

Degree programme	Type	Course
Psychology	OP	4

Contact lecturer

Name : Marta Portero Tresserra

Email : marta.portero@uab.cat

Teaching staff

Soleil Garcia Brito

Marta Portero Tresserra

Group languages

You can consult this information at the [end](#) of the document.

Prerequisites

Previous basic knowledge in Psychobiology is advisable

Objectives

This course is intended for students with previous training in Psychobiology and provides an integrative view of the evolution of the human brain and of cognitive, emotional, and social processes from an evolutionary neuroscience perspective. The course examines how phylogenesis and ontogenesis have shaped the nervous system, as well as how genetic and environmental factors interact throughout brain development and neuroplasticity.

Unlike previous courses in Physiological Psychology, which primarily focus on the neurobiological mechanisms underlying behaviour, this course emphasizes why these mechanisms evolved, the selective pressures that shaped them, and how an evolutionary perspective contributes to a better understanding of human behaviour.

The course explores the evolution of human cognition, including intelligence, learning, language, higher cognitive functions, the social brain, emotions, and consciousness. It also examines how evolutionary theory helps explain key aspects of human behaviour, such as cognitive biases, mental health, and the adaptation of the human brain to the challenges of the modern world. Sex- and gender-related differences are addressed as a cross-cutting theme throughout the course.

Learning outcomes

1. Identify and describe the nature of intelligence and the different types.

2. Identify, describe and relate the evolution of the brain to psychological processes and intelligence.
3. Identify and describe the main taxonomies for living beings and their phylogenetic evolution, especially those related to primitives and hominids.
4. Identify and describe the main taxonomies for living beings and their phylogenetic evolution, especially those related to primitives and hominids.
5. Describe the main nerve-, ecological and social-related factors that have conditioned the evolution and development of the nervous systems and intelligence of human beings, especially primates.
6. Relate the anatomical and functional development of the nervous system with different cognitive and behavioral capacities of animals and humans.
7. Describe the way in which natural and sexual selection operate to establish priorities and adaptive behaviours for organisms.
8. Analyse, synthesize and summarise information from scientific and professional texts.
9. Handle scientific documentation systems.
10. Plan a literature search or references, both computerized databases and libraries and newspaper archives.
11. Analyse scientific texts written in English.

Contents

Topic 1. Brain Evolution

1. History of evolutionary theory.
2. Principles of biological evolution.
3. Evolution of the nervous system.
4. Phylogenesis of the human brain.

Topic 2. Brain Development

1. Ontogenesis and Evo-Devo.
2. Gene-environment interactions.
3. Neuroplasticity.
4. Sensitive periods of development.

Topic 3. Evolution of Human Cognition

1. Evolution of intelligence.
2. Heritability of intelligence.
3. Evolution of learning.
4. Evolution of higher cognitive functions.
5. Evolution of language.
6. The social brain.
7. Evolution of emotions.
8. Evolution of consciousness.

Topic 4. Evolutionary Perspectives on Human Behaviour

1. Evolutionary adaptations and human behaviour.
2. Cognitive biases from an evolutionary perspective.
3. Evolution and mental health.
4. The human brain in the modern world.

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Presentations and discussions in class by the students on specific issues of the course.	11.5	0.46	
Lecturing by the course teacher, presentations, seminars and debates in the class	36	1.44	
Information search and critical reading of the core course materials (recommended textbooks, scientific journal articles, etc.). Consultation of supplementary materials (videos, articles, websites). Study of the course contents.	98.83	3.953	

Lectures.

Seminar sessions (EV4).

Student presentations and class discussions on specific course topics (EV3).

Information search and critical reading of the core course materials (recommended textbooks, scientific journal articles, etc.).

Consultation of supplementary materials (videos, articles, websites).

Study of the course contents (preparation of outlines, concept maps, summaries, etc.).

Completion of individual written assessments (EV1 and EV2).

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
EV4. Submission of Seminar Activities.	15%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
EV2. Face to face, individual written examination on the contents of the second part of the module	35%	1.5	0.06	1, 2, 3, 4, 5, 6
EV3. Group, oral presentation (15 minutes) of a subject related to the program of the course (November 19th and 20th)	15%	0.67	0.027	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
EV1. Face to face, individual, written exam on the contents of the first part of the module	35%	1.5	0.06	1, 3, 4, 5, 6, 7

The course evaluation consists of 4 learning outcomes:

EV1. Face-to-face, individual, written exam on the contents of the first part of the course (Weight: 35%). First

week of assessments

EV2. Face-to-face, individual, written exam on the contents of the second part of the course (Weight: 35%).
Second week of assessments

EV3. Oral presentation by groups on a topic related to the course program (Weight: 15%). Week 11 and/or 13

EV4. Attendance at seminars (15%). Weeks 2, 5, 7, 11, 13 and 15.

Evidence return:

EV1: Week 10, in class after proofreading.

EV2: Week 19 or 20 in tutorials after proofreading and before the recovery period.

EV3: Week 11 and/or week 13, with proofreading and feedback in class after each presentation.

EV4: Throughout the course, with feedback in the Moodle and during the class.

Definition of a passed subject and calculation of the final grade. A student is considered to have passed the subject when they meet the following two conditions:

a) They have obtained a minimum grade of 5 points (out of 10) in the subject.

b) They have obtained a minimum score of 4 points (out of 10) in the evidence that represents an overall weight equal to or greater than 20% of the subject. In the event that this requirement is not met, the maximum possible grade will be 4.5 points (out of 10).

In the event that condition b is met, the calculation of the final grade will be made using the weighted sum of the learning evidence:

Final mark = $EV1 \cdot 0.35 + EV2 \cdot 0.35 + EV3 \cdot 0.15 + EV4 \cdot 0.15$

In case of not achieving condition b), the final grade will be 4.5 points out of 10.

A student who has completed evidence of learning with a weight of less than 40% will be recorded as "Not assessable".

This course does not offer the option of taking a synthesis assessment.

Retake

- Students who do not meet criterion b) will have the option of taking a retake test of the specific evidence(s).
- Students who have met criterion b), but obtain a grade of less than 5 in the final mark of the module, and have a minimum grade of 4 points in the subject, may take a retake exam consisting of an individual written test of the evidence with the lowest score. The grade resulting from this exam will replace the grade of the corresponding evidence.
- The calculation of the final grade will be done as described in the section "Definition of a passed subject and calculation of the final grade", with the difference that in the case of passing the subject the grade that will be recorded in the academic record will be a 5.

The assessment guidelines of the Faculty of Psychology for the 2026-2027 academic year can be consulted at this link: <https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html>

Bibliography

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- Sapolsky, R. M. (2017). *Behave: The Biology of Humans at Our Best and Worst*. New York: Penguin Press.
- Tomasello, M. (2019). *Becoming Human: A Theory of Ontogeny*. Cambridge, MA: Harvard University Press.

Software

Use of Artificial Intelligence (AI) Technologies

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of the development of coursework, provided that the final submission reflects a substantial contribution by the student in terms of analysis and personal reflection. Students must clearly identify which parts have been generated using AI, specify the tools used, and include a critical reflection on how these technologies have influenced both the process and the final outcome of the assignment. Failure to disclose the use of AI will be considered a breach of academic integrity and may result in a reduction of the assignment grade or more severe disciplinary sanctions in cases of serious misconduct.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	1	English	first semester	morning-mixed
(PAUL) Classroom practices	11	English	first semester	morning-mixed