UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: HISTOLOGY
Code: 34306
Type: BASIC
ECTS credits: 6
Degree: 332 - UNDERGRADUATE DEGREE PROGRAMME IN MEDICINE
Academic year: 2022-23
Center: 9 - FACULTY OF MEDICINE OF CIUDAD REAL
Group(s): 20
Year: 1
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **JAVIER FRONTIÑAN RUBIO** - Group(s): **20**

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2. Pre-Requisites

Those required to access the Degree in Medicine. According to the Table of Prerequisites and Incompatibilities of the Study Plan of the Degree in Medicine, it is necessary to have successfully completed the subject of Biology in order to pass this subject.

3. Justification in the curriculum, relation to other subjects and to the profession

Histology is part of Module I: Structure and Function of the Human Body. This subject is taught in the first year of the Degree in Medicine. As it is a subject that affects the cellular level, it occupies an ideal position, serving as a bridge between the molecular and organic levels of the human being. The association of cells that share an embryological origin and perform the same function gives rise to tissues, which are the basic structures that will allow the student to understand and integrate the morphological (provided by macroscopic and microscopic anatomy) and physiological information of the different organs. The place of Histology has changed with the progress of science since the last third of the 20th century. It has evolved from a purely descriptive science of microscopic anatomy to its current position as the link between functional anatomy and molecular and cellular biology. The aim of Histology is to promote understanding of the structure and function of healthy cells and tissues. Its knowledge will provide the student with the necessary aspects for the basis of the diagnosis of cellular and tissue lesions, their structural and functional consequences and therefore their repercussions on the organism.

It is necessary to have successfully passed Histology in order to pass the subject of Integrated Morphology, Structure and Function of the Human Body.

4. Degree competences achieved in this course

Course competences

Code	Description
1.1	Knowledge of cell structure and function.
1.12	Embryonic development and organogenesis.
1.13	To know the morphology, structure and function of the skin, blood, circulatory, digestive, locomotor, reproductive, excretory and respiratory apparatus and systems; endocrine system, immune system and central and peripheral nervous system.
1.14	Growth, maturation and aging of the different apparatus and systems.
1.15	Homeostasis
1.16	Adaptation to the environment.
1.17	Handling basic laboratory material and techniques.
1.18	Interpret a normal blood test.
1.19	Recognize with macroscopic and microscopic methods and imaging techniques the morphology and structure of tissues, organs and systems.
1.20	Perform functional tests, determine vital parameters and interpret them.
1.21	Basic physical examination.
1.6	Cellular communication.
CT01	Proficiency in a second foreign language at level B1 of the Common European Framework of Reference for Languages.
CT03	Good oral and written communication skills.
G07	Understand and recognize the normal structure and function of the human body, at the molecular, cellular, tissue, organic and system levels, in the different stages of life and in both sexes.
G11	Understand and recognize the effects of growth, development and aging on the individual and their social environment.
G36	To be able to formulate hypotheses, collect and critically evaluate information for problem solving, following the scientific method.

G37 To acquire the basic training for research activity.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Learning to design and organize the work. Acquiring habits of perseverance in the study.

Acquisition of oral and/or written presentation and communication skills.

Handle basic laboratory material and techniques. Interpret a normal blood test. Recognize with macroscopic and microscopic methods and imaging techniques the morphology and structure of tissues, organs and systems. Perform functional tests, determine vital parameters and interpret them. Basic physical examination.

6. Units / Contents

Unit 1: Gametogenesis and fertilisation

Unit 2: Introduction to histology and epithelial tissue.

Unit 3: Connective tissue and blood

Unit 4: Specialised connective tissues

Unit 5: Muscle and nervous tissues

ADDITIONAL COMMENTS, REMARKS

Non-recoverable compulsory activities:

Laboratory practicals.

1.- Observation of preparations of cells undergoing meiosis. Observation of oocytes and spermatozoa.

2.- Lining and glandular epithelia. Observation of preparations of different types of epithelia and glands.

Connective tissue. Observation of the different types of connective tissue. Blood smear.

4.- Adipose tissue. Observation of white and brown adipose tissue preparations. Cartilaginous tissue. Observation of hyaline and elastic cartilage. Bone tissue. Observation of fresh sections of human tibia. Bone marrow.

5.- Muscle tissue. Observation of skeletal muscle, cardiac muscle and smooth muscle. Nervous tissue. Observation of neurons, glial cells and nerve fibres.

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities		0.6	15	Y	Y	
Class Attendance (theory) [ON-SITE]	Lectures		0.6	15	Y	Y	
Progress test [ON-SITE]	Assessment tests		0.1	2.5	Y	Y	
Project or Topic Presentations [ON-SITE]	Problem solving and exercises		0.6	15	Y	Y	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises		0.4	10	Y	Y	
Writing of reports or projects [OFF-SITE]	Group Work		0.24	6	Y	N	
Study and Exam Preparation [OFF-SITE]	Self-study		2.56	64	Y	N	
Other off-site activity [OFF-SITE]	Self-study		0.8	20	Y	Y	
Final test [ON-SITE]	Assessment tests		0.1	2.5	Y	N	
		Total:	**6**	**150**			
		Total credits of in-class work: 2.4					**Total class time hours: 60**
		Total credits of out of class work: 3.6					**Total hours of out of class work: 90**

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Progress Tests	50.00%	0.00%	
Oral presentations assessment	7.00%	0.00%	
Final test	20.00%	70.00%	

Assessment of active participation	5.00%	5.00%	
Practical exam	18.00%	25.00%	
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

Evaluation criteria for the ordinary call:

Continuous evaluation:

A student enrolled for the first time in a subject has two calls during the academic year:

1. Ordinary presential call: it comprises the continuous evaluation of all theoretical and practical activities reflected in the schedule fulfilling the conditions described in the teaching guide of the subject and the minimum attendance requirements to pass the subject.

2. Extraordinary call: It includes the evaluation of the failed part of the subject in the ordinary call. It will consist of a theoretical exam and/or practical exam, the rest of the scores of the practical part will be those obtained during the course in reports, seminars, presentations, work, participation and attitude or OSCE (Objective Structured Clinical Examination).

In case of failing the subject the first time it is taken, the options for the following academic year will be two of the following three options:

1. Ordinary call: within this call, two modalities can be chosen:

a. Classroom mode: Includes the continuous evaluation of all theoretical and practical activities reflected in the schedule fulfilling the conditions described in the teaching guide of the subject, as if the subject was taken fort the first time, and the grades obtained in the previous year will not be taken into account.

b. Non-attendance mode: It includes the evaluation of only the failed part of the subject during the previous course with a theoretical exam and/or practical exam per semester on the same date as the final exam of each semester. The scores for practical exams other than the practical exam will be those kept from the previous course. This modality can only be chosen in the case of having taken the subject in the ordinary presential call exam in the previous academic year.

2. Extraordinary call: It includes the evaluation of the failed part of the subject in the ordinary call either of the current academic year, if the student has opted for the ordinary presential call, or of the previous academic year, in the rest of the cases. It will consist of a theoretical and/or practical exam, the rest of the evaluation of the practical part will be those of the current or previous course. In the case of not having taken the ordinary presential exam in the current or previous academic year, the scores of previous exams will not be taken into account, since they will be kept only for one academic year.

3. Special final call: This includes the evaluation of the failed part of the subject in the previous year. This call can only be requested in the case of key subjects. It will consist of a theoretical and/or practical exam, the rest of the scores of the practical part will be those of the previous course. In the case of not having taken the ordinary presential exam in the current or previous course, the scores of previous exams will not be considered, since they will be kept only for one academic course.

These conditions will only be maintained in the academic year consecutive to the ordinary presential exam of a subject. The scores of the practical or theoretical part passed will only be kept if the minimum attendance requirements to pass the subject described in the electronic guide have been met.

In case that the subject is not passed in the second academic year, the same biannual cycle criteria described for the first and second year of enrollment will be the same in the third and successive odd numbered years of enrollment.

ORDINARY PRESENTIAL CALL:

Theoretical evaluation:

70% distributed in:
- 50% module exams
- 20% final semester exams

To pass the course it will be necessary to obtain half of the 70%, which represents at least 3.5 points in the theoretical part of the 10 total points of the course.

Evaluation of practices, presentations, problems, work, participation, and attitude:

30% valued jointly as follows:

- Practical exam: 18%.
- Oral presentation assessment: 7%.
- Participation and attitude: 5%.

To pass the subject it will be necessary to obtain half of the 30%, which represents at least 1.5 points in the practical part of the 10 total points of the course.

Non-continuous evaluation:

Evaluation criteria not defined

Specifications for the resit/retake exam:

EXTRAORDINARY CALL, SPECIAL FINAL CALL, NON-ATTENDANCE MODE:

Theoretical evaluation: exam with 70% value. To pass the subject it will be necessary to obtain half of the 70%, which represents at least 3.5 points in the theoretical part of the 10 total points of the course.

In case of having passed the theoretical part in the previous course, the score obtained in the last exam will be maintained.

Practical evaluation: to pass the subject it will be necessary to obtain half of the 30%, which represents at least 1.5 points in the practical part of the 10 total points of the course.

There will be a practical exam and the results of the rest of the practical exams of the ordinary presential exam, either from the current year or the previous year, will be taken into account.

9. Assignments, course calendar and important dates

Not related to the syllabus/contents

Hours	**hours**
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	15
Class Attendance (theory) [PRESENCIAL][Lectures]	15
Progress test [PRESENCIAL][Assessment tests]	2.5
Project or Topic Presentations [PRESENCIAL][Problem solving and exercises]	2.5
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	15
Writing of reports or projects [AUTÓNOMA][Group Work]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	6
Other off-site activity [AUTÓNOMA][Self-study]	64
Final test [PRESENCIAL][Assessment tests]	20

Global activity

Activities	**hours**
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	15
Class Attendance (theory) [PRESENCIAL][Lectures]	15
Progress test [PRESENCIAL][Assessment tests]	2.5
Project or Topic Presentations [PRESENCIAL][Problem solving and exercises]	2.5
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	15
Writing of reports or projects [AUTÓNOMA][Group Work]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	6
Other off-site activity [AUTÓNOMA][Self-study]	64
Final test [PRESENCIAL][Assessment tests]	20
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Langman, Jan	Embriología Médica	Wolters Kluer Lippincott Williams and Wilkins		978-84-96921-46-7	2009	
Ross, Michael H.	Histología : texto y atlas color con biología celular y mole	Panamericana		978-950-06-0435-2	2009	
Stevens, Alan	Histología humana /	Elsevier,		978-84-9022-906-4	2015	
Welsch, Ulrich	Histología	Editorial Médica Panamericana		978-84-9835-178-1	2009	
Eynard, Aldo R.	Histología y embriología del ser humano : bases celulares y	Médica Panamericana		978-950-06-0602-8	2008	
Young y Heath	Wheater`s Histología functional	Harcourt Churchill Livingstone				
Gartner	Texto de Histología. Atlas a color			978-849-11-3118-2	2017	
Alberts, Johnson, Lewis, Morgan, Raff, Roberts, Walter	Biología Molecular de la Célula	Omega		978-842-82-1638-8	2016	
Ross, Michael H.	Histología. Texto y Atlas. Correlación con Biología Molecular y Celular	Wolters Kluwer		9788417602659	2020	