Psychology 320: Mind and Brain Fall 2015

Instructor:Dr. Sarah JohnsonWhen: TR 2:35-3:45pmPhone:610-625-7013Where: 117 PPHAC

Office: 224 PPHAC Office hours: T & R 1-2:30pm, with skjohnson@moravian.edu W 11am-12pm,

Email: skjohnson@moravian.edu W 11am-12pm, website: http://blackboard.moravian.edu/ and by appt.

Pwd: braindead

Main Course Objective: We will learn about how the brain serves as the source for what researchers consider "higher function" (e.g., language, planning, complex aspects of perception and memory, social behavior, etc.). There will be an emphasis on looking at first hand research, particularly involving patients and neuroimaging techniques.

Specific Course Objectives:

- 1. **Think critically** about important theories and findings from cognitive neuroscience; includes knowing some of the important researchers in these areas, paradigms employed, and learning the locations and functions of distinct neuroanatomical regions.
- 2. Understand the bases of neuroscience methodologies, with an emphasis on strengths and weaknesses of each and how they can be used in coordination with other types of research to offer **converging evidence**.
- 3. Look at how information from the domain of cognitive neuroscience is portrayed in public forums and develop a **critical eye** toward such information, developing/enhancing your skills at determining credible versus questionable depictions of such information with the goal of becoming a **better informed consumer (and enjoyer)** of publically available neuroscience-based information.
- 4. Engage in **interactive discussion** and **creative thinking** about ideas in Neuroscience to better enhance your own learning about this field.

Readings:

The Student's Guide to Cognitive Neuroscience, 3rd ed., by Jamie Ward. The Giver by Lois Lowry.

Additional readings will be journal articles, made available via Blackboard or researched by you in conjunction with specific assignments. Suggested: *A Colorful Introduction to the Anatomy of the Human Brain*, by Pinel (can be borrowed from me to make copies of portions).

Attendance: Attending class will benefit you for multiple reasons: learning how to learn and think critically, discussion of specific tips for learning particular material, participation in activities designed to promote active learning and integration of info, gaining a better idea of my expectations for assignments or exams. With that said, you will be given **up to 3 allowed absences**, and starting with the fourth absence, your participation grade (see below) will be reduced by 15 pts for each additional absence—exceptions may be made in cases of emergency, as determined on a case by case basis. Apart from this policy, there are some days on which attendance is required (e.g., debate days).

Lateness: A legitimate reason for being late can happen to anyone now and then, but repeated lateness is disrespectful to me and to your classmates. Come see me if you have a legitimate reason for repeated lateness or absence.

Course Evaluation:

- 1. Participation: In addition to the attendance policy, you will be graded for your participation each week, particularly on days when we do class or group discussion. An average will be taken across the weeks of the semester to determine your final participation grade. Days when there are class activities, discussions about readings or films, and other opportunities for participation (e.g., questions/comments when other students presenting) will be weighted more heavily in this average.
 - **A:** Contributes to class discussion by asking questions or making comments about readings, lectures, or in response to other students. Participates actively in class activities; stays on task. Comes fully prepared. Completes tasks assigned outside of class to promote class discussion.
 - **C:** Attentive and engaged but no spontaneous contribution to class activities or discussions, or contribution with evidence of poor preparation. Repeated lateness.
 - **F:** Shows up but disengaged, inattentive, doesn't participate apart from when directly prompted. Disruptive (e.g., taking phone calls, snoring loudly, table-dancing) or inconsiderate (e.g., texting or web surfing during class, sleeping even if quietly, failing to share cookies/candy) behavior.
- **2. Exams:** There will be three exams during the course of the semester. The format of the exams will be a combination of multiple choice, diagram identification, short answer, and essay. Exams can include questions on the assigned text chapters, handouts, and readings, even if not discussed in lecture. Study guides will be posted on Blackboard as each exam approaches and will include important terms to know for the exam as well as sample exam questions.

Missed exams: If you miss an exam and have a *legitimate*, *documentable* excuse, you can schedule a makeup exam. If your reason or missing could not be foreseen, contact me *as soon as possible* after the exam. If you know in advance (e.g., because of travel for a sports team, medical excuse, interview, etc.) then let me know as soon as possible <u>before</u> the exam. You may not take a make-up exam if you missed it without legitimate reason for absence.

- **3.** Class Debate: This project involves group presentations of empirical evidence that contributes to our understanding of how people perceive faces, as well as in-class discussion about the evidence. The actual debate will be preceded by days in which class-time will be devoted to this discussion. Different groups of students will be responsible for finding evidence for different aspects of the debate. On the debate day, the whole class will work together to evaluate the evidence.
- **4. Converging Evidence Paper:** There will be a paper due mid-term incorporating 6+ primary sources reflecting multiple forms of neuroscience evidence (e.g., electrophysiological techniques, neuroimaging, animal lesion studies, human patient studies, etc.) and exploring a neuropsychological condition. The paper will conclude by proposing an experiment/study employing one particular form of evidence to continue investigating the condition, and giving insight into how different forms of evidence contributed to your proposed study.

5. Could it be real? assignment: This assignment will give you the freedom to select fictional material that relates to neuroscience and evaluate the plausibility of what is being described in relation to real neuroscience evidence. You will use the text and at least one additional scholarly (experimental) source to complete this assignment, which will include both a written paper and a 5-min presentation.

Late Policy: Late papers will be accepted for <u>up to four days</u> after the due date and will result in a reduction of *1 letter grade* (i.e., 10%) *for every calendar day late* beginning at <u>5pm</u> on the day the assignment is due. After the four-day period, the paper will not be accepted and a grade of 0 will be applied. Exceptions to this policy will only be made under truly extenuating circumstances (determined by me on a case-by-case basis).

I only accept work by email if you have arranged it with me for *that particular* assignment. Some work may be accepted (or required to be submitted) electronically.

Note that it is within my purview to use qualitative judgment in assigning grades for various components of the course (e.g., homework assignments, exam essays, papers, etc.).

Grading breakdown:

Participation		100
Exams (3 @ ~100 pts each)		300
Debate		150
Converging evidence paper		100
Creative assignment		100
To	otal	750

Unless otherwise noted, I will use the following scale for calculating grades:

Letter	Percentage	Grade range	Letter	Percentage	Grade range
A	100	95-100	C	75	73-76
A-	92	90-94	C-	71	70-72
B+	88	87-89	D+	68	67-69
В	85	83-86	D	65	63-66
B-	81	80-82	D-	61	60-62
C+	78	77-79	F	0	0-59

Extra credit: Extra credit opportunities will be made available partway through the semester, but come and see me at any point during the semester if you are struggling with this course.

Disabilities: The Americans with Disabilities Act (ADA) provides for some accommodations to be made for students with certain disabilities. If you have such a disability and are willing to disclose it, you may take advantage of such accommodations. Students who wish to request accommodations in this class for a disability should contact the office of Academic and Disability Support by calling 610-861-1401. Accommodations cannot be provided until authorization is received from this office. You should also consider taking advantage of the resources offered by this office, including tutoring, if you are having difficulty academically in this (or any other) class. The office is located on the first floor of Monocacy Hall.

Academic Integrity: Any work that you turn in for this class must be entirely your own work. Any sources used must be properly documented, and I will ask you <u>not</u> to use <u>any</u> direct quotes in assignments or papers. This means PARAPHRASING—i.e. putting <u>all</u> info into your own words.

For more information on plagiarism and cheating, refer to the Student Handbook and the following website regarding academic responsibility at Moravian College: http://www.moravian.edu/static/studentLife/handbook/academic/academic/2.html. As this site clearly explains, the consequences for cheating or plagiarism can range from failing the assignment to receiving an F for the final course grade to expulsion, depending on the severity of the case and prior history of offenses. All of the work you submit to me must be entirely your own, and in some cases I may ask you not to collaborate with fellow students. For the group debate project, in which collaboration is an important component, I will discuss how to cite the ideas of others in class appropriately, but you are expected to do the writing independently.

I will spend class time discussing ways to avoid plagiarizing, but apart from this it is <u>your responsibility</u> to come see me if you have any questions about your use of sources or when/in what way it is okay to collaborate with other students in the class.

Class Schedule (This schedule is tentative. I reserve the right to make announced changes.):

eek:	Class topic/activities:	Text Chs/Assignments:
Sept 1 T	Course overview	
Sept 3 R	Introduction to the field	Ch. 1
Sept 8 T	Neurons & signal conduction	Ch. 2
Sept 10 R	Neurons & signal conduction cont'd	
Sept 15 T	Neuroscience methodology: Electrophysiological & Imaging methods	Ch. 3-4
Sept 17 R	Neuroscience methodology & Neuroanatomy	
Sept 22 T	Neuroanatomy lab & Methodology: Lesions	Ch. 5 (pp. 81-84 only); Jill Bolte Taylor Ted Talk
Sept 24 R	Exam 1	
Sept 29 T	Visual perception	Ch. 6
Oct 1 R	Visual perception cont'd	Cohen & Tong article
Oct 6 T	Book discussion: The Giver	The Giver
Oct 8 R	Face modules	Group face articles
	Sept 1 T Sept 3 R Sept 8 T Sept 10 R Sept 15 T Sept 17 R Sept 22 T Sept 24 R Sept 29 T Oct 1 R Oct 6 T	Sept 1 T Course overview Sept 3 R Introduction to the field Sept 8 T Neurons & signal conduction Sept 10 R Neurons & signal conduction cont'd Sept 15 T Neuroscience methodology: Electrophysiological & Imaging methods Sept 17 R Neuroscience methodology & Neuroanatomy Sept 22 T Neuroanatomy lab & Methodology: Lesions Sept 24 R Exam 1 Sept 29 T Visual perception Oct 1 R Visual perception cont'd Oct 6 T Book discussion: The Giver

Week:	Class topic/activities:	Text Chs/Assignments:
7		
Oct 13 T	NO CLASS – Fall Break	
Oct 15 R	Group meetings for face debate [Dr. J away]	Prosopagnosia short film
8		
Oct 20 T	Memory	Ch. 9
Oct 22 R	Class face debate	
9		
Oct 27 T	Memory cont'd	Face debate write-up
Oct 29 R	Memory cont'd	
10 Nov 3 T	Amnesia	Amnesia article(s)
		Anniesia articie(s)
Nov 5 R	Amnesia cont'd	
	Film discussion	Memento
Nov 12 R	Exam 2	
12		
Nov 17 T	Language	Ch. 11
Nov 19 R	Language cont'd	Ch. 12; Converging evidence paper draft due
13		
Nov 24 T	Social/Emotion function	Ch. 14
Nov 26 R	NO CLASS – Thanksgiving Break	
14 Day 1 T	Could it has made Decreased in the	
Dec 1 T	Could it be real? Presentations	Could it be real? Assignments due
Dec 3 R	Could it be real? Presentations	
15 Dec 8 T	Executive function	Ch. 15; Converging evidence paper final draft due
Dec 10 R	Wrap-up Book discussion: The Giver	
Finals Wk	Exam 3 Fri. Dec 18 th at 1:30pm	

Exam 1 – Chs. 1-4 & 5 (pp. 81-84) Exam 2 – Chs. 6, 9 & assigned articles

Exam 3 – Chs. 11-12, 14-15