Seminars in Neuroscience: NEUR 411-002 Spring 2020

Instructor: Nadine Kabbani
Instructor e-mail: nkabbani@gmu.edu
TA: Youseff Faragalla
TA e-mail: yfaragal@masonlive.gmu.edu
Course Time & Location: Thursday 1:30-4:10pm Krasnow Hall Room 229
Office Hours: Krasnow Hall Room 233, Monday 12-1PM or by appointment

Overview: Neuroscience is the study of the nervous system as it relates to a wide array of functions ranging from cognition to learning and genetics of disease to therapeutics. In this writing-intensive course, we will survey timely topics and texts in neuroscience. Throughout the semester we will examine findings and theories about the nervous system through reading, writing, and discussion. The course will rely on a student-centered learning approach.

Objectives: This course is designed to augment your skills in reading and critical thought as a means to effective writing. You will practice this through the writing assignments. This course fulfills the Writing Intensive (WI) requirement for the Neuroscience major. Writing intensive courses are required to assign a minimum of 3500 words, provide constructive feedback on drafts, and allow revision of at least one graded assignment.

Grading: You will be assessed throughout the course based on a combination of writing, discussion, and participation. Your final grade will be based on the following

Presentation	15%
Weekly Essays	50%
Attendance/Participation	20%
Final project	15%

Presentation: You will be responsible for a 20-minute presentation on the weekly topic in order to lead the discussion. The goal is to enhance your ability to communicate, analyze, and discuss a topic in neuroscience. As you prepare think of questions that you may want to present to the class and ways you may want to engage others. You can use interactive tools and/or the Internet to guide your presentation. Your presentation is not only a summary but also a chance to present your ideas as a point of discussion.

Weekly Essays: Each week you will write a 500-word entry (approximately one page single spaced or two pages double spaced) entry in a manner similar to a short essay. The essay should summarize the reading and discussion for that week. In your entry make sure to explore the ideas discussed and to critique and analyze whenever possible. The goal of these entries is to 1) Get you thinking about the assignment for the week so you can effectively discuss it in class, 2) To enable you to advance your writing skills through feedback. Journal entries should be uploaded onto Blackboard **by noon on Wednesday**. Late submissions will not be graded. Contact the course TA (yfaragal@masonlive.gmu.edu) with questions or concerns on the submission. Essays will be graded using the following rubric:

Writing Rubric (*3 points total*):

- **Summary and Information (1 point):** Provide a brief background on the topic covered. Focus on the main points of what was covered.
- **Analysis (1 point):** What are your original thoughts on the reading or lecture? Were there any lingering questions? Any application or potential for further research? What are the broad?
- **Writing Quality (1 point)** Is the writing clear and concise? Do ideas progress in a logical manner? Are there spelling or grammatical errors? Is there appropriate citation and referencing?

Books:
Author, A. A. (Year of publication). *Title of work: Capital letter also for subtitle*. Publisher.
Example: Thomas, Lewis. (1974). ***Lives of a Cell: Notes from a Biology Watcher***. New York, NY: Penguin Books
Journal Articles: Authors. Title. Journal. Year. Volume: pages.
Example: Brody D, Magnoni S, Schwetye K, Spinner M, Esparza T, Stocchetti N, Zipfel G, Holtzman D. Amyloid-beta dynamics correlate with neurological status in the injured human brain. Science. 2008. 321:1221-1224.

Final Project: You will be matched with another student early in the semester for this final project. As a team you will be responsible for identifying an important scientist (it does not have to be a neuroscientist) and writing a short biography (~1500 words) on the life and work of this individual. Consider questions such as what motivated them to become a scientist? How and where did they train? What was the world and field like during their training? And how did they embark upon their important research findings and what has been their legacy? You will be graded using the rubric above.

Attendance and Participation: In class participation is vital to your success in the course. You are expected to attend class and participate in discussion. Attendance will be taken. Please be kind and respectful to your classmates during the discussion. Please silence cell phones and refrain from texting during class.

Academic Integrity: Honesty and integrity are issues at the core of this course and of science as a whole. George Mason has an Honor Code with clear guidelines for academic integrity. All work submitted must be your own unless explicitly stated otherwise. When referencing the work of others (this includes published and non-published work or ideas), full credit must be given through appropriate citation. Plagiarism of any kind will result in zero credit for the assignment.

Schedule (subject to modification)

Week 1 Jan 23: Introduction and course overview
Week 2 Jan 30: Artificial Intelligence Part 1
Week 3 Feb 6: Artificial Intelligence Part 2
Week 4 Feb 13: No class
Week 5 Feb 20: Alzheimer's Disease Part 1
Week 6 Feb 27: Alzheimer's Disease Part 2
Week 7 March 5: Alzheimer's Disease Part 3
Week 8 Mar 12: Spring Break
Week 9 Mar 19: Drug Development 1
Week 10 Mar 26: Drug Development 2
Week 11 April 2: Genome Research 1
Week 12 Apr 9: Genome Research 2
Week 13 Apr 16: Addiction 1
Week 14 April 23: Addiction 2
FINAL Paper due: May 6, 2020 by 5PM EST. Email to nkabbani@gmu.edu