

Pathology of hearing, speech, voice and swallowing

Code: 104143
ECTS Credits: 9

Degree	Type	Year	Semester
2500893 Speech therapy	OB	2	A

Contact

Name: Miquel Quer Agusti
Email: miquel.quer@uab.cat

Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Teachers

Francisco Javier Leon Vintro
César José Orus Dotu

External teachers

Albert PUJOL
Cristina VALERO

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 Phoniatriest 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 profession's 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

AUDITION

1. Pathophysiology of hearing.
2. Assessment of hearing loss.
3. Childhood hearing loss.
4. Transmission deafness.
5. Deafness of perception. Presbycusis.
6. Hearing aids and other devices for deafness.
7. Cochlear implants and their rehabilitation.

SPEAK AND VOICE

8. Pathophysiology and exploration of the nose. Pathology of the nose.
9. Pathophysiology and exploration of the pharynx. Pharynx pathology.
10. Pathophysiology and exploration of the oral cavity. Pathology of the oral cavity.
11. Pathophysiology of the larynx. Laryngeal examination. Voice exploration.
12. Embryonic and evolutionary development of the phonation organs and resonance cavities. Phonation mechanisms.

13. Pathophysiology and exploration of the articulation of speech.
14. Oral, pharyngeal, nasal and pulmonary voice disorders. Resonance disorders.
15. Articulation disorders
16. Dysphonia: etiopathogenesis and classification.
17. Dysphonia due to congenital lesions of the vocal cords. Children's dysphonia. Puberfonia.
18. Dysphonia due to acquired injuries of the vocal cords. Organic and functional dysphonia.
19. Peripheral and central laryngeal paralysis
20. Dysphonia due to neurological and neuromuscular diseases
21. Aging: voice, speech and breathing. Presbiphony
22. Role of surgery in different dysphonia
23. Head and neck cancer: the sequelae of treatments
24. Total laryngectomy and its rehabilitation
25. Gender change. Voice sung. Occupational pathology.

SWALLOWING

26. Pathophysiology of swallowing
27. Exploration of swallowing
28. Functional dysphagia
29. Structural oropharyngeal dysphagia
30. Role of surgery in the treatment of dysphagia

Methodology

Theoretical sessions

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

Clinical case seminars

The students will be divided into 3 groups and will carry out these seminars where the teacher will present practical clinical cases to the students, who will have to have an active participation. The active participation of students will be encouraged at all times through questions, debate and suggestions.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

Clinical case seminars	54	2.16	1, 2, 3, 4, 5, 6, 7
Theoretical sessions	45	1.8	2, 3, 4, 5
Type: Autonomous			
Bibliographical search	31	1.24	1, 2, 4, 5
Studying	90	3.6	1, 2, 3, 4, 6, 7

Assessment

Theoretical content (EV1 and EV2):

Two multiple-choice tests individual and face to face, 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 do not penalize. There's also a penalty for guessing, four wrong answers erase one good answer. Only one option is correct.

The EV1 would take place in the second assessment period, first semester (web page).

The EV2 would take place in the second assessment period, second semester (web page).

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 35% of the final grade of the course

In case the student has difficulty understanding Catalan (eg, because he is an exchange student, etc.) he can request the test in Spanish. He has to write to the coordination explaining this situation at least four weeks before the evaluation.

Evaluation of clinical cases (EV3):

The attendance and involvement of the student will be evaluated (30% mark) and a written, individual and face to face evaluation will be made on four clinical cases where the student must give an orientation on the same (70% remaining of the note).

The grade for the evaluation of clinical cases represents 30% of the final grade. THE MINIMUM GRADE TO PASS THE COURSE IS A 5 OF THIS CLINICAL CASE EVALUATION (5 out of 10).

In case the student has difficulty understanding Catalan (eg, because he is an exchange student, etc.) he can request the test in Spanish. He has to write to the coordination explaining this situation at least four weeks before the evaluation.

Final grade:

The final grade will be the result of the following formula: Theoretical content is equivalent to 70% + Clinical case represents 30%.

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.

The resit would include a multiple response test and a clinical case evaluation.

This would take place during the resit examination period

No unique final synthesis test for students who enrol for the second time or more is anticipated.

The general UAB guidelines for assessment can be found here:

<https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html>

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
EV1. Multiple choice test I	35%	1	0.04	1, 2, 3, 4
EV2. Multiple choice test II	35%	1	0.04	1, 2, 3, 4
EV3. Evaluation of clinical cases	30%	3	0.12	1, 2, 3, 4, 5, 6, 7

Bibliography

Basic references:

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Bleeckk. Disfagia: Evaluación y reeducación de los trastornos de la deglución. Ed. McGraw-Hill 2004.

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

Further readings:

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

Software

No specific software needed