

26768 - Physiology IV

Información del Plan Docente

Academic Year	2018/19
Subject	26768 - Physiology IV
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	9.0
Year	2
Semester	Second semester
Subject Type	Compulsory
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.

4.2. Learning tasks

The course includes 9 ECTS organized according to:

- Lectures (2,4 ECTS): 60 hours.
- Practice sessions (0,8 ECTS): 20 hours.
- Assignments (0,32 ECTS): 8 hours.
- Autonomous work (5,2 ECTS): 130 hours.

4.3. Syllabus

Theoretical program:

Endocrine and reproductive systems

1. Introduction to the endocrine system.
2. hypothalamic-posterior pituitary axis. ADH and oxytocin.
3. hypothalamic-anterior pituitary axis.
4. Growth Hormone. Other hormones of the anterior pituitary.
5. Thyroid function.
6. Endocrine pancreas.
7. Endocrine regulation of adipose tissue
8. Control of calcium-phosphorus balance. Bone physiology.
9. Physiology of the adrenal cortex.
10. Endocrine functions of the male gonads.
11. Endocrine functions of the female gonads. Gonadotropins. Menstrual cycle.
12. Reproductive functions of man.
13. Reproductive functions of women.
14. Childbirth and Breastfeeding

Nervous system

1. Functional organization of the nervous system.
2. Neurons and neuroglia. Neuronal association
3. Cerebral circulation. Cerebrospinal fluid. blood brain barrier.
4. Sensory nervous system functions. Receptor properties. Modalities of sensation.
5. Somatic sensitivity. Skin sensitivity. Sensitivity to pain.
6. Visual sensitivity.

7. Chemical Senses.
 8. Hearing sensitivity.
 9. Equilibrium
 10. Properties and classification of reflexes
 11. Spinal reflexes. Somatic reflexes.
 12. Motor control
 13. Autonomic nervous system
 14. Thermoregulation.
 15. Sleep and wakefulness. Cerebral electrical activity
 16. Higher functions of the nervous system.
 17. Nervous system and aging
- Laboratory practices and problems program of Medical School:
1. thyroid functional evaluation.
 2. Functional problem: hyperthyroidism
 3. Blood glucose curve
 4. Functional problem: hyperglycemia
 5. Functional problem: amenorrhea
 6. Functional exploration of sensibility and chemical senses.
 7. Functional exploration of vision.
 8. Physiology of optics and refraction.
 9. Functional exploration of hearing.
 10. Functional exploration of reflexes, balance and gait

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11. Study of the dream.

12. Functional problem: Cerebral circulation.

13. Functional problem: Basal ganglia.

Laboratory practices and problems program of Health and Sport Sciences School:

1. Functional problem: Hyperthyroidism

2. Functional problem: hyperglycemia

3. Blood glucose curve

4. Functional problem: Adrenal gland

5. Functional problem: Hypercalcemia

6. Functional problem: Amenorrhea

7. Functional exploration of sensitivity and chemical senses

8. Functional exploration of vision

9. Functional exploration of hearing and balance

10. Functional exploration of reflexes

11. Functional exploration of coordination and walking

12. Functional problem: Basal ganglia

13. Functional problem: Cerebral circulation

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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>)

4.5.Bibliography and recommended resources

THE UPDATED BIBLIOGRAPHY OF THE SUBJECT IS CONSULTED THROUGH THE LIBRARY WEB PAGE

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