

Year 2023/2024 1211101 - Human and Functional Anatomy

### Information about the subject

Degree: Bachelor of Science Degree in Nursing

Faculty: Faculty of Medicine and Health Sciences

Code: 1211101 Name: Human and Functional Anatomy

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

Module: Common basic training

Subject Matter: Anatomy Type: Basic Formation

Field of knowledge: Health sciences

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

#### Lecturer/-s:

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## Module organization

### **Common basic training**

Subject Matter	ECTS	Subject	ECTS	Year/semester
Anatomy	6,00	Human and Functional Anatomy	6,00	1/1
Physiology	12,00	Human Physiology	6,00	1/2
		Physiopathology	6,00	2/1
Biochemestry	6,00	Clinical Biochemistry	6,00	1/1
Biostatistic	6,00	Biostatistics and Research Methodology	6,00	1/2
Psychology	6,00	Psychology of Care	6,00	1/1
Pharmacology	6,00	Pharmacology	6,00	2/1
Nutrition	6,00	Nutrition and Dietetics	6,00	2/1
ICT	4,50	ICT	4,50	This elective is not offered in the academic year 23/24
English	6,00	English	6,00	1/2
Life support	6,00	Emergency Care and Life Support	6,00	4/1

## Recommended knowledge

They have not been described.



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## 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 describe the main anatomical structures of the human body relating them to their function.
- R2 To identify the main anatomical structures of the human body and their function on an anatomical model.



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## 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		V	Veig	hting	9
		ı	2	3	4
CB1	Students have demonstrated possession and understanding of knowledge 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.	(			
CB2	Students are able 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	That students can convey information, ideas, problems and solutions to both specialized and non-specialized audiences.			1	
CB5	Students have developed those learning skills necessary to undertake further study with a high degree of autonomy.		X	1	

GENE	RAL	Weighting		
		1 2 3 4		
6	To base interventions in nursing on scientific evidence and on the available means.	x		

SPECIFIC			Weighting		
		1	2 3 4		
1b	To know and identify the structure and function of the human body.		x		



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

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2	60,00%	Theoretical written exams
R2	40,00%	Practical tests and works
	0,00%	Attendance and active participation

#### **Observations**

In order to pass the course, a 50%-score must be obtained both in the THEORY and in the PRACTICE parts of the exam.

In case one of the exam parts is completed and the other is failed (theory or practice) in a first call, the grade appearing on the record will be that of the failed part. For example, the final grade in the record of a student who gets a 6 in the theory part and a 3'5 in the practical part will be 3'5. Besides, the grade of the completed part (theory or practice) will be kept for the second call, in which the student will only have to take the exam part failed in the first call.

In case none of the exam parts is passed, the grade appearing on the record will that of the part with the higher grade..

Correctness of language use will be assessed. Spelling mistakes, grammatical inconsistencies and sms language will be penalized with a 0.1 point decrease per mistake.

#### MENTION OF DISTINCTION:

The mention of Distinction will be awarded to students achieving a 9-score or higher. The number of Distinctions granted will not exceed 5% of students enrolled in a subject in the corresponding academic year unless enrolment is under 20, in which case only one Distinction may be granted. (Royal Decree 1125/2003).

#### **EVALUATION CRITERIA:**

The course grade will be determined as follows:

#### 1. EXAM (80% of the value of the final mark)

The exam, which contributes with 80% of the subject grade, will be articulated as follows:

1st theoretical part of the exam (60% of the value of the final grade)

The theoretical evaluation will be carried out at the end of the course through a theoretical exam,



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which may consist of:

- Multiple choice questions (40% of the mark): several answer options are provided with a single correct answer. Wrong answers penalize according to the formula A-(E/n-1). Images may appear.
- Short answer questions (20% of the mark): the student's ability to summarize the information and reason the contents of the subject is assessed. Images may appear.

#### 1.b Practical part of the exam (20% of the value of the final mark)

Practical workshops will be carried out throughout the development of the subject (they will be indicated by the teacher). The practical evaluation will be carried out through a practical exam that will deal with the contents explained in said workshops. The practical exam will be done on the same day as the theory exam. At the end of the theoretical exam, a series of photographs of the anatomical models will be projected in which a series of structures will have to be identified.

#### 2. ACTIVITIES (20% of the value of the final grade)

The qualification of 20% of the subject will be carried out through activities requested by the teacher in the classroom. These activities will only be taken into account if the student passes the theoretical part and the practical part of the exam separately. The student who does not deliver these activities will lose 20% of the value of the final grade (2 points out of 10), or the proportional part.

A partial written test may be taken.

#### **CRITERIA FOR AWARDING HONORS:**

According to article 22 of the Regulatory Regulations for the Evaluation and Qualification of UCV Subjects, the mention of "Honors" may be granted by the professor responsible for the subject to students who have obtained a minimum grade of 90% of the full evaluation. The number of mentions of "Matricula de Honor" that can be granted may not exceed five percent of the students included in the same official certificate, unless this is less than 20, in which case only one "Matricula de Honor". In the second and subsequent calls, only the honors that may remain after the first call may be awarded.

#### **DEVELOPMENT OF THE SUBJECT IN SECOND AND SUBSEQUENT REGISTRATION:**

An ordinary group will be formed in the case of having 40 or more students enrolled in second or successive enrollments. In the event that the number of students is less, 6 teaching sessions will be planned. The responsible teacher will contact the students through the virtual campus, in order to indicate the day and time of the corresponding tutorials.



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To pass the course, it will be a necessary condition to have obtained 50% of the score in the THEORETICAL PART OF THE EXAM and 50% in the PRACTICAL PART OF THE EXAM. In the event that a student passes the theoretical part of the exam and not the practical part of the exam, the grade for the theoretical part will be saved for the second call, in which they will only have to take the practical part of the exam. The grade that will appear in the minutes will be the one corresponding to the grade of the practical exam out of 10.

In the event that a student passes the practical part of the exam and not the theoretical part, the mark for the practical part will be saved for the second call, in which they will only have to take the theoretical part of the exam. The mark that will appear in the minutes will be the one corresponding to the mark of the theoretical exam out of 10.

In the event that a student does not pass either of the two parts, neither the theoretical nor the practical exam, in the second or successive calls they must take both parts. The grade that will appear in the record will be the one corresponding to the highest grade of the two exams out of 10.

#### **EVALUATION CRITERIA:**

The course grade will be determined as follows:

#### 1. EXAM (80% of the value of the final mark)

The qualification of 80% of the subject will be carried out through ONE SINGLE EXAM, which will be articulated as follows:

#### 1st theoretical part of the exam (60% of the value of the final grade)

The theoretical evaluation will be carried out at the end of the course through a theoretical exam, which may consist of:

- Multiple choice questions (40% of the mark): several answer options are provided with a single correct answer. Wrong answers penalize according to the formula A-(E/n-1). Images may appear.
- Short answer questions (20% of the mark): the student's ability to summarize the information and reason the contents of the subject is assessed. Images may appear.

#### 1.b Practical part of the exam (20% of the value of the final mark)

Practical workshops will be carried out throughout the development of the subject (they will be indicated by the teacher). The practical evaluation will be carried out through a practical exam that will deal with the contents explained in said workshops. The practical exam will be done on the same day as the theory exam. At the end of the theoretical exam, a series of photographs of the anatomical models will be projected in which a series of structures will have to be identified.

#### 2. ACTIVITIES (20% of the value of the final grade)

The qualification of 20% of the subject will be carried out through activities requested by the



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teacher in the classroom. These activities will only be taken into account if the student passes the theoretical part and the practical part of the exam separately. The student who does not deliver these activities will lose 20% of the value of the final grade (2 points out of 10), or the proportional part.

A partial written test may be taken.

#### **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 Exposition of contents by the teacher, analysis of competencies, explanation and demonstration of abilities, skills and knowledge in the classroom.
- M5 Activities developed in spaces and with specialized equipment.
- M6 Personalized attention and in small groups. Period of instruction and/or orientation carried out by a tutor with the objective of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc.
- M7 Set of oral and/or written tests used in the initial, formative or summative evaluation of the student.
- M8 Student study: Individual preparation of readings, essays, problem solving, seminars, papers, memoirs, etc. To expose or deliver in the theoretical classes, practical classes and/or small group tutorials. Work done on the university platform (www.plataforma.ucv.es).
- M9 Group preparation of readings, essays, problem solving, papers, memoirs, etc. To present or deliver in the theoretical classes, practical classes, seminars and/or small group tutorials. Work done on the university platform (www.plataforma.ucv.es).



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#### **IN-CLASS LEARNING ACTIVITIES**

	LEARNING OUTCOMES	HOURS	ECTS
In-campus interactive lecture	R1, R2	33,00	1,32
Laboratory <sub>M5</sub>	R2	23,00	0,92
Tutorial <sub>M6</sub>	R1, R2	2,00	0,08
Evaluation <sub>M7</sub>	R1, R2	2,00	0,08
TOTAL		60,00	2,40

#### **LEARNING ACTIVITIES OF AUTONOMOUS WORK**

	LEARNING OUTCOMES	HOURS	ECTS
Student's self-employment	R1, R2	80,00	3,20
Group work	R1, R2	10,00	0,40
TOTAL		90,00	3,60



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## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

#### Theoretical contents:

Content block	Contents
General	Unit 0. Human Embriology Unit 1. Human Histology Unit 2. Anatomy general concepts. Organization and levels of the human body. Organs and systems. Anatomical positions and planes. Anatomical-medical terminology.
Locomotor system	Unit 3. Locomotor system. Skeleton and joints. Head: skeleton and musculaura. Unit 4. Vertebral column. Rib cage. Muscles of the back, thorax and abdominal wall.
	Unit 5. Upper limb: main bones and muscles.  Vascularization and innervation.  Unit 6. Lower limb: main bones and muscles.  Vascularization and innervation.
Thorax Anatomy	Unit 7. Anatomy of the heart. Cardiac layers, cavities, vascularization and innervation. Unit 8. Large arterial vessels: structure, classification, location and general distribution. Unit 9. Large venous and lymphatic vessels: structure, classification, location and general distribution. Unit 10. Anatomy of the respiratory system: upper and lower respiratory tract. Lungs.
Abdomen Anatomy	Unit 11. Digestive system. Mouth, esophagus, stomach, small and large intestine. Attached organs: liver, pancreas and spleen. Vascularization and innervation.
Pelvic Anatomy	Unit 12. Renal and excretory system. urinary tract and kidneys. Unit 13. Female genital system: ovaries, tubes, uterus, vagina and external genitalia. Male genital system: testicles, covers, seminal ducts and external genitalia.



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Nervous system and endocrine Anatomy

Unit 14. Nervous System. Concept and classification of the nervous system. Study of the spinal cord, brain stem, cerebrum and cerebellum. Main ascending and descending conduction pathways.

Unit 15. Neuroendocrine system: Pituitary gland, thyroid gland and adrenal glands.

Unit 16. Sense organs: hearing, sight, smell and taste.

Sense organs Anatomy

**Practices** 

#### Practice 1

Bones of the head, vertebral column and rib cage. Muscles of the head, back, thorax and abdominal wall. **Pr**actice 2 Bones of the upper and lower limb. Muscles of the upper and lower limb. Vascularization of the upper and lower limb.

#### Practice 3

Cardiac chambers. Vascularization and innervation of the heart. Anatomy and location of the great arterial and venous vessels.

#### **Practice 4**

Anatomy, location, distribution and vascularization of the upper and lower respiratory tract. Anatomy, location, distribution and vascularization of the digestive system.

#### **Practice 5**

Anatomy, location, distribution and vascularization of the renal and excretory system. Anatomy, location, distribution and vascularization of the female and male genital system.

#### **Practice 6**

Anatomy, location and distribution of the Central Nervous System. Anatomy, location and distribution of endocrine glands. Anatomy, location and distribution of the sense organs.



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#### Temporary organization of learning:

Block of content	Number of sessions	Hours
General	2,00	4,00
Locomotor system	3,50	7,00
Thorax Anatomy	3,00	6,00
Abdomen Anatomy	3,00	6,00
Pelvic Anatomy	2,00	4,00
Nervous system and endocrine Anatomy	3,00	6,00
Sense organs Anatomy	2,00	4,00
Practices	11,50	23,00

#### References

Netter, F. (2019). Atlas de Anatomía Humana. (7º ed.). Elsevier.

Sobotta. (2018). Atlas de Anatomía Humana. (24º ed.). Elsevier.

Keith L. Moore, Arthur F. Dalley, A. M. R. Agur. (2009). Anatomía con Orientación Clínica. Lippincott Williams & Wilkins.

Moore, KL. y Dalley, AF. (2019). Fundamentos de Anatomía con Orientación Clínica. Llippincott Williams and Wilkins. Wolters Kluwer.

Salder, TW. (2000). Embriología médica. (14°ed.) Langman, Williams & Wilkins.

Tortora, G. y Derrickson, B. (2018) Principios de Anatomía y Fisiología. (15ºed.). Editorial Médica Panamericana.



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#### 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.

<u>Situation 1: Teaching without limited capacity</u> (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.

<u>Situation 2: Teaching with limited capacity</u> (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:

Kaltura

#### 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.

n the pa	articular case of this subject	, these	videoconferences	will be made thro	ugh:
Х	Microsoft Teams				



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#### 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:

X	Microsoft Teams			
	Kaltura			
Explana	ation about the practical sessic	ons:		



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## 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 of		percentage	·	used
		percentage	suggested changes	used
Course	ther Assessment Tools v	percentage will not be modi	suggested changes	used