



BRAIN, MIND, AND BEHAVIOR

01:119:195; FALL SEMESTER 2023

Professor: Dr. Tara Cominski

Office Location: Busch Lab Center, Rm 101

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CLASS MEETS ON MONDAY AND THURSDAY FROM 12:10 PM – 1:30 PM IN TILLET HALL, ROOM RM 207, LIVINGSTON (IN-PERSON)

- Here is a link to the Rutgers map: <https://maps.rutgers.edu/>
- We will meet in-person for class during our designated meeting times as described above. All course materials will be available through CANVAS.

IN-PERSON/ZOOM STUDENT SUPPORT HOURS (BUSCH LAB CENTER RM 101)

Monday 2:00-3:00 PM; Thursday 10:30-11:30 AM (In Person/ZOOM);

Wednesday 11:00 - 12:00 PM via ZOOM (email to confirm)

- Please feel free to stop by during the hours listed above to discuss anything related to class, career, life or just to say hi!
- **If you would like to meet outside of these times, please email me.

COURSE DESCRIPTION

[Link to Course Description](#)

Course Description

The course will be organized around a number of magazine/journal articles, talks and videos from the field of neuroscience. The course is designed to give students exposure to relevant topics in the field of neuroscience/neurology including addiction, traumatic brain injury, neurological disease, etc. The course will be composed of discussion, group work, in-class activities/assignments, and a small amount of lecture. The course is aimed at honors students with an interest in the brain, but with no prior knowledge of neuroscience. Both science and non-science majors are welcome.

REQUIRED TEXTS AND COURSE MATERIALS

***There are no required texts for this course, all course readings will be provided through Canvas or through another method if necessary.



*** A notebook and a pen/and pencil are required for each class. Students will regularly provide hand-written responses to in-class questions.

TECHNICAL / TECHNOLOGY REQUIREMENTS

- **Mobile device or laptop:** Students must have access to their own personal laptop or tablet during class. Students will regularly use Canvas to complete in class quizzes or activities.
- In addition, other types of technology (i.e. *Socrative*) may be used to allow students to actively engage in class and enable the professor to assess student understanding.
- If you do not have the appropriate technology for financial reasons, please email the Dean of Students at deanofstudents@echo.rutgers.edu for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid: <https://financialaid.rutgers.edu/>.
- Please visit the Rutgers Student Tech Guide website for resources: <https://it.rutgers.edu/technology-guide/students/#new-brunswick>

LEARNING GOALS

Course Satisfies Departmental Learning Goal(s)

I. To acquire the appropriate factual and conceptual knowledge that provides students with a foundation to further their education and career in the areas of life science or health science. Students will be able to demonstrate basic knowledge (ex. identify, define, explain...) of the concepts, practices and principles that comprise the biological sciences.

II. To develop data analysis and statistical reasoning skills that prepares students for a society increasing reliant on the use of data and information. Students will be able to interpret/evaluate patterns in data presented in tables, figures, and graphs as well as be able to organize, summarize and present data.

III. To develop the ability to use scientific reasoning as embodied by the structured process commonly known as the scientific method to empower students with the ability to generate and refine knowledge. Students will be able to evaluate and apply the practice of science.

IV. To develop critical thinking and problems solving skills appropriate to prepare students to evaluate, synthesize and generate knowledge that provides them with a competitive advantage to adapt to an evolving, global, and knowledge based society. Students will be able to demonstrate application of higher order thinking (ex. classify, diagnosis, evaluate, synthesize, hypothesize...). Students will develop an understanding of not only the connections within biology but also the connections between biology and other scientific disciplines.

GRADING SCALE

- ⇒ A = 90 and above
- ⇒ B+ = 85-89
- ⇒ B = 80-84
- ⇒ C+ = 75-79
- ⇒ C = 70-74
- ⇒ D = 60-69
- ⇒ F = 59 or below
- ⇒ Warning grades will be entered for those students who are exhibiting poor performance or poor attendance.

***Grades will be assigned exactly as described in the scale above as determined by your Canvas course average. I will not round up!!!!!!

ASSESSMENT / GRADING COMPONENTS

Weighting and Description of Assessments

The final course grade will be determined by the following criteria:

- **30%- Reading Responses**
- **30%- Quizzes**
- **20%- In-class Activities and Discussion/Focus Questions**
- **20% - Final Project**

** Grades will be calculated using the gradebook in Canvas; this information will be available to students throughout the semester. If you have a question about a grade, please ask ASAP.

- **Reading Responses** - Reading responses will be 1 page (250-500 words) documents, submitted through an assignment in Canvas, that include a short summary of the article and your own reflections, comments, and/or questions. I will read your summary and will assign a grade; I will only give written individual feedback if necessary. It is expected that students will make corrections based on my feedback and re-submit if necessary. Points will be deducted if students do not make the necessary corrections on future assignments. It is completely acceptable and expected that students may not understand everything presented in the article. Therefore, summaries will not be graded on accuracy, but graded based on providing written evidence of reading the article in its entirety and sharing your reflections/thoughts about the article. Instead of a basic reading response, I may assign specific questions for certain articles. When a short lecture is given, there will likely be a quiz assigned on the content.

- **Quizzes** – Mini-lectures will be delivered most weeks. Weekly quizzes will be given in class through Canvas on these lectures.
- **In-class Activities and Discussion/Focus Questions-** Articles and mini-lectures will be supplemented with related in-class activities and/or focus questions to enhance student understanding and direct class discussions. Students are expected to be actively engaged in class discussions. These activities/assignments will also be used to determine class attendance.
- **Final Project** - We will work on the final project throughout the semester both in and out of class. Several related assignments will help to keep students on task. Using class time to work on the project will allow me to spend time speaking to each student/group to guide them through the process. Students will gather scientific information about a topic of their choice through PubMed or sources like NIH or NIMH etc., translate this information into lay terms, and present this information in an interesting way in the form of a magazine article. Student groups will present the information in the form of a news broadcast or social media video. Detailed information and related assignments for this project will be provided through Canvas and explained in class.

SCHEDULE OF TOPICS

*****this will be updated regularly on our course canvas site**

Week 1

Course Introduction
Addiction

Week 2

Mood Disorders/Depression
Nerve Cell Function

Week 3

Frontal Cortex Article
Brain Anatomy

Week 4

Phantom Limbs
Pain Perception, Somatosensory Cortex

Week 5

Traumatic Brain Injury
Repair and Regeneration

Week 6



Traumatic Brain Injury and Suicidality
Veteran Related Health Issues

Week 7

Neurodegenerative Diseases

Week 8

Stress and stress-related disorders
Negative Affect

Week 9

Learning and Memory

Week 10

Hippocampus
Neurogenesis

Week 11

Sleep/Dreams

Week 12 – NO CLASS THURSDAY 11/24

Senses/Synesthesia

Week 13

Synesthesia/Artificial Intelligence

Week 14

Student Final Project Presentations or student choice topic

Week 15

Student Final Project Presentations (use exam week if necessary)

REGULAR CLASSES END WEDNESDAY 12/13

*****Exam Week 12/15-12/22 – We will not have a final exam for this course, however, it is possible that we may set aside time during exam week to complete student final project presentations.**

POLICIES

Attendance, Participation and Missed Assignments

- Students are expected to attend class regularly as discussion and in-class work will be an important part of this course. Students will conduct in-class assignments/activities on a regular basis to serve as evidence of attendance.

- If you need to miss class or need extra time to complete an assignment, please email me ahead of time and we will work together to construct a plan to make-up the missed work. If you do not communicate with me about a assignment and contact me well after the due date, a make-up will not be possible.
- Students with prolonged health and/or financial issues impacting their academics and well-being over an extended period should contact the Dean of Students at deanofstudents@echo.rutgers.edu.
- [Link to Rutgers Policy on Attendance and Cancellation of Classes](#)

CLASSROOM NORMS

It is important that you come to class ready to learn. The following requirements are designed to increase everyone's classroom engagement.

- Be fully present even with technology
 - Do not use computers or other electronic devices during class unless you are using them to take notes or participate in a classroom activity.
 - If an urgent call needs to be answered, please leave the room to do so.
- Speak your truth
- Be respectful – one voice, but it is okay to disagree!
- Ask questions
- Share your experiences and expertise
- Be comfortable!
- If you need to go to the bathroom or attend to any other personal need, leave the classroom, there is no need to ask permission unless we are taking an exam.
- Continued disruption during class by texting, talking, or otherwise inappropriate behavior (i.e. sleeping) will result in ejection from the classroom and a referral to the Dean.

DISABILITY ACCOMMODATIONS

- To receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation.
- Please review the policies and procedures of the Office of Disability Services website: <https://ods.rutgers.edu> for additional information

ACADEMIC INTEGRITY

- Please familiarize yourself with the University website on Academic Integrity: [Academic Integrity Policy Link](#)
- Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic

Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution, including re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work

If you are ever in doubt, consult your instructor.

STUDENT SUPPORT AND MENTAL WELLNESS

⇒ **Here is a list of Rutgers resources to support students in their academic success and mental wellness.**

- Student Success Essentials: <https://success.rutgers.edu>
- Student Support Services: <https://www.rutgers.edu/academics/student-support>
- The Learning Centers: <https://rlc.rutgers.edu/>
- The Writing Centers (including Tutoring and Writing Coaching): <https://writingctr.rutgers.edu>
- Rutgers Libraries: <https://www.libraries.rutgers.edu/>
- Office of Veteran and Military Programs and Services: <https://veterans.rutgers.edu>
- Student Health Services: <http://health.rutgers.edu/>
- Counseling, Alcohol and Other Drug Assistance Program & Psychiatric Services (CAPS): <http://health.rutgers.edu/medical-counseling-services/counseling/>
- Office for Violence Prevention and Victim Assistance: www.vpva.rutgers.edu/