COURSE DATA

Data Subject	
Code	34467
Name	Special pathological anatomy
Cycle	Grade
ECTS Credits	4.5
Academic year	2021 - 2022

Study (s)

Degree	Center	Acad. year	Period
1204 - Degree in Medicine	Faculty of Medicine and Odontology	3	Second term

Subject-matter

Degree	Subject-matter	Character
1204 - Degree in Medicine	11 - Diagnostic and therapeutic procedures	Obligatory

Coordination

Name	Department
NAVARRO FOS, SAMUEL	285 - Pathology

SUMMARY

Anatomical Pathology is the branch of medicine which aims is to study the morphological, structural, functional and molecular-genetic changes of cells, tissues and organs that define the disease and explain its pathogenesis.

Anatomical Pathology appears with a double basic and translational aspect. It analyzes the biopathological processes involved in the pathogenesis of diseases and defines criteria for diagnosis and prognosis, as well as responses to therapeutic action thereof. Therefore, it incorporates to its activity all methods and techniques necessary for the development of these activities.

Anatomical Pathology is a medical specialty with welfare nature primarily oriented to diagnosis of diseases

Special Anatomical Pathology relies on General Anatomical Pathology addressing the specific study of lesions in organs and systems.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

It is recommended knowledge of medical biology, histology, general phatological anatomy and physiology.

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

1204 - Degree in Medicine

- Understand and recognise the effects, mechanisms and manifestations of diseases over the structure and function of the human body.
- Understand and recognise the effects of growth, development and aging which affect individuals and their social environment.
- Establish the diagnosis, prognosis and treatment, applying principles based on the bestinformation available and on conditions of clinical safety.
- Acquire properclinical experience in hospitals, health care centres and other health institutions, under supervision, as well as basic knowledge of clinical management focused on the patient and the correct use of tests, medicines and other resources available in the health care system.
- Know how to use the sources of clinical and biomedical information available, and value them critically in order to obtain, organise, interpret and communicate scientific and sanitary information.
- Know how to use IT in clinical, therapeutic and preventive activities, and those of research.
- Keep and use medical records which contain information about the patient for later analysis, preserving the confidentiality of personal data.
- In the professional practise, take a point of view which is critical, creative, constructive and research-oriented.
- Understand the importance and the limitations of scientific thinking in the study, prevention and management of diseases.
- Be able to formulate hypothesis, gather information and evaluate it critically in order to solve problems by following the scientific method.
- Establish a good interpersonal communication which may allow professionals show empathy and talk to the patients efficiently,as well as to their relatives, the media and other professionals.

- Organizar y planificar adecuadamente la carga de trabajo y el tiempo en las actividades profesionales.
- Capacidad para trabajar en equipo y para relacionarse con otras personas del mismo o distinto ámbito profesional.
- Criticism and self-criticism skills.
- Capacity for communicating with professional circles from other domains.
- Acknowledge diversity and multiculturality.
- Consideration of ethics as a fundamental value in the professional practise.
- Working capacity to function in an international context.
- Is aware of the indications in biochemical tests, as well as haematological, immunological, microbiological, anatomical and pathological, and image tests.
- Conocer las características de los tejidos en las diferentes situaciones de lesión, adaptación y muerte celular. Inflamación. Alteraciones del crecimiento celular.
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- Knows the pathological anatomy of various body organs and systems.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

At the end of this subject students should be able to:

1. Know the morphological, structural and molecular-genetic changes that define diseases in different organs and systems.

2. Know the Pathogenesis, form the anatomical and pathological perspective of diseases in different organs and systems.

3. Recognize injuries that identify different pathological processes in organs and systems.

4. Know: analyze the literature, prepare a written essay and expose an analysis essay.

DESCRIPTION OF CONTENTS

1. THEORY

1. Cardiac malformation and great vessels pathology.
2. Inflammatory pathology of heart: endocarditis, myocarditis, pericarditis. Rheumatic fever.
3. Primary and secondary cardiomyopathies: hypertroohic, dilated and infiltrative-restrictive.
4. Vascular pathology: and aneurysms.
5. Pulmonar pathology with obstructive functional pattern: emohysema, chronic bronchitis, asthma. Bronchiectasis and atelectasis.
6. Pulmonar pathology with restrictive functional pattern: interstitial pulmonary diseases.
7. Esophageal pathology: imflammatory and neoplastic.
8. Gastric pathology: inflammatory and neopastic.

9. Inflammatory intestinal pathology: Crohn's disease and ulcerative colitis.
10. Neoplastic kidney pathology.
11. Neoplastic pancreatic pathology.
12. Glomerular immflamatory renal pathology.
13. Neoplastic uterine pathology (endometrium and myometrium) and non-neoplastic (endometriosis).
14. Neoplastic ovarian pathology.
15. Thyroid pathology: inflammation and neoplastic types.
16. Pathology of the central nervous system: inflammatory type.
17. Pathology of the central nervous system: degenerative type.

2. LABORATORY PRACTICES

1. Cardiac and pulmonary pathology.
2. Digestive and endocrine pathology.
3. Genitourinary pathology.
4. Pathology of the central nervous system.
5. Mammary pathology.
6. Review and exam.
7. A clinical practice it will consist of a 3 hours stay at one of the Anatomical Pathology Services of an University Hospital.

3. SEMINARS

1. Coronary artery disease (1,5 hours).
2. Pneumonia and pneumoconiosis (1,5 hours).
3. Neoplastic pathology of the digestive tract (1,5 hours).
4. Chronic hepatitis and cirrhosis (1,5 hours).
5. Neoplastic pathology of kidney and prostate (1,5 hours).
6. Neoplastic pathology of upper urinary tract and bladder (1 hour).
7. Neoplastic pathology of testicle (1hour).
8. Neoplastic pathology of uterine cervix and human papillomaviruses (1 hour)
9. Neoplastic pathology of endocrine system (1 hour)
10. Neoplastic pathology of central nervous system (1,5 hours)
11. Neoplastic pathology of peripheral nervous system
12. Pulmonary neoplastic pathology (1,5 hours)
13. Lymphoma B (1 hour)
14. Lymphoma T (1 hour)
15. Mammary neoplastic pathology (1,5 hours)
16. Cancer epidemiology (1 hour)

4. TUTORIALS

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	19,00	100
Seminars	19,00	100
Laboratory practices	11,00	100
Tutorials	4,00	100
Clinical practice	3,00	100
Development of group work	2,50	0
Development of individual work	2,50	0
Study and independent work	42,25	0
Readings supplementary material	4,00	0
Preparation of practical classes and problem	5,00	0
TOTAL	**112,25**	

TEACHING METHODOLOGY

- In the **theoretical lessons** (17 thematic units), the In the theoretical lessons, the teacher will expose, through master class, the most important concepts and contents in a structured way, to obtain the knowledge and skills that the students must acquire. The students' participation will be encouraged. The teaching materials used by the professor will be available, if he considers it appropriate, through the electronic resource Aula Virtual.

- Classroom practices: **seminars**. In small groups, the teacher will set specialized topics in depth, case studies, bibliography handling and current topics. The group work and the oral presentation will be boosted. It can be understood as "cooperative learning".

- **Laboratory practices** (microscopy practices) in small groups. They are focused on the consolidation of the theoretical knowledge by the practical application of this knowledge. The professor will present the objectives, will inform about the material management, will supervise the realization of the work and will help on the results interpretation.

- **Tutorials** in reduced groups where the students work in group about different topics coordinated by the professor and a posterior presentation, both written and oral, followed by a debate about the topic. It is a cooperative learning with a co-responsibility strategy.

EVALUATION

Theoretical assessment: 50% of the final mark. Maximum value of 5 points: 50 multiple-choice test. It will be made by a written test about the contents of the program and which aim is to assess the acquisition of the knowledge. The content of the test will be the same of each group of the same subject.

Practical assessment: 50% of the final mark. It will be made by the continuous assessment of the participation on the different activities and the test that assesses the acquisition of the knowledge related to the general and specific competences:

- Mentored internship: maximum 0.8 points

- Clinical practice: maximum 0.2 points

- Microscopic practical: maximum 1 point. This will be assessed by means of a written exam in which 5 microscopic preparations explained during the course will be projected in the practical room, with each correct answer scoring 0.2 points.

- Seminar practice: maximum 3 points: Multiple-choice exam with 30 questions

The multiple-choice exams, by means of which the theoretical teaching and the seminars will be evaluated, will have 4 options of which only one will be correct. There will be a 0.1 point penalty for every 3 wrong answers. There will be no penalty for answers that are not answered.

A minimum of 2.5 points in both the theoretical and practical assessments is required to pass the course.

Attendance to the practical will be compulsory.

REFERENCES

Basic

- Kumar, Abbas, Fausto, Auster: (2010). Robbins y Cotran. Patología estructural y funcional. 8ªed. Ed. Elsevier.
- Kumar V, Abbas AK, Aster JC. Robbins. Patología Humana (Student consult), 9ªed. Ed. Elsevier, 2013.

Additional

- Buja L., Krueger G. (2006). Netter. Anatomía Patológica. 1ª ed. Ed. Masson.
- Rubin E. (2006). Patología estructural. Fundamentos Clínico-patológicos en Medicina. 4ª ed. Mc Graw-Hill Interamericana.
- Pardo-Mindán J. (1997). Anatomía Patológica. 2ªed. Ed. Mosby-Doyma.

- Ordi i Maja J. (1998). Anatomía patológica general. Ed. Universitat de Barcelona.
- Pardo-Mindán J. (1997). Interpat Mosby (Obra multimedia).
- PÁGINAS WEB DE PATOLOGÍA
  · WebPath (www-medlib.med.utah.edu/)
  · Pathweb (http://pathweb.uche.edu/)

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

Siguiendo las recomendaciones del Ministerio, la Consellería y el Rectorado de nuestra Universidad, para el período de la "nueva normalidad", la organización de la docencia para el segundo cuatrimestre del curso 2020-21, seguirá un modelo híbrido, donde tanto la docencia teórica como práctica se ajustará a los horarios aprobados por la CAT pero siguiendo un modelo de Presencialidad / No presencialidad en la medida en que las circunstancias sanitarias y la normativa lo permitan y teniendo en cuenta el aforo de las aulas y laboratorios docentes. Se procurará la máxima presencialidad posible y la modalidad no presencial se podrá realizar mediante videoconferencia cuando el número de estudiantes supere el coeficiente de ocupación requerido por las medidas sanitarias. De manera rotatoria y equilibrada los estudiantes que no puedan entrar en las aulas por las limitaciones de aforo asistirán a las clases de manera no presencial mediante la transmisión de las mismas de manera síncrona/asíncrona via “on line”.