Introduction to Neuroscience
NEUR 101, Fall 2023, Meets: T 10:30-1PM, Innovation Hall 317

Instructor: Nadine Kabbani, Ph.D.
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Office Hours: Krasnow 233 by appointment

Course Overview

This course introduces the study of the neuroscience for students of all majors. We will explore basic concepts such as cell types, electrical activity, synapses, and neurotransmitters. We will discuss key discoveries about brain development, cognitive function, and disease. We will also explore the implications of neuroscience on society in the context of the modern world.

Mason Core: Natural Science

This is a Natural Science, non-lab Mason Core course. This course aims to enhance your understanding of scientific inquiry by introducing you to the core concepts, tools, and methods of neuroscience as well as the emergent applications of neurotechnology for personal, medical, and social purposes.

Course Format

Attendance is required and participation is highly encouraged.

Textbook and Materials

No textbook is required. Slides and articles will be provided via Blackboard.

Grading and Assessments

3 Exams	75%
1 Group Presentation	21%
Quizzes	4%
Total Grade	**100%**

Grading Scale:

A+ 98-100%		B+ 88-89%		C+ 78-79%		D 60-69%		F 0-59%	
	A 90-97%		B 80-87%		C 70-77%				

Quizzes: There will be 4 random quizzes throughout the course of the semester. The quizzes will be administered in class and will consist of ~5 short answer questions on topics recently covered.

Exams: There will be 3 online exams administered via Blackboard. The exams will be available on scheduled days. Exams will consist of multiple choice and T/F and will be timed to 40 min. Exams are closed book.

Group Presentation: You will be divided into Groups of 4. Each group will get the chance to present for 30 min on a research article of your choosing within the weekly topic. Please select your articles by 9/5 and have it approved by the instructor. Optimal scores will be provided to group presentations that demonstrate: 1) Content accuracy; 2) Visual and communication clarity; 3) An involvement of all group members and a demonstration of group cohesion.

Make-up Work: Make-up exams may be offered at the discretion of the instructor. Make-up quizzes will not be granted.

Communication: If you need to contact me, please do so using e-mail **from your university account only** and **include the course name in the subject line and include your name in the e-mail**.

Conduct: Be kind and respectful to your classmates. For a guide to online behavior, see these core rules for Netiquette.

Academic Integrity: George Mason has an honor code with clear guidelines for academic integrity. Cheating and plagiarism of any form is not tolerated. Any offense will be reposted to the academic integrity office and be dealt with in accordance with university regulations.

Disability Accommodations

If you have a documented learning disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Office of Disability Services (SUB I, Rm. 4205; 993-2474; http://ods.gmu.edu) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

Mason Diversity Statement*

George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty, and staff. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices can be voiced, heard and respected.

Student Services

- Learning Services (learningservices.gmu.edu/keeplearning/)
- University Libraries (library.gmu.edu)
- Writing Center (writingcenter.gmu.edu)
- Counseling and Psychological Services (caps.gmu.edu)
- See a longer list of Mason student support services posted on The Stearns Center website.

Course Schedule

Week 8/22: Introduction and Group Assignment
Week 8/29: Neural Cells
Week 9/5: Organization of the Nervous System
Week 9/12: Exam 1
Week 9/19: Synapses/Group1
Week 9/26: Ions/Group 2
Week 10/3: Senses and Perception/Group 3
Week 10/10: No CLASS
Week 10/17: Exam 2
Week 10/24: No class
Week 10/31: Behavior/Group 4
Week 11/7: Emotions/Group 5
Week 11/14: No CLASS
Week 11/21: Neuropharmacology/Group 6
Week 11/28: Neurodegeneration
Week 12/5: Addiction
Week 12/12: Exam 3