



## Information about the subject

**Degree:** Bachelor of Science Degree in Physiotherapy

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

**Code:** 241107 **Name:** Anatomy I

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

**Module:** MODULE 1: BASIC FORMATION

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

**Field of knowledge:** Health Science

**Department:** -

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

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

### Lecturer/-s:

241A	<u>Francisco Tomas Aguirre</u> ( <b>Responsible Lecturer</b> )	paco.tomas@ucv.es
241Q	<u>Amariel Enrique Barra Pla</u> ( <b>Responsible Lecturer</b> )	amariel.barra@ucv.es
281DC	<u>Maria Oltra Sanchis</u> ( <b>Responsible Lecturer</b> )	maria.oltra@ucv.es



## Module organization

### MODULE 1: BASIC FORMATION

Subject Matter	ECTS	Subject	ECTS	Year/semester
Anatomy	18,00	Anatomy I	6,00	1/1
		Anatomy II	6,00	1/2
		Cellular and Molecular Biology	6,00	1/1
Physiology	18,00	Biomechanics and Applied Physics	6,00	2/1
		Physiology I	6,00	1/2
		Physiology II	6,00	2/1
Applied psychosocial sciences	12,00	Anthropology	6,00	1/2
		Psychology	6,00	1/2
Statistics	6,00	Biostatistics	6,00	1/1
Modern Language	6,00	English	6,00	1/1

## Recommended knowledge

Not required. Knowledge in biology or natural sciences equivalent to the high school level is recommended.



## 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 the topographical situation, the model and the relationships of the different structures of the nervous system and the internal organs.
- R2 Identifies on the body the different structures of the human body.
- R3 Applies anatomical knowledge to explain the relationship between morphology and the function of the different organic systems.  
Knows the international anatomical terminology and knows how to use it as a means of communication between health professionals.
- R4 The student knows the international anatomical terminology and knows how to use it as a means of communication between health professionals.
- R5 Locates and prioritizes anatomical knowledge in terms of its importance, discriminating between relevant and accessory knowledge.
- R6 Looks for bibliographical information from different sources and knows how to use it with a critical and constructive spirit.
- R7 The student is capable of preparing documents on anatomy and working in a team.
- R8 Analyses his work critically.
- R9 The student is able to write a comprehensible and organized text on various aspects of human anatomy.



## 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
CB1	Students demonstrate knowledge and understanding in an area of study that is at the core of general secondary education, and is often at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.				X
CB2	Students know how to apply their knowledge to their work or vocation in a professional way and possess the skills usually demonstrated by developing and defending arguments and solving problems within their area of study.	X			
CB3	Students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.			X	
CB4	Students can convey information, ideas, problems and solutions to both specialized and non-specialized audiences.		X		
CB5	Students develop those learning skills necessary to undertake further studies with a high degree of autonomy.			X	
SPECIFIC		Weighting			
		1	2	3	4
CE1	Students learn human anatomy and physiology, highlighting the dynamic relations between structure and function, especially of the locomotive system and the nervous and cardio-respiratory systems.				X
CE3	Students identify the factors that influence human growth and development throughout life.				X
CE7	Students know the application of ergonomic and anthropometric principles.	X			



Year 2023/2024  
241107 - Anatomy I

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Decision-making		X		
CT2	Problem solving.			X	
CT3	Capacity for organization and planning.		X		
CT4	Analysis and synthesis capacity.			X	
CT5	Oral and written communication in the native language.		X		
CT6	Information management capacity.		X		
CT7	Computer skills related to the field of study.		X		
CT8	Knowledge of a foreign language.		X		
CT9	Ethical commitment.		X		
CT10	Teamwork.			X	
CT11	Interpersonal relationship skills.		X		
CT12	Work in an interdisciplinary team		X		



CT13	Critical Reasoning			x	
CT17	Adaptation to new situations.		x		
CT18	Creativity			x	
CT19	Autonomous learning				x
CT20	Initiative and entrepreneurship		x		
CT21	Leadership.			x	
CT22	Knowledge of other cultures and customs	x			
CT23	Sensitivity to environmental issues.	x			



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

Assessed learning outcomes	Granted percentage	Assessment method
R1, R3, R4, R5, R6, R8, R9	15,00%	OPEN QUESTIONS: Written exam in which theoretical knowledge and the student's ability to relate, integrate and express it coherently in written language are evaluated. It allows the following generic or transversal skills to be assessed: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 5 Oral and written communication in the native language. 8 Knowledge of a foreign language. 2 Problem-solving 19 Autonomous learning.
R1, R3, R4, R5, R7, R8	50,00%	TEST TYPE: Multiple choice test with one correct answer out of five possible ones. It allows the student to know in greater detail the contents acquired by him/her. It allows the following generic or transversal competences to be assessed: 2 Problem solving 1 Decision making 13 Critical thinking
R1, R2, R4	30,00%	PRACTICAL EXAM: The student is faced with a test in which s/he must demonstrate through practical application the acquisition of certain knowledge. For example, histological or anatomopathological diagnosis, image interpretation or diagnostic tests. This test evaluates the following generic or transversal skills: 13 Critical reasoning. 19 Autonomous learning.
R3, R5	5,00%	ATTENDANCE AND PARTICIPATION IN CLASS: The teacher evaluates the participation, involvement and progression of the student's acquisition of knowledge and skills during the theoretical and practical classes. It will not exceed 5% of the final grade.



## Observations

It is necessary to achieve the appropriate learning outcomes collected in each assessment system. Failure to comply with the rules and deadlines established for the conduct of academic activities will invalidate the grade. In accordance with the general regulations, only one "*Matricula de honor*" grade can be granted 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 1 "*MdH*" can be given.) A grade of 9 or above is required for this.

## MENTION OF DISTINCTION:

According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 ("Sobresaliente"). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

## Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- |     |   |
|-----|---|
| M1  | Master class Problem solving Exposition of contents by the teacher. Explanation of knowledge and skills   |
| M2  | Case resolution: Analysis of sample realities - real or simulated - that allow the student to connect theory with practice, to learn from models of reality or to reflect on the processes used in the cases presented. |
| M5  | Set of tests carried out to know the degree of acquisition of knowledge and skills of the student.  |
| M6  | Problem solving and case studies Written work Online activity in the e-learning platform Personal study. Search of information and documentation.   |
| M12 | Group work: Group work sessions supervised by the teacher. Knowledge construction through student interaction and activity.   |
| M14 | Group work to search, discuss and filter information about the subjects   |
| M15 | Seminar, supervised monographic sessions with shared participation  |



M16 Student's study: Individual preparation of readings, essays, problem solving, seminars.

## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1	R1, R3, R4, R5	40,00	1,60
Practice lessons M2	R1, R2	10,00	0,40
Seminar M15	R3, R5, R8	2,00	0,08
Office Hours M1	R6	3,00	0,12
Assessment M5	R1, R2, R3, R4, R5, R8, R9	5,00	0,20
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M16	R6, R9	80,00	3,20
Group work M14	R7	10,00	0,40
<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 I.-INTRODUCTION TO THE STUDY OF ANATOMY	<ul style="list-style-type: none"><li>·General in anatomy</li><li>·History of Anatomy.</li><li>·Positions axes and planes</li></ul>
UNIT II.- EMBRYOLOGY	<ul style="list-style-type: none"><li>•General concepts of human embryology</li><li>•Fertilization and Implantation</li><li>•Gastrulation and formation of embryonic leaves</li><li>•Normal gestation</li></ul>
UNIT III. CIRCULATORY SYSTEM	<ul style="list-style-type: none"><li>•Organization and components</li><li>•Heart</li><li>•Angiology</li><li>•Circulation</li></ul>
UNIT IV.- RESPIRATORY SYSTEM	<ul style="list-style-type: none"><li>•Organization and components</li><li>•Airways (respiratory tract)</li><li>•Lungs and Pleura</li></ul> Breathing and respiratory musculature
UNIT V.- DIGESTIVE / ENDOCRINE	<ul style="list-style-type: none"><li>•Digestive system: Organization and Components</li><li>•Digestive tract: Sections</li><li>•Glands: Liver and Pancreas</li><li>•Endocrine System: Organization and Components</li></ul>
UNIT VI.- UROGENITAL SYSTEM	<ul style="list-style-type: none"><li>•Urinary System: Organization and Components</li><li>•Kidney</li><li>•Urinary Tract</li><li>•Female genitalia</li><li>•Male genitalia</li></ul>



## UNIT VII.- NEUROANATOMY

- Nervous system: Organization
- Central Nervous System
- Peripheral nervous system
- Sense organs

## UNIT VIII.- PRACTICES

- Embryology Practices
- Splachnology Practices
- Neuroanatomy Practices

### Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT I.-INTRODUCTION TO THE STUDY OF ANATOMY	1,00	2,00
UNIT II.- EMBRYOLOGY	3,00	6,00
UNIT III. CIRCULATORY SYSTEM	4,00	8,00
UNIT IV.- RESPIRATORY SYSTEM	4,00	8,00
UNIT V.- DIGESTIVE / ENDOCRINE	4,00	8,00
UNIT VI.- UROGENITAL SYSTEM	4,00	8,00
UNIT VII.- NEUROANATOMY	5,00	10,00
UNIT VIII.- PRACTICES	5,00	10,00



## References

### **Basic:**

Estructura y función del cuerpo humano (16ª Ed.). Patton Ed. ELSEVIER (2021)  
Atlas de anatomía humana, Edición 7 By F.H. Netter Ed. ELSEVIER (2019)  
Sobotta. Atlas de anatomía humana vol 1 y 2 Edición 24 By Friedrich Paulsen and Jens Waschke; Edited by Friedrich Paulsen and Jens Waschkey Ed. ELSEVIER (2018)  
Sobotta. Cuaderno de anatomía para colorear. 5 edition. Oliver Kretz (2022)  
Gray. Flashcards de Anatomía. 4 edition. Richard L. Drake & A. Wayne Vogl & Adam M.W. Mitchell (2022)

### **Complementary:**

Feneis. Nomenclatura anatómica ilustrada. ED. 11. Wolfgang Dauber. (2021)  
Netter. Flashcards de anatomía, Edición 5 Edited by John T. Hansen, PhD Ed. ELSEVIER (2020)  
Sobotta. Cuaderno de anatomía para colorear. 5 edition. Oliver Kretz (2022)  
Gray. Flashcards de Anatomía. 4 edition. Richard L. Drake & A. Wayne Vogl & Adam M.W. Mitchell (2022)  
Netter. Atlas de anatomía humana. Abordaje por sistemas (2023)

Gray's anatomy <http://www.bartleby.com/107/> on line free.

### **Specific:**

Langman. Embriología médica. Sadler. 14 edición. Editorial WOLTERS KLUWER?. ISBN:9788417602116. (2019)



## Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

**Situation 1: Teaching without limited capacity** (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

**Situation 2: Teaching with limited capacity** (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

### 1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

☒ Microsoft Teams

☒ Kaltura



## **Situation 3: Confinement due to a new State of Alarm.**

In this case, the following changes are made:

### **1. Educational Activities of Onsite Work:**

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

☒ Microsoft Teams

☒ Kaltura

Explanation about the practical sessions:

If necessary, the delivery of practical training will be adapted to the possibilities of telematic tools.



## 2. System for Assessing the Acquisition of the competences and Assessment System

### ONSITE WORK

#### Regarding the Assessment Tools:

☒ The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

☐ The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

#### Comments to the Assessment System: