

Información del Plan Docente

Academic Year 2018/19

Subject 26763 - Physiology II

Faculty / School 104 - Facultad de Medicina

229 - Facultad de Ciencias de la Salud y del Deporte

Degree 304 - Degree in Medicine

305 - Degree in Medicine

ECTS 6.0

Year 1

Semester Second semester

Subject Type Basic Education

Module

- 1.General information
- 1.1.Aims of the course
- 1.2. Context and importance of this course in the degree
- 1.3. Recommendations to take this course
- 2.Learning goals
- 2.1.Competences
- 2.2.Learning goals
- 2.3.Importance of learning goals
- 3.Assessment (1st and 2nd call)
- 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)
- 4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It favors the acquisition of knowledge related to Physiology. A wide range of teaching and learning tasks are implemented, such as lectures, practice sessions, and assignments.

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.

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4.2.Learning tasks
The course includes 6 ECTS organized according to:

- Lectures

- Practice sessions

- Seminars

- Clinical problem-solving

- Autonomous work

4.3.Syllabus
THEORETICAL PROGRAM

RENAL PHYSIOLOGY

1.Homeostasis and Renal Function

2. General structure and functions of the kidney.

7. Balance and distribution of sodium, chloride ions. Renal management of sodium and chlorine. Regulation of your

Renin-All-Aldosterone System. Renal regulation of the extracellular volume.

3. Glomerular ultrafiltration. Concept of clearance.

5. Osmotic activity of the kidney.

balance.

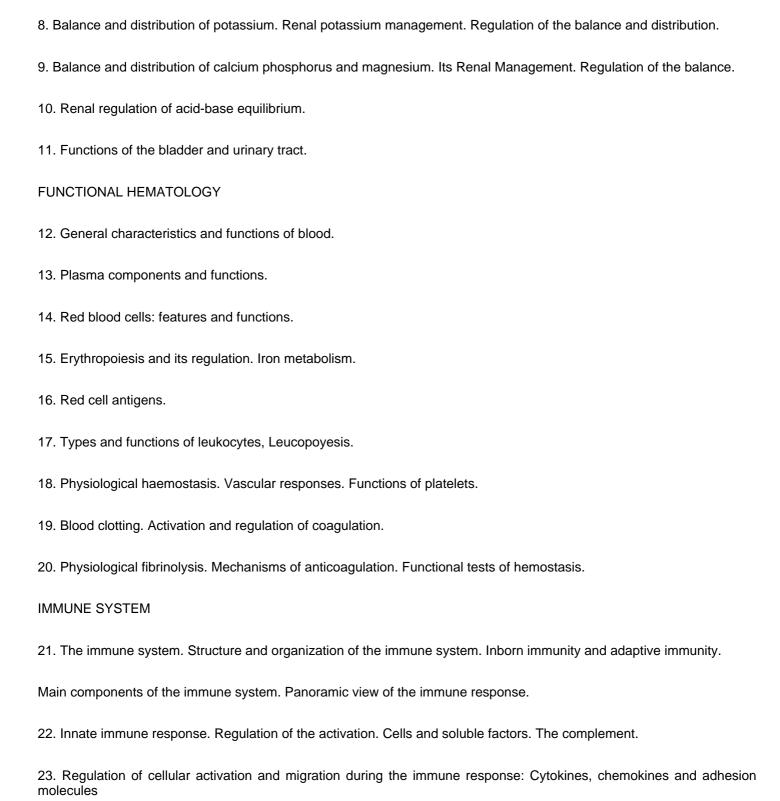
4. Reabsorption and tubular secretion. Concept of Tm.

6. Regulation of water balance. Regulation of osmolarity.



24. Adaptive immune response. The B lymphocyte

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25. Immunoglobulins. Structure and Function
26. Adaptive immune response. The helper T lymphocyte.
27. HLA system. Routes of antigenic presentation. Dendritic cells.
28. Cytotoxic response. Cytotoxic T lymphocytes and NK cells. Cell death.
29. Immune tolerance. Regulation of the immune response. Development, evolution and aging of the immune system.
30. Initiation to immunotherapy. Pharmacological modulation of the immune response in infection and cancer.
PRACTICE PROGRAM IN ZARAGOZA
Urine Concentration-Dilution Test
Urine analysis. Urinary sediment
Functional problem in "Hypernatremia"
Functional problem in "Hemostasis"
Blood extraction
Sedimentation Rate
Blood groups
Hematocrit
Coagulation time and Prothrombin time
Osmotic resistance and haemolysis
Leukocyte Formula by Flow Cytometry
Collection of platelet-rich plasma and its determination by cytometry
Collection of platelet-rich plasma and its determination by cytometry



Synthesis of antibodies and application to diagnosis (seminar)
Manipulation of cellular immunity in cancer (seminar)
Separation of lymphocytes
Study of cellular morphology
Agglutination reaction
PRACTICE PROGRAM IN HUESCA
Urine Concentration-Dilution Test
Urine analysis. Urinary sediment
Problem-Based Learning (ABP): Kidney
Blood Groups and Hematocrit
Simulation of blood extraction, velocity of sedimentation.
ABP: Hematological Blood-Constants
Leukocyte Formula and Lymphocyte Separation
Seminar Immunology o Study of cellular morphology
4.4.Course planning and calendar
For further details concerning the timetable, classroom and further information regarding this course please refer to the "Facultad de Medicina" website (http://www.unizar.es/estructura/facultades-y-escuelas/facultad-de-medicina)
1st Call 17 June, 2019
2nd Call 12 September, 2019
Huesca
FCSYD website https://fccsyd.unizar.es/horarios-y-calendarios-medicina



4.5.Bibliography and recommended resources

http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a