

The Hong Kong University of Science and Technology
Division of Social Science
SOSC2240 Biological Psychology
Course Syllabus
Spring Semester 2022

	Lecturer	Teaching Assistant
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Consultation	By appointment	By appointment

*Emails will be responded to during weekdays 10am to 6pm HKT.

Lecture Time: Monday and Wednesday 12:00pm-1:20pm

Venue: Room 2503 (Lift 25-26)

**The format of the course will follow University guidelines. Consistent with the other SOSC Psychology courses offered, this course will not be recorded.

Course Description

This course introduces the biological approach to psychology. Comparative studies on non-human animals and the issue of genetic inheritance of behavior will be discussed. Emphasis will be placed on key principles of human nervous system function and how they are reflected in human thought and behavior. Key topics covered include the organization of the brain, the visual system, how learning and memory occur in the brain, and the cognitive and behavioral consequences of brain injury and disease.

Intended Learning Outcomes (ILOs)

Upon completion of this course, you should be able to:

1. Describe major signaling mechanisms, structures, and pathways of the human nervous system from functional perspectives.
2. Analyze the relationship between different functional systems of the human brain and mind and behavior.
3. Analyze the implications of brain damages on cognitive and behavioral output.
4. Describe methods used in brain research and analyze their advantages and limitations.
5. Identify the limitations of the biological approach to psychology and the limitations of current knowledge about the relationship between brain activity and mental function.

Assessment Scheme

Assessment Tasks	Alignment of ILOs	Weighting
1. Tutorial Assignments	1,2,3	20%
2. Group Project Presentation	2,3,4,5	20%
3. Essay	2,3,4,5	30%
4. Quizzes	1,2,3,4,5	30%

1. Tutorial Assignment

You will have to complete two tutorial assignments. Guidelines of the assignments will be distributed on Canvas in due course.

2. Group Project Presentation

You will be randomly assigned in a team of 5-7 people to prepare a 20-minute presentation on a topic related to biological psychology. Further details and guidelines will be provided in due course. You will evaluate the contributions of fellow members towards the completion of the project using iPeer. Each person's individual grade will be adjusted based on the peer evaluation.

3. Essay

The essay requires you to synthesize an argument based on your interpretation of multiple scientific evidence on a given topic related to biological psychology. The maximum word count for the essay is 1,500 words.

4. Quizzes

There will be two quizzes in the form of multiple-choice questions and structural questions. The duration is 1 hour. Materials discussed in the lectures and tutorials are tested

- Quiz 1 covers lecture # 1-12
- Quiz 2 covers lecture #14-23

Remarks:

There will be **NO** make-up quizzes in this course. This means that if you miss a quiz, you will simply lose the number of points associated with it. Your grade will therefore be computed as if that entry was a zero. Make-up quiz will be granted only to absentees with medical condition, which is supported by a validated medical certificate. Such notes must be in the form of a written note from your doctor, attesting to the fact that on the day of the test you were too ill to attend the quiz. All make-ups consist of long answers and an oral session.

Academic Integrity

All of you are expected to observe the University's policies regarding academic integrity (<https://acadreg.ust.hk/generalreg.html#b>). Academic dishonesty such as plagiarism and cheating usually results in a reduced or failing grade in eth course. Please consult the teaching team if you are not clear about the guidelines.

Course Communication Platform

All lecture materials and announcements will be posted on CANVAS. Be sure to check CANVAS from time to time for any updated news. Interaction between the lecturer and the students is one of the key ingredients to an optimal learning experience. You can share any thoughts relevant to the course by email. These can be things you come across in your everyday life which are related to what you have learned in class.

Your Feedback

Your opinions about the course are very valuable to improve the course. A course evaluation will be held at the end of the course. You are also very much welcome to talk to the teaching team.

Suggested Textbook

Kalat, J. W. (2019). Biological psychology (13th ed.). Boston, MA, USA: Cengage.

Teaching Schedule

Lecture	Date	Topic	Task
1.	7 Feb	Introduction	
2.	9 Feb	Nerve Cells and Impulses	
3.	14 Feb		
4.	16 Feb	Synapse	
5.	21 Feb	Neuroanatomy & Neurodevelopment	
6.	23 Feb		Finalized Group List
7.	28 Feb	Research Methods	
8.	2 Mar	Tutorial 1: EEG	
9.	7 Mar	Vision	
10.	9 Mar		Tutorial Assignment 1
11.	14 Mar	Other Sensory Systems	
12.	16 Mar		
13.	21 Mar	QUIZ 1	
14.	23 Mar	Sleep and Brain Mechanism	
15.	28 Mar		
16.	30 Mar	Tutorial 2: Chronotype	
17.	4 Apr	Learning and Memory	
18.	6 Apr		Tutorial Assignment 2
19.	11 Apr	Group Project Consultation	
-	13 Apr	<i>Mid-Term Break</i>	
-	18 Apr	<i>Easter Monday</i>	
20.	20 Apr	Psychological Disorders	
21.	25 Apr		
22.	27 Apr	QUIZ 2	
-	2 May	<i>The day following the Labor Day</i>	
23.	4 May	Group Project and Q & A Sessions	
	9 May	<i>The day following the birthday of the Buddha</i>	
24.	11 May	Group Project and Q & A Sessions	
-	13 May		Essay