Introduction to Behavioral Neuroscience A 2020 – Guidelines

Originally Scheduled Time: Friday, 16:30-18:00 (5th period)

Note: ***The course has been significantly modified to adapt to online learning and schedule due to COVID-19***

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1. Objectives

Behavioral Neuroscience investigates the neural basis of behavior. Part A of this course will provide an introduction to basic neuroanatomy, neural functioning, neuroscience methods, perception, attention, and movement. The course will employ an integrative approach by discussing both research results obtained with brain imaging in humans and experiments in animal models.

2. Course structure

I will post PDF lecture slides to PANDA. The slides will contain a URL link to a youtube video where I walk through the slides. In general I will post the slides on the day specified, although this is not guaranteed. Quizzes on PANDA will test your understanding of the material, and may be completed any date up until 5 August. There is a lot of material, so I recommend pacing yourself. Finally, you will write a 2-page A4 report on an interesting topic in Neuroscience which you will research yourself. This will be submitted as PDF on PANDA by 5 August.

Date	Content
8 May	Introduction
15 May	Coarse neuroanatomy
22 May	Cells in the nervous system
29 May	Neural information processing
5 June	Neurotransmitters, Hormones
12 June	Methods & EEG recording (Long)
19 June	Vision
26 July	Audition
3 July	Touch and pain
10 July	Sensory Integration
17 July	Attention
24 July	Body Movement / Movement Planning
31 July	Feedback Period
5 August	(Wednesday) – All coursework due for grading

3. Attendance and grading

Since it is not possible to take attendance, evaluation will be entirely based on short quizzes for each lecture and a final research report. You may complete the quizzes at any time up until the final grades due date (5 August).

80%: 10 short quizzes (on PANDA)
20%: Research report (submit as PDF on PANDA)

Short Quizzes (80% – 8% each)

I will post quizzes on PANDA. They will usually be simple true/false or multiple choice questions. There will be about 10 questions each. Please take your own quizzes! You may refer to the lecture slides or videos while you take the quizzes, of course.

Research Report (20%)

You will research a topic about neuroscience related to the course and write a short (2 page A4) report about the topic. You must cite your sources (whatever format). You may include figures/images, if they are important. The purpose of this is for *you* to learn something you were curious about regarding neuroscience, which I did not cover in the course. If you are not sure if your topic is OK – ask me!

a) Choose one topic from the essay topic list or make your own. You don't have to tell me the topic before you submit the essay. Several students can choose the same topic. If the topic appears too broad for you, it is fine to focus on one aspect of the topic.

b) Write about 2-3 A4 pages on this topic. Use (reasonable) font, text size, etc. (about 11 point Arial font 1.5 spaced). You may use appropriate images/figures.

Write in your own words! Never 'copy and paste' or plagiarize! Feel free to contact me for reference literature or questions.

c) **Submit a PDF file on PANDA** by 5 August, 23:55 PM. Do not forget to put your name and the title of the topic on it.

4. Resources

1) Bear, Connors, Paradiso, 2012. Neuroscience: Exploring the brain. Lippincott. ISBN: 1451109547 (textbook not mandatory, lecture notes will be provided).

2) Kandel, Schwartz, et al., 2012. Principles of Neural Science. McGraw-Hill. ISBN: 0071390111 (textbook with more detailed information, not mandatory).