



## Information about the subject

**Degree:** Bachelor of Science Degree in Dentistry

**Faculty:** Faculty of Medicine and Health Sciences

**Code:** 481104 **Name:** Embryology and General Anatomy I

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

**Module:** Module 1: Relevant Basic Biomedical Sciences in Dentistry

**Subject Matter:** HUMAN ANATOMY **Type:** Basic Formation

**Field of knowledge:** Health Sciences

**Department:** Anatomy and Physiology

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

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

### Lecturer/-s:

481A	<u>Maria Ester Legidos García</u> ( <b>Responsible Lecturer</b> )	ester.legidos@ucv.es
481GIQ	<u>Jorge Miguel Barcia Gonzalez</u> ( <b>English Responsible Lecturer</b> )	jm.barcia@ucv.es
	<u>Amariel Enrique Barra Pla</u>	amariel.barra@ucv.es



## Module organization

### Module 1: Relevant Basic Biomedical Sciences in Dentistry

Subject Matter	ECTS	Subject	ECTS	Year/semester
HUMAN ANATOMY	12,00	Embryology and General Anatomy I	6,00	1/1
		General Anatomy II and Oral Anatomy	6,00	1/2
Biology	18,00	Biology	6,00	1/1
		Histology	6,00	1/2
		Microbiology	6,00	1/2
Physiology	6,00	Human and Oral Physiology	6,00	1/2
Biochemistry	6,00	Biochemistry	6,00	1/1
MODERN LANGUAGE	12,00	Modern Language: English	6,00	2/2
		Modern language: Spanish	6,00	2/2

## Recommended knowledge

No basic knowledge is required.



## 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 The student knows and discriminates the steps of embryogenesis from gametogenesis to the complete formation of the embryo.
- R2 Knows the main concepts that make up anatomical terminology, its foundations and clinical and surgical utility.
- R3 The student distinguishes the different anatomical osteomuscular structures of the human body.
- R4 Uses dissection instruments in practical work.
- R5 Applies general knowledge of anatomy.
- R6 Looks for bibliographic information from different sources and knows how to use it in a critical and constructive way.
- R7 Identifies the interactions between the organs and systems studied.
- R8 Knows how to search for information from different sources and analyse it with a critical and constructive spirit.



## 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 I aCapacity for analysis and synthesis				X
CG2 I bOrganizational and planning skills				X
CG12 FInterpersonal skills		X		
CG13 FRecognition of diversity and multiculturalism	X			
CG4 I dKnowledge of a foreign language		X		
SPECIFIC	Weighting			
	1	2	3	4
CE A 1 Know the essential elements of the dental profession, including ethical principles and legal responsibilities.				X
CE A 2 Understand the importance of such principles for the benefit of the patient, society and the profession, with special attention to professional secrecy.			X	
CE A 3 Identify the patient's concerns and expectations, as well as to communicate effectively and clearly, both orally and in writing, with patients, relatives, the media and other professionals.			X	
CE A 5 Know how to apply the principles of anxiety and stress management to oneself, to patients and to other members of the dental team.			X	
CE A 8 Know how to share information with other health professionals and to work as a team.				X
CE A 9 Understand the importance of maintaining and using records with patient information for subsequent analysis, preserving the confidentiality of the data.		X		



CE B 1 Understand the basic biomedical sciences on which dentistry is based to ensure proper oral care.

X

CE B 1 Understand and recognize the normal structure and function of the stomatognathic system, at the molecular, cellular, tissue and organic level, in the different stages of life.

X

CE B 1 Understand and recognize the principles of ergonomics and safety at work (including control of cross-infection, radiation protection and occupational and biological diseases).

X

## TRANSVERSAL

### Weighting

1 2 3 4

1. a. Analysis and synthesis skills

X

1. b. Organizational and planning capacity

X

1. c. Oral and written communication in the native language.

X

1. d. Knowledge of a foreign language

X

1. e. Computer skills

X

1. f. Information management capacity

X

1. g. Problem solving

X

2. i. Teamwork

X

2. l. Interpersonal skills

X

2. m. Recognition of diversity and multiculturalism

X

2. n. Critical Reasoning

X

3. p. Autonomous learning

X

3. q. Adaptation to new situations

X



Year 2025/2026  
481104 - Embryology and General Anatomy I

3. r.	Creativity				x
3. s.	Leadership				x
3. v.	Motivation for quality				x



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

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R5, R7	20,00%	OPEN QUESTIONS: Written exam in which basic theory knowledge and the ability to relate, integrate and coherently express it in writing is assessed.
R1, R2, R3, R5, R7	45,00%	MULTIPLE CHOICE TEST: Multiple choice test with one correct answer. This shows to greater extent the contents acquired by the student.
R2, R3, R5	5,00%	CLASS PARTICIPATION: The teacher assesses the participation, involvement and progress the student makes in acquiring knowledge and skills in theory and practical classes and seminars. This is never more than 5% of the final grade.
R4, R5, R7	30,00%	PRACTICAL EXAM: The student carries out a test in which he/she must show by means of practical application the acquisition of certain knowledge. For example, histological or anatomopathological diagnoses, interpretation of images or diagnostic tests.

### Observations

To pass the course, students must obtain a grade equal to or higher than 5 in both the theoretical portion of the test and the separate questions, as well as in the practical sessions.

If students pass one part of the course (theory or practical sessions) and fail the other in the first sitting, the grade for the passed part will be carried over to the second sitting. If students only pass part of the course at the end of the second sitting, the grade will not be carried over to the following year.

Attendance at practical sessions is mandatory, and absences must always be justified.

- If students fail once, they may take the exams for the first and second sittings as normal.
- If students fail twice, they may not take the exam for the first sitting but may take the second sitting.
- If there are more than two justified absences, the student will not be able to take the exam in either the first or second exam period and will have to take the course again the following year.- In the event of one unjustified absence, the student will not be able to take the exam in the first exam period but will be able to take it in the second.- In the event of one unjustified absence and one justified absence, the student will not be able to take the exam in either the first or second exam



period and will have to take the course again the following year

Honorable mentions may be awarded to the best students provided they obtain an average grade of 9 or higher. The maximum number of honorable mentions to be awarded shall be governed by the following rule: - From 1 to 39 students enrolled: 1 honorable mention.

- From 40 to 59 students enrolled: 2 honorable mentions.

- From 60 to 79 students enrolled: 3 honorable mentions.

#### CRITERIA FOR AWARDING HONORABLE MENTIONS:

In accordance with current UCV regulations on course assessment and grading, honorable mentions may be awarded to students who have obtained a grade of 9.0 or higher. The number of "Honors" may not exceed five percent of the students enrolled in the group in the corresponding academic year, unless the number of students enrolled is less than 20, in which case only one "Honor" may be awarded. Exceptionally, honors may be awarded among the different groups of the same subject as a whole. However, the total number of honors awarded will be the same as if they were assigned by group, but they may be distributed among all students according to a common criterion, regardless of the group to which they belong. The criteria for awarding honors will be based on the criteria stipulated by the professor responsible for the subject, as detailed in the "Observations" section of the evaluation system.

#### *Evaluation by single assessment*

This course does not offer evaluation by single assessment, as it requires mandatory practical activities with active student participation.

#### *Use of Artificial Intelligence (AI):*

Students may use AI for personal study of the course. Students may not use AI to complete assessable assignments unless required for a specific activity and instructed by the instructor. If AI is used in any of the activities, the specific part of the activity, the AI tool used, and the purpose for which it was used must be stated.

#### **MENTION OF DISTINCTION:**

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      Lecture.  
          Problem Solving.  
          Explanation of contents by the teacher.  
          Explanation of knowledge and skills.
- M2      Practical basic sciences laboratory sessions, practical  
          simulation laboratory sessions, virtual hospital and  
          dissecting room.
- M10     Carrying out bibliographic reviews and practical work experience dissertations.
- M12     Seminars, supervised monographic classes with shared participation.
- M13     Personal preparation of written texts, essays, problem solving, seminars.
- M15     Personalised Attention. Period of instruction and/or guidance carried out by a tutor with  
          the aim of analysing with the student his/her work, activities and evolution in learning of  
          subjects.



## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
<b>THEORY CLASS</b> M1, M10, M12, M15	R1, R2, R3, R6, R7, R8	38,00	1,52
<b>SEMINAR</b> M10, M12, M13	R1, R2, R3, R5, R6, R7, R8	8,00	0,32
<b>TUTORING</b> M15	R6, R8	2,00	0,08
<b>EVALUATION</b> M10, M12, M13	R1, R2, R3, R5	2,00	0,08
<b>PRACTICAL CLASS</b> M2	R2, R3, R4, R5	10,00	0,40
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
<b>INDIVIDUAL WORK</b> M10, M13, M15	R2, R3, R5, R6, R7, R8	90,00	3,60
<b>TOTAL</b>		<b>90,00</b>	<b>3,60</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

### Theoretical contents:

Content block	Contents
UNIT 1	Histology
UNIT 2	General concepts of anatomy. Organization and levels of the human body. Organs and systems. Positions and anatomical planes. Anatomical-medical terminology.
UNIT 3	General embryology
UNIT 4	Musculoskeletal system. Spine. Rib cage. Muscles of the back, chest, and abdominal wall. Upper limb: bones, muscles, and vascularization. Lower limb: bones, muscles, and vascularization.
UNIT 5	Anatomy of the heart. Layers. Cavities. Cardiac vascularization and innervation. Large arterial vessels: structure, classification, location, and general distribution. Large venous and lymphatic vessels: Structure and general distribution
UNIT 6	Anatomy of the respiratory system: upper and lower airways.
UNIT 7	Digestive system: General study, vascularization. Mouth, esophagus, stomach, and duodenum. Small intestine, large intestine, and rectum. Accessory organs
UNIT 8	Renal and excretory system: urinary tract. Female reproductive system: ovaries, fallopian tubes, uterus, vagina, and external genitalia. Male reproductive system: testicles and scrotum. Seminal ducts. External genitalia.
UNIT 9	Neuroendocrine system: Pituitary gland, thyroid gland, parathyroid glands, and adrenal glands.



## UNIT 10

Nervous System. Concept of the nervous system.  
Classification. Autonomic nervous system. Study of the  
spinal cord and brain stem, cerebrum, and cerebellum.  
Ascending and descending pathways. Sense organs.  
Sensory organs.

## PRACTICES

PRACTICE 1. Osteology  
PRACTICE 2. Musculoskeletal  
system  
PRACTICE 3. Splanchnology  
PRACTICE 4. Nervous  
system  
PRACTICE 5. Review



## Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT 1	1,00	2,00
UNIT 2	1,00	2,00
UNIT 3	5,00	10,00
UNIT 4	5,00	10,00
UNIT 5	2,00	4,00
UNIT 6	2,00	4,00
UNIT 7	2,00	4,00
UNIT 8	2,00	4,00
UNIT 9	2,00	4,00
UNIT 10	3,00	6,00
PRACTICES	5,00	10,00



## References

### Main bibliography (recommended as regular reading-consultation)

- Suárez Quintanilla J. HUMAN ANATOMY FOR HEALTH SCIENCES STUDENTS. Elsevier. 2nd Edition 2020
- Gilroy. Prometheus. ANATOMY FOR STUDENT. 2nd edition. 2020
- Waschke, Koch. ANATOMY TEXT. Elsevier. 1st Edition 2018
- Wineski Lawrence. CLINICAL ANATOMY BY REGION. Wolters Kluwer. 10th Edition. 2019
- Drake J. GRAY. BASIC ANATOMY. Elsevier. 2nd Edition 2018
- Hansen John. NETTER ANATOMY COLORING BOOK. Elsevier. 2nd Edition. 2019
- Feneis H. ILLUSTRATED ANATOMICAL NOMENCLATURE Ed. Masson 6th Edition. 2021

### Further reading:

- Sobotta - R. Putz. SOBOTTA. ATLAS OF HUMAN ANATOMY 3 VOLS. Elsevier. 25th Edition 2024
- Netter F. ATLAS OF HUMAN ANATOMY. Elsevier. 8th Edition. 2023