

# DEGREE CURRICULUM INTRODUCTION TO NEUROPSYCHOLOGY

Coordination: CAMPANERA REIG, SILVIA

Academic year 2020-21

## Subject's general information

Subject name	INTRODUCTION TO NEUROPSYCHOLOGY					
Code	102922					
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION					
Туроlоду	Degree Course Characte		er	Modality		
	Bachelor's De Psychology	egree in	4	OPTIONAL COMPLEMENTARY TRAINING		Attendance- based
	Master's Deg Neuropsycho					Blended learning
Course number of credits (ECTS)	6					
Type of activity, credits, and groups	Activity type	PF	PRAULA		TEORIA	
Number credits		1.8		4.2		
	Number of groups		2		1	
Coordination	CAMPANERA REIG, SILVIA					
Department	PSICOLOGIA					
Teaching load distribution between lectures and independent student work	Patricia Urieta 66% of the teaching load Sílvia Campanera 33% of the teaching load					
Important information on data processing	Consult this link for more information.					
Language	Catalan					
Distribution of credits	Patricia Urieta 4 credits Sílvia Campanera 2 credits					

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
CAMPANERA REIG, SILVIA	silvia.campanera@udl.cat	2	
RODRÍGUEZ BALAGUÉ, ANNA	anna.rodriguezbalague@udl.cat	4	

#### Subject's extra information

Prerequisites of the subject No prerequisite is required. However, it is recommended to have approved the following subjects: 102900: Psychobiology of human development 102901: Structure and function of the nervous system 102911: Neuroscience and behavior

#### Learning objectives

The subject has as a fundamental objective the knowledge of the aspects applied to the study of the relationships between the brain and behavior, and of the pathology caused by brain injuries, with special emphasis on the knowledge regarding the methods of evaluation in the the field of neuropsychology. In this context, the subject of Introduction to Neuropsychology raises the following objectives for the student:

- 1. Knowing and analyzing the basic objectives of Neuropsychology, and identifying the similarities and differences between this discipline and others belonging to the field of Psychobiology in a general way
- 2. Analyze the main fields of action and intervention of the neuropsychologist, both in relation to basic research and in the clinical field Identify which people are susceptible to being mediated by an expert in neuropsychology
- 3. Know the main neurological disorders that can lead to alterations in behavior and / or in the superior mental functions.
- 4. To know the brain mechanisms involved in the appearance of cognitive disorders
- 5. Study the main neuropsychological disorders: aphasias, amnesia, agnosis, dementias, appracies, etc., including its most relevant symptoms, brain lesions that can produce them
- 6. Know the main strategies and assessment tools that are appropriate in each neuropsychological disorder in particular.
- 7. Practice of the use of neuropsychological tests and most commonly used neuropsychological drums Identify the basic principles of the neuropsychological evaluation and intervention procedure and the most commonly used tools in this field, depending on each situation or context
- 8. Carry out reports from critical thinking and formulation of returns on the results of the neuropsychological evaluation in an oral and written way

After completing the subject of "Introduction to Neuropsychology" the student will have to be able to:

- To know the methodological and technical tools necessary for the study and understanding of the biological bases of human behavior
- Explain the 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 related to the cognitive processes affected

- Establish relationships between higher cognitive processes and other cognitive processes, critically analyze contexts involving neuropsychological processes
- Prepare reports referring to research and evaluation problems related to neuropsychological processes

Demonstrate a theoretical knowledge of the functioning of the brain and the bases of neuropsychology. Prepare a neuropsychological examination plan in the right adult to be able to elaborate an evidence-based diagnostic hypothesis. Perform a neuropsychological type exploration adapted to the type of patient according to the patient's age and clinical practice.

#### Competences

Basic skills:

CB1 Possess and understand knowledge in an area of study which is at the foundation of general secondary education, and is usually at a level which, while supported by advanced textbooks, also includes some aspects involving knowledge from the cutting edge of their field of study.

CB3 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

CB4 Ability to convey information, ideas, problems and solutions to both specialized and non-specialized audiences).

General Competencies:

CG4 Recognising the different theoretical perspectives on the issues being worked on, commenting on conclusions and making decisions.

CG5 Demonstrates critical ability to make relevant decisions.

CG8 Identify and evaluate own competencies, skills and knowledge according to the standards of the profession. Specific Competencies:

CE1 Identify and analyse the characteristics and needs of individuals, groups and organisations and the relevant contexts for the service being requested.

CE3 Apply the techniques of information collection, obtain relevant data for the evaluation of programs and / or psychological interventions.

CE4 Analyzing and interpreting the results of psychological assessment.

CE5 Design and apply a strategy/plan for psychological intervention, according to the contexts or services requested.

SG7 Provide information to users and establish an adequate interpersonal relationship, taking into account the different contexts of professional relationships.

SG8 To prepare technical reports, both oral and written, on the results of the evaluation process, research or services demanded, respecting the ethical commitment required to disseminate psychological knowledge.

CE9 To use the different documentary sources in psychology, to show a mastery of the necessary strategies to access the information and to assess the need for documentary updating.

CE10 Manage, analyse and interpret data within the framework of the disciplinary knowledge of the different fields of psychology.

CE11 Make critical decisions on the choice, application and interpretation of the results derived from the different psychological research methods.

CE12 To disseminate the knowledge derived from theoretical reviews and from the results of psychological research.

Transversal competences:

TC5 Acquiring essential notions of scientific thought.

#### Subject contents

#### Block 1. Basic concepts

- Unit 1. Definition of neuropsychology: concept and development of neuropsychology (anecedents and evolution). Areas of study and intervention of neuropsychology.
- Unit 2. Human Neuropsychology Methods: clinical method and research (lesional, instrumental and

functional method).

• Unit 3. Brain anatomy: asymmetries, structure and functions, sexual differences.

#### Block 2. Semiology Neuropsychological disorders

- Unit 4. Attention and memory
- Unit 5. Perception, recognition and movement
- Unit 6. Executive functions
- Unit 7. Oral and written language and numerical skills
- Unit 8. Normal vs. pathological aging: cognitive changes of normal aging, pathological aging (classification of dementias)

#### Block 3. Neuropsychological evaluation

- Unit 9. Scales of neuropsychological evaluation. Assessment of: general cognitive capacity, motility, attention, memory, language, somatosensory, visual, visually and constructional skills, executive functions and analogies
- Unit 10. The neuropsychological report: analysis and return of results

#### Block 4. Neuropsychological rehabilitation

- Unit 11. Recovery and rehabilitation of the adult brain: plasticity and functional recovery, spontaneous recovery, stages of recovery, influencing recovery factors, therapeutic approaches to brain injury
- Unit 12: Neurorehabilitation in children: key concepts.

#### Methodology

The training activities that will be carried out will be the following:

- Theoretical class in person
- Practical class / seminar / workshops (2 groups)
- Elaboration of an individual work
- Troubleshooting
- Case study

#### Development plan

The subject will be developed taking into account the order of the blocks from which it is divided: block 1, block 2, block 3 and block 4. At the end of the first two blocks, there will be a head to the first evidence that the 20% of the final grade. Next, the theoretical part of the third block will be carried out, which is evaluated through an individual work on a neuropsychological report of the case, which represents 30% of the mark. The 4th block will be held next to the previous one. The final exam of the subject will take place during the evaluation week, representing the acquisition of the contents of the subject at a global level (50% of the final mark).

#### **Evaluation**

The assessment of the "Introduction to Neuropsychology" assignment is continuous and summative. The theoretical part represents 70% of the final grade of the subject, while the practical part represents 30%. The evaluation of the subject consists of three PEC tests: two multiple choice tests (theoretical part) and one individual case study (practical part). The specific weight of each test on the global rating (Q), as well as the content evaluated are shown below:

	PEC <sub>1</sub>	PEC <sub>2</sub>	PEC <sub>3</sub>
Block 1: Basic concept	Individual multiple	-	
Block 2: Neuropsychological disord	choice test (20%)	-	Final test of individual multiple choice(50%)
Block 3: Neuropsychological evaluation	-	Carrying out a case neuropsychological report (30%)	
Block 4: Neuropsychological rehabilitation	-	-	

Only PEC3 can be retrieved.

\* Notes:

- The non-presentation of students to the theoretical exams or the non-presentation of the written works supposes the loss of the points assigned to the tests.
- To carry out and evaluate work assignments that require 80% attendance and must be submitted in full.
- Students who, due to justifiable circumstances can not carry out the continuous assessment, can count on the possibility of carrying out the alternative assessment
- It is necessary to pass the final exam with 50% (5/10) to be able to make average with the rest of PECs.

PEC <sub>1</sub>	PEC <sub>2</sub>	PEC <sub>3</sub>	
Bloc 1: Conceptes bàsics	Prova d'elecció múltiple	-	Prova final d'elecció múltiple
Bloc 2: Trastorns neuropsicològics	individual (20%)	-	
Bloc 3. Avaluació neuropsicològica	-	Realització d'un informe neuropsicològic de cas (30%)	individual (50%)
Bloc 4. Rehabilitació neuropsicològica	-	-	

#### Bibliography

- Clark D, L., Boutros N, N. i Méndez, M, F. (2007). El cerebro y la conducta. Neuroanatomía para psicólogos. Editorial: Manual Moderno.
- Enseñat, A., Roig, T. i Molina, A (2015). Neuropsicología pediátrica. Editorial: Sintesis.
- Junqué C. i Barroso J. (2009). Manual de neuropsicología. Editorial: Síntesis. Tirapu Ustárroz J, R, Ríos Lago M i Maestú Unturbe F. (2011). Manual de Neuropsicología. 2 edición. Editorial: Viguera.
- Reed, J i Warner, J (2008). Child neuropsychology. Concepts, Theory and Practice. Editoria: wiley blackwell
- Tirapu Ustárroz J, R, Ríos Lago M i Maestú Unturbe F. (2011). Manual de Neuropsicología. 2 edición. Editorial: Viguera
- Tirapu Ustárroz J, García Molina A, Ríos Lago M i Ardila Ardila A. (2012). Neuropsicología de la corteza

frontal y las funciones ejecutivas. Editorial: Viguera.

- Ardila, A., & Rosselli, M. (2007). Neuropsicología clínica, México: El Manual Moderno.
- Bryan Kolb, Ian Q. Whishaw (2017). Neuropsicología humana. Editorial Médica Panamericana, Barcelona