

2023/2024

Intelligence and Cognitive Processes

Code: 102597 ECTS Credits: 6

Degree	Туре	Year	Semester
2502443 Psychology	ОТ	4	2

Contact

Name: Antoni Castelló Tarrida

Email: toni.castello@uab.cat

Teaching groups languages

You can check it through this <u>link</u>. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Prerequisites

No requirements.

Objectives and Contextualisation

Knowledge about the way people create asnd operate with representations is the basis for explaning human mental activity. A number of large processes (such as learning, comprehension, resoning or decision making) sustain on representations and operations involving representations. Hence the goals of this course are related with the understanding of human cognitive system, which supports representations managing as well as the ways the cognitive system operates. The goals include a description of intelligence's physical bases and their articulation in useful cognitive functions, which integrate brain's resources with cultural instruments. The course contents will permit the analysis and explaniation of outstanding human cognitive activities, understanding their general mechanisms and the variety of instances they may display.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Actively participate in the formulation of social, professional and ethical rules in activities related to the profession.
- Analyse scientific texts written in English.
- Apply knowledge, skills and acquired values critically, reflexively and creatively.
- Define objectives and develop the intervention plan based on the purpose of the (prevention, treatment, rehabilitation, integration, support).

- Distinguish and relate the different focuses and theoretical traditions that have contributed to the historical development of psychology as well as its influence on the production of knowledge and professional practice.
- Evaluate, contrast and take decision on the choice of adequate methods and instruments for each situation and evaluation context.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Recognise and evaluate the procedures and techniques applied to the construction and adaptation of the instruments of evaluation in psychology.
- Show respect and discretion in communication and the use of the results of psychological assessments and interventions.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Use adequate tools for communication.
- Use different ICTs for different purposes.
- Work in a team.

Learning Outcomes

- 1. Actively participate in the formulation of social, professional and ethical rules in activities related to the profession.
- 2. Analyse a situation and identify its points for improvement.
- 3. Analyse scientific texts written in English.
- 4. Analyse the sex- or gender-based inequalities and the gender biases present in one's own area of knowledge.
- 5. Analyse the sustainability indicators of the academic and professional activities in this field, integrating the social, economic and/or environmental dimensions.
- 6. Apply knowledge, skills and acquired values critically, reflexively and creatively.
- 7. Assess how stereotypes and gender roles impact professional practice.
- 8. Assess the impact of the difficulties, prejudices and discriminations that actions or projects may involve, in the short or long term, in relation to certain persons or groups.
- 9. Communicate in an inclusive manner avoiding the use of sexist or discriminatory language.
- 10. Create instruments for cognitive and intellectual diagnosis and analysis.
- 11. Create instruments for diagnosis and analysis of the individual differences in intelligence and knowledge structures.
- 12. Critically analyse the principles, values and procedures that govern the exercise of the profession.
- 13. Design plans for the optimisation of cognitive functioning for each representational profile.
- 14. Differentiate between the different psychoeducational models for explaining teaching quality and the individual differences in school learning.
- 15. Effectively communicate the result of an intellectual evaluation using psychometric instruments.
- 16. Identify situations in which a change or improvement is needed.
- 17. Identify the principal forms of sex- or gender-based inequality and discrimination present in society.
- 18. Identify the social, economic and/or environmental implications of academic and professional activities in the area of your knowledge.
- 19. Make adequate use of instruments of exploration for the analysis of cognitive processes.
- 20. Propose new experience-based methods or alternative solutions.
- 21. Propose new ways of measuring the viability, success or failure of the implementation of innovative proposals or ideas.
- 22. Propose viable projects and actions to boost social, economic and/or environmental benefits.
- 23. Propose ways to evaluate projects and actions for improving sustainability.
- 24. Select adequate measuring instruments for cognition analysis.
- 25. Select and properly use exploratory instruments for the analysis of formal and non-formal education.
- 26. Select the appropriate exploratory instruments for analysing individual differences in school learning.
- 27. Use adequate tools for communication.
- 28. Use different ICTs for different purposes.
- 29. Work in a team.

Content

- 01. Representations and intelligence
- 02. Cognitive systems. Physical and functional architectures
- 03. Biological dimensions of human cognition
- 04. Cultural dimensions of human cognition
- 05. Objects representation and cognitive products
- 06. Distributed cognition
- 07. Learning and knowledge structures
- 08. Reasoning, problem solving and contextual interactions
- 09. Diachronic dimensions: cognition in the life-span
- 10. Cognitive bases of competences
- 11. Variability and exceptional cognitive configurations
- A. Intellectual measurement instruments (I)
- B. Intellectual measurement instruments (II) and situated measures
- C. Profile analysis
- D. Measurement of knowledge structures
- E. Analysis of competences

Contents numerically indexed correspond to theoretical lectures and encompass the main body of the course. Those indexed with letters refer to practical lessons where applied issues are considered.

Methodology

Teaching method is based in five general approaches:

(1) Lessons conducted by the professor, where the main contents are presented an discussed.

- (2) Lessons devoted to case-analysis and applications, where the stdent has an active role under supervision.
- (3) Sessions addressed to contact instruments and measurement procedures, where students are supervised.

(4) Sessions of reading, documenting an reflexion, developed by students themselves with ensuant feedback on their work.

(5) Sessions of individualized advise addressed to follow-up individual tasks and knowledge optimisation.

All programmed activities meet one or more of the described methodological approaches and also include testing procedures which serve as continuos evaluation of the contents taught.

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Conducted	36	1.44	12, 5, 4, 3, 2, 6, 9, 14, 18, 17, 16, 1, 23, 20, 21, 22, 26, 25, 29, 28, 27, 7, 8
Type: Supervised			
Supervised	24	0.96	12, 5, 4, 3, 2, 6, 9, 14, 18, 17, 16, 1, 23, 20, 21, 22, 26, 25, 29, 28, 27, 7, 8
Type: Autonomous			
Autonomous	90	3.6	12, 5, 4, 3, 2, 6, 9, 18, 17, 16, 23, 20, 21, 22, 26, 25, 29, 28, 27, 7, 8

Assessment

Activities 1 to 4 make up the grade for the course. To pass the course, the sum of the activities carried out must give a minimum grade of 5. All the activities can be carried out individually or in groups, but will be presented individually online.

The person who has carried out activities whose weight in the evaluation of the subject is less than 40% will be considered NON-ASSESSABLE. If activities have been carried out that would allow you to reach 66% or more of the maximum mark and the minimum mark of 5 has not been reached, you can access a make-up exam in which the activities not submitted will be carried out again as well as some of the activities presented that have obtained a low result. The recovery process allows access to a maximum grade of 8.5.

It is not expected that second or later matriculation students will be assessed by means of a non-retrievable synthesis test.

SINGLEASSESSMENT

Students who opt for the single assessment option waive continuous assessment and will be assessed for all the course's content in a single assessment, which will take place on week 19. This evaluation act will consist of the same activities included inthe continuous evaluation, with the same percentages on the grade (see continuous evaluation table), carried out consecutively. The duration of the same will be: (1) Questions about the notes: 1 hour; (2) Concept map: 2 hours; (3) Generation of own examples: 1 hour; (4) List link: 1 hour. To carry out the tasks, the class-notes and corse's materials will be available. The conditions for passing the subject and eventual recovery for students taking the single assessment will be the same as those for students taking the continuous assessment.

General directions about the evaluation norms in Psychology Faculty can be found at: https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html

Assessment Activities

A. Questions on class-notes (week 6)	25%	0	0	12, 5, 4, 3, 2, 6, 9, 15, 14, 18, 17, 16, 1, 23, 20, 21, 22, 26, 25, 29, 28, 27, 7, 8
B. Conceptual map (week 10)	25%	0	0	12, 5, 4, 3, 2, 6, 9, 15, 13, 14, 10, 11, 18, 17, 16, 1, 23, 20, 21, 22, 26, 25, 29, 28, 27, 7, 8
C. Examples (week 14)	25%	0	0	12, 5, 4, 3, 2, 6, 9, 13, 14, 18, 17, 16, 1, 23, 20, 21, 22, 26, 24, 25, 29, 28, 27, 7, 8
D. List-Link (week 17)	25%	0	0	12, 5, 4, 3, 2, 9, 14, 10, 11, 18, 17, 16, 23, 20, 21, 22, 26, 25, 19, 28, 27, 7, 8

Bibliography

COMPLEMENTARY READINGS

SMITH, E.E. y KOSSLYN, S.M. (2007). Cognitive Psychology: mind and brain. London: Pearson Educations, publishing as Prentice Hall.

CASTELLÓ, A. (2001). Inteligencias. Una integración multidisciplinaria. Barcelona: Masson.

CASTELLÓ, A. (2002). La inteligencia en acción. Barcelona: Masson.

Software

Will be provided through the CampusVirtual website.