



## COURSE DATA

### Data Subject

<b>Code</b>	35299
<b>Name</b>	Speech Therapy Intervention in Neurodegenerative Disorders
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2023 - 2024

### Study (s)

<b>Degree</b>	<b>Center</b>	<b>Acad. Period</b>	<b>year</b>
1203 - Degree in Speech Therapy	Faculty of Psychology and Speech Therapy	3	First term

### Subject-matter

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1203 - Degree in Speech Therapy	26 - Speech therapy intervention in neurodegenerative disorders	Obligatory

### Coordination

<b>Name</b>	<b>Department</b>
BRINES BENLLIURE, LOURDES	268 - Psychobiology
ESPERT TORTAJADA, RAUL	268 - Psychobiology

## SUMMARY

The subject "Speech therapy intervention in neurodegenerative disorders" will provide students with basic and applied knowledge about the non-pharmacological therapeutic treatment currently used with patients affected by neurodegenerative pathologies of the Central Nervous System. This is a deep-seated issue in today's society given the number of dementias that are diagnosed every day and the great impact they have on the daily life of these patients, both in language and in other areas of cognition. This subject is connected to the subject studied in the second year "Neurodegenerative disorders", in which students have acquired the necessary theoretical knowledge and sufficient practical skills to make the diagnosis of a patient with dementia and its precise neuropsychological and speech therapy profile. It begins by delimiting the field of action of speech therapy intervention in the elderly population and in neurodegenerative disorders through two fundamental notions: the concept of quality of life and the functional therapeutic plan, which is inserted in the International Classification of Functioning model, Disability and Health (CIF). The subject deals with the concept of cognitive stimulation in depth, emphasizing the part referring to language and its possibilities of stimulation/rehabilitation in dementias;



the neurobiological bases that enable the very existence of cognition treatment as well as training on action protocols in functional areas of cognition and specific cognitive stimulation programs. After that, the development of the subject by blocks will allow students to deepen their knowledge and application of the different strategies and updated speech therapy intervention programs in the field of neurodegenerative diseases in relation to the processes of expression, non-verbal oral functioning and communication.

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

#### 1203 - Degree in Speech Therapy :

R4-OBLIGATION TO HAVE SUCCESSFULLY COMPLETED THE COURSE

35272 - Anatomy of Language and Hearing Organs

35273 - Physiology of Language and Hearing Organs

35291 - Neurodegenerative Disorders

### Other requirements

It is highly recommended to have acquired fluency when conducting a neuropsychological evaluation and speech therapy to people over 65 years, including patients with a neurodegenerative disorder, since it is part of the basis for the intervention under this subject.

## COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

### 1203 - Degree in Speech Therapy

- 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 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.
- Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.
- Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.
- 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.



- Have an adequate speech production, language structure and voice quality.
- Know the different techniques of intervention in neurodegenerative disorders.
- Be able to plan an intervention in a clinical case of neurodegeneration.

## **LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)**

Design rehabilitation programs tailored to the cognitive stimulation in neurodegenerative disorders required.

Apply and adapt the techniques of speech therapy in neurodegenerative disorders

## **DESCRIPTION OF CONTENTS**

### **1. Framework of speech therapy intervention in neurodegenerative disorders**

The purpose of this thematic unit is to delimit the field of action of speech therapy intervention in the elderly population and in neurodegenerative disorders through two fundamental notions: the concept of quality of life and the functional therapeutic plan, which is inserted in the model of International Classification of Functioning, Disability and Health (ICF).

### **2. Speech therapy intervention in motor speech disorders and non-verbal oral functions in neurodegenerative diseases**

In this thematic unit, the different approaches, techniques and speech therapy intervention programs focused on addressing the different alterations of expression and non-verbal oral functions in the population with neurodegenerative diseases are exposed.

### **3. Cognitive Stimulation**

Conceptual definition. It defines the meaning of the Cognitive Stimulation and Cognitive Rehabilitation difference with reference to the type of target patients and expectations to weigh in therapy. Variables related to cognitive training.

### **4. Protocols in Cognitive Stimulation and specific programs of Cognitive Stimulation**

In this thematic unit, the Cognitive Stimulation programs are deepened: ROT (Orientation to reality); Reminiscence; GRT (Global Reactivation Therapy); PECA (Adesma Cognitive Stimulation Program), PPI (Integral Psychostimulation Program), Snoezelen Stimulation. Cognitive stimulation platforms organized around the intervention of functional areas are also disclosed.



**5. Speech therapy intervention in the disorders of language and communication in the neurodegenerative diseases**

The communication and the dementias: characterization and therapeutic approaches. The functional approach in the speech disorders. Speech therapy intervention programs in the alterations of the communication in the neurodegenerative disorders. Design and implementation of Augmentative and Alternative Communication (AAC) systems as a potential resource for supporting neurodegenerative diseases communication.

**6. Ethical implications of speech therapy intervention in neurodegenerative diseases**

Transversal theme that is developed, throughout the different thematic units, through the analysis of assumptions and real cases. The contents of this unit cover family care and the patient's life context; Ethical and deontological issues of speech therapy practice as well as the analysis of intervention perspectives and speech therapy action frameworks in neurodegenerative diseases.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	45,00	100
Laboratory practices	15,00	100
Study and independent work	90,00	0
<b>TOTAL</b>	<b>150,00</b>	

**TEACHING METHODOLOGY**

Lectures by power-point presentations and video attachments on intervention in neurodegenerative diseases related to the clinic speech treatment. Practice about how to do interventions in neurodegenerative diseases and videos with real patient case studies on various interventions in neurodegenerative diseases. Scheduled individual and group tutorials. Supervision of practical work, guidance and resolution of doubts. Independent work of student case review, preparation of practical work, intervention programming in neurodegenerative disorder, reporting. Student study, preparation and conduct of the evaluation tests.

**EVALUATION**

The performance test on the level of knowledge acquired by the student will take the form of multiple-choice questions exam with 3 choices. Such test may include a case study with closed questions regarding the case. It will be necessary to obtain a rating of 5 on this test to pass the subject. In any case, the maximum score in the test will represent 60% of the total grade. The remaining 40% is obtained in the form of practical exercises and clinical reports of speech therapy intervention on real cases whose characteristics will be detailed during the course. The marks obtained in the works carried out will be saved for the June evaluation. The works that are not presented in the required time and form will be



recovered by means of a written test that will be carried out at the end of the official final test.

Given the characteristics of the subject and the degree, a high command of written language will be required.

The teacher may require individual or small group interviews to verify the degree of participation and the achievement of the objectives pursued in any task carried out. Not accepting this verification will mean not passing the task / activity in question.

The manifest "copy" of any test, task, activity or report, whether individual or group, that serves for evaluation purposes in the subject, will make it impossible to pass the subject matter.

In the event of fraudulent practices, the Action Protocol for fraudulent > practices at the University of Valencia will be applied (ACGUV 123/2020): <https://www.uv.es/sgeneral/Protocols/C83.pdf>

Honours degree will be awarded to those students whose grade in a subject is equal to or greater than 9 and the highest in their group. Obtaining honours is subject to taking an extraordinary oral exam in the event that two students have the same grade and it is only possible to award an honour degree. In no case will note subtract.

## REFERENCES

### Basic

- De las Heras, G., y Simón, T. (2018). Logopedia y enfermedades neurodegenerativas. Valencia: Nau LLibres.
- Young, T; Manthorp, C., y Howells, D. (2010). Comunicación y Demencia. Nuevas Perspectivas, Nuevos Enfoques. Editorial UOC.
- Bruna Rabassa, O., Signo Miguel, S., Molins Sauri, M. (2018). Intervención neuropsicológica en los trastornos neurodegenerativos. Madrid: Editorial Síntesis
- Volkmer et al. (2020). Speech and language therapy approaches to managing primary progressive aphasia. Pract Neurol.20(2): 154161.

### Additional

- Melle, N. (2007). Guía de intervención logopédica en disartria. Madrid: Síntesis.
- Duffy, J.R. (2013). Motor Speech Disorders: substrates, differential diagnosis, and management. St Louis, Missouri: Mosby.
- Bergado-Rosado JA, Almaguer-Melian W. (2000). Mecanismos celulares de la neuroplasticidad.Revista de Neurología 31: 1074-95.
- Zurita, A. (2014). Guía de intervención logopédica en la enfermedad de Parkinson. Barcelona: Masson.



- Clavé, P., y García, P. (Ed). (2011). Guía de diagnóstico y tratamiento nutricional y rehabilitador de la disfagia orofaríngea. Barcelona: Glosa.
- Pena-Casanova J. (1999). Activemos la mente. Barcelona: Fundació La Caixa.
- Paniagua, J., Susanibar, F., Murciago, P., Giménez, P., y García, R. (Coordinadores) (2019). Disfagia. De la evidencia científica a la práctica clínica. Volumen I y II. Madrid: Giuntieos.
- Hickey, E., y Bourgeois, M. S. (2017). Dementia: Person-Centered Assessment and Intervention. New York and London: Taylor & Francis Group.
- Schrauf, Robert W. (2014). Dialogue and Dementia: Cognitive and Communicative Resources for Engagement. New York and London: Taylor & Francis Group.
- Simmons-Mackie, N., King, J., y Beukelman, D. (2013). Supporting Communication for Adults with Acute and Chronic Aphasia (Augmentative and Alternative Communication Series). Brookes Publishing Co.
- Deus, J., Deví, J., y Sáinz, MP. (2018). Neuropsicología de la Enfermedad de Alzheimer. Madrid: Editorial Síntesis
- Munoz, E. (coordinadora) (2009). Estimulación cognitiva y rehabilitación neuropsicológica. Editorial UOC.
- Volkmer et al. (2020). Speech and language therapy approaches to managing primary progressive aphasia. Pract Neurol.20(2): 154161.