based on performance in area 1 below, with areas 2 and 3 used to supplement letter grades:

1. Four Exams. There will be in-class, multiple choice examinations. The examinations will cover only the material covered since the last exam (or from the beginning of class for Exam 1); the examinations ARE NOT CUMULATIVE. The Exams will cover the assigned book chapters and supplementary information provided by the instructor during class. Each exam will be worth 50 points (200 total points for the semester). If students are not happy with their exam grade, there will be a one-week window during which they can re-take that examination, with the higher of the two scores counting as the score for that examination.
2. Class participation. Students are expected to actively and meaningfully participate in discussion of the relevant subject matter on a weekly basis. This is one way in which the instructor knows that every student has adequately prepared for class by completing the required reading. Class

participation will be graded on a satisfactory/unsatisfactory basis every week. The relative balance of S/U marks will help determine plus and minus designations at the end of the semester (if you participate very little, a minus is generally ensured; if you meaningfully participate regularly, a plus is possible).

3. Class attendance. Attendance at class is strongly encouraged. Attendance will be graded on a present/absent basis every session. The relative balance of P/A marks will help determine plus and minus designations at the end of the semester (if you do not attend the majority of classes, a minus is generally ensured; if you attend most classes, a plus is possible). There will be a seating chart to facilitate attendance recording.

Assignment of Letter Grades: Letter grades will be assigned in the following fashion. First, at the end of the class, total points will be calculated based on the highest score for each examination (maximum of 200 points). That is, 180 points or greater for an A, 160 points or greater for a B, 140 points or greater for a C, 120 points or greater for a D. straight scale will be applied based on this point total. Plusses and minuses will be assigned by considering areas 2 and 3 above.

ACADEMIC HONESTY: Any form of academic dishonesty (e.g., plagiarism or cheating) will not be tolerated and may be met with severe penalty. All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. The link to more detailed information about academic honesty can be found at: <https://honesty.uga.edu/Academic-Honesty-Policy/>

DATE		MATERIAL
1	13 August 15 August 17 August	Introduction and Syllabus Chapter 1 (Introduction to the Nervous System) Chapter 1 (Introduction to the Nervous System)
2	20 August 22 August 24 August	Chapter 2 (Historical Perspectives) Chapter 2 (Historical Perspectives) Chapter 2 (Historical Perspectives)
3	27 August 29 August 31 August	Chapter 3 (Methods) Chapter 3 (Methods) <i>Chapter 3 (Methods) – at BIRC</i>
4	3 September 5 September 7 September	Labor Day Chapter 3 – (Methods) EXAM 1 (14 September retake deadline)
5	10 September 12 September 14 September	Chapter 4 (Motor Control) Chapter 4 (Motor Control) Chapter 4 (Motor Control)
6	17 September 19 September 21 September	Chapter 5 (Sensation and Perception) Chapter 5 (Sensation and Perception) Chapter 5 (Sensation and Perception)
7	24 September 26 September 28 September	Chapter 6 (Object Recognition) Chapter 6 (Object Recognition) Chapter 6 (Object Recognition)
8	1 October 3 October 5 October	EXAM 2 (8 October retake deadline) Chapter 7 (Spatial Cognition) Chapter 7 (Spatial Cognition)
9	8 October 10 October 12 October	Chapter 7 (Spatial Cognition) Chapter 9 (Memory and Learning) Chapter 9 (Memory and Learning)
10	15 October 17 October 19 October	Chapter 9 (Memory and Learning) Chapter 9 (Memory and Learning) <i>Chapter 10 Attention (Attention)</i>
11	22 October 24 October 26 October	Chapter 10 Attention (Attention) Chapter 10 Attention (Attention) Fall Break
12	29 October 31 October 2 November	Chapter 10 (Attention) EXAM 3 (7 November retake deadline) <i>Chapter 11 (Executive Function and Higher-Order Thinking)</i>
13	5 November 7 November 9 November	Chapter 11 (Executive Function and Higher-Order Thinking) Chapter 11 (Executive Function and Higher-Order Thinking) Chapter 11 (Executive Function and Higher-Order Thinking)
14	12 November 14 November 16 November	Chapter 14 (Psychopathology) Chapter 14 (Psychopathology) Chapter 14 (Psychopathology)
15	19-23 Nov	Thanksgiving Break
16	26 November 28 November 30 November	Chapter 14 (Psychopathology) Chapter 15 (Brain Development) <i>Chapter 15 (Brain Development)</i>
	3 December	Chapter 15 (Brain Development)
	7 December	EXAM 4 (8-11am) (14 December retake deadline)