COURSE DATA

DATA SUBJECT

Code: 35284
Name: Clinical Neurology Applied to Speech Therapy
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1203 - Degree in Speech Therapy	Facultat de Psicologia i Logopèdia	2	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1203 - Degree in Speech Therapy	Clinical neurology applied to speech therapy	COMPULSORY

COORDINATION

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LOPEZ CRUZ IAN

SUMMARY

The course Clinical Neurology Applied to Speech Therapy provides students with the essential knowledge of clinical neurology needed for their professional practice.

Neurology is the branch of medicine that focuses on the study of disorders of the nervous system, both central and peripheral. Many neurological conditions ¿particularly those affecting the central nervous system¿ can lead to language impairments, often accompanied by varying degrees of compromise in other brain functions, including cognitive, behavioral, motor, sensory, or autonomic functions.

This course offers an overview of the pathogenesis of neurological disorders by examining their mechanisms of involvement, clinical syndromes (i.e., clusters of signs and symptoms), and nosological entities (i.e., well-established correlations between clinical presentation and organic damage) that result in language impairment due to nervous system involvement. Many individuals with neurological conditions may benefit from the expertise of trained speech-language therapists, making it essential for professionals in this field to possess a foundational understanding of neurology.

Moreover, working within multidisciplinary teams¿as is often the case in speech therapy¿requires familiarity not only with terminology from other disciplines but also with their conceptual frameworks and approaches.

The course is closely related to many other subjects, sharing anatomical, physiological, clinical, and neuropsychological knowledge, among others. However, its specific focus lies in explaining, more than any other subject, the various ways in which the brain may be affected, the clinical syndromes that arise, and the underlying conditions responsible for such alterations.

With the knowledge gained in this course, students will be equipped to assess, diagnose, predict outcomes, rehabilitate, and prevent communication disorders caused by neurological damage. They will also be able to participate in the development, implementation, and evaluation of educational and healthcare programs for individuals with such conditions; adapt their professional practice¿or that of others¿to the presence of neurological disorders; and communicate effectively with the wide range of professionals involved in caring for patients with brain injuries.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

1203 - Degree in Speech Therapy

Obligation to have previously passed the subject(s)	35274 - Neurology and Language Neuropsychology

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

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Design and conduct speech therapy treatments, both individual and collective, by setting targets and stages, with the most effective and adequate methods, techniques and resources, and bearing in mind the different life developmental stages as well as gender perspective.

Develop communication skills in the general population.

Explore, evaluate, diagnose and predict the evolution of communication and language disorders from a multidisciplinary perspective.

Know the limits of their field of activity and learn to identify when an interdisciplinary treatment is necessary.

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.

Students must have acquired knowledge and understanding in a specific field of study, on the basis of general secondary education and at a level that includes mainly knowledge drawn from advanced textbooks, but also some cutting-edge knowledge in their field of study.

Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Understand and critically evaluate the terminology and research methodology of speech therapy.

DESCRIPTION OF CONTENTS

1. Generalities

Topic 1. Ethiopathogenic and Semiological Bases in Neurology.
Topic 2. Neurological diagnostic tests and procedures.
Topic 3. Medical therapeutics in neurology.

2. Semiology of communication associated with disorders of motility and sensitivity.

Topic 4 . Speech therapy consequences of motor neuron diseases.
Topic 5 . Speech therapy semiology in alterations of the cranial pairs.
Topic 6 . Speech therapy semiology associated with hyperkinetic extrapyramidal diseases.
Topic 7 . Speech therapy semiology associated with hypokinetic extrapyramidal diseases.
Topic 8 . Speech therapy Implications in the cerebellar semiology disorders.
Topic 9 . Speech therapy implications in neuropathies, myopathies and the neuromuscular junction.
Topic 10 . Speech disorders of neurological cause: dysarthria.

3. Medical conditions related to communication Communication

Topic 11 . Language consequences associated with congenital CNS malformations.
Topic 12 . Communicative implications of chromosomopathies and genetic diseases.
Topic 13 . Speech Therapy Implications in Cerebral Palsy.

Topic 14 . Speech therapy implications in dementias.
Topic 15 . Speech therapy Implications in Central Nervous System Infections.
Topic 16 . Symptoms of communication associated with cerebrovascular diseases: ischemic strokes.
Topic 17 . Symptoms of communication associated with cerebrovascular diseases: hemorrhagic stroke.
Topic 18 . Consequences in the area of communication in brain tumors.
Topic 19 . Consequences in the area of communication in traumatic brain injury.
Topic 20 . Speech therapy implications in epilepsy.
Topic 21 . Speech therapy consequences in demyelinating diseases. Multiple sclerosis.
Topic 22 . Speech therapy consequences in systemic diseases.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	45,00
Classroom practices	15,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	30,00
Independent study and work	20,00
Preparation of lessons	10,00
Preparation for assessment activities	20,00
Resolution of case studies	10,00
Total hours	**90,00**

TEACHING METHODOLOGY

Theoretical classes and presentation of content

Practical classes, seminars, and case studies.

Individual and group tutorials in which students will be supervised to ensure proper monitoring of their training activities.

Student study for the preparation and realization of the evaluation tests.

Student work: preparation of assignments, bibliographic research, case studies, report writing, etc.

EVALUATION

Minimum requirements for first and second call:

- Achieve **40% of the maximum** grade in the theoretical-practical exam.

- **Have passed** the Neurological examination test (point 2.2) of the practical sessions.

Assessment

1.- Theoretical-practical exam (70% of the overall grade for the subject). Oral or written test. Recoverable in second call.

It will consist of two tests (theoretical and practical) that can be recovered in the second call. You have to pass both parts (theoretical and practical) to pass the subject. The two parts are not compensable. The grade for each part (theoretical and practical) is saved until June of the same academic year.

1.1 An objective theoretical test using multiple choice questions. This part of the test is considered **passed** with **40% of the maximum grade.** The maximum grade for this section will be 50% of the overall grade for the subject.

1.2. A practical test that will consist of the resolution of two clinical cases where the semiology of the different language and speech disorders associated with brain injuries or diseases must be identified. This part of the test is considered **passed with 50% of the maximum grade.** The maximum grade for this section will be 20% of the overall grade for the subject.

2- Continuous evaluation (30% of the overall grade for the subject). The grade in sections 2.1 and 2.2 is saved for two academic years.

2.1 Group work on a research project and evaluation by project colleagues (**10%** of the overall grade). Activity not recoverable in second call.

2.2 Neurological examination (**15%** of the overall grade for the subject). Activity recoverable in the second call (oral exam).

2.3 Classroom activities evaluated by taking tests at the end of the topics (**5%** of the overall grade for the subject). Activity not recoverable in second call.

To obtain Honors, it is necessary to obtain a minimum of 9 out of 10 in the final grade of the subject. In the event of a tie, the highest grade in the theoretical-practical exam will be taken into account.

In the event of fraudulent practices, the procedure will be determined as determined by the Protocol for action against fraudulent practices at the University of Valencia (ACGUV 123/2020): https://www.uv.es/sgeneral/Protocols/C83sp.pdf

REFERENCES

Basic

- Webb W, Adler RK. (2010). Neurología para el logopeda (5ª ed). Editorial Elsevier, Madrid.
- Weiner WJ, Goetz CG, Shin RK, Lewis SL. (2010). Neurology for the non neurologist 6th edition, Editorial Lippincott.
- Adams y Victor: principios de neurología [2023]. McGraw-Hill Interamericana, México, D.F.
- Wilson-Pauwels, L., Akesson, E.J. y Stewart, P.A. (2021). Nervios Craneales. En la salud y la enfermedad. Paramericana.

Supplementary

- Vazquez Sánchez, F. y García López, B. (2023). Manual de Neurología para Terapia Ocupacional (2023). Paramericana.
- Martí-Massó J. (2011). Neurología para médicos de atención primaria. Editorial Ergon.
- Vinson B.(2011) Language disorders across the lifespan (3rd edition). Editorial Delmar.
- Totowa, NJ. Magnetic Resonance Neuroimaging. Methods and Protocols. Editorial Humana Press, 2011.