25429 - General and descriptive Physiology

Información del Plan Docente

Academic Year	2017/18
Faculty / School	127 - Facultad de Ciencias de la Salud 275 - Escuela Universitaria de Enfermería de Huesca 375 - Escuela Universitaria de Enfermería de Teruel
Degree	559 - Degree in Nursing 561 - Degree in Nursing 560 - Degree in Nursing
ECTS	10.0
Year	1
Semester	Annual
Subject Type	Basic Education
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It favors the

acquisition of knowledge related to human physiology and human health. A wide range of teaching and learning tasks are implemented, such as lectures and practice sessions.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

Further information regarding the course will be provided on the first day of class.

5.2.Learning tasks

The course includes 10 ECTS organized according to:

- Lectures (8,5 ECTS): 85 hours.

- Practice sessions (1,5 ECTS): 15 hours.

5.3.Syllabus

The course will address the following topics:

Section 1. CHEMICAL COMPOSITION OF HUMANS

Topic 1. Enzymology

Topic 2. Carbohydrates metabolism

Topic 3. Lipid metabolism

Topic 4. Protein metabolism

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Section 2. BLOOD AND CARDIOVASCULAR PHYSIOLOGY

Topic 1. Composition and function of human blood

Topic 2. Red bloods cells

Topic 3. Leukocytes. Inflammation. Immunity

Topic 4. Platelet. Hemostasis and Blood Coagulation.

Topic 5. Mechanical heart activity

Topic 6. Rhythmical Excitation of the Heart. The Normal Electrocardiogram

Topic 7. Vascular physiology

Section 3. RESPIRATORY PHYSIOLOGY

Topic 8. Pulmonary Ventilation

Topic 9. Exchange and transport of gases

Section 4. THE BODY FLUIDS AND KIDNEYS

Topic 10. Kidney. General functions

Topic 11. Urine Formation by the Kidneys

Topic 12. Body fluids. Regulation of Acid-Base Balance

Section 5. GASTROINTESTINAL PHYSIOLOGY

Topic 13. Secretory Functions, Digestion and Absorption in the

Gastrointestinal Tract

Section 6 . **ENDOCRINE PHYSIOLOGY**

Topic 14. Introduction to Endocrinology. Pituitary Hormones and Their Control

by the Hypothalamus

Topic 15. Thyroid Metabolic Hormones

Topic 16. Calcium and Phosphate Metabolism

Topic 17. Pancreatic Hormones

Topic 18. Adrenal glands

Topic 19. Sex Hormones

Section 7. NEUROPHYSIOLOGY

Topic 20. General functions of the Nervous System.

Topic 21. Somatic and Autonomic Nervous System.

5.4.Course planning and calendar

For further details concerning the timetable, classroom and further information regarding this course please refer to the "Facultad de Ciencias de la Salud" website (https://fcs.unizar.es/)

5.5.Bibliography and recommended resources

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- Bioquímica : conceptos esenciales. Elena Feduchi Canosa [et al.] ; colaboradora, Carlota García-Hoz Jiménez. Madrid, Editorial Médica Panamericana, 2010
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- Koolman, Jan, Röhm, Klaus-Heinrich: Bioquímica : texto y atlas. 3ª ed., rev. y ampl. Madrid, Editorial Médica Panamericana, 2004
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- Voet, Donald, Voet, Judith G.: Bioquímica. 3ª ed. Buenos Aires, Editorial Médica Panamericana, 2006