



## Information about the subject

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

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

**Code:** 241108 **Name:** Anatomy II

**Credits:** 6,00 **ECTS Year:** 1 **Semester:** 2

**Module:** MODULE 1: BASIC FORMATION

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

**Field of knowledge:** Health Science

**Department:** Anatomy and Physiology

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

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

### Lecturer/-s:

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## 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

No prior 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 in a descriptive way the situation, form and relationships of the different structures of the musculoskeletal apparatus, vascular system.
- R2 Applies knowledge of anatomy to explain the relationship between morphology and function of different systems as an integral part of the nervous system and internal organs .
- R3 The student knows the international anatomical terminology and knowing how to use it as a means of communication between health professionals.
- R4 Structures anatomical knowledge by its importance, distinguishing the relevant from the accessory.
- R5 Recognizes and understands the concepts of normality and normal variants in order to establish clinical anatomical correlation as the basis of the main diseases.
- R6 Finds bibliographic information from different resources and know how to use it with a critical and constructive attitude.
- R7 The student can elaborate documents about anatomy and work in a team.
- R8 Critically analyses the work.
- R9 The student is capable of writing 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	



CE11 Students identify the factors involved in teamwork and leadership situations.

X

CE47 Students maintain an attitude of learning and improvement. This includes expressing interest and acting in a constant search for information and professional improvement, committing to contribute to professional development in order to improve practice competence and maintain the status that corresponds to a qualified and regulated profession.

X

CE51 Show respect, appreciation and sensitivity to the work of others.

X

CE52 Develop the ability to organize and lead work teams effectively and efficiently.

X

## 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, R2	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, R2, R3, R4, R5	40,00%	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
	0,00%	PRACTICES: Oral test in which the student is asked to solve practical exercises, clinical cases or problems about the knowledge of the different subjects. It assesses the following generic or transversal competences: 4 Analysis and synthesis capacity. 3 Capacity for organisation and planning. 7 IT Knowledge. 6 Information management skills. 2 Problem-solving 1 Decision-making. 13 Critical thinking. 19 Self-directed learning.



R3, R4, R6, R7, R9	10,00%	<b>WORKS:</b> The student, individually or in a group, elaborates a revision or research topic and presents it, in writing, for the evaluation by the teacher. The following generic or transversal competences are valued: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 7 Computer skills. 6 Information management skills. 10 Teamwork. 14 Working in an international context. 11 Interpersonal skills. 13 Critical thinking. 19 Autonomous learning. 18 Creativity. 21 Leadership. 20 Initiative and entrepreneurship. 16 Motivation for Quality. 70 Maintaining an attitude of learning and improvement. 72 Knowing one's own skills and limitations.
R1, R3	30,00%	<b>PRACTICAL EXAM:</b> 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.
R1, R2, R3, R4, R5, R7, R8	5,00%	<b>ATTENDANCE AND PARTICIPATION IN CLASS:</b> 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. Maintaining the respective percentages, the evaluation systems set out above can be developed in continuous evaluation mode throughout the semester, informing students in advance and collecting this information on the UCVnet platform of the subject. 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.

### SINGLE EVALUATION

"In this subject the possibility of a single evaluation is not contemplated, as it requires the mandatory completion of practical activities with active participation of the students".





## USE OF THE AI

Students may use the AI for personal study of the course. -Students will not be able to use the AI for the realization of evaluable tasks, unless it is required in some specific activity and the teacher indicates it. In case of using AI in any of the activities, it must be mentioned in which part of the activity it has been used, which AI tool has been used and for what purpose.

## 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  | 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, R8, R9	32,00	1,28
Practice lessons M2	R1, R3, R5, R8	8,00	0,32
Seminar M15	R1, R2, R4, R5, R6, R8	15,00	0,60
Office Hours M16	R3, R4, R5, R8	2,00	0,08
Assessment M5	R1, R2, R3, R4, R5, R6, R7, R8, R9	3,00	0,12
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M16	R1, R5, R6, R9	70,00	2,80
Group work M12	R1, R6, R7, R8, R9	20,00	0,80
<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: Anatomy of the head	<ul style="list-style-type: none"><li>·Skull: Components and Organization</li><li>·Cranial vault</li><li>·Bones of the face</li><li>·Graves and holes</li><li>·Facial and anterolateral cervical musculature</li></ul>
UNIT II: Rachis	<ul style="list-style-type: none"><li>·Joints: Types</li><li>·Column organization: Components and regions</li><li>·Retrosomatic musculature</li></ul>
UNIDAD III: Thorax and Abdomen	<ul style="list-style-type: none"><li>·Rib cage</li><li>·Abdominal Wall</li></ul>
UNIT IV: Locomotive I (UE)	<ul style="list-style-type: none"><li>·Osteoarthrology: upper extremety</li><li>·UE musculature</li><li>·Vascularization of UE</li><li>·Inervation of UE</li></ul>
UNIT V: Locomotive II (LE)	<ul style="list-style-type: none"><li>·Osteoarthrology: Lower extremety</li><li>·LE musculature</li><li>·Vascularization of LE</li><li>·Inervation of LE</li></ul>
UNIT VI: Perineum	<ul style="list-style-type: none"><li>·Description and anatomical organization of the Perineum</li><li>·Perineal musculature</li><li>·Perineal inervation</li><li>·Perineal vascularization</li></ul>



## UNIT VII: Practices

- Cranial Osteology Practices
- Rachis
- UE Anatomy Practices
- LE Anatomy Practices

## Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT I: Anatomy of the head	3,00	6,00
UNIT II: Rachis	3,00	6,00
UNIDAD III: Thorax and Abdomen	3,00	6,00
UNIT IV: Locomotive I (UE)	7,00	14,00
UNIT V: Locomotive II (LE)	7,00	14,00
UNIT VI: Perineum	3,00	6,00
UNIT VII: Practices	4,00	8,00



## References

### *Basic:*

Gray. Anatomía para estudiantes. (2024)

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) *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 regional (2023)

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

### *Specific:*

Principios Básicos en Anatomía de la pierna y el pie. Aprende Anatomía Con Realidad Aumentada. Ferrer Torregrosa,

Javier. ISBN 10: 8494097504 ISBN 13: 9788494097508. Editorial: Bienetec, 2013

SARRAFIAN'S Anatomy of the Foot and Ankle. Descriptive, Topographic, Functional. Kelikian, A.

— Sarrafian, S. 3ª Edición Mayo 2011. Inglés. ISBN 9780781797504. Editorial WOLTERS KLUWER