

Cognitive Neuroscience of Attention (PSY 4145, CRN 26335)
Spring 2013, Jan. 7 – May 2
Prof. Robert Carlson

Class Information

Class Days: Mon., Wed., & Fri.
Class Time: 12:00 – 12:50
Class Location: McDonald 104

Contact Information

Office: McDonald 222
Phone: 652-7893
E-mail: rcarlson@dixie.edu

Disclaimer: Details of this syllabus are subject to change. Since this class is so new and so small, change is likely. Be sure to keep in regular contact with me if you miss class to make sure you find out about any changes. All syllabus changes will be announced in class.

Contacting Prof. Carlson: The most effective way to contact me is by e-mail. I check my e-mail regularly, and I am much more likely to remember to respond to an e-mail than to a comment made to me before or after class (I tend to forget those comments, unfortunately). If you speak to me in person, especially away from my office, **make sure to follow up any conversations with an e-mail** to remind me to address the matter in a timely manner. I may not be in my office a lot outside of office hours, but you are welcome to drop by any time to see if I have time to meet with you. If you want to be sure I will be there to talk with you during a time other than official office hours, please feel free to contact me via e-mail to make an appointment.

Course Description: “Utilizing behavioral and biological techniques, including neuroimaging, genetics and single-cell neural recordings, students will develop an understanding of the mechanisms, development and effects of attention and be able to apply this understanding to a variety of human populations and situations.” (Proposed Course Description for Course Catalog) Studies described in the course will utilize children and adults, including or not including diagnosed disorders or brain injury, allowing a comparison of the findings under many different conditions and from a variety of research perspectives.

Course Objectives: The purpose of this course is for students to demonstrate critical thinking skills in understanding and applying current research and theories related to attention from a cognitive neuroscience perspective. Students will be required to demonstrate these skills and abilities through in-class discussions and presentations, and written research papers. Presentations and written assignments will require students to combine information from multiple sources to support the theme of each assignment. Through these assignments students will be required to demonstrate that they understand the techniques used in current research, how these techniques were used to obtain relevant results, and how the results were used to support current theories.

Course Requirements and Information:

Textbook: *Cognitive Neuroscience of Attention*, 2nd Edition, edited by Michael Posner.
(Required)

Canvas: I will make class materials available on Canvas. (Required)

Office Hours: Mon., Tues., Thur., 1:00-1:50; Wed., Fri., 10:00-10:50

Prerequisites: PSY 2000 **and** at least one of: PSY 3120, PSY 4140 or PSY 4150.

Course Fees: None

General Education: This course does not currently fulfill a general education requirement.

Reading Assignments: Additional reading assignments will be determined as the semester progresses.

Academic Integrity: I don't like cheating of any kind—neither does Dixie State College (see their official policy at <http://www.dixie.edu/humanres/policy/sec5/533.html>). Also, you may not, under any circumstances, copy someone else's words (from a research article, from another student, from a paper factory on the internet) for use in your research paper (not in a draft, not in an outline, not in the final version of the paper, not anywhere). **Everything you submit to me must be in your words.** If you put quotation marks around the quote and properly cite the quote it is not considered plagiarism, but this is still not allowed for purposes of the written assignments. Having completed PSY 2000, you are expected to understand the definition of plagiarism and how to appropriately cite other people's words and ideas.

Attendance Policy: Attendance is required in this course, since a significant part of the grading will be based on in-class participation (discussions and presentations). I realize that absences occur for a variety of reasons, including for approved school functions, but even with an approved school activity the student is required to find out about (ahead of time if at all possible), and make up, missed work. No equivalent assignment can provide the experience of in-class participation, so no make-up work will be allowed. In-class presentations must be given on the assigned date, unless arrangements are made ahead of time, to the instructor's satisfaction, to change date or time of the scheduled presentation.

Classroom Policy: As mentioned above, all students are required to participate in classroom discussions, but appropriate levels of maturity and respect (to the instructor and other students) must be demonstrated. Joking around with the professor is generally tolerated, and usually encouraged, but demeaning comments toward any person or group are not tolerated. We will attempt to conform with APA guidelines in our verbal communications about specific groups of people.

Grading Information: Final grades in this course will be based on a percentage-based system, and there will **not** be a "curve" used to determine grades.

Grade Components: Class Discussions (20%), In-class Oral Presentation (20%), Bi-weekly Written Assignments (40%), Final Exam (20%).

Grading Scale	
Grade	Range
A	>=91%
A-	89-90%
B+	86-88%
B	82-85%
B-	79-81%
C+	76-78%
C	72-75%
C-	69-71%
D+	66-68%
D	62-65%
D-	59-61%
F	<59%

Class Discussions. This course will have a seminar format, where class will be conducted as an interactive discussion among all present in that class (including invited guests). There will not be a lecture provided by the instructor, and everyone attending the class will be expected to participate in the discussion. Students will be graded on a 10-point scale for each class period based on their level of participation (a subjective combination of quality and quantity, with more emphasis given to quality participation).

In-class Presentation. Each student is required to make one presentation during the semester summarizing information learned from multiple sources about a single topic. For this presentation, material must be obtained from articles not assigned for class readings. This presentation is expected to last at least 20 minutes and not more than 25 minutes, including answering questions. The presentation must include audiovisual aids (e.g., PowerPoint presentations, video segments and/or audio clips) and an oral narration. The preponderance of the presentation must be made by the student (e.g., no 10-minute videos).

Written Assignments. Every two weeks (not counting Spring Break week) each student will submit a 2- to 4-page written paper summarizing his/her thoughts about one or more reading assignments from that two-week period. Each assignment must follow APA format guidelines, including for citations (a Reference page, which does not count toward the page requirements, will be required). Other formatting guidelines (margins, font, etc.) are

provided in a separate handout. Students must synthesize information from a variety of sources and topics into a cohesive paper that follows a common theme. Each paper must have a thesis statement which is supported throughout the paper.

Final Exam. The Final Exam will consist of a series of essay questions reflecting the articles discussed throughout the course. Essay questions will be provided ahead of time, and students will have choices regarding which questions they answer.

Grade Calculation: Grades for quizzes and exams are calculated based on percentages, not total points. For example, if you score 4 out of 4 on one quiz, that counts as a grade of 100%; if you score 4 out of 5 on another quiz, that counts as a grade of 80%. Those two quizzes would lead to a Quiz Average of 90% (average of 80% and 100%), **not** 88.9% (8 out of 9 total points). The same principle applies to midterm exam grades. **The total number of points on quizzes and exams does not matter.** For the research paper grade, the total points do matter. The later assignments contribute more toward the total research paper grade (see the Research Paper Guide for more details). Your percentage grade for the research paper is calculated by adding up the total number of points earned, subtracting all late penalties, and dividing that difference by the total number of points possible. To calculate your grade for the class, use percentage scores for each quiz and exam and the percentage score for the research paper.

Tentative Course Reading Schedule

<u>Week</u>	<u>Reading Description</u>	<u>Chapter(s)</u>
1	Introduction to the Course	1 (W)
2	Introduction to Attention	2 (M), 5 (W)
3	Attentional Mechanisms	3 (W), 6 (F)
4	Frontal Control of Attention	7 (M), 11 (W)
5	Attentional Networks	9 (M), 18 (W)
6	Neuroimaging of Attention	10 (M), 12 (W)
7	Development of Attention	20 (W), 21 (F)
8	More Development of Attention	22 (M), 24 (W)
9	Genetics and Attention	23 (M), 27 (W)
10	Attentional Control Under Different Conditions	26 (M), 28 (W)
11	Attention in Autism / Presentation	25 (M)
12	ADHD / Presentation	29 (M)
13	Chromosome 22q11.2 Deletion Syndrome / Presentation	30 (M)
14	Working Memory and Attention	31 (M)
15	Presentations	---
16	Presentations	---
Final	Final Exam in Class	All of it

The letter after the Chapter number indicates the day of the week you must be prepared to discuss this chapter. M = Monday, W = Wednesday, F = Friday