



## Information about the subject

**Degree:** Bachelor of Science Degree in Speech and Language Therapy

**Faculty:** Faculty of Psychology

**Code:** 1170204 **Name:** Assessment and diagnosis of voice disorders

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

**Module:** Assessment and diagnosis in speech and language therapy

**Subject Matter:** Assessment and diagnosis in Speech and Language Therapy **Type:** Compulsory

**Field of knowledge:** Speech and Language Therapy

**Department:** -

**Type of learning:** Classroom-based learning

**Languages in which it is taught:** Spanish

**Lecturer/-s:**

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## Module organization

### Assessment and diagnosis in speech and language therapy

| Subject Matter                                          | ECTS  | Subject                                         | ECTS | Year/semester |
|---------------------------------------------------------|-------|-------------------------------------------------|------|---------------|
| Assessment and diagnosis in Health Sciences             | 6,00  | Assessment and diagnosis                        | 6,00 | 2/1           |
| Assessment and diagnosis in Speech and Language Therapy | 12,00 | Assessment and diagnosis of language and speech | 6,00 | 2/1           |
|                                                         |       | Assessment and diagnosis of voice disorders     | 6,00 | 2/2           |

## Recommended knowledge

Previous knowledge associated with the subjects Functional Anatomy of the Organs of Speech and Hearing I and II is recommended.



## 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 To know the instruments of speech-language evaluation, both in children and adults. To know how to select and apply them.
- R2 To communicate effectively and professionally, verbally and in writing, the results of the speech-language evaluation and diagnosis process.
- R3 To recognize the limits of the professional skills of the speech-language pathologist profession and to know how to bring them into multidisciplinary teams.
- R4 To know the anatomical, physiological and acoustic mechanisms of the normal and pathological voice.
- R5 To know the laryngeal disorders, especially those that are frequently related to or might relate to voice pathology, differentiating those that require speech therapy from those that must be treated from other disciplines.
- R6 To understand and be familiar with the voice and laryngeal medical evaluation and screening techniques that are applied to patients attending a speech and language service.
- R7 To analyze normal and pathological voice samples from a clinical, acoustic, psychoacoustic and aerodynamic point of view, and professionally capture their results.



## 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):

| GENERAL |                                                                                                                                                              | Weighting |   |   |   |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|
|         |                                                                                                                                                              | 1         | 2 | 3 | 4 |
| CG1     | Analysis and synthesis                                                                                                                                       |           |   | X |   |
| CG2     | Organize a work plan being able to carry it out within a specified period                                                                                    |           |   | X |   |
| CG3     | Find, evaluate, organize and manage information systems                                                                                                      |           |   | X |   |
| CG4     | Speaking and writing fluently, appropriately and with the necessary consistency to meet the academic standards of correctness in the language of instruction |           |   | X |   |
| CG5     | Make decisions and being responsible for them                                                                                                                |           |   | X |   |

  

| SPECIFIC |                                                                          | Weighting |   |   |   |
|----------|--------------------------------------------------------------------------|-----------|---|---|---|
|          |                                                                          | 1         | 2 | 3 | 4 |
| CE6      | To understand the fundamentals of the evaluation and diagnostic process. |           |   |   | X |
| CE7      | To know and apply evaluation models, techniques and instruments          |           |   |   | X |



|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |   |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|---|
| CE8  | To evaluate language alterations in specific language developmental disorders: specific developmental language disorders, specific language disorders, language delays, phonetic and phonological disorders; communication and language disorders associated with auditory and visual deficits, attention deficit, mental impairment, pervasive developmental disorder, autism spectrum disorders, infantile cerebral palsy and multiple impairments; specific written language disorders; dyscalculias; alterations in language development due to social deprivation and those associated with multicultural and multilingual contexts; disorders of speech fluency; aphasia and associated disorders; dysarthria; dysphonia; dysglosia; alterations of language in ageing and degenerative disorders; alterations of language and communication in mental illnesses; mutism and language inhibitions; alterations of non-verbal oral functions: atypical swallowing, dysphagia and tubal alterations. |  |  |  |  | X |
| CE9  | To write a logopedical evaluation report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  | X |
| CE10 | To carry out an evaluation after the intervention.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  | X |
| CE49 | Know and critically evaluate the techniques and tools for evaluation and diagnosis in speech therapy, as well as speech therapy intervention procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  | X |
| CE52 | Develop and prepare reports for examination, diagnosis, monitoring, termination and referral                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  | X |

## TRANSVERSAL

## Weighting

|     |                                                                                                                 | 1 | 2 | 3 | 4 |
|-----|-----------------------------------------------------------------------------------------------------------------|---|---|---|---|
| CT1 | Use the techniques of verbal and nonverbal communication in order to optimize relevant communicative situations |   |   | X |   |
| CT2 | Critically evaluate own job performance and that of other professionals to improve results                      |   |   | X |   |
| CT3 | Have the flexibility to work within teams integrated by other professionals belonging to the same field         |   |   | X |   |
| CT4 | Gain a commitment to ethics and deontology in their professional field                                          |   |   | X |   |



## Assessment system for the acquisition of competencies and grading system

| Assessed learning outcomes | Granted percentage | Assessment method                                                                   |
|----------------------------|--------------------|-------------------------------------------------------------------------------------|
| R2, R3, R4, R5, R6, R7     | 50,00%             | Oral and/or written tests: exams, reports, resolution of internships.               |
| R1, R2, R3, R4, R5, R6, R7 | 30,00%             | Attendance, participation, continued work.                                          |
| R1, R2, R3, R4, R5, R6, R7 | 20,00%             | Performance and/or presentation of individual theoretical and practical activities. |

### Observations

Continuous evaluation will be developed throughout the course, assessing participation, continuous work and the completion and/or presentation of individual theoretical-practical activities.

Each of these assignments or activities may have a different weighting, which will be detailed, as well as other relevant information for their delivery, format, etc., in the framework document of each of these.

The dates of delivery of the practical tasks are understood as a term or maximum limit, being possible to make deliveries several days before the deadline, so that the student who, FOR ANY REASON has not delivered the tasks in the term and the STRICTLY established way (or obtains a result lower than 5) may perform, on the same day of the exam, different practical exercises from which the pending percentage of the grade will be obtained. The delivery of these exercises will be done EXCLUSIVELY, and if not otherwise indicated, through the specific application of the virtual campus of the UCV. Any other way of delivery will be, therefore, automatically REJECTED.

All assignments of a theoretical-practical nature must be passed, that is, the student must obtain, at least, a 5 out of 10 in each of them.

The remaining 50% of the grade is obtained with a final test, which may include theoretical and practical aspects worked on during the course.

In order for the rest of the evaluation instruments to be included in the final grade, the student must obtain at least a 5 out of 10 in each one of them.

The grades for each evaluation instrument are kept between exam sessions of the same course, but never between different academic years.

Criteria for the awarding of Honors Grades:

Evidencing levels of excellence in all competencies 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 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, M2, M3, M6</p>                                                         | R1, R2, R3, R4, R5, R6, R7 | 50,00 | 2,00 |
| <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</p>                                                                                     | R1, R2, R3, R4, R5, R6, R7 | 10,00 | 0,40 |
| <p>SEMINARS. Monographic sessions with the participation of students, teachers and professionals. They focus on specific aspects related to the competencies of the module, subject or subject. They can be held in the classroom, in other academic environments or in other different ones.</p> <p>M1</p>                                                                                 | R2, R3, R6, R7             | 1,00  | 0,04 |
| <p>TUTORIALS: Individual or small group meetings to personalize any aspect of the teaching-learning process</p> <p>M6</p>                                                                                                                                                                                                                                                                   | R2, R3, R6                 | 5,00  | 0,20 |
| <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</p> | R1, R2, R3, R4, R5, R6, R7 | 4,00  | 0,16 |





|              |  |              |             |
|--------------|--|--------------|-------------|
| <b>TOTAL</b> |  | <b>70,00</b> | <b>2,80</b> |
|--------------|--|--------------|-------------|

## 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.<br>M2                                                           | R1, R2, R3, R4, R5, R6, R7 | 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.<br>M3 | R1, R2, R3, R4, R5, R6, R7 | 50,00        | 2,00        |
| <b>TOTAL</b>                                                                                                                                                                                                                                                    |                            | <b>80,00</b> | <b>3,20</b> |



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block

Contents

### 1. INTRODUCTION AND ANATOMICAL PHYSIOLOGICAL RECALL

#### TOPIC 1.- ANATOMICAL-PHYSIOLOGICAL MEMORY OF THE BASIS OF PHONATION.

Anatomy and physiology of the respiratory system. Anatomy and physiology of the phonatory system. Histological Structure of the Vocal Fold. Mechanism of phonation: the vocal cycle. Resonance and articulation. Neurophysiology of the vocal mechanism. Laryngeal innervation.

#### TOPIC 2.- NORMAL VOICE. PATHOLOGICAL VOICE. PROFESSIONAL VOICE.

Normal voice. Basic concepts. Pathological voice: the concept of dysphonia. Professional Voice. Voice abuse and misuse. Spoken Voice vs. Sung Voice. Classical and popular singers. Types and Classification of Voices. Classification systems. The voice in lyric singing. The voice in the choir. The children's voice. The voice in modern singing.



## 2. FUNCTIONAL EVALUATION OF THE VOICE

### TOPIC 3.- CLINICAL HISTORY AND SUBJECTIVE ASSESSMENT OF THE VOICE

Objectives of the functional evaluation.

Anamnesis. Subjective acoustic evaluation: GIRBAS, CAPE-V. Subjective evaluation of vocal disorders by the patient. Subjective assessment of vocal disorders by the patient. Assessment of the quality of life in relation to the voice: Voice Handicap Index, Singing Voice Handicap Index, other questionnaires.

### TOPIC 4.- ASSESSMENT OF VOCAL EFFICIENCY

Respiratory evaluation. Respiratory type. Evaluation of phono-respiratory coordination. Maximum phonation time. Phonatory quotient. S/e index. Evaluation of voice parameters: evaluation of intensity and frequency. Phonetogram. Extension, optimal pitch, habitual pitch. Evaluation of resonance, emission and articulation. Body evaluation.

### TOPIC 5.- ACOUSTIC ANALYSIS OF THE VOICE

Advantages and disadvantages. Methods of obtaining the vocal signal. Main parameters of acoustic analysis: frequency, intensity, noise and its disturbances. Clinical voice spectrography.

## 3. CLINICAL AND INSTRUMENTAL EXAMINATION OF PHONATION

### TOPIC 6.- OTORHINOLARYNGOLOGICAL CLINICAL EXAMINATION

Physical examination of the ear, nose and pharynx.

Hearing. Evaluation of the respiratory component.

Spirometry. Aerodynamic study of vocal function.

### TOPIC 7.- FUNCTIONAL EXPLORATION BY IMAGE

Videostroboscopy. Basic principles of interpretation.

Clinical applications. High speed digital laryngeal imaging. videochymography. Radiological image in voice pathology.

Computerized tomography. Magnetic resonance.

### TOPIC 8.- COMPLEMENTARY TECHNIQUES

Electroglottography. Clinical applications. Laryngeal neurophysiological evaluation.

Electroneurography. Electromyography. Clinical applications.



## 4. PHONIATRIC CLINIC

**TOPIC 9.- CLASSIFICATION OF DYSPHONIAS. ORGANIC PATHOLOGIES OF THE LARYNX**Criteria for classification of dysphonia. Congenital organic pathologies. Acquired organic pathologies: Neoplastic pathologies of the larynx. Laryngeal papillomatosis. Chronic laryngitis. Intraepithelial neoplasms and incipient glottic carcinoma.

**TOPIC 10.- NEUROLOGICAL PATHOLOGIES OF THE LARYNX.**

Central and peripheral paralysis of the larynx. Dysphonia of neurological origin: upper motor neuron involvement, movement disorders, cerebellar changes, diffuse CNS lesions, upper and lower motor neuron involvement, neuromuscular dysphonia.

**TOPIC 11.- MINIMAL ASSOCIATED LESIONS**

Exudative lesions of Reinke's space: nodules, vocal polyps, vocal pseudocysts, Reinke's edema. Subepithelial cysts: epidermal cyst, mucous retention cyst. Vocal vascular lesions: Vocal varicose veins, ectasia, hemorrhagic polyp. Other lesions: arytenoid granuloma.

**TOPIC 12.- FUNCTIONAL DYSPHONIA**

Dysphonia due to muscular tension: isometric laryngeal contraction, medial contraction, anteroposterior contraction. Laryngeal hypofunction: closure defect, presbyphonia. Dysphonia due to inadequate tone: mutations, Psychogenic dysphonia: conversion dysphonia, paradoxical vocal movement.

**TOPIC 13.- ENDOCRINE PATHOLOGIES OF THE LARYNX. INFANTILE DYSPHONIA**

Hypothyroidism Premenstrual and gravid dysphonia. The voice in the change of sex. Voice disorders in the pediatric population. Characteristic Features.



## Temporary organization of learning:

| Block of content                                      | Number of sessions | Hours |
|-------------------------------------------------------|--------------------|-------|
| 1. INTRODUCTION AND ANATOMICAL PHYSIOLOGICAL RECALL   | 5,00               | 10,00 |
| 2. FUNCTIONAL EVALUATION OF THE VOICE                 | 10,00              | 20,00 |
| 3. CLINICAL AND INSTRUMENTAL EXAMINATION OF PHONATION | 8,00               | 16,00 |
| 4. PHONIATRIC CLINIC                                  | 12,00              | 24,00 |



## References

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