



Information about the subject

Degree: Bachelor of Science Degree in Speech and Language Therapy

Faculty: Faculty of Psychology

Code: 1172014 **Name:** Methods of language analysis applied to speech and language therapy

Credits: 6,00 **ECTS Year:** 0, 2 **Semester:** 2

Module: Optatives

Subject Matter: Clinical Linguistics **Type:** Elective

Field of knowledge: Linguistics

Department: Speech Therapy

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

117OP01 Miriam Zarzo Benlloch (**Responsible Lecturer**)

miriam.zarzo@ucv.es

Alejandra Ester Jiménez García

ae.jimenez@ucv.es



Module organization

Optatives

Subject Matter	ECTS	Subject	ECTS	Year/semester
Audiology	18,00	Audiological assessment	6,00	This elective is not offered in the academic year 25/26
		Introduction to Audiology	6,00	This elective is not offered in the academic year 25/26
		Medical Audiology	6,00	This elective is not offered in the academic year 25/26
Neuropsychology	18,00	Clinical Neuropsychology	6,00	This elective is not offered in the academic year 25/26
		Psychogerontology	6,00	This elective is not offered in the academic year 25/26
		Speech therapy intervention in cognitive and neurodegenerative language disorders	6,00	This elective is not offered in the academic year 25/26
Clinical Linguistics	18,00	Acoustic Phonetics	6,00	This elective is not offered in the academic year 25/26
		Bilingualism and speech and language therapy	6,00	This elective is not offered in the academic year 25/26



Clinical Linguistics		Methods of language analysis applied to speech and language therapy	6,00	0, 2/2
Work techniques	24,00	Documentation in health sciences	6,00	This elective is not offered in the academic year 25/26
		Methodologies of professional skills for communication I	6,00	3, 4/2
		Methodologies of professional skills for communication II	6,00	3, 4/2
Educational processes and contexts	24,00	Design and assessment of educational action plans	6,00	This elective is not offered in the academic year 25/26
		Didactics and educational innovation	6,00	This elective is not offered in the academic year 25/26
		Educational fundamentals and school organisation	6,00	This elective is not offered in the academic year 25/26
		Teaching-Learning Processes in the Classroom: Techniques and Tools	6,00	This elective is not offered in the academic year 25/26
Sign Language	24,00	Communication systems for the deafblind	6,00	This elective is not offered in the academic year 25/26
		Spanish Sign Language I	6,00	This elective is not offered in the academic year 25/26



Sign Language		Spanish Sign Language II	6,00	This elective is not offered in the academic year 25/26
		Spanish Sign Language III	6,00	This elective is not offered in the academic year 25/26
Psychology	18,00	Child and Adolescent Clinical and Health Psychology	6,00	This elective is not offered in the academic year 25/26
		Psychopathology in adults	6,00	3/1
		Psychopathology in children and adolescents	6,00	2, 3/1
Intensification of clinical practice	18,00	Internship in clinical settings 2	6,00	This elective is not offered in the academic year 25/26
		Internship in clinical settings 3	6,00	This elective is not offered in the academic year 25/26
		Internships in clinical settings 1	6,00	This elective is not offered in the academic year 25/26

Recommended knowledge

Knowledge of the anatomy and physiology of the musculature involved in the stomatognathic system.
Knowledge of phonetic-phonological development.



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Knowing how to analyze the segmental and suprasegmental elements of speech
- R2 Be able to use basic hardware and software used in the acoustic analysis of speech
- R3 Be able to integrate a multilingual perspective in speech therapy
- R4 Make efficient use of the fundamental concepts of acoustics focused on speech and voice sound analysis.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

SPECIFIC		Weighting			
		1	2	3	4
CE3	Understand and integrate the linguistic foundations of Speech: Phonetics and phonology, morphosyntax, semantics, pragmatics, and sociolinguistics		X		
CE4	Understand and integrate the educational foundations of speech therapy: teaching and learning processes	X			
CE11	Know the classification, terminology and description of communication disorders, language, speech, and voice, in addition to hearing and nonverbal oral functions		X		
CE23	Understand, apply and critically evaluate teaching techniques and teaching methodology, in addition to resources for teaching language	X			
CE26	To acquire practical knowledge for speech-language evaluation.				X
CE33	Final project involving transversally applicable material; to be carried out in association with different subjects				X
CE36	To use the techniques and tools of exploration specific to the profession, and record, synthesize and interpret the data provided by integrating them into the set of information.				X
CE37	Master the terminology that allows one to interact effectively with other professionals		X		
CE42	Understand and appreciate the scientific underpinning in the professional development of speech therapy		X		
CE45	Promote communication skills in the general population	X			
CE47	Know and be able to integrate the biological (anatomical and physiological), psychological (and evolutionary development processes), linguistic and pedagogical foundations of speech therapy intervention in communication, language, speech, hearing, speech and non-verbal oral functions				X



CE53 Have adequate speech production, structure of language and voice quality

x

TRANSVERSAL

Weighting

1 2 3 4

CT1 Use the techniques of verbal and nonverbal communication in order to optimize relevant communicative situations

x

CT5 Recognize, analyze and obtain solutions to ethical problems in professional practice situations

x

CT6 Adapt to new situations arising in their profession

x

CT7 Having an open and flexible attitude to lifelong learning

x

CT8 Know and use of technical advances in the exercise of their profession

x



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	90,00%	Oral and/or written tests: exams, reports, resolution of internships.
	10,00%	Attendance, participation, continued work.

Observations

Regular assessment:

To pass the course, students must independently pass each of the following assessment systems:

- **Written test (30%):** exam with true/false questions. **Practical assignments (30%):** all assignments must be submitted in order to be included in the final average.

- **Attendance, participation and continuous work (10%):** at least 80% attendance in class and completion of the activities proposed in the classroom are required.

Alternative assessment:

In exceptional circumstances, students who are unable to attend regularly for justified reasons must notify the teaching staff in writing, attaching the relevant documentation. If the request is accepted, the assessment will be carried out as follows:

- **Written test (80%):** theoretical-practical exam.
- **Practical assessment (20%):** it is compulsory to hand in all assignments so that they can be taken into account in the final average.

In this modality, it is also necessary to pass both the written test and the practical assessment independently in order to pass the course.

Honours:

The award of Honours will be reserved for those students who demonstrate a level of excellence in all the competencies and learning outcomes established for the course.

Criteria for citation and attribution in the use of artificial intelligence tools:

- Any use of artificial intelligence tools must be explicitly stated in the document submitted, either in a footnote or in an appendix.
- The name of the tool used, the purpose of its use (e.g. grammatical review, organisation of ideas, writing example) and where it was used in the work must be indicated.
- The responsible use of AI will form part of the assessment criteria linked to the originality and academic honesty of the work.



In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded.

Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Participative lectures: strategies focused on the transmission of information from teachers to students. Student participation is promoted with hybrid methodologies, in order to consolidate knowledge and encourage critical thinking.
- M2 Practical Class. Classroom practice, laboratory practice and/or simulations: methodologies based on student interaction with problems, technologies, samples or analysis equipment, in order to incorporate experimentation to knowledge.
- M3 Case studies and analysis of clinical histories: students build knowledge from information on cases provided to them. In addition to providing the material, the teacher acts as a guide in the search for the solution.
- M4 Internships in real environments (in-company learning): students participate in the action of their specialty in work centers, approaching the role of the speech therapist.
- M5 Internships in real environments (in-company learning): students participate in the action of their specialty in work centers, approaching the role of the speech therapist.
- M6 Service-Learning: methodology that merges the learning process of students with the intention of providing a real and solidary service in society. Students participate in the selection of objectives and design of actions. Teachers act as guides to develop knowledge in the process.



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
<p>THEORETICAL CLASSES. Lectures, expository and participative classes. They focus on the approach, analysis and development of competences: explanation and orientation towards the acquisition of the necessary knowledge, instruction in the derived skills and acquisition of professional aptitudes.</p> <p>M1, M3</p>	R3, R4	10,00	0,40
<p>PRACTICAL CLASSES. Individual or group work sessions supervised by the teacher. Analysis of materials related to the subjects: reports, statistics, scientific literature, tests and evaluation tests, problem solving, visualization of clinical histories, simulation of cases, etc.</p> <p>M2, M3</p>	R1, R2, R3, R4	11,00	0,44
<p>LABORATORY PRACTICES: Laboratory activities for obtaining, analyzing and interpreting samples. Learning of measurement techniques by means of instruments. Learning of safety measures.</p> <p>M2</p>	R1, R2, R3	35,00	1,40
<p>TUTORIALS: Individual or small group meetings to personalize any aspect of the teaching-learning process</p> <p>M6</p>	R3, R4	2,00	0,08
<p>EVALUATION: Set of tests in oral, written, or other audiovisual media. It includes the final exams (exams and presentation of work) and all the elements of continuous evaluation that contribute in a weighted way to the final grade (presentation of work, scheduled activities, questionnaires, etc.) The public presentation of the Final Degree Project is included.</p> <p>M1, M6</p>	R1, R2, R3, R4	2,00	0,08
TOTAL		60,00	2,40



LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK: Group preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or delivered in theory classes, practical classes or small group tutorials. M2, M3	R1, R2, R3	30,00	1,20
AUTONOMOUS WORK: Personal study of the student. Individual preparation of readings, essays, problem solving, seminar material, papers, reports, etc. to present or deliver in class, complete their training activity and prepare their evaluation tests. M2, M3	R1, R2, R3, R4	60,00	2,40
TOTAL		90,00	3,60

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
Analysis of speech samples focused on phonological disorders.	Procedure for obtaining speech samples, recording, transcription and analysis. Obtaining parameters. Integration of complementary clinical measures in decision making for speech therapy intervention in children with phonological disorders.
Technological applications in speech therapy.	Use and management of advanced technologies for the evaluation of speech, voice and orofacial motor disorders. Interpretation of results Elaboration of clinical reports



Temporary organization of learning:

Block of content	Number of sessions	Hours
Analysis of speech samples focused on phonological disorders.	15,00	30,00
Technological applications in speech therapy.	15,00	30,00



References

- Besomi, M., Hodges, P. W., Clancy, E. A., Van Dieën, J., Hug, F., Lowery, M., Merletti, R., Sogaard, K., Wrigley, T., Besier, T., Carson, R. G., Disselhorst-Klug, C., Enoka, R. M., Falla, D., Farina, D., Gandevia, S., Holobar, A., Kiernan, M. C., McGill, K., ... Tucker, K. (2020). Consensus for experimental design in electromyography (CEDE) project: Amplitude normalization matrix. *Journal of Electromyography and Kinesiology*, 53, 102438. <https://doi.org/10.1016/j.jelekin.2020.102438>
- Besomi, M., Hodges, P. W., Van Dieën, J., Carson, R. G., Clancy, E. A., Disselhorst-Klug, C., Holobar, A., Hug, F., Kiernan, M. C., Lowery, M., McGill, K., Merletti, R., Perreault, E., Sogaard, K., Tucker, K., Besier, T., Enoka, R., Falla, D., Farina, D., ... Wrigley, T. (2019). Consensus for experimental design in electromyography (CEDE) project: Electrode selection matrix. *Journal of Electromyography and Kinesiology*, 48, 128-144. <https://doi.org/10.1016/j.jelekin.2019.07.008>
- Bosch-Galcerán, L. (2004). Evaluación fonológica del habla infantil. Masson.
- Calvache, C.A. (2015). Objetividad de la electroglotografía. Aplicaciones clínicas e investigativas en la voz. *Revista de Logopedia, Foniatría y Audiología* 35(3), 134-142.
- Child Speech Disorder Research Network. (2017). Good practice guidelines for the transcription of children's speech in clinical practice and research.
- Hermens, H. J., Freriks, B., Disselhorst-Klug, C., & Rau, G. (2000). Development of recommendations for SEMG sensors and sensor placement procedures. *Journal of Electromyography and Kinesiology: Official Journal of the International Society of Electrophysiological Kinesiology*, 10(5), 361-374.
- Hodges, P. W. (2020). Editorial: Consensus for Experimental Design in Electromyography (CEDE) Project. *Journal of Electromyography and Kinesiology*, 50, 102343. <https://doi.org/10.1016/j.jelekin.2019.07.013>
- Ingram, D., & Ingram, K. D. (2001). A whole-word approach to phonological analysis and intervention. *Language, speech, and hearing services in schools*, 32(4), 271-283.
- Macrae, T., Tyler, A. A., & Lewis, K. E. (2014). Lexical and phonological variability in preschool children with speech sound disorder. *American Journal of Speech-Language Pathology*, 23, 25-35.
- Mediavilla, E. & Raventós, M. (2003). A-RE-HA Anaálisis del retraso del habla: protocolos para el análisis de la fonética y la fonología infantil. Edicions Universitat de Barcelona.
- Merletti, R., & Muceli, S. (2019). Tutorial. Surface EMG detection in space and time: Best practices. *Journal of Electromyography and Kinesiology*, 49, 102363. <https://doi.org/10.1016/j.jelekin.2019.102363>
- Pascual-Soriano, A., Cervera-Mérida, J. F. (2022). Tratamiento de la nasalidad transpalatal en un caso complejo con trastorno fonológico. *Revista de Investigación en Logopedia* 12(1), e72880. <https://dx.doi.org/10.5209/rlog.72880>
- Shriberg, L. D., Austin, D., Lewis, B. A., McSweeney, J. L., & Wilson, D. L. (1997). The percentage of consonants correct (PCC) metric: Extensions and reliability data. *Journal of Speech, Language, and Hearing Research*, 40(4), 708-722.



Sicard, E., Menin-Sicard, A. (2015). Vocalab 4 Manual de utilización. www.vocalab.org.
Stepp, C. E. (2012). Surface Electromyography for Speech and Swallowing Systems: Measurement, Analysis, and Interpretation. *Journal of Speech, Language and Hearing Research* (Online) 55(4), 1232-1246A