

Course Code	HP2200
Course Title	Biological Psychology
Pre-requisites	HP1000 Introduction to Psychology, HP1100 Fundamentals of Social Science Research or CS2008 Fundamentals of Research (Applicable to PSMA)
No of AUs	3 AUs

Course Aims

The main objective of psychology is to understand how our minds work and apply it to issues in reality. The aim of this course is to gain the basic knowledge of biological mechanisms underlying our minds and to associate it with human abilities such as perceiving and recognizing objects, moving our limbs, and inferring other's mental states. Throughout this course, you will benefit from learning the structure and function of our nervous system. Moreover, this course provides training on interdisciplinary synthesis and disciplinary depth.

This course is in deep connection with other key courses of the program such as Introduction to Psychology, Cognitive Psychology, Social Cognition, Developmental Psychology, and Human Motivation. The course complements these courses by understanding the contents in these courses in biological perspective.

Intended Learning Outcomes (ILO)

By the end of this course, you (as a student) would be able to:

- 1) explain how our mind is associated with the nervous system in biological perspective
- 2) explain how biological psychology contributes to our life from drugs to new technologies
- 3) explain why behaviors of some individuals (e.g., patients with neurological disorders) are different from the other in biological perspective

Course Content

The course content includes the anatomy and functions of the nervous system supporting our behavior. More specifically, it includes the function of neurons, anatomy of the nervous system, the mechanism underlying our senses and motor control, how our nervous system is formed, how the nervous system can flexibly change its organization, sleep, sexual behavior, emotion, learning, and memory. Finally, the students will learn the basics of techniques that measure brain activity.

Assessment (includes both continuous and summative assessment)

Component	Course LO Tested	Related Programme LO or Graduate Attributes	Weighting	Team/Individual
1. Individual Report	1, 2, 3	Competence, communication, creativity	35%	Individual
2. Final Video Presentation	1, 2, 3	Communication, Civic-mindedness, Collaboration, Creativity & Competence.	30%	Group
3. Continual Evaluation – Quiz (CE)	2, 3	Competence	35%	Individual
Total			100%	

1. Individual Report:

The individual report is short 2-page essay focusing on the application of any one research methodology covered in this course to study a specific mental function. This component is meant to help the student synthesize what they have learnt in this course. This component will emphasize the ability to evaluate and synthesize information, and the ability to present concise and coherent writing. The main purpose of this component is to provide opportunities on academic writing and further training on critical thinking skills.

2. Final Video Presentation:

The final video presentation is a 5-minute group presentation, with a maximum of 10 students per group. The video presentation will be scored by the instructors of the course (see Appendix B for the rubrics). The video presentation will be conducted in a competition format online, where the best performing group (voted by the undergraduate peers) will be awarded with a surprise gift.

3. Continual Evaluation – Quiz (CE):

Five CEs are scheduled to facilitate students' learning in a timely fashion, from which the scores from the best 4 weeks will be used for the final grade calculation. The CE each week will cover the materials from textbook, lectures (e.g., supplementary topics, short videos, and demonstration activities). The CE is to evaluate the student's learning and understanding of textbook and lecture materials on a weekly basis.

Formative feedback

Students will be able to receive feedback and check on their progress in several ways: (1) Students can receive their CE results, and evaluate their progress and performance by comparing their relative standing to their peers; (2) Students can review their CE results and discuss their answers and areas for improvement with the instructor; (3) Students may make individual appointments with the instructor to receive feedback on their performance and discuss their understanding of the course materials. General feedback on students' performance will be provided to all students.

Learning and Teaching approach

Approach	How does this approach support students in achieving the learning outcomes?
Lecture	Students learn how to recognize the essential clinical features and associated characteristics of various psychological disorders, their causes, and common treatment approaches on the basis of different theoretical frameworks, including neurobiological, behavioral, cognitive, and socio-cultural perspectives.
Illustrative teaching videos	To demonstrate realistic depictions of psychological disorders, highlight critical issues, and illuminate potential controversies, short videos, each approximately 3 to 6 minutes, are selected and shown during the lectures throughout the semester. These short videos also encourage students' critical thinking of the topics in discussion. Complementary to the classroom lectures and verbal presentations, these videos portray how real individuals may experience psychological disorders, how they may behave, and how experts

	discuss related concepts and controversies. They facilitate students' understanding of course materials, promote critical thinking, and demonstrate the relevance of the concepts taught in classroom to everyday life.
Online-based interactive system	The main issue of this course is individual differences in knowledge of biology and critical thinking. Some students have difficulty in understanding some concepts, while other students are bored of hearing what they already know (e.g., genetics and epigenetics). Thus, it is important to accommodate the needs of students who have difficulty in understanding the lecture and who want to know more beyond the lecture. In order to address this, you can ask your questions (e.g., what was unclear in the lecture) in the ntulearn forum at the end of the lecture. The school coordinator answers your questions by either sending emails to them and/or providing additional video lecture to meet your demands. This system worked very well in the past version of the course.

Reading and References

Kalat, J.W. (2019). *Biological Psychology, 13th Ed.* Cengage (or more recent editions).

Course Policies and Student Responsibilities

(1) General Policies

Students are expected to complete all assigned readings, attend all lectures punctually, take all scheduled tests, and complete all assignments and tests by due dates. Students are expected to take responsibility to follow up with course notes, assignments, and course related announcements for lectures that they have missed. Students are expected to participate in lectures and discuss board activities.

(2) Continual Evaluation (CE)

The CE will cover the textbook and supplementary materials from lectures (e.g., short videos and class activities and demonstrations). There is no make-up CE.

(3) Individual Report and Group Video Presentation

The report and group video presentation will cover textbook and lecture materials in an applied fashion. Individual contribution will be peer reviewed. (See Appendix C).

(4) Classroom Etiquette

Students should be considerate and conscious of classroom etiquette (e.g., no cell phones, internet surfing, sleeping, personal conversations, and other distractions). They should be on time, silence your cell phone except for emergency calls, and refrain from surfing the web, texting, checking email, and engaging in online chatting and social networking, etc. If students have questions regarding the lecture material, they should feel free to raise their hands and speak loudly so that others may also hear the questions.

(5) Absenteeism

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. If the student misses a lecture, he/she should inform the course instructor via email prior to the start of the class.

Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, and collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Planned Weekly Schedule

Week	Topic	Course LO	Readings/ Activities
1	Course introduction and Neurons	ILO1, 2, 3	Course documents (slides) and Chapter 1 of the textbook
2	Neural signals and synapses	ILO1, 2, 3	Course documents (slides) and Chapter 1 and 2
3	Brain Anatomy and Research Methods Quiz 1	ILO1, 2, 3	Course documents (slides) and Chapter 3
4	Genetics, Evolution, Development and Plasticity	ILO1, 2, 3	Course documents (slides) and Chapter 4
5	Vision Quiz 2	ILO1, 2, 3	Course documents (slides) and Chapter 5
6	Non-visual senses	ILO1, 2, 3	Course documents (slides) and Chapter 6
7	Movement Individual Report Due	ILO1, 2, 3	Course documents (slides) and Chapter 7
8	Wakefulness & Sleep Quiz 3	ILO1, 2, 3	Course documents (slides) and Chapter 8
9	Sexual Behavior	ILO1, 2, 3	Course documents (slides) and Chapter 10
10	Emotion Quiz 4	ILO1, 2, 3	Course documents (slides) and Chapter 11
11	Learning and Memory Quiz 5	ILO1, 2, 3	Course documents (slides) and Chapter 12

12	Cognitive Functions, Abnormal behaviors Video Clip Due	ILO1, 2, 3	Course documents (slides) and Chapter 13
13	Feedbacks on Assignments and Group Discussion	ILO1, 2, 3	Course documents (slides)