

PSY 350 INTRODUCTION TO NEUROSCIENCE

(Fall, 2021)

Course Description: This course is an introduction to the mammalian nervous system in which we will be focusing on the structure and the function of the human brain. As it will cover the basics of neuroscience, it does not require any background or knowledge in the field. Topics include the function of the basic units of the nervous system as well as the survey of the basic facts, empirical evidence, theories, and methods of study in neuroscience.

Instructor: Dr. Nihan Alp

TA: Ilker Duymaz - I will be available online during office hours. There might be increased demands in participating office hours. To use limited time in maximum efficiency: please book a time slot in advance and send the questions to TA before the office hour. TA's email: duymaz@sabanciuniv.edu

Online office hours: TBA

Online office zoom link: <https://sabanciuniv.zoom.us/my/nihan.alp>

- The office hours will only be held online, even though I will have just one hour for office hours, I can be flexible as students do not have the same schedule. However, this will be time-consuming. Therefore, if you want to attend office hours please make an appointment, otherwise, likely, you won't be able to catch me online.

Class Schedule

Wednesdays 10:40-12:30

& Location

FASS 1008-1010 /

Class zoom link:

Topic: PSY 350

Time: Sep 29, 2021 10:30 AM Istanbul

Every week on Wed, 14 occurrence(s)

Sep 29, 2021 10:30 AM

Oct 6, 2021 10:30 AM

Oct 13, 2021 10:30 AM

Oct 20, 2021 10:30 AM

Oct 27, 2021 10:30 AM

Nov 3, 2021 10:30 AM

Nov 10, 2021 10:30 AM

Nov 17, 2021 10:30 AM

Nov 24, 2021 10:30 AM

Dec 1, 2021 10:30 AM

Dec 8, 2021 10:30 AM

Dec 15, 2021 10:30 AM

Dec 22, 2021 10:30 AM

Dec 29, 2021 10:30 AM

Please download and import the following iCalendar (.ics) files to your calendar system.

Weekly: <https://sabanciuniv.zoom.us/meeting/tJAsd-yurDgrEtVAqQbbEDuexgifasvH1qvN/ics?icsToken=98tyKuCsrszvHNaWsRGGRowlBYigZ-7zpnZcj7drvQ7UASJ2RhbzLuVLNLSBvCB>

Join Zoom Meeting

<https://sabanciuniv.zoom.us/j/94105623181>

Meeting ID: 941 0562 3181

Passcode: PSY350

Meeting ID: 941 0562 3181

Email: nihanalp@sabanciuniv.edu

Office Hour and email policies: Asking questions is a key concept in science and questions you have are generally questions others will have, therefore don't be shy, and please share them in the class. You can also e-mail me your questions or just join the zoom link. As we will have to manage a hybrid course setting this time, it will be important for you to attend the course and use office hours. **Please inform me if you would like to join office hours and email your questions to TA prior so that we can use the time efficiently.**

What do I expect from you in the class?

Expectations of students: I expect you to:

- Keep up with the material covered every week
- Be physically/mentally present in the classroom
- Participate actively and courteously in discussion sessions in the class
- Be there on time. Ask questions, don't be shy. Think critically & discuss.
- Abide by the standards of academic honesty
- Ask questions and seek help (from instructor and TAs) when something is not clear.

- Make an appointment for office hours.
- Send your questions to TA before joining the office hour to use the time efficiently
- Enjoy learning about the mammalian nervous system!

Announcements:

- Check the course’s SUCourse page regularly for announcements, information about exams and review sessions, grades, and changes to the schedule. **You are responsible for finding out about this information.**

Structure of the course: Lectures will be held in the class and I expect everyone to be physically present in the class. The classroom is big enough to follow the COVID 19 regulations. Students will sit 1.5m away from each other and everyone will always wear a mask. There is no one coursebook. There will be occasional readings on some topics from chapters of the science books and some journal articles. The course is organized into 3 modules. The first two modules will have a separate examination at the end. The 3rd exam will be cumulative.

WEEK	TOPIC	READING ASSIGNMENTS
1	Introduction	CHAPTER 1 <i>Neuroscience -Exploring the Brain 3rd Edition</i> https://www.visionlearning.com/en/library/Inside-Science/58/Santiago-Ram%c3%b3n-y-Cajal-and-Camillo-Golgi/233
2	The Anatomy of the Nervous System	Chapter 2 <i>Neuroscience -Exploring the Brain 3rd Edition</i>
3	Neural Conduction and Synaptic Transmission	Chapter 3&4 <i>Neuroscience -Exploring the Brain 3rd Edition</i>
4	Structure and Function of the Brain	Chapter 7 <i>Neuroscience -Exploring the Brain 3rd Edition</i>
5	Measurement Methods in Neuroscience fMRI, EEG, TMS, patch clamp, etc.	What we can do and what we cannot do with fMRI (Logothetis, 2008) The steady-state visual evoked potential in vision research: A review (Norcia et. al. 2015)
6	Exam1	Note that all exams will be held face-to-face
7	The Eye	Chapter 9 <i>Neuroscience -Exploring the Brain 3rd Edition</i>

8	The Central Visual System	Chapter 10 <i>Neuroscience -Exploring the Brain 3rd Edition</i>
9	Do Mirror Neurons Exist?	Rizzolatti et al., Nature Reviews Neuroscience 2, 661-670 (2001) Umiltà et al.: I know what you are doing http://psych.colorado.edu/~kimlab/Rizzolatti.annurev.neuro.2004.pdf Calvo-Merino et al., Cerebral Cortex (2005) Chong et al., (2008) Lingnau, Gesiericha, & Caramazza, (2009)
10	Sleep and Biological Rhythms	Chapter 8 Foundations of Behavioral Neuroscience, Ninth Edition. Neil R. Carlson.
11	Learning and Memory	Chapter 12 Foundations of Behavioral Neuroscience, Ninth Edition. Neil R. Carlson.
12	Attention	CHAPTER 21 <i>Neuroscience -Exploring the Brain 3rd Edition</i>
13	Exam2	Note that all exams will be held face-to-face
14	Disorders	Chapter 14 Foundations of Behavioral Neuroscience, Ninth Edition. Neil R. Carlson.

Exams and Grades: There will be three exams, which may include **multiple-choice, short-answer, and essay questions**. These will cover the material presented in the lectures and the assigned readings.

When I say “short answer”, I really mean it. The correct answer is **short**. Short answer questions can be answered in a couple of sentences. There will be **only one** makeup exam **which will be given in the final week**. If you don’t have any medical report from a doctor, you are responsible for attending the exam. No other excuses will be accepted.

Make-up Exams: Do not ask me if you can have a make-up exam each midterm.

- **There will be only one make-up exam which will be given after the final exam and will include all chapters covered during the semester.**
- If you think your exam has been graded incorrectly, contact the TA and check your paper during objection hour.

Exam1 25%

Exam2 25%

Final 40% (cumulative)

5% Attendance – Being physically and mentally present in the class.

5% Group Assignment:

The best way of learning is trying to teach it to someone else. Therefore, we will form groups of 4-5 people and each week, one group will prepare an interactive learning practice for the topic covered in the previous week. Submit min 5 - max 10 pages where you explain the rules of the game and what type of specific topic knowledge it requires & how it can be solved. What are the learning outcomes of the game? When you create the game, you should of course consider the COVID 19 rules. At the end of the semester, we will have a student book of useful games that can be played in the introduction to neuroscience courses during a pandemic. At the end of each week's lecture, we will play the game, ask everyone to rate its joyfulness, and pick the most joyful one. How fun it will be will depend on your creativity!

Grade Scale: This is an example grade scale I generally follow.

A	89-100	A-	83-88				
B+	78-82	B	73-77	B-	68-72		
C+	64-67	C	60-63	C-	56-59		
D+	53-55	D	50-52	D	50-52	F	0-50

Research Points: Students can optionally serve as participants in research that is run by Sabancı University researchers. By participating in research, you can get extra credits. For this course, you will be able to earn up to 10 research points (RP) which is equal to three hours of research participation. These 10 RPs will be converted to 5 points added to your final exam grade. More information on the available research projects will be provided during the semester.

You will be able to sign up for the experiments and get your research participation credits through the online Sona system at <http://sabanciuniv.sona-systems.com>

Please, carefully read the Guide for Students: Sabancı University Experiment Credits System (Sona).

The alternative assignment will be given to those who are not willing to participate in any research. The students who choose alternative assignments may need to do different assignments based on the principal investigator (PI) of the course. You can find each study's PI on the Sona webpage for that study.

Plagiarism policy: I encourage students to work and study together whenever possible. But if you cheat on any assignment, you will receive a grade of **F** for the course.

The act of plagiarism will be considered a fraud and will not be tolerated. Please avoid academic dishonesty at all costs.

Note: The course syllabus provides a general plan for the course. We are committed to following the syllabus but there is no guarantee that we will. Altering the syllabus may also mean changing the nature or timing of exams/assignments. By continuing in the course after reading the syllabus, you are indicating that you accept the terms of the syllabus.