



Universitat de Lleida

DEGREE CURRICULUM  
**INTRODUCTION TO  
NEUROPSYCHOLOGY**

Coordination: ARQUE FUSTE, GLORIA

Academic year 2022-23

Subject's general information

<b>Subject name</b>	INTRODUCTION TO NEUROPSYCHOLOGY		
<b>Code</b>	102922		
<b>Semester</b>	2nd Q(SEMESTER) CONTINUED EVALUATION		
<b>Typology</b>	<b>Degree</b>	<b>Course</b>	<b>Character</b>
	Bachelor's Degree in Psychology	4	OPTIONAL
	Master's Degree in Neuropsychology		COMPLEMENTARY TRAINING
<b>Modality</b>			Attendance-based
<b>Modality</b>			Blended learning
<b>Course number of credits (ECTS)</b>	6		
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRAULA	TEORIA
	<b>Number of credits</b>	1.8	4.2
	<b>Number of groups</b>	1	1
<b>Coordination</b>	ARQUE FUSTE, GLORIA		
<b>Department</b>	PSICOLOGIA		
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.		
<b>Language</b>	Catalan, Spanish and English (class materials)		

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ARQUE FUSTE, GLORIA	gloria.arque@udl.cat	4,2	
CAMPANERA REIG, SILVIA	silvia.campanera@udl.cat	1,8	

## Subject's extra information

It is recommended that the student has previously passed the related subjects, with special attention to the subjects Psychobiology of Human Development (102900), Structure and Function of the Nervous System (102901), and Neuroscience and Behavior (102911). Finally, it is recommended that students attend and follow the classes.

## Learning objectives

The subject has as its main goal the knowledge of the aspects applied to the study of the relationship between the brain and behaviour, and of the pathology produced by brain injuries, with special emphasis on the knowledge concerning the assessment methods in the field of Neuropsychology. In this context, the subject sets the following goals for the student:

1. To know and analyze the basic purposes of Neuropsychology, and identify the similarities and differences between this discipline and others belonging to the field of Psychobiology.
2. To analyze the main fields of action and intervention of the neuropsychologist, both in relation to basic research and in the clinical field.
3. To identify which people are susceptible to be assisted by a professional expert in Neuropsychology.
4. To know the main neurological disorders that can produce an alteration in behaviour and/or higher mental functions.
5. To know which are brain mechanisms involved in the appearance of cognitive disorders.
6. To study the main neuropsychological disorders, understanding their most relevant symptomatology and the injuries that can produce them.
7. To know the assessment strategies and tools that are appropriate for each particular neuropsychological disorder.
8. To identify the basic principles of the neuropsychological assessment and intervention procedure and the most commonly used tools in this field, according to each situation or context.
9. To elaborate reports based on critical thinking and to formulate oral and written feedback on the results of neuropsychological evaluation.

At the end of the course, the student should be able to:

- Know the essential methodological tools and techniques for the study and understanding of the biological bases of human behaviour.
- Explain cognitive processes, the biological structures that support them, and the psychological mechanisms that organize them.
- Describe and measure cognitive variables and processes.
- Identify differences, problems, and needs referring to the cognitive processes involved.
- Establish relationships between higher cognitive processes and other cognitive processes, and critically analyze contexts in which neuropsychological processes are involved.
- Elaborate reports referred to research and evaluation problems related to neuropsychological processes.

In general, the student should demonstrate theoretical knowledge about the functioning of the brain and the

foundations of Neuropsychology. In addition, he/she will be able to elaborate an adequate neuropsychological exploration plan to be able to draw up a diagnostic hypothesis based on evidence and carry out a neuropsychological type of exploration adapted to the age and clinical typology of the patient.

## Competences

### Basic skills:

BS1 Possessing and understanding knowledge in an area of study that starts from the basis of general secondary education, and is usually at a level that, while supported by advanced textbooks, also includes some aspects involving knowledge from the cutting edge of their field of study.

BS3 Ability to gather and interpret relevant data (usually within their area of study) in order to make judgements that include reflection on relevant social, scientific or ethical issues.

BS4 Be able to convey information, ideas, problems and solutions to both specialized and non-specialized audiences.

### General skills:

GS4 Recognising the different theoretical perspectives on the topics on which they work, commenting on the conclusions and making decisions.

GS5 Demonstrate critical ability to make relevant decisions.

GS8 Identify and evaluate one's own competencies, skills and knowledge according to the standards of the profession.

### Specific skills:

SS1 Identify and analyse the characteristics and needs of individuals, groups and organizations, as well as the contexts relevant to the service requested.

SS3 Apply information collection techniques, obtain relevant data for the evaluation of psychological programs and/or psychological interventions.

SS4 Analyze and interpret the results of psychological assessment.

SS5 Design and apply a psychological intervention strategy, according to the context or service requested.

SS7 Provide information to users and establish an appropriate interpersonal relationship, taking into account the different contexts of professional relationships.

SS8 Prepare technical reports, both oral and written, on the results of the evaluation process, research or services demanded, respecting the ethical commitment required for the communication of psychological knowledge.

SS9 Use the different documentary sources in psychology, show mastery of the necessary strategies to access the information and assess the need for documentary updating.

SS10 Manage, analyze and interpret data within the frameworks of the disciplinary knowledge of the different fields of psychology.

SS11 Make critical decisions on the choice, application and interpretation of the results derived from the different psychological research methods.

SS12 Divulge the knowledge derived from theoretical reviews and from the results of psychological research.

### Transversal skills:

TS5 Acquire essential notions of scientific thought.

## Subject contents

### Part 1. Basic concepts

Topic 1. Concept of Neuropsychology and fields of action.

Topic 2. Organization of the Nervous System.

Topic 3. Cortical functions

### Part 2. Neuropsychology of higher functions

Topic 4. Neuropsychology of attention and consciousness.

Topic 5. Neuropsychology of learning.

Topic 6. Neuropsychology of memory.

Topic 7. Neuropsychology of language.

Topic 8. Brain plasticity.

### Part 3. Adult neuropsychological evaluation and rehabilitation

Topic 9. Neuropsychological Evaluation: cognitive screening test, attention evaluation test, learning and memory evaluation test, executive functions evaluation test, language evaluation test.

Topic 10. Preparation of a neuropsychological report.

## Methodology

The course methodology is aimed to achieve learning objectives through lectures and practical sessions. Practical activities and self-training activities (work with scientific publications, anatomical images, anatomical models, case analysis, etc.) will be carried out in small groups. In addition, an individual work is proposed, which consists of drawing up a neuropsychological report of a clinical case. Finally, students will be offered attendance at conferences and presentations related to the content of the subject (if they are given during the teaching period); professionals linked to groups related to the content of the subject could also occasionally be invited to hold a seminar in class; and finally, the aim is to bring patients closer to the faculty and students through visits to associations of relatives of patients and/or patients.

The training activities will consist of in-class and virtual/other activities:

### In-class activities

- Lectures, in which the professor will explain part of the theoretical content of the subject. In these classes, students are expected to be attentive and participate actively by asking questions and answering the questions, paradoxes and problems that the teacher raises.
- Practical classes.
- Seminars held by specialist professionals.
- Elaboration of an individual work with a real case.
- Case studies because they facilitate learning based on experience.

### Virtual/Other activities

- Virtual forums / Online seminars.
- Search for bibliographic information.
- Elaboration of neuropsychological evaluation reports.

## Development plan

The first day of class the class schedule will be explained in detail, attendance is recommended.

## Evaluation

The skills of this subject will be assessed by tests of knowledge and skills (exams), practical activities and active participation. The evaluation is continuous.

<b>Knowledge and skills tests (50%)</b>	
Test, part 1	10%
Test, part 2	10%
Exam, all contents	30%
<b>Practical activities (40%)</b>	
Written assessment, neuropsychological report of a case	25%
Practical activities (part 1, 2)	15%
<b>Participation (10%)</b>	
Participation in class, forums, attendance at seminars	10%
Total	100%

- **Knowledge and skills tests (50%).** It consists of three knowledge tests where the contents of Block 1, Block 2 and a final test will be evaluated during the Degree exam period. The dates of the partial tests will be announced well in advance. Only the final knowledge test can be recovered.

- **Practical activities (40%).** Presentation of a written work that will consist of the preparation of a neuropsychological report of a real case, where memory and learning capacity, attention, language, executive functions will have to be evaluated and a final report will be made with the case real In block 1 and 2, individual or group practical activities will be carried out that students will have to hand in to the "Activities" section of the Virtual Campus. This evidence will not be recoverable, nor will deliveries outside the established time limit be accepted.

- **Active participation (10%).** and attending sessions with guests.

The grading system will be expressed using the following numerical grading: 0-4.9 = Pass; 5-6.9 = Passed; 7-8.9 = Remarkable; 9-10 = Excellent; 9-10 = Honor Roll. The subject is considered approved when the final mark is higher than 5 out of 10 points. The final knowledge test must have a grade higher than 5/10. The mention of "Matricula d'Honor" may be awarded to students who have obtained a qualification equal to or higher than 9.0.

Students who, due to justifiable circumstances, cannot follow the continuous assessment can request the alternative assessment from the centre's Secretary. Students who take the alternative assessment must take a final knowledge test during the exam period where all the subject content of Block 1, 2 and 3 will be assessed.

## Bibliography

### Books:

1. Deus Yela, J., Devi Bastida, J. y Sainz Pelayo, M. P. (2018). *Neuropsicología de la enfermedad de Alzheimer*. Madrid: Síntesis.

2. Diéguez-Vide, F. y Peña-Casanova, J. (2012). *Cerebro y Lenguaje*. Madrid: Panamericana.
3. Junqué C. y Barroso J. (2009). *Manual de neuropsicología*. Madrid: Síntesis.
4. Jurado, M. A. y Mataró, M. (2013). *Neuropsicología de las enfermedades neurodegenerativas*. Madrid: Síntesis.
5. Kolb, B. y Whishaw, I. Q. (2015). *Neuropsicología Humana* (7ª ed.). Madrid: Médica Panamericana.
6. Lezak M.D., Howieson D.B., Bigler E. y Tranel D. (2012). *Neuropsychological Assessment*. Nueva York: Oxford University Press.
7. Tirapu-Ustárriz J., Ríos Lago, M. y Maestú-Unturbe F. (2011). *Manual de Neuropsicología*. Barcelona: Viguera
8. Triviño, M., Arnedo, M., Bembibre, J. (coord.) (2020). *Neuropsicología a través de casos clínicos. Evaluación y rehabilitación* (2ª ed.). Madrid: Médica-Panamericana.

## **Complementary books:**

1. Gurd, J., Kischka, U. y Marshall, JC. (2010). *The Handbook of Clinical Neuropsychology*. Oxford: Oxford University. Press.
2. Sacks, O. (2008). *Un antropólogo en Marte*. Barcelona: Anagrama
3. Weiner, M. y Lipton, A. (2010). *Manual de Enfermedad de Alzheimer y otras Demencias*. Madrid: Panamerica