

Neurophonetic Prevention in Geriatrics

Code: 101692
ECTS Credits: 6

2025/2026

Degree	Type	Year
Logopedia	OP	4

Contact

Name: Andreu Sauca Balart

Email: andreu.sauca@uab.cat

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

Prerequisites:

- Acoustic Physics and Audiology
- Voice Alterations: Assessment and Intervention
- Neurodegenerative Diseases and Dementias

It would be interesting if students are taking, or have already taken, the subject:

- Voice Education and your Health

Objectives and Contextualisation

Students will gain the necessary basic knowledge about Voice and Speech, Applied Pathology and Speech Therapy and Basic Speech Therapy.

Students will learn to make a specific anamnesis and exploration of the voice for the elderly, taking into account all the variables that are related to this population.

Students will understand and get the basics of voice aging.

Students will be prepared to make a correct early detection and prevention of voice in gerontology.

Learning Outcomes

1. CM19 (Competence) Interpret assessment data and other relevant information for diagnostic purposes in neonatology, paediatrics and geriatrics.
2. KM53 (Knowledge) Describe the influence of aging on speech and voice.
3. SM36 (Skill) Use basic research terminology in the field of neuropaediatrics, neonatology, neurophoniatrics, and other related disciplines.
4. SM37 (Skill) Use speech therapy assessment techniques and tools in neonatology, paediatrics, and geriatrics.

5. SM38 (Skill) Plan actions in neonatology, paediatrics and geriatrics to prevent language, voice and swallowing disorders, based on case studies.

Content

Initially, as an introduction and to facilitate the achievement of the specific contents of the subject, the necessary basic knowledge on Voice and speech, applied anatomophysiology and basic therapy will be taught.

INTRODUCTION:

- What is Speech Therapy.
- Anatomical and functional bases of the mechanisms involved in the voice and articulation.
- Normal and pathological voice.
- Anatomical-physiological bases of swallowing.
- Exploration of the voice and articulation.
- Questions about swallowing exploration.
- Optimal functional use of the voice.
- Rehabilitation techniques for voice and speech and swallowing disorders.

SPEECH THERAPY IN GERONTOLOGY:

- Anatomical and functional concretions of the mechanisms involved in the voice and articulation of the elderly.
- Aging of the voice.
- Exploration of the voice and articulation in the elderly.
- Early detection and prevention in gerontology.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical classes of exploration and critical analysis and discussion of practical cases	12	0.48	CM19, SM36, SM37, SM38, CM19
Theory classes with ICT support	24	0.96	CM19, KM53, SM36, SM38, CM19
Type: Supervised			
Tutorials	3.5	0.14	
Type: Autonomous			
Search and critical reading of literature	22.5	0.9	CM19, CM19

Study	60	2.4	CM19, KM53, SM36, SM37, SM38, CM19
Teamwork and creation a presentation	25	1	CM19, KM53, SM36, SM38, CM19

The subject will consist of a theoretical module of each topic.

The practices will deal with clinical cases of which the convenient clinical discussion will be made.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
EV1. Midterm exam	25%	1	0.04	KM53, SM37
EV2. Group work and public presentation of the final work	30%	0	0	CM19, KM53, SM36, SM37, SM38
EV3. Final exam	45%	2	0.08	KM53, SM37, SM38

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

[EV1] Evidence 1 (25%): First evaluation period. Test-type exam, individual, online. Partial, of the subject taught until the week before the exam. It is not a eliminatory subject test, which is included again in EV3..

[EV2] Evidence 2 (30%): Second evaluation period. Group work (maximum three students) on the topic proposed by the teacher at the beginning of the course (10 hours of independent work) and Presentation in the Classroom. Those who choose the single assessment will have to do the work individually.

Restricted use of AI: For this subject, the use of artificial intelligence (AI) technologies is allowed exclusively for support tasks such as bibliographic or informational research, text correction, or translations. The student must clearly identify which parts have been generated using this technology, specify the tools used, and include a critical reflection on how these have influenced the process and final outcome of the activity. Lack of transparency in the use of AI in assessable activities will be considered a lack of academic honesty and may result in partial or total penalties in the activity's grade, or greater sanctions in cases of severity.

[EV3] Evidence 3 (45%): Second evaluation period. Test-type exam, individual, online. Cumulative of all the matter taught, based on the resolution of a clinical case.

All the online evaluations will be made from an UAB classroom.

Non-assessable student: if he / she has not delivered at least evidence of learning with a minimum weight of 40%.

Passed subject: pass with a 5,0 (scale 0-10) taking into account the percentage weight of each evidence mentioned above.

Students who enrol for the second time or more: A unique final synthesis test for students who enrol for the second time or more is anticipated.

Reassessment Tests: Recovery period. Individual exam, online, test type. Cumulative of all the matter of the theoretical and practical part.

Students who have not met the criteria established to pass the subject and who have been assessed with a minimum of 2/3 of evidence of learning may choose to take the make-up test.

The reassessment may consist of two parts: a test-type test and the oral resolution of a case study or, alternatively, the student, in case of having failed a single test, may choose to be re-evaluated from the test not passed.

Chrono: EV2 must be delivered no later than two weeks before EV3.

Single Evaluation at the end of the second evaluation period:

- Evidence: The test will consist of the completion/delivery, on the same day, of the different evidences [EV2+EV3], and the contributions to the case discussion forums in the Virtual Classroom throughout the course will also be taken into account:
Mandatory delivery of the work specified in the EV2, individual, with a weight of 30% that will also be exposed to the teacher after the exam.
A multiple choice exam with questions of various types, online, from a UAB computer room, with questions corresponding to the theoretical part and the practical part of the subject (oral explanations to the classroom, drawings, graphs, etc., in the blackboard, videos viewed in the classroom, PowerPoints, Forums on the Virtual Campus, Bibliography, practical exercises, practical learning), with a weight of 70%
- Recovery: The same recovery system will be applied as for the continuous evaluation.
- Review of the final grade: The review of the final grade follows the same procedure as for the continuous assessment, through an individual interview with the teacher.
- Duration: The estimated duration of the face-to-face test will be 3 hours.
- Request: the Single Assessment is requested electronically (e-form) in the specific period (more information on the Faculty's website).

Languages: The exams are in Catalan, they will only be translated if the requirements established in article 263 are met and your application is made electronically (e-form). You can find more information at the web Faculty. The assignments and their presentation can be in Catalan or Spanish.

Honors: In any case, the maximum achievable mark will be a 10, although the relative mark will be taken into account when awarding possible Honors.

Type of Return:

EV1 - In the Classroom - Same day as the exam

EV2 - Tutoring, and in the Classroom the same day as the exam

EV3 - In the Classroom - Same day as the exam

Bibliography

FUNDAMENTAL:

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<https://www.msdmanuals.com/es-es/professional/geriatr%C3%A3/abordaje-del-paciente-geri%C3%A1trico>
- The ageing voice: changes in fundamental frequency, waveform stability and spectrum.
Decoster W, Debruyne F. Acta Otorhinolaryngol Belg. 1997;51(2):105-12.

- [A comparative acoustic analysis of voice production by near-total laryngectomy and normal laryngeal speakers.](#)
Hoasjoe DK, Martin GF, Doyle PC, Wong FS. J Otolaryngol. 1992 Feb;21(1):39-43.
- [Fragments of a Greek Trilogy: impact on phonation.](#)
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- [Speech production of normally aging adults.](#)
Benjamin BJ. Semin Speech Lang. 1997 May;18(2):135-41. doi: 10.1055/s-2008-1064068.
- [Treatment of dysphonia in older people: the role of the speech therapist.](#)
Oates JM. Curr Opin Otolaryngol Head Neck Surg. 2014 Dec;22(6):477-86. doi: 10.1097/MOO.0000000000000109.
- Estudio y tratamiento de los problemas de la voz en la población geriátrica.
<https://www.medigraphic.com/pdfs/actmed/am-2003/am031g.pdf>

WEB Articles:

- https://www.researchgate.net/publication/309444551_False_Vocal_Fold_Characteristics_in_Presbylaryngeal_Aging

COMPLEMENTARY:

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- Berke GS, Gerrat B, Kreiman J, Jackson K. Treatment of Parkinson hypophonia with percutaneous collagen augmentation. Laryngoscope 1999; 109: 1295-1299.

WEB Articles:

- <https://www.researchgate.net/scientific-contributions/Clark-A-Rosen-39783561/publications> :
- https://www.researchgate.net/publication/309444551_False_Vocal_Fold_Characteristics_in_Presbylaryngeal_Aging
- https://www.researchgate.net/publication/49857971_Treatment_Success_for_Age-Related_Vocal_Fold_Atlas
- https://www.researchgate.net/publication/251728316_How_Much_Pharyngeal_Acid_is_Normal_Normative
- https://www.researchgate.net/publication/49739709_Vocal_Fold_Injection_Review_of_Indications_Technique

- https://www.researchgate.net/publication/40485226_Current_Practice_in_Injection_Augmentation_of_the_Vocal_Fold
- https://www.researchgate.net/publication/26257881_Trial_Vocal_Fold_Injection
- https://www.researchgate.net/publication/24189996_Vocal_fold_augmentation_with_calcium_hydroxylapatite
- https://www.researchgate.net/publication/23493756_Revision_Laryngeal_Surgery_for_the_Suboptimal_Injection_Vocal_Fold
- https://www.researchgate.net/publication/5458140_The_Frequency_of_Perceived_Stress_Anxiety_and_Dysphonia_in_Vocal_Fold_Augmentation
- https://www.researchgate.net/publication/319762499_Principles_of_Vocal_Fold_Augmentation
- https://www.researchgate.net/publication/345943818_Abnormal_Laryngeal_Electromyography_Findings_in_Vocal_Fold_Augmentation
- https://www.researchgate.net/publication/272082712_Comparison_of_Voice_Outcomes_After_Trial_and_Laryngeal_Surgery
- https://www.researchgate.net/publication/259387282_What_is_the_role_of_the_larynx_in_adult_obstructive_apnoea
- https://www.researchgate.net/publication/272029394_Neurogenic_Cough

Software

- Praat (Mac, Windows, Linux) Freeware (Download: www.praat.org)
- Overtone Analyzer (Mac, Windows) ... Mac: v. 5 or sup. (€, unlimited). Windows: v. 4 (freeware, limited), v. 5 or sup. (€, unlimited)
- Gram (Windows) Freeware
- S/Z (App iOs) (€) (Compatible with iPhone, iPad, iWatch and MacBooks equipped with Proc. M1 or higher)

Observations: If any student want to buy (not mandatory) the Overtone Analyzer software, please note that the manufacturer offers a 50% discount to students (they must follow the instructions on their website)

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(SEM) Seminars	111	Catalan	first semester	morning-mixed
(SEM) Seminars	112	Catalan	first semester	morning-mixed
(TE) Theory	1	Catalan	first semester	morning-mixed