

26759 - General Anatomy and Human Embryology

Syllabus Information

Academic year: 2023/24

Subject: 26759 - General Anatomy and Human Embryology

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: First semester

Subject type: Basic Education

Module:

1. General information

In this subject, students will learn about:

- The origin of human anatomy and its history.
- The different tissues, organs, apparatus and systems of the human body in the adult subject.
- Embryogenesis (embryonic development) and organogenesis (development and evolution of body systems and apparatuses)

These goals are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 United Nations (<https://www.un.org/sustainabledevelopment/es/>), so that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement:

The objectives to be developed will be:

Goal 3: Health and Wellness. Goal 4: Quality Education. Goal 5: Gender Equality.

2. Learning results

To pass this subject, the student must be able to:

- Describe, identify, locate and relate basically the structures, systems and apparatus that make up the human body
- To integrate the successive stages of prenatal development of the human being.
- To integrate the structure and function of the placenta and its adnexal membranes.
- To identify the processes of fertilization and nesting of the zygote.
- To identify the different embryonic stages, including differentiation of the adnexa.
- To describe, identify and sequence the basic phenomena of early embryonic development (differentiation, induction, migration...) that lead to the appearance of apparatus and systems and to their further evolution, growth and maturation.
- To describe the basic phenomena that lead to modelling the external appearance of the embryo and foetus.
- To recognize with scientific criteria the failures of development mechanisms and interpret their consequences To correlate macroscopic morphology with optical microscopic and ultrastructural morphology.
- To recognize developing structures by imaging of the usual observation methods of clinical diagnosis
- To integrate the relationship between morphology, structure and function of all developmental periods
- To master the basic anatomical and embryological terminology necessary for the practice of the medical profession.
- To relate morphological knowledge to that of other disciplines in the undergraduate curriculum.

3. Syllabus

- 1.- Introduction to Anatomy.
- 2.- Introduction to systems and devices
- 3.- Introduction to Embryology. Germ cells. Fertilization.
- 4.- Embryonic soma differentiation. Foetal membrane formation.
- 5.- Cardiogenesis. Development of arterial, venous and lymphatic systems.
- 6.- Genesis of primitive intestine. Branchiogenesis
- 7.- Genesis of respiratory apparatus.
- 8.- Genesis and development of the coeloma

- 9.- Nephrogenesis. Development of the urogenital system.
- 10.- Neurogenesis Neural crest derivatives. Development of senses
- 11.Skeletogenesis, Arthrogenesis. Myogenesis.
- 12.- Genesis of integumentary systems. Odontogenesis

Practical program

- 1.- Basic concepts of Anatomy
- 2.- Early stages of development.
- 3.- Development of devices and systems

Seminars

On current topics indicated at the beginning of the term

4. Academic activities

Lectures: 40 hours

Problem solving and case studies: 5 hours

Laboratory practices: 15 hours

Special practices (monitors): 2 hours

Seminars: 4 hours

Teaching assignments. 12 hours

Personal study: 72 hours

Assessment tests. 4 hours

5. Assessment system

The evaluation will be carried out by means of written exams (theory and practice)

The theory exams will be conducted in the form of multiple-choice questions. Its maximum grade will be 6 points.

The examinations of the practical part will be performed by means of films (images to identify or locate anatomical structures). Its maximum grade will be 3 points.

If any of the parts (theoretical or practical) is not passed, they will **NOT** be compensated for each other.

The evaluation percentages for the calculation of the final grade will be 90% for the examinations taken. The 10% will be the evaluation of the practice notebook (tutored work), as well as the results of the different tests that will be carried out in the practice room.

In accordance with the provisions of article 5 of RD 1125/2003 (BOE September 18), the results obtained by the students will be graded according to a numerical scale (0-10), with one decimal place:

0-4,9: Fail (SS).

5,0-6,9: Pass (AP).

7,0-8,9: Notable (NT)

9,0-10: Outstanding (SB)

Honours will be awarded to the students with the best grades in our subject. In case there are students with the same grade that could be eligible for Honours, an examination may be held prior to the signing of the minutes.