UAB
Universitat Autònoma de Barcelona

Intelligence and Cognitive Processes

Code: 102597
ECTS Credits: 6

2025/2026

Degree	Type	Year
Psychology	OT	4

Contact

Name: Carolina María Guzmán Valenzuela
Email: carolina.guzman@uab.cat

Teaching groups languages

You can view this information at the end of this document.

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

Block 1. Introduction to Intelligence and Cognitive Processes
Block 2. Models of Intelligence
Block 3. Basic Cognitive Processes and Neuroscience
Block 4. Emotional and Social Intelligence
Block 5. Assessment and Ethics in Intelligence

The contents that will be presented in the lectures will define the theoretical body of the course. The practical approaches, contacting instruments a practical applications by students, will be supervised by the professor.

Activities and Methodology

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	21	0.84	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

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes

Ev1 Oral presentation in teams, in person (week 10-16)	30	1.5	0.06	5, 4, 2, 9, 15, 14, 11, 1, 23, 21, 25, 29, 19, 28, 8
Ev2 Test of contents (written) (week 19 or 20)	30	1.5	0.06	12, 3, 6, 13, 10, 18, 17, 16, 20, 22, 24, 26, 27, 7
Ev3 Practical lessons' report (last week of classes)	40	0	0	12, 5, 3, 2, 6, 9, 15, 13, 14, 10, 11, 18, 16, 23, 20, 21, 22, 24, 26, 25, 29, 19, 28

To pass the course, the sum of the grades from activities Ev1, Ev2, and Ev3 must be 5.0 or higher, regardless of whether any of the individual activities fall below this value.

A person will be considered as NOT EVALUABLE if they have completed activities whose weight in the course's evaluation is less than 40%. If activities that would allow reaching 66% or more of the maximum grade have been completed but the minimum grade of 5.0 has not been achieved, the student may access a resit exam. In this exam, the activities not submitted will be redone, along with any submitted activities that received a low result. The resit allows access to a maximum grade of 8.5.

It is not expected that students on their second or subsequent enrollment will be assessed by means of a non-recoverable synthesis test.

Single Assessment

Students who opt for the single assessment waive continuous assessment and will be evaluated on all course content in a single assessment act, which will take place in week 19.

This assessment act will consist of the same activities included in the continuous assessment, with the same percentages towards the grade (see continuous assessment table), performed consecutively. Their duration will be: Ev1: 1.5 hours; Ev2: 1.5 hours.

The conditions for passing the course and eventual resit for students who opt for the single assessment will be the same as for students following continuous assessment.

THE SINGLE ASSESSMENT IS REQUESTED ONLINE (E-FORM) DURING THE SPECIFIC PERIOD (more information on the Faculty's website).

The assessment regulations of the Faculty of Psychology can be found at:
https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html

OTHER INFORMATION:

Assessment feedback: In the classroom. Ev1: week 16. Ev2: week 20. Ev3: last week of classes.

The deadline for requesting the translation of assessment tests in those foreseen cases willbe governed by the academic regulations.

The submission of the translation of in-person assessment tests will take place if the requirements established in article 263 are met and the request is made electronically (e-form) in week 4 (more information on the Faculty's website).

Artificial Intelligence: In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of the work's development, provided that the final result reflects a significant contribution from the student in the analysis and personal reflection. The student must clearly identify which parts have been generated with this technology, specify the tools used, and include a critical reflection on how these have influenced the process and the final outcome of the activity. Lack of transparency in the use of AI will be considered a breach of academic honesty and may result in a penalty on the activity's grade, or more severe sanctions in serious cases.

Bibliography

Amador, J. A. (2013). Escala de inteligencia de Wechsler para adultos-IV (WAIS-IV). (Documento de Trabajo).

Colom, R., & Álvarez-Linera, J. (2015). Inteligencia. En D. Díaz Méndez & J. M. Latorre Postigo (Eds.), *Psicología Médica* (pp. 157-184). Elsevier.

Córdoba Navas, D. (2018). *Desarrollo cognitivo, sensorial, motor y psicomotor en la infancia:* (2 ed.). IC Editorial. https://elibro.net/es/lc/uab/titulos/113433. Capítulos 2-3.

Cuesta Gómez, J. L., & Ortega Camarero, M. T. (2019). Discapacidad intelectual: una interpretación en el marco del modelo social de la discapacidad. *Controversias y Concurrencias Latinoamericanas*, *10*(18), 85-106.

Martín, R. D. (2017). El trastorno por déficit de atención e hiperactividad (tdah). La preocupación de las familias de afectados y la necesidad de ampliar conocimientos de los profesionales de la educación. *Cuestiones pedagógicas. Revista de Ciencias de la Educación*, (26), 97-110.

Molero, P. P., Zurita-Ortega, F., Chacón-Cuberos, R., Castro-Sánchez, M., Ramírez-Granizo, I., & Valero, G. G. (2020). La inteligencia emocional en el ámbito educativo: un meta-análisis. *Anales de Psicología/Annals of Psychology*, *36*(1), 84-91.

Muñoz Cantero, J. M., & Fernández Ríos, L. (2019). Discapacidad intelectual: Una interpretación en el marco del modelo social de la discapacidad. *Siglo Cero, 50*(3), 79-97. https://doi.org/10.14201/scero20195037997

Redolar Ripoll, D. (2015). Neurociencia cognitiva. QUITO/UIDE/2015. (sección 4).

Wechsler, D. (2012). *Escala de inteligencia de Wechsler para adultos-IV (WAIS-IV): Manual técnico y de interpretación.* Pearson Clinical & Talent Assessment.

Wechsler, D. (2012). *Escala de inteligencia de Wechsler para adultos-IV (WAIS-IV): Manual de aplicación y corrección.* Pearson Clinical & Talent Assessment.

Software

If convenient, it will be provided through the CampusVirtual website.

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	11	Spanish	second semester	morning-mixed
(TE) Theory	1	Spanish	second semester	morning-mixed