



Information about the subject

Degree: Bachelor of Science Degree in Speech and Language Therapy

Faculty: Faculty of Psychology

Code: 1171101 **Name:** Functional anatomy of the organs of speech and hearing I

Credits: 6,00 **ECTS Year:** 1 **Semester:** 1

Module: Basic Training

Subject Matter: Anatomy **Type:** Basic Formation

Field of knowledge: Ciencias de la Salud

Department: Speech Therapy

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

Basic Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Physiology	12,00	Functional anatomy of the organs of speech and hearing II	6,00	1/2
		Fundamentals of Neuroscience	6,00	1/2
Anatomy	6,00	Functional anatomy of the organs of speech and hearing I	6,00	1/1
Psychology	36,00	Basic Psychological Processes	6,00	1/1
		Developmental psychology	6,00	1/1
		Psycholinguistics	6,00	2/1
		Psychology of Education	6,00	2/2
		Psychology of language development	6,00	1/2
		Research Methodology	6,00	2/1
Clinical linguistics	6,00	Linguistics applied to speech and language therapy	6,00	1/1

Recommended knowledge

None



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 anatomical terminology and to be able to use it in scientific communication.
- R2 To recognize the general anatomical structures and relate them to each other
- R3 To describe the anatomical and functional organization of the skeleton (spine and skull) and understand its mission of protecting the central nervous system, maintaining body posture and contributing to resonance cavities.
- R4 To describe the anatomy of the sense of vision and to know its function as a peripheral organ of language.



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):

BASIC		Weighting			
		1	2	3	4
CB3	Students have the ability to gather and interpret relevant data usually within their field of study to inform judgments that include reflection on relevant social, scientific or ethical			X	
CB4	Students can communicate information, ideas, problems and solutions to both specialist and non-specialist			X	
CB5	Capacity to develop those learning skills needed to undertake further studies with a high degree of autonomy				X
SPECIFIC		Weighting			
		1	2	3	4
CE1	Understand and integrate the biological foundations of Speech: Anatomy and Physiology				X
CE32	Using information technology and communication			X	
CE33	Final project involving transversally applicable material; to be carried out in association with different subjects		X		
CE37	Master the terminology that allows one to interact effectively with other professionals				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
TRANSVERSAL		Weighting			
		1	2	3	4



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
R1, R2, R3, R4	50,00%	Written exam
R1, R2, R3, R4	35,00%	Practical work assignments assessment
R1, R2, R3, R4	15,00%	Attendance and participation of in-person formative activities

Observations

WRITTEN TEST: 50%

Open questions (15%): written exam that mainly assesses theoretical knowledge and the student's ability to relate, integrate and express knowledge coherently in written language.

Multiple choice tests (35%): multiple choice tests with one of the five possible correct answers.

Provide a deeper understanding of the content learned by the student and prepare him to deal with this assessment model

ASSESSMENT OF PRACTICES: 35%

Anatomical images tests (10%): exam in which the student must identify the anatomical structures previously observed in class

Oral test (10%): oral exam in which the student answers the questions asked by the teacher, verbally explaining the knowledge he has acquired and allowing interaction with the teacher

Final portfolio (15%): individually, students design a document presenting it to be evaluated by the teacher. It will consist of an anatomical atlas of the structures studied in the subject.

ATTENDANCE AND PARTICIPATION: 15%

Attendance to class (3%): It will never exceed 5% of the final grade.

Class participation (12%): the teacher evaluates participation and progress in the acquisition of knowledge and skills by students during masterclasses and practices

CRITERIA FOR THE GRANT OF HONOR REGISTRATION: To obtain it, a grade equal to or greater than 9, participation in all class activities and final work of the subject with the highest grade of the class. Also, and in accordance with the general regulations, you can only give an honorary registration for every 20 students not for a fraction of 20, with the exception of the case of groups of less than 20 students in total, in which you can give only one.



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, M3, M8	R1, R2, R3, R4	24,00	0,96
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 M1, M2, M6, M8	R1, R2, R3, R4	12,00	0,48
GROUP WORK EXHIBITION. Application of multidisciplinary knowledge M1, M5, M6, M7, M8	R1, R2, R3, R4	6,00	0,24
SEMINAR. Supervised monographic sessions with shared participation M1, M3, M8, M9	R1, R2, R3, R4	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. M1, M5, M8	R1, R2, R3, R4	9,00	0,36
ASSESSMENT. Set of oral and/or written tests used in initial, formative or additive assessment of the student M5, M6	R1, R2, R3, R4	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, M6, M7, M8	R1, R2, R3, R4	36,00	1,44
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 M5, M7, M8	R1, R2, R3, R4	54,00	2,16
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
1.- GENERALITIES OF HUMAN ANATOMY. THE LANGUAGE OF THE ANATOMY.	<ul style="list-style-type: none">·Topic 1: Definition of Anatomy and Physiology. Levels of organization of the living beings: cells, tissues, organs, systems and organism. Features of the living human body. Basic life processes. Homeostasis and homeostatic imbalances. Basic concepts on some corporal systems. Introduction to the anatomy and function of the language: general concepts on central and peripheral organs of the language. General concepts on the voice: the three parts of the vocal system.·Topic 2: Terminology of Anatomy. Anatomical position. Axes and anatomical planes. Terms of position. Terms of orientation. Regional terms. Body cavities. Medical images.·Topic 3: General embryology. First week of development: fertilization, cleavage, blastulation, implantation. Second week: bilaminar embryonic disc development. Third week: gastrulation, trilaminar disc. Basis of heredity.
2.- PRINCIPLES OF SUPPORT AND MOVEMENT	<ul style="list-style-type: none">·Topic 4: Basics of musculoskeletal system. Osteology: bony tissue. Anatomical features of the bones and their types. Terms relating to the bones.·Topic 5: Arthrology: cartilage. Anatomical features of the joints and their types. Joints kinematics. Myology: Muscle tissue. Anatomical features of muscles and their types



3.- THE SKELETAL SYSTEM: THE AXIAL SKELETON. THE APPENDICULAR SKELETON

·**Topic 6:** The support structure of respiration. Vertebral column. Rib cage: sternum, costal cartilages and ribs. Joints of the spine. Movements of the vertebral column and its participation in the speech.

·**Topic 7:** Pectoral girdle: scapula, clavicle and humerus. Pelvic girdle. Pelvis major and minor. Anatomical differences between male and female pelvis.

·**Topic 8:** Cranial skeleton: neurocranium and viscerocranium. Base of the skull, nasal and intracranial cavities. Braincase sutures and fontanelles. Facial skeleton, craniofacial mass.

4.- GENERAL CONCEPT OF SENSES

·**Topic 9:** General concept of the senses. Functional and structural scheme of the senses: receptors. Brain stem and cranial nerves. Joint study of cranial nerves.

5.- ORGAN OF VISION

·**Topic 10:** Anatomy of the orbit and the organ of vision: layers of the eyeball, means of refraction and eye cameras. Ocular reflexes. Physiology of vision. Annexes to the eyeball. Visual information system

Temporary organization of learning:

Block of content	Number of sessions	Hours
1.- GENERALITIES OF HUMAN ANATOMY. THE LANGUAGE OF THE ANATOMY.	8,00	16,00
2.- PRINCIPLES OF SUPPORT AND MOVEMENT	6,00	12,00
3.- THE SKELETAL SYSTEM: THE AXIAL SKELETON. THE APPENDICULAR SKELETON	10,00	20,00
4.- GENERAL CONCEPT OF SENSES	3,00	6,00
5.- ORGAN OF VISION	3,00	6,00



References

BASIC BIBLIOGRAPHY:

· Tortora, G.; Reynolds Grabowski, S.- *Introducción al Cuerpo Humano. Fundamentos de Anatomía y Fisiología*. 7ª edición. Editorial Médica Panamericana (2008).

· Tortora, G.; Reynolds Grabowski, S.- *Principios de Anatomía y Fisiología*- 11ª edición. Editorial Médica Panamericana. (2007).

RECOMMENDED BIBLIOGRAPHY:

· Hoit, JD; Weismer, G; Story, B. (2021) Foundations of Speech and Hearing: Anatomy and Physiology. Plural Publishing Inc.

· McFarland (2008). Atlas de Anatomía en Ortofonía. Lenguaje y deglución. Ed. Elsevier-Masson. Barcelona

· Netter, FH. (2019). Atlas de Anatomía humana. Elsevier.

· Rodríguez, S; Smith Agreda, J.M. (2004) Anatomía de los órganos del lenguaje, visión y audición. Editorial Panamericana.

· Rousseau, B; Branski, R (2018). Anatomy and Physiology of Speech and Hearing. Thieme Medical Publishers Inc.

· Rouviere H. Delmás A. (2001). Anatomía Humana. Descriptiva, topográfica y funcional. Ed Masson

· Seikel, A. J.; King, D. W., Drumright, D.G. (2010) Anatomy and Physiology for Speech, Language, and Hearing. Singular Publishing.

· Thibodeau G.A., Patton K. T. (2007) Anatomía y Fisiología. Estructura y función del cuerpo humano. Editorial Mosby.

ON-LINE RESOURCES

· <https://www.free-anatomy-quiz.com/es/>

· <http://www.innerbody.com/htm/body.html>

· <https://webanatomy.umn.edu/>

· <http://www.getbodysmart.com/index.htm>

· <https://bcs.wiley.com/he-bcs/Books?action=index&bcsId=1026&itemId=0471366927>

· <http://www.bartleby.com/107/>

· <http://www.meddean.luc.edu/lumen/meded/grossanatomy/dissector/mml/index.htm> MUSCLES

· http://www.meddean.luc.edu/lumen/MedEd/GrossAnatomy/learnem/bones/main_bone.htm

BONES

· <http://www.iqb.es/cbasicas/anatomia/musculos/musculos1.htm> MUSCLES IN SPANISH

· <http://www.ugr.es/~dlcruz/index.htm> IN SPANISH

· <http://www9.biostr.washington.edu/da.html>

· <http://www.youtube.com/user/leonardocoscarelli>: PROFESSOR LEONARDO COSCARELLI

· <http://es.aclandanatomy.com/> CADAVERIC DISSECTIONS