

29214 - Physiopathology

Syllabus Information

Academic Year: 2022/23

Subject: 29214 - Physiopathology

Faculty / School: 229 - Facultad de Ciencias de la Salud y del Deporte

Degree: 441 - Degree in Human Nutrition and Dietetics

ECTS: 6.0

Year: 2

Semester: First semester

Subject Type: Compulsory

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, seminars, workshops, tutorials and autonomous work and study.

4.2. Learning tasks

This course is organized as follows:

- **Lectures** (1.40 ECTS: 35 hours). The content of the lectures will be based on a book or manual recommended previously and adapted to the level of knowledge of the student.
 - Small groups: 40% of the lectures
- **Seminars** (1.04 ECTS: 26 hours). Ten sessions in which students work on cases related to the subject and must resolve problems through personal effort and teamwork.
- **Workshops** (10 hours). Five two-hour sessions in which the teacher will present the basic knowledge for the development of a medical history with the knowledge of the basic physical examination and the main signs of the disease using audiovisual methods.
- **Tutorials** (0.7 ECTS). The professor will make tutorials to students in the group's seminars assigned
- **Autonomous work and study** (3.30 ECTS: 82.50 hours) 55% of the course. This involves the study and preparation of case studies for oral presentation.

4.3. Syllabus

This course will address the following topics:

Lectures

- Topic 1. Introduction to pathology: concept of disease. General etiology of diseases

- Topic 2. Pathophysiology of diseases triggered by environmental causes
- Topic 3. Pathophysiology of immune response
- Topic 4. General study of pathological inheritance. Concept of molecular diseases
- Topic 5. Neoplasms. Concept, etiology and biological characteristics
- Topic 6. Pathophysiology of the inflammatory response.
- Topic 7. Thermoregulation. Febrile syndrom. Fever of unknown origin
- Topic 8. Pathophysiology of cardiac contraction. Pathophysiology of cardiac output. Heart failure
- Topic 9. Valvular disorders and arrhythmia
- Topic 10. Pathophysiology of the coronary circulation. Coronary insufficiency.
- Topic 11. Pathophysiology of blood pressure regulation. Arterial hypotension. High blood pressure.
- Topic 12. Protective mechanisms of respiratory tract. Respiratory failure.
- Topic 13. Main symptoms of the respiratory system
- Topic 14. Pulmonary syndromes. Pleura. Mediastinum.
- Topic 15. Pathophysiology of the motor unit and the sensitivity.
- Topic 16. Pathophysiology of the spinal cord, Brainstem and cerebellum.
- Topic 17. Physiopathology of the cerebral cortex and the extrapyramidal system.
- Topic 18. Pathophysiology of cerebral circulation. Intracranial hypertension syndrome. Meningeal syndrome
- Topic 19. Pathophysiology of peripheral nervous system and vegetative nervous system
- Topic 20. Pathophysiology of the hypothalamus. Pathophysiology of pituitary gland
- Topic 21. Pathophysiology of the adrenal gland.
- Topic 22. Pathophysiology of the thyroid and parathyroid.
- Topic 23. Pathophysiology of carbohydrates.
- Topic 24. Pathophysiology of lipids and proteins
- Topic 25. Pathophysiology of the erythrocyte
- Topic 26. Pathophysiology of leukocytes. The lymphoid system.
- Topic 27. Pathophysiology of haemostasis
- Topic 28. Pathophysiology of swallowing, I pathology of esophagus and stomach
- Topic 29. Pathophysiology of intestinal function
- Topic 30. Jaundice. Liver failure. Pathophysiology of bile duct
- Topic 31. Alterations in nutrition
- Topic 32. Fluid and electrolyte balance, acid-base homeostasis.
- Topic 33. Acute and chronic renal insufficiency. Etiology and pathophysiology
- Topic 34. Renal syndromes and diseases of urinary tract
- Topic 35. Pathophysiology of muscle, bone and joints.

Seminars

- 1. Fever
- 2. Loss of weight.
- 3. Dyspnea
- 4. Chest pain.
- 5. Cough, expectorating cough, hemoptysis.
- 6. Headache.
- 7. Steatorrhea
- 8. Jaundice.
- 9. Polyuria
- 10. Edema, ankle swelling

Workshops

- 1. Clinical history
- 2. General examination of the patient
- 3. Digital ring. Sources of information on human pathology.
- 4. Medical images medical. Signs of disease.
- 5. Basic analytic interpretation

4.4. Course planning and calendar

Calendar of sessions and presentations during the 3th semester of the degree (from September to January). Lectures: 2-3 classes a week (14 weeks). Workshops: the first 5 weeks. Seminars: weekly, after the workshops. Calls for examination on dates designated by the Centre (June).

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Health and Sport Sciences website (<https://fccsyd.unizar.es/>) and Moodle.

4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=29214>