

## **NEUROPSYCHOLOGY**

**Degree in Occupational Therapy Course 2022-23**

**Code:** 804148

**Module:** 2

**Subject:** Intervention Type of subject: Compulsory Department: Experimental Psychology, Cognitive Processes and Speech Therapy

**Credits:** 6 ECTS

**Course:** Second Teaching period: Consult calendar

**TEACHING STAFF Coordinator:** Maestu Unturbe , Fernando: fmaestuu@psi.ucm.es **BRIEF**

### **DESCRIPTION**

Neuropsychology is a subject that brings Occupational Therapy students closer to the knowledge of pathology in cognitive processes and its repercussions on human behavior, since Neuropsychology is a discipline belonging to Psychology that deals with the study of the relationship between brain function and behavior (mainly in people with brain injuries and dysfunctions). It tries to get to know in depth the way in which brain processes and cognitive processes modulate human behavior, and conceptually it is located between Cognitive Psychology, Cognitive Behavioral Psychology and Neuroscience, although it has developed its own identity. The conceptual framework of the subject is made up of cognitive models, neuropsychology techniques, the study of cognitive deficits and their behavioral repercussions, the study of pathologies related to cognitive dysfunction and the applications of neuropsychology (in the clinical and Of the investigation). Students will be able to learn about the different forms of cognitive deficit and pathologies related to neuropsychological dysfunction. It will also provide students with knowledge related to the main neuropsychological exploration tools and will bring them closer to the reality of applied neuropsychology. Knowledge about the functioning of human cognitive processes.

### **AGENDA**

**Topic 1. Function and concept of Neuropsychology in the context of Psychology and Neurosciences.**

1.1. Experimental Neuropsychology.

1.2. Cognitive Neuropsychology.

1.3. Clinical Neuropsychology.

1.4. Forensic Neuropsychology.

**Topic 2. Main attentional disturbances.**

2.1. Deficit related to attentional processes.

2.2. Neurophysiological bases of attentional disorders.

23. Functional repercussions of attention deficit.

**Topic 3. Disorders related to attention deficit.**

3.1. ADHD.

3.2. Schizophrenia.

3.3. your. 3.4. TCE.

**Topic 4. Quantitative and qualitative anomalies of memory.**

4.1. Quantitative abnormalities: amnesias and hypermnesia.

4.2. Qualitative abnormalities: confabulation, false memories, paramnesia, ecmnesia, encapsulated delusions, amnesic delusions.

4.3. Neurophysiological bases of amnesia.

**Topic 5. Pathologies with memory alterations.**

5.1. Dementias and Mild Cognitive Impairment.

5.2. Alcoholism.

5.3. Schizophrenia.

5.4. Depression.

5.5. Post Traumatic Stress Disorder.

5.6. Epilepsy.

5.7. Sudden Brain Injury.

**Topic 6. Dysexecutive disorders: introduction**

6.1. executive functions, consciousness and theory of mind.

6.2. Regulatory role of executive functions in behavior and emotion.

6.3. Deficit related to the alteration in the components of dysexecutive FEndromes, emotional and behavioral alterations.

**Topic 7. Executive dysfunction**

7.1. Obsessive-compulsive disorder.

7.2. Schizophrenia.

7.3. Autism.

7.4. ADHD.

7.5. Acquired brain damage.

**Topic 8. The agnosias.**

8.1. Description of agnosia.

8.2. Types of agnosia.

8.3. Apperceptive agnosias.

8.4. Associative agnosias.

8.5. Prosopagnosia.

8.6. Spatial agnosias.

**Topic 9. Neuropsychological Rehabilitation.**

9.1. Bases and principles of neuropsychological rehabilitation.

9.2. Neuroplasticity and Neurorehabilitation.

9.3. Rehabilitation of cognitive deficit and functional rehabilitation.

9.4. Application of behavior modification in NeuroRehabilitation.

**TEACHING METHODOLOGY**

General methodological aspects of the subject

- Master Classes. Lectures of an expository nature in which the most significant contents of each topic are presented in a clear, structured and motivating way.
- Viewing of videos related to the thematic blocks.
- Presentation of cases that illustrate the subjects of the course and that offer the opportunity for students to respond to a real or simulated professional problem.
- Readings and exercises.
- Individual or group exhibition of readings of scientific articles or texts of books selected by the teacher or by the students, belonging to each thematic block and that suppose an intellectual challenge for the student.
- Individual or group performance of theoretical and practical exercises related to applied neuropsychology. the subject through the cooperative work of the students.
- Development of experimental work within the framework of neuropsychology with the aim of familiarizing students with the scientific method.

- Presentation by the professor of research carried out in the field of neuropsychology with the aim of bringing students closer to the reality and possibilities of applied science.
- Personal and regular study of the student in order to understand and assimilate the main topics of the subject, specify and clarify doubts, critically delve into what has been studied and project the knowledge acquired into professional applications.
- Individual reading of texts related to the contents of the subject (books, magazines, scientific articles, clinical reports, etc.) for individual or group presentation in class or for the development of theoretical-experimental work and the writing of a personal reflection. .
- Cooperative work in research groups and in-depth study of topics and issues related to the subject under the supervision of the teacher, through the use of new technologies, the search for information, the audiovisual presentation of results, etc. • Development of experimental work within the framework of neuropsychology and writing of scientific reports.

#### **EVALUATION CRITERIA**

Exam of 30 questions, 15 of theory and 15 of practices. The questions will be both true/false and three alternatives. Those of V/F add and subtract one point and those of three alternatives add one point and subtract only half. It will be approved with a grade of 15 points after adding the correct answers and subtracting the total number of incorrect answers.

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