



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:** 2 **Semester:**

Module: Optatives

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

Field of knowledge: Linguistics

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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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 24/25
		Introduction to Audiology	6,00	This elective is not offered in the academic year 24/25
		Medical Audiology	6,00	This elective is not offered in the academic year 24/25
Neuropsychology	18,00	-Biology of human behavior	6,00	This elective is not offered in the academic year 24/25
		Clinical Neuropsychology	6,00	This elective is not offered in the academic year 24/25
		Psychogerontology	6,00	This elective is not offered in the academic year 24/25
Clinical Linguistics	18,00	Acoustic Phonetics	6,00	This elective is not offered in the academic year 24/25
		Bilingualism and speech and language therapy	6,00	This elective is not offered in the academic year 24/25



Clinical Linguistics		Methods of language analysis applied to speech and language therapy	6,00	
Work techniques	18,00	Documentation in health sciences	6,00	This elective is not offered in the academic year 24/25
		Methodologies of professional skills for communication I	6,00	
		Methodologies of professional skills for communication II	6,00	
Educational processes and contexts	18,00	Design and assessment of educational action plans	6,00	This elective is not offered in the academic year 24/25
		Didactics and educational innovation	6,00	This elective is not offered in the academic year 24/25
		Educational fundamentals and school organisation	6,00	This elective is not offered in the academic year 24/25
		Teaching-Learning Processes in the Classroom: Techniques and Tools	6,00	This elective is not offered in the academic year 24/25
Sign Language	18,00	Communication systems for the deafblind	6,00	This elective is not offered in the academic year 24/25
		Spanish Sign Language I	6,00	This elective is not offered in the academic year 24/25



Sign Language		Spanish Sign Language II	6,00	This elective is not offered in the academic year 24/25
		Spanish Sign Language III	6,00	This elective is not offered in the academic year 24/25
Psychology	18,00	Clinical psychopathology and of health in children and adolescents	6,00	
		Psychopathology in adults	6,00	
		Psychopathology in children and adolescents	6,00	

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 Be able to use fundamental concepts of acoustics related to analysis of speech and voice
- R2 Knowing how to analyze the segmental and suprasegmental elements of speech
- R3 Be able to use basic hardware and software used in the acoustic analysis of speech
- R4 Knowing how to apply different procedures to obtain language samples and carry out their transcription
- R5 Knowing how to analyze language samples from different dimensions
- R6 Knowing how to interpret data obtained in a linguistic 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
R2, R4, R5, R6	50,00%	Written exam
R2, R4, R5, R6	40,00%	Practical work assignments assessment
R2, R4, R5, R6	10,00%	Attendance and participation of in-person formative activities

Observations

In order to pass the course, the student must pass the different assessment systems separately:

- Written test (50%).
- Practical work (40%). All work must be presented in order to be considered in the final average.
- Attendance, participation, continuous work (10%). It is required to attend at least 80% of the sessions and complete the classroom activities.

Criteria for awarding Honours: evidence of excellence in all competences and learning outcomes.

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 On-Campus Class
- M2 Practical Class
- M3 Seminar
- M4 Laboratory
- M5 Individual Work
- M6 Group Work
- M7 Work Exhibition
- M8 Clinical Case Analysis
- M9 Prácticas en clínicas y centros



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
ON-CAMPUS CLASS. Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge M1	R2, R4, R5, R6	18,00	0,72
PRACTICAL CLASSES. Group work sessions supervised by the professor. Case studies, diagnostic tests, problems, field work, computer room, visits, data search, libraries, on-line, Internet, etc. Meaningful construction of knowledge through interaction and student activity M2	R2, R4, R5, R6	18,00	0,72
GROUP WORK EXHIBITION. Application of multidisciplinary knowledge M6	R2, R4, R5, R6	6,00	0,24
SEMINAR. Supervised monographic sessions with shared participation M3, M4	R2, R4, R5, R6	6,00	0,24
OFFICE ASSISTANCE. Personalized and small group attention. Period of instruction and/or orientation carried out by a tutor to review and discuss materials and topics presented in classes, seminars, papers, etc. M3, M4	R2, R4, R5, R6	9,00	0,36
ASSESSMENT. Set of oral and/or written tests used in initial, formative or additive assessment of the student M8	R2, R4, R5, R6	3,00	0,12
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 submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform M2, M3, M4	R2, R4, R5, R6	30,00	1,20
INDEPENDENT WORK. Student study: Individual preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform M1, M2	R2, R4, R5, R6	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	Speech sampling procedure, registration, transcription and analysis. Obtaining parameters. Integration of complementary clinical measures in decision-making for speech therapy intervention in children with language development disorders.
Acoustic analysis of language sounds	Acoustic properties of vowels sounds Acoustic properties of plosives sounds Acoustic properties of fricatives sounds Analysis with Praat

Temporary organization of learning:

Block of content	Number of sessions	Hours
Analysis of speech samples focused on phonological disorders	15,00	30,00
Acoustic analysis of language sounds	15,00	30,00



References

- Besomi, M., Hodges, P. W., Clancy, E. A., Van Dieën, J., Hug, F., Lowery, M., Merletti, R., Søgaard, 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., Søgaard, 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., McSweeny, 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



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

Microsoft Teams

Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

Microsoft Teams

Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: