

SUBJECT TEACHING GUIDE

G157 - General and Special Pathology

Degree in Medicine

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Degree in Medicine			Type and Year	Compulsory. Year 3
Faculty	Faculty of Medicine				
Discipline	Subject Area: Pathology Diagnostic and Therapeutic Procedures				
Course unit title and code	G157 - General and Special Pathology				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web	https://moodle.unican.es/course/view.php?id=8143				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

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3.1 LEARNING OUTCOMES

- That the student knows the lesion from a morpho-functional point of view, its relationship with the triggering causes and with the clinical alterations that it induces, understanding a lesion as any alteration in the continuity, situation, relationships, shape, structure or functions of organs, tissues, cells or cellular organelles, as well as its relationship with alterations of the cell's structural proteins and nucleic acids.
- Make the student aware of the opportunity that Pathological Anatomy offers for the observation of nature through the use and study of autopsies, biopsies, cytology, as well as through the rational use of the experimental method.
- That the student understands that the autopsy is aimed at reconstructing the disease process, as it occurred in the patient while he was alive, promoting the correlation and integration of all the subjects of the curriculum, with the demonstration and interpretation of the data obtained through demonstrable facts.
- Make the student see the healthcare utility of the biopsy, when performed on the patient and not on the corpse, allowing a definitive diagnosis to be established in a large part of the morbid processes, and with it the implementation of a therapeutic strategy on a clinical basis- pathological.
- That the student knows that cytology is a fast, early and cheap diagnostic method, which allows the sampling of large areas of the population, especially important if it concentrates on those with the highest risk.
- Contribute to the professional qualification of the student, promoting in him a scientific attitude towards life, which allows him to learn to value the facts and maintain a skeptical attitude towards the affirmations that are not supported by them, and also promoting a change of opinion in the face of the evidence, although it clashes with one's own convictions.
- That the student understands that Medicine in general, and Pathological Anatomy in particular, is not only an eminently practical science with an eye on the patient, but that it must also set its sights on the clarification of the phenomena that she introduce themselves.
- Promote in the student the continued use of the consultation of the scientific literature, in order to achieve the permanent updating of knowledge
- Train the student so that he can participate in outreach programs, both professional and public, and thus assume one of the implications that his future profession as a doctor has with the Society.
- That the student understands that the Agencies that evaluate Research Projects and Clinical Trials consider as a priority those projects that have Biomarkers detected in biological samples as a transcendental aspect of the research and that said Biomarkers are detected through the application of molecular techniques in samples tissue
- That the student understands that the first biomarker to be established in the clinic is the correct anatomopathological diagnosis of entity and that without a well-structured and understood morphological base it is impossible to construct complex molecular diagnoses.

- That the student understands that apart from the basic aspects of lesions, there are other specific methodological aspects that should be considered regarding the handling and obtaining of clinical samples: tissue and tumor bank, liquid biopsy, immunohistochemistry in pathology (techniques, applications and results), molecular pathology techniques in tissues (procedure, applications and results), other morphological techniques applied to pathological samples, etc.
- That the student understands that the implementation of Precision Medicine in hospitals (especially in the area of ??Oncology) involves the realization of biomarkers on tissue samples as predictors of response to drugs

4. OBJECTIVES

The transmission of knowledge that should enable the student to understand the morphological and pathophysiological bases of the disease, as well as the pathology in its different clinical pictures, providing frames of reference and reasons for learning, but carefully avoiding emphasis and abuse on the "transmission" by the instructor and "memorization" by the students.

The acquisition by the student of a series of skills related to the doctrinal content of the subject. The student must be able to demonstrate sufficient capacity and ability to obtain data through the use of appropriate instruments and techniques. In addition, they must be able to interpret the data obtained in terms of their pathological significance.

That the student learn the techniques and methodology necessary to propose the analysis of a diagnostic problem. The student must be able to adequately handle the bibliography referring to the subject, to carry out an analysis and make value judgments on data and problems that arise, and to carry out an adequate methodological scheme for solving the problems that arise.

Know the challenges that Pathology has to assume and capitalize on in molecular studies, both of non-neoplastic and neoplastic diseases.

Offer training on methodological aspects in Molecular Pathology that allows the understanding of these new techniques and their applications, knowing their basic foundations and identifying the applications of molecular diagnosis in clinical practice.

6. COURSE ORGANIZATION

CONTENTS

1	General Pathology
1.1	Introduction
1.2	General metabolism disturbs
1.3	Thrombosis and embolism
1.4	Inflammation
1.5	Reactive lesions
1.6	Neoplasms
1.7	Epithelial neoplasms
1.8	Cellular death
1.9	Inflammation and recovery
1.10	Hypersensibility
1.11	Molecular concept of cancer
1.12	General concepts in cancer
1.13	The biopsy
1.14	The autopsy
1.15	Cytology and molecular pathology
1.16	Cellular death
1.17	Inflammation
1.18	Digestive and respiratory neoplasms
1.19	Urogenital neoplasms
1.20	Mesenchimal neoplasms
1.21	Haematolymphoid neoplasms

2	Anatomia patologica especial
2.1	Lymphoid Non neoplastic pathology
2.2	The endocrine system
2.3	Breast and genital pathology
2.4	Renal non-neoplastic pathology
2.5	The heart
2.6	Pulmonary non-neoplastic diseases
2.7	Digestive system pathology
2.8	Central nervous system pathology
2.9	Neoplastic lymphoid pathology
2.10	Endocrine pathology
2.11	Non-neoplastic female genital pathology
2.12	Neoplastic gynaecological neoplasms
2.13	Breast pathology
2.14	Glomerulonephritis
2.15	Tubulointerstitial nephritis
2.16	Urogenital neoplasias
2.17	Inflammatory heart diseases
2.18	Respiratory pathology
2.19	Non-neoplastic digestive diseases
2.20	Liver pathology
2.21	Central nervous diseases non-neoplastic
2.22	Neoplastic central nervous system diseases
3	Final exam

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Final exam	Written exam	Yes	Yes	60,00
Obligatory presence in laboratory practices	Written exam	No	Yes	30,00
Obligatory presence	Activity evaluation with Virtual Media	No	No	10,00
TOTAL				100,00
Observations				
<p>Attendance to practices (hospital, classroom, laboratory) compulsory</p> <ul style="list-style-type: none"> - Theoretical exam, multiple choice test type. 86 questions, 2 per topic. A valid answer. Negative score (1 error = -0.25 points). - The laboratory practice exam will consist of questions about preparations already observed by the students in the practices - In the event that it is impossible to carry out the face-to-face evaluation test by indication of the health and/or educational authorities, a telematic test will be carried out, included within the multiple-choice Moodle platform with a fewer number of questions (46, one per topic with a valid answer and a negative score equivalent to an error=-0.25 points) and a value of 60% of the final grade - At all times there will be continuous evaluation with Socrative or similar methodology and tools included in the Virtual Classroom of the subject (https://moodle.unican.es/course/view.php?id=8143) where They will collect the activities and scores obtained in them progressively. 40% of the total grade for the course will correspond to continuous assessment with the methodology described 				
Observations for part-time students				
The same than for the rest of students				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Robbins. Patología humana. Kumar. Abbas, Aster (10a edición, 2021). Elsevier. ISBN de la edición española.978-84-9113-911-9