

Degree	Type	Year	Semester
2500893 Speech therapy	OB	2	A

## Contact

Name: Juan Lorente Guerrero  
Email: Juan.Lorente@uab.cat

## Use of Languages

Principal working language: spanish (spa)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: Yes

## Teachers

Ana Maria García Arumi  
Felix Pumarola Segura  
Maria Luisa Navarrete Alvaro  
Joan Piña  
Juan Fernando Fuentes Cabrera  
Silvia Naches Solsona

## Prerequisites

There are no prerequisites. It is convenient for the student to have general knowledge of anatomy and physiology of the organs that make up the auditory system, the phonatory and nervous system. This will facilitate comprehension of hypoacusia and the voice disorders that may appear in many pathological situations.

## Objectives and Contextualisation

Disorders that affect the nose, mouth, pharynx, larynx and ear, are usually accompanied by communication disorders. Doctors and in particular ENTs are often the first to be consulted when language is slow to appear, when it is difficult to understand or when there is any other alteration in the voice.

Once the ENT specialist and / or Phoniatrist has established the diagnosis and, if applicable, medical-surgical techniques have been applied to solve the specific problem, it is usually necessary for the Speech Therapist to intervene. Speech therapists apply evaluation techniques and interventions that allow as much recovery as possible of the altered functions of hearing, voice, language and speech in order to achieve their normal capacity for communication and facilitation of their social integration.

With the content of the course it is intended that the students acquire precise knowledge of the clinical anatomy and physiopathology, as well the clinical and diagnostic methods of the hearing apparatus, and

phonation and swallowing systems. This will help them to be able to intervene in their disorders, developing speech therapy functions according to the patients' individual needs, as well as to be able to advise the family if necessary.

## Competences

- Act appropriately with respect to the professions ethical code: respect professional confidentiality, apply professional criteria in the completion and referral of treatment.
- Critically evaluate the techniques and instruments of evaluation and diagnosis in speech therapy, as well as its procedures of intervention.
- Demonstrate an understanding of disorders in communication, language, speech, hearing, voice and non-verbal oral functions.
- Demonstrate an understanding of how the profession works, and the legal status of the speech therapist.
- Identify, analyze and solve ethical problems in complex situations.
- Working in intra- and interdisciplinary teams.

## Learning Outcomes

1. Demonstrate knowledge of the legal status of speech therapists in the health system.
2. Describe the main disorders of speech, voice, hearing and deglutition.
3. Explain the basics of exploring and examining the phonetic apparatus (larynx, pharynx, mouth, nostrils) and the auditory system
4. Identify situations requiring referral to other professionals.
5. Identify, analyze and solve ethical problems in complex situations.
6. Respect confidentiality in clinical practice.
7. Working in intra- and interdisciplinary teams.

## Content

### BLOCK I: AUDITIVE PATHOLOGY

Pathophysiology of hearing. Hypoacusia: definition. Classification (topographic, etiological, according to age of appearance, depending on severity). Pathophysiology of the external ear, the middle ear, the inner ear. Disorders of the central auditory process. Hearing impairment.

Audition evaluation: Clinical history. Ear examination: inspection, palpation, otoscopy, exploration of the Eustachian tube, general ORL exploration. General examination Exploration for the image in diseases of the hearing system.

### BLOCK II: PATHOLOGY OF THE VOICE, OF SPEECH AND SWALLOWING

Clinical evaluation of the patient with voice disorders. Concept of normal voice. Levels of voice usage.

Vocal symptoms. Functional voice examination (Teatinos protocol). Clinical history. General physical exploration. Physical and functional exploration of the respiratory system and resonance cavity.

Functional alterations of nasal cavity, pharynx, oral cavity and respiratory system.

Congenital malformations of the oral cavity.

Exploration of the voice. Clinical exploration of the larynx: inspection and palpation, indirect laryngoscopy, directly, endoscopy, laryngeal photography and radiology.

Aerodynamic study of the vocal and laryngeal function. Phonation time, phonogram. Stroboscopy Odeogram,

Spectrograph. Sonogram Electrolotogram Reverse filtering Registration Advantages of spectrography versus acoustic analysis. Larynge electromyography

Physiology of speech articulation. Exploration of speech

Infantile dysphonia Characteristics of the voice and the child larynx. Etiology, clinical and diagnostic.

## Methodology

Theoretical sessions

Exposition of theoretical themes with iconographic material, stimulating the discussion of the subject.

Hospital practices

The clinical rotation will be carried out on the outpatient clinics of Otolaryngology on the 1st floor attached to the Vall d'Hebron University Hospital.

Students will be integrated into a healthcare team in the outpatient clinics. They will observe how a clinical history is taken, and how anatomical and functional exploration of the hearing is performed, so that the student understands the importance of clinical history and exploration in the diagnostic process.

During the practices, in addition to the medical problems, the social and ethical problems of the clinical decisions will be discussed.

Students will be divided into 12 groups. Each group will attend 2 days, previously assigned, at the hospital (from 9h to 15h). Changes must be avoided. Clinical practices are mandatory.

The active participation of the students will be encouraged at all times through questions, opinions and personal contributions about the acquired knowledge of each subject as well as the bibliographic research.

Presentation of clinical cases

Completion of a practical work on clinical cases proposed by the teacher of the practices. A bibliographical revision will be made on the subject and given to the professor, in the terms he establishes at the Vall d'Hebron University Hospital.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Hospital practices	20	0.8	1, 2, 3, 4, 5, 6, 7
Theoretical sessions	45	1.8	2, 3, 4, 5
Type: Supervised			
Tutoring session for coursework	13	0.52	1, 2, 3, 4, 5, 6, 7
Type: Autonomous			
Bibliographical search	18	0.72	1, 2, 4, 5
Coursework	27	1.08	1, 2, 3, 5, 7
Preparation of the clinical case presentation	22	0.88	1, 2, 3, 4, 5, 6, 7
Studying	75	3	1, 2, 3, 4, 6, 7

## Assessment

Theoretical content:

Two multiple-choice tests, questions with 5 options, with only one correct. The exams will include at least two questions by topic, although this number can be increased depending on the theoretical content and the relevance of these at the time of consolidating the theoretical bases of the subject. Not-answered questions penalize. There's also a penalty for guessing, three wrong answers erase one good answer. Only one option is correct. THE MINIMUM GRADE TO PASS THE COURSE IS 5 ON EACH TEST: AVERAGE WILL NOT BE DONE WITH A GRADE OF LESS THAN 5 ON EACH OF THE TESTS.

Each exam represents 30% of the final grade of the course

Hospital practices: Attendance and student participation and involvement will be assessed; presentation and clinical case oral exposition will count for 30% of the final grade.

the attendance to all the practices will be mandatory; they count for a 10% of the final grade.

Final grade:

The final grade will be the result of the following formula: Theoretical content is equivalent to 60% + Clinical case represents 30% of the final grade + Attendance to the practices is equivalent to 10% of the final grade.

Assessable student: when the student delivers evidence of learning with a weight of at least 40%.

Passing the course: when the student has done all the evidences, obtaining at least a 5 (0-10 scale).

Resit: Students who have done evidences with a weight of at least 2/3 of the total, and having a final grade of equal or greater than 3.5 and lower than 5. They will be resited only the parts evaluated as insufficient during the course.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Hospital practice attendance	10%	0	0	1, 2, 3, 4, 5, 6, 7
Multiple choice test I	30%	1	0.04	1, 2, 3, 4
Multiple choice test II	30%	1	0.04	1, 2, 3, 4
Presentation of the clinical case	30%	3	0.12	1, 2, 3, 4, 5, 6

## Bibliography

Angulo A, Blanco JL, Mateos F. Audioprótesis: Teoría y práctica. Ed. Massón. Barcelona 1997.  
Bermúdez R. Exploración clínica de los trastornos de la voz, el habla y la audición. Ed. Aljibe. Málaga. 2003.  
Bleeckk. Disfagia: Evaluación y reeducación de los trastornos de la deglución. Ed. McGraw-Hill 2004.  
Bleeckk. Disfagia: Evaluación y reeducación de los trastornos de la deglución. Ed. McGraw-Hill 2004.  
Casado J. C. La evaluación clínica de la voz. Fundamentos médicos y logopédicos. Ed. Aljibe. Málaga 2002.  
Casado J. C. Pérez A. Trastornos de la voz: Del diagnóstico al tratamiento. Ed. Aljibe. Málaga 2009.  
Cobeta I., Nuñez F., Fernández S. Patología de la voz.. Ponencia Oficial de la Sociedad Española de ORL y Patología Cervico-Facial 2014. Ed. Marge Medica Books  
Courtat P., Peytral C, Elbaz P. Exploraciones funcionales en ORL. Ed. Massón. Barcelona 1994.  
FIAPAS. Manual Básico de Formación Especializada sobre Discapacidad Audtiva. 2004.

Jaume G, Tomas M. Manejo de la disfagia y aspiración. Ed. Ergon 2007

Le Huche F, Allali A. La voz Tomo (1,2,3, 4). Ed. Massón. Barcelona 2004

Manrique M, Huarte A. Implantes cocleares. Ed. Massón 2002.

Médica 2007.

Menaldi J. La Voz Patológica. Ed. Panamericana 2002

Navarro S. Navarro F., Romero P. Voz: Trastornos y rehabilitación. Ed. CEP 2007

Patología de la voz. I Cobeta, F. Nuñez, S Fernández. Ponencia Oficial de la SEORL PCF Ed. Marge Méica Books 2014

Peña J. Manual de logopedia. Ed. Massón. Barcelona 2001.

PerellóJ. Evaluación de la voz, lenguaje y audición. Ed. Lebón. Barcelona 1996

Perelló J. Sordera Profunda Bilateral Prelocutiva. Ed. Massón 4º edición. Barcelona 1992.

Perelló J. Trastornos del habla. Ed. Massón 5º edición. Barcelona 1995.

Puyuelo M. Casos Clínicos en logopedia. Ed. Massón 1997

Ramírez C. Manual de Otorrinolaringología, Ed. McGrawHill. Madrid 2008.

Ramos A. Cenjor C .Manrique M. Morera C. Implantes de oído medio e implantes cocleares. Ed. Ars Médica 2007

Rivera T. Audiología. Técnicas de exploración. Hipoacusias neurosensoriales. Ed. Ars Médica 2003.

Rodríguez-Smith-Agreda. Anatomía de los órganos del lenguaje, visión y audición. Ed. Panamericana 2003.

Salesa E., Perelló E., Bonavida A. Tratado de audiología. Ed. Masson. Barcelona 2013

Suárez A. Martínez J.D., Moreno J.M, García ME. Trastornos de la voz. Estudio de casos. Ed. EOS 2003.

Tomas M, Bernal M. Tratado de otorrinolaringología pediátrica. Ponencia de la SEORL 2000.

Tomatis A. Foniatría. el oído y la voz..Editorial: Paidotribo. 2010.

Vallejo L.A. Hipoacusia Neurosensorial. Ed. Massón. Barcelona 2003.

VV.AA. Educación de la voz. Anatomía, patologías y tratamiento. Ed Ideaspropias. 2004.