

Year 2023/2024 471102 - Anatomy of the Lower Extremity

Information about the subject

Degree: Bachelor of Science Degree in Podiatry

Faculty: Faculty of Medicine and Health Sciences

Code: 471102 Name: Anatomy of the Lower Extremity

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

Module: 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

BASIC TRAINING

Subject Matter	ECTS	Subject	ECTS	Year/semester
ANATOMY	12,00	Anatomy	6,00	1/1
		Anatomy of the Lower Extremity	6,00	1/2
BIOLOGY	12,00	Cellular and Tissular Biology	6,00	1/1
		Microbiology	6,00	1/2
PHARMACOLOG Y	6,00	Pharmacology	6,00	2/1
MODERN LANGUAGE	6,00	English	6,00	2/2
STATISTICS	6,00	Biostatistics	6,00	1/1
PSYCHOLOGY	6,00	Psychology	6,00	1/2
PHYSIOLOGY	6,00	Physiology	6,00	1/1
BIOCHEMICALS	6,00	Biophysics and Biochemistry	6,00	1/1
ANTHROPOLOGY	6,00	Anthropology	6,00	1/2

Recommended knowledge

No prior knowledge is required.

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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 Identifies the main concepts that make up anatomical terminology, its foundations and clinical and surgical usefulness.
- R2 Knows and discriminates between flat steps and body axes and those related to the lower limb.
- R3 Distinguishes the different anatomical musculoskeletal, vascular and nerve structures of the lower limb.
- R4 Uses the dissection instruments in practical work as taught.
- R5 Applies general knowledge of anatomy to dissection.

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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			Weig	hting	3
		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		
CB5	Students develop those learning skills necessary to undertake further studies with a high degree of autonomy.	X			

GENERAL			Weighting		
		1	2	3	4
CG1	Students know and apply the theoretical and methodological foundations of Chiropody and Podiatry.		X	1	
CG2	Students know the structure and function of the human body, especially of the lower limb, semiology, mechanisms, causes and general manifestations of the disease and diagnostic methods of medical and surgical pathological processes, interrelating general pathology with foot pathology.			X	
CG9	Students critically assess the terminology, clinical trials and methodology used in podology-related research.		x		

SPECIF	ic	Weighting
		1 2 3 4
CE24	Students know the embryological development in the different stages of formation; human anatomy and physiology. Students identify the different organs, apparatus and systems, vascular and nervous splanchnology; axes and body planes; and specific anatomy of the lower limb.	x

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CE27 Students know the anatomical and functional concept of the disease and the classification of diseases. To describe the pathology of the different organs, apparatus and systems. Medical semiology. Dermatology. Rheumatology. Traumatology. Neurology. Endocrinology. Pathological vascular processes. Systemic pathologies with repercussions in the foot.

X

TRANSVERSAL			Weig	Veighting		
			1	2	3	4
CT1	Analytical capabilities				x	
CT5	Computer skills related to the field of study					x
СТ6	Information management capacity					x
CT7	Problem solving					X
СТ9	Teamwork				X	
CT10	Interdisciplinary teamwork				4	x
CT14	Critical Reasoning					X
CT16	Autonomous learning					X

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Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3	50,00%	Tests
R1, R2, R3, R4	5,00%	Oral presentation
R1, R2, R3, R4	10,00%	Practice (exercises, case studies, problems)
R1, R2, R3, R4	5,00%	Class participation
R1, R2, R3, R4	30,00%	Practice exam- technical proficiency testing

Observations

MINIMUM REQUIREMENTS:

First, the theoretical written test will be carried out in which, on a maximum grade of 10 the student must obtain at least a score of 5 to be able to access the practical test. In this second test, the student must achieve a minimum of 5 out of a maximum score of 10 to consider that they have acquired the desired skills. Finally, the percentage of practices and participation will be applied as long as the student has passed the two previous tests.

Both the assessment instruments and the percentage awarded to them will be independent, the student must pass each of them to consider that they have acquired the expected skills. The percentage awarded to practices (exercises, pictures, cases, dissection room, problems) will be considered that obtained in the completion of questionnaires, kahoot, pictures made in class and at home and group work, through which progression and acquisition will be evaluated of knowledge imparted in the face-to-face theoretical classes. They are not compulsory or eliminatory subject tests, but if the student decides not to take these tests, he loses the corresponding mark percentage 15% (Slides 10%, group work 5%).

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.

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Learning activities

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

- M1 Theoretical classes (TC). Training activity preferably oriented to the acquisition of knowledge skills. It is characterised by the fact that students are spoken to. Also called master class or expository class, it refers to the oral exposition made by the teacher, (with the support of a blackboard, computer and cannon for the exposition of texts, graphics, etc.).
- M2 Seminars (S). Training activity preferably oriented to obtain knowledge application and research competences. Knowledge is built through interaction and activity. Consisting of supervised monographic sessions with shared participation (Teachers, students, experts). The size of the group is variable, from a large group to small groups, no less than 6 students for interaction. The evaluation will be made by means of follow-up records by the teacher. Participation and development of problem-solving skills should be taken into account.
- M6 Laboratory Practice (CPL). Training activity of work in groups that is developed in the Laboratory. It includes the sessions where students actively and autonomously develop, supervised by the teacher, laboratory experiments. The size of the group is variable, in a range of 10-20 students.
- Tutorials (T). Set of activities carried out by the teacher with personalised attention to the student or in small groups with the aim of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc. The aim is to ensure that education is truly a comprehensive training of the student and is not reduced to a transfer of information. It is, therefore, a personalized relationship of help in which the teacher-tutor attends, facilitates and guides one or more students in the formative process.
- M8 Evaluation (Ev). It is the set of processes that try to evaluate the learning results obtained by the students and expressed in terms of acquired knowledge, capacities, developed skills or abilities and manifested attitudes. It covers a wide range of activities that can be developed for students to demonstrate their training (e.g. written, oral and practical tests, projects or assignments,). It also includes Official Calls.
- M10 Estudio del alumno: Preparación individual de lecturas, ensayos, resolución de problemas, seminarios

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IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons	R1, R2, R3, R4	33,50	1,34
Seminar M2	R3	15,00	0,60
Practice lessons M6	R3, R4, R5	6,50	0,26
Office Hours	R1, R2, R3, R4	2,00	0,08
Evaluation _{M8}	R1, R2, R3, R4	3,00	0,12
TOTAL		60,00	2,40

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECIS
Autonomous work M10	R1, R2, R3, R4	70,00	2,80
Group work M10	R1, R2, R3, R4	20,00	0,80
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
INTRODUCTION TO THE STUDY OF ANATOMY	History of Anatomy.Generalities in anatomy (positions, axes and planes).
ARTROLOGY.	General arthrology. Joint types.
OSTEOLOGY	Osteology of the hip. Thigh osteology. Leg osteology. Ankle and foot osteology.
MIOLOGY	Myology of the hip.Myology of the thigh.Myology of the leg.Myology of the ankle and foot.
VASCULARIZATION.	Vascularization of the hip.Vascularization of the thigh.Vascularization of the leg.Vascularization of the ankle and foot.
INERVATION.	Innervation of the hip.Innervation of the thigh.Innervation of the leg.Innervation of the ankle and foot.
SKIN ANNEXES.	Anatomy of the nail.Fatty hair follicle.
PRACTICES.	P1 Practices of myology, vascularization and innervation of the lower limb in the laboratory on phamatomas. Group A P2 Practices of myology, vascularization and innervation of the lower limb in the laboratory on phantoms. Group B P3 Osteology practices in the dissection room. Group A P4 Osteology practices in the dissection room. Group B P5 Practices of myology, vascularization and innervation of the lower limb on corpses in the dissection room. Group A P6 Practices of myology, vascularization and innervation of the lower limb on cadavers in the dissection room. Group B

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Temporary organization of learning:

Block of content	Number of sessions	Hours
INTRODUCTION TO THE STUDY OF ANATOMY	1,00	2,00
ARTROLOGY.	4,00	8,00
OSTEOLOGY	5,00	10,00
MIOLOGY	7,00	14,00
VASCULARIZATION.	4,00	8,00
INERVATION.	4,00	8,00
SKIN ANNEXES.	2,00	4,00
PRACTICES.	3,00	6,00

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References

MANUAL DE REFERENCIA NETTER Atlas de Anatomia Humana (Spanish Edition) Frank H. Netter Publicado por Elsevier (2014) ISBN 10: 8445820656 ISBN 13: 9788445820650

Sadler, T.W., Langman. Fundamentos de Embriología Médica. Con Orientación Clínica. Editorial. Médica Panamericana. 2006.

Carlson, B.M., Embriología humana y biología del desarrollo. Editorial Elsevier 4ª ed.2009.

Cochard, L.R.Netter. Atlas de Embriología Humana 1ª ed. 2005 ISBN 9788445814864. ELSEVIER-MASSON

Moore, Dalley. Anatomía Con Orientación Clínica. Ed. Médica Panamericana. Ed. 4ª. 2002.

Moore, K.; Agur, A. "Fundamentos De Anatomía Con Orientación Clínica". Ed. Panamericana. 2003

Schu'nke, Schulte, Schumacher, Voll Wesker. Prometheus. Texto Y Atlas De Anatomía. Ed.Médica Panamericana. 2006.

Latarjet/Ruiz Liard/Pró. Anatomía Humana. Ed. Médica Panamericana. Ed. 4ª. 2005.

Feneis. "Nomenclatura Anatómica Ilustrada". Ed. Masson

Testut, Jacob. Anatomía Topográfica. Ed. Salvat. 1980.

Rouviere, Delmas. Anatomía Humana. Ed. Masson. Ed. 11a. 2005.

Latarjet-Ruiz Liard. "Anatomía Humana". Ed. Panamericana

Rohen, Yokochi, Lu"tjen-Drecoll. Atlas Fotográfico De Anatomía Humana. Ed. Elsevier. Ed. 5ª. 2003.

Sobotta – R. Putz, R. Pabst. Atlas De Anatomía Humana. Ed. Médica Panamericana. Ed. 22ª. 2006 I.S.B.N. 9788479036324

Agur, A.M.R. Grant-Atlas De Anatomía, Ed. Médica Panamericana-Sans Tache-Williams Et Wilkins, Buenos Aires, 9^a Edición, 1994

Sarrafian Foot and Ankle Anatomy: Descriptive, Topographic, and Functional Third Edition by Armen S Kelikian MD (Editor), Shahan K. Sarrafian MD FACS (Editor)

Williams y Warwick "Gray Anatomía". 38ª Edición. ed Harcourt. Madrid 2000

STANDRING. GRAY'S ANATOMY (Inglés). Ed. Elsevier. Ed. 40°. 2009.

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

Principios Básicos en Anatomía de la Pierna y Pie. J Ferrer Torregrosa. Bienetec. ISBN: 978-8494097508

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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:

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:

Х	Microsoft Teams		
	Kaltura		

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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	
Explanation about the practical sessions:	

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

ONSITE WORK

Regarding the Assessment Tools:				
X	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:

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