

NEUROBIOLOGY II

COURSE DETAILS

Professors: Drs. Nathan Fried (Nathan.Fried@rutgers.edu) and William Saidel (saidel@camden.rutgers.edu)

Class Hours: Monday & Wednesdays: 3:45 – 5:05 PM

Class Location: ATG-207

Fried Office Hours: Monday & Wednesday: 10:00 – 2:00 PM (Appointment required. See below)

Fried Office Location: CNS 222

Saidel Office Hours: Monday & Wednesday: 11:00-1:00 PM

Saidel Office Location: SCI B-4A

Course Description:

Now that you have learned the fundamentals of how neurons fire action potentials, release neurotransmitters, form basic networks and function in basic sensory systems, you are ready to dive into more complex neurological systems and apply them to various disease states.

This class is co-taught by Dr. Saidel and Dr. Fried in two distinct halves. The first half of the class (running until spring break) is a traditional lecture style course taught by Dr. Saidel that will focus on network function of various brain systems. The second half of the course (starting after spring break) is a non-traditional active learning course taught by Dr. Fried that will apply these concepts to three different disease areas.

Note from the professors:

This course is uniquely taught by two different neuroscientists here at Rutgers Camden. Given that, recognize the opportunity you have to reach out to both of us on various topics to receive our feedback or perspectives on these topics.

Course Student Learning Objectives:

1. Develop the ability to apply fundamental topics in neuroscience to more complex systems
2. Develop an ability to apply complex systems to disease states.
3. Develop an ability to extract new information from three disease topic areas.
4. Develop confidence and experience understanding and presenting on primary literature.

Calculation of Final Grades:

Letter	Percent	Accumulated Points			
		Category	pt value	#	Total
A	89.5-100%				
B+	84.5-89.4%	Saidel Section			
B+	79.5-84.49	Midterm Exam	35	1	35
C+	74.5-79.49	Quizzes	12.5	1	12.5
C+	69.5-74.49	News Presentation	2.5	1	2.5
D	59.5-69.49	Fried Section			
F	0-59.49	Subject exams	8	3	24
		Journal Clubs	10	1	10
		Journal Club Worksheet	1	5	5
		Group Questions	5	1	5
		Attendance	0.5	12	6
		Total			100

COURSE ASSIGNMENTS, ACTIVITIES, & DETAILS

Saidel Section

Midterm Exam: At the completion of the first half of this class, there will be a midterm exam created by Dr. Saidel.

Quizzes: Quizzes will be given throughout this half of the class. These quizzes will be announced so students can prepare accordingly.

News presentations: Students will present on recent news topics, as described by Dr. Saidel.

Extra credit: Students will have the opportunity to write a small paper for extra. Further details will be provided by Dr. Saidel.

Attendance: Attendance is not required for this portion of the class.

Fried Section

Subject Exams: Three subject tests will be given at the end of the two-week period. Each will cover the neurological disease being discussed. These exams will be based off review articles, so consider the assigned review article as your textbook. These exams will be a mixture of multiple choice, written questions, and group work.

Student Journal Clubs: Students will break into 6 groups and each group will prepare/present a 45-minute long PowerPoint Presentation on a recent research article that is connected to the topic of choice. The grading rubric for the presentation will be announced later in the class, but will include evaluation by Dr. Fried, yourself, and your group members.

Journal Club Worksheet (Due the night before the presentation): If you are not presenting a journal club for the week, you should fill out a journal club worksheet. It is due by 11:59pm on SAKAI the night before class. In order for this class to actually work, it is ***IMPERATIVE*** that you have read the journal club assigned for the week.

Group Questions: In addition to the worksheet, each of the other 5 groups must prepare a single question to ask the presenting team. These questions will be asked during the class session.

Attendance: Attendance is required for Dr. Fried's half of the class. I will ONLY accept valid excuses for absences (sickness, emergency, job/grad school interview, etc). For university policy and to submit an absence report, please visit: <https://sims.rutgers.edu/ssra/>. There is no need to email me of your absence or provide a doctor's note. This system will automatically alert me.

Final exam: no final exam.

CLASSROOM POLICIES

Food Policy: Feel free to bring food or drink to the classroom, but please be respectful of your fellow students.

Mental Health Statement: Simply put, college and life are stressful and hard. The demands on you are immense, especially for those balancing a part-time job. If you are struggling or need someone to talk with, please reach out to me or visit the Rutgers Camden Student Wellness Center (<https://wellnesscenter.camden.rutgers.edu/index.php>). We are here to help.

Students with Disabilities Statement: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order 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: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form at <https://webapps.rutgers.edu/student-ods/forms/registration>.

University Academic Integrity Statement: The college regards academic dishonesty on the part of the students as unacceptable behavior that could result in dismissal. Every incident of academic dishonesty is required to be reported to the provost. These incidents will be kept in a confidential file by the provost so that a record of the infractions is available when reports are made.

Definitions:

Academic Dishonesty – includes, but is not limited to, plagiarism, cribbing, or cheating on exams.

Plagiarism – unacknowledged borrowing or duplication of an author's words or ideas whether intentional or not. Common forms:

- a. Text without quotation marks or proper documentation,
- b. With documentation but without quotation marks or correct quotation format,
- c. In paraphrase without proper documentation.

Office hours policy: This semester, I am trying a new way to schedule meetings at my office. My office hours will be held during my PPBR research lab hours (M & W mornings) in CNS222. During this time, I'll be helping PPBR students on their research projects, but if you schedule time with me, I'll make sure I'm available for you. If you would like to meet with me, DO NOT email me. Instead, just sign up for an appointment slot at: <https://bit.ly/2NLwFcj>.

Dr. Fried's Email policy: I get a lot of emails every day. To use my time most efficiently, I try to take care of all email matters in the morning. If you email me at night, you can expect a response within 24-48 hours. However, if I don't respond after 48 hours, feel free to "reply" to your own email to "ping me" again. Sometimes the flood of emails might bury yours. This is common practice in academia. Always feel free to remind someone of your email. Often, if they don't respond, it's just because they missed it; not because they are ignoring you.

CLASSROOM POLICIES

Neuroscience II				
Week	Day	Date	Instructor	Topics
1	M	1/20		
	W	1/22	Fried	Intro
2	M	1/27	Saidel	cortical senses
	W	1/29	Saidel	cortical senses
3	M	2/03	Saidel	basal ganglia
	W	2/05	Saidel	basal ganglia
4	M	2/10	Saidel	limbic system
	W	2/12	Saidel	limbic system
5	M	2/17	Saidel	limbic system
	W	2/19	Saidel	memory and attention
6	M	2/24	Saidel	memory and attention
	W	2/26	Saidel	memory and attention
7	M	3/2	Saidel	executive brain function
	W	3/3	Saidel	executive brain function
8	M	3/9	Fried	Review Session
	W	3/11	Saidel	Saidel Test
9	M	3/16		Spring Break - no class
	W	3/18		Spring Break - no class
10	M	3/23	Fried	Fundamentals Lecture - Pain
	W	3/25	Fried	Review Article Lecture
11	M	3/30	Fried	Student Journal Clubs
	W	4/1	Fried	Subject Test
12	M	4/6	Fried	Fundamentals Lecture - Alzheimer's Disease
	W	4/8	Fried	Review Article Lecture
13	M	4/13	Fried	Student Journal Clubs
	W	4/15	Fried	Subject Test
14	M	4/20	Fried	Fundamentals Lecture - TBD
	W	4/22	Fried	Review Article Lecture
15	M	4/26	Fried	Student Journal Clubs
	W	4/28	Fried	Subject Test
16	M	5/4		Reading Days - no class
	W	5/6		Reading Days - no class
Finals	No final exam			