Universitat Autònoma de Barcelona

2023/2024

Human Anatomy: Splanchnology

Code: 103593
ECTS Credits: 6

Degree	Type	Year	Semester
2502442 Medicine	FB	2	1

Contact

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Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

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Prerequisites

It is recommended that the student had acquired the basic knowledge and skills from the subjects of Human Anatomy taught in the first year of the degree of Medicine, as well as the basic competences for self-learning and group work.

Objectives and Contextualisation

The Human Anatomy course: Splanchnology is a subject taught in the 1st semester of the 2nd year of the Degree in Medicine and is focused on respiratory, urogenital and digestive systems and other related organs such as adrenal glands, thyroid, parathyroid, thymus and spleen.

The objectives of the subject are that students:

- Learn the basic embryology, anatomical organization and descriptive anatomy, as well as the topographic anatomy of the main human body regions.

- Apply acquired knowledge of embryology and anatomy to the pathogenesis and symptomatology of congenital and / or acquired pathologies.
- Learn and use correctly, the anatomical nomenclature.
- Identify the different anatomical structures.
- Get practical skills.

Competences

- Convey knowledge and techniques to professionals working in other fields.
- Critically assess and use clinical and biomedical information sources to obtain, organise, interpret and present information on science and health.
- Demonstrate a sufficient command of English, both oral and written, for effective scientific and professional communication.
- Demonstrate basic research skills.
- Demonstrate knowledge and understanding of descriptive and functional anatomy, both macro- and microscopic, of different body systems, and topographic anatomy, its correlation with basic complementary examinations and its developmental mechanisms.
- Demonstrate understanding of the basic sciences and the principles underpinning them.
- Demonstrate understanding of the causal agents and the risk factors that determine states of health and the progression of illnesses.
- Demonstrate understanding of the structure and function of the body systems of the normal human organism at different stages in life and in both sexes.
- Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
- Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
- Organise and plan time and workload in professional activity.
- Recognise the professional values of excellence, altruism, sense of duty, compassion, empathy, honesty, integrity and commitment to scientific methods.

Learning Outcomes

1. Apply knowledge of anatomy to the production of structured review texts.
2. Convey knowledge and techniques to professionals working in other fields.
3. Demonstrate a sufficient command of English, both oral and written, for effective scientific and professional communication.
4. Demonstrate basic research skills.
5. Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
6. Describe anatomical structures through inspection, palpation and/or different diagnostic imaging techniques.
7. Describe the anatomical structures, the organisation and the morphogenesis of the musculoskeletal system, respiratory system, digestive system, and urogenital system.
8. Describe the factors that determine the form, general aspect and proportions of the human body in health at different stages in life and in both sexes.
9. Describe the fundamental scientific principles of human anatomy.
10. Describe the general anatomical organisation of the systems of the human body in health.
11. Explain the formation of the embryonic disc and its principal derivatives.
12. Identify the anatomical structures that constitute the different body systems in good health in the major stages of the life cycle and in both sexes.
13. Identify the anatomical structures that make up the different body systems in health, through inspection, palpation and / or different macroscopic methods and different diagnostic imaging techniques.
14. Identify the main techniques used in a human anatomy laboratory.
15. Identify the morphogenetic mechanisms of the main alterations to the development of the musculoskeletal system, respiratory system, digestive system, and urogenital system.
16. Identify, at a basic level, the donation system and the protocols for the use of bodies in the medicine faculty.

17. Know and make correct use of the international anatomical nomenclature.
18. Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
19. Organise and plan time and workload in professional activity.

Content

SECTION 1- RESPIRATORY SYSTEM
Overview of the development of the respiratory system. Nose, nasal cavity, and paranasal sinuses. Larynx. Trachea and bronchi. Lungs. Pleura and pleural cavities. Mediastinum. Innervation, vascular supply, and lymphatic drainage of the respiratory system. Topographic, clinical, and radiological anatomy of the respiratory system.

SECTION 2- UROGENITAL SYSTEM
Overview of the development of the urogenital system. Topographic, clinical, and radiological anatomy of the urogenital system.
Urinary system: kidneys, ureter, bladder, male, and female urethra. Vascularization and innervation of the urinary system.
Male reproductive system: Testes and epididymis, vas deferens, and ejaculatory ducts. Spermatic cords. Accessory glandular structures: prostate, seminal vesicles, and bulbourethral glands. Scrotum, Penis. Innervation, vascular supply, and lymphatic drainage of the male reproductive system.
Female reproductive system: Ovaries, uterine tubes, uterus, vagina, and female external genital organs. Mama. Vascularization and innervation of the female reproductive system.

SECTION 3- DIGESTIVE SYSTEM
Overview of the development of the digestive apparatus. Oral cavity: cheeks, lips, oral vestibule, mouth, palate, tongue, teeth, and salivary glands. Thyroid, parathyroid, and thymus glands. Pharynx. Oesophagus. Stomach. Peritoneum and peritoneal cavity. Small intestine: duodenum, jejunum, and ileum. Large intestine: caecum, vermiform appendix, colon (ascending, transverse, descending and sigmoid), rectum, and anal canal. Hepatobiliary system: liver, gallbladder, and biliary tree. Pancreas, spleen, and suprarenal gland. Vascularization and innervation of the digestive system. Topographic, clinical, and radiological anatomy of the digestive tract.

Methodology

NOTE: *The proposed methodology may undergo some modification depending o the face-to-face restrictions imposed by the health authorities.*

In accordance with the objectives of the subject, the teaching methodology of the course is based on the following activities:

DIRECTED ACTIVITIES

- *Lectures*: Systematic exhibition of the subject, giving relevance to the most important concepts. The student acquires basic knowledge of the subject by attending master classes and complementing them with a personal study of the topics explained.
- Seminars: Embryology seminars are scheduled where aspects of embryology and teratogenesis of respiratory, urogenital, and digestive systems are studied. One clinical seminar is also programmed where students apply the knowledge acquired to solve clinical cases.
- Practical Labs: Students identify different anatomical structures in dissections, prosections, and imaging techniques (radiology, computerized tomography, magnetic resonance imaging, ultrasound, etc.). The objective is to consolidate the knowledge acquired in lectures, tutorials, and autonomous activities.

SUPERVISED ACTIVITIES

- *Tutorials*: The tutorials will be made in a personalized way (hours to be arranged). The aim of the tutorials is to clarify concepts, establish the knowledge acquired, and facilitate the study by the students. They can also be used to solve doubts that the students have about the preparation of the seminars.

AUTONOMOUS ACTIVITIES

A comprehensive reading of texts and articles. Personal study, schemes, and summaries preparation. Conceptual assimilation of the contents of the subject.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	37	1.48	17, 9, 10, 6, 7, 11, 15, 13, 12, 14
Practical Labs	8	0.32	17, 3, 2, 15, 13, 12, 14, 16
Seminars	7	0.28	17, 3, 4, 5, 2, 11, 15, 18, 19
Type: Supervised			
Tutorials	16	0.64	1, 17, 3, 4, 5, 9, 10, 6, 7, 2, 11, 15, 13, 12, 14, 16, 18, 19
Type: Autonomous			
Comprenhensive reading of texts and articles/Personal study/summaries preparation	74	2.96	1, 17, 3, 4, 5, 9, 10, 6, 7, 2, 11, 15, 13, 12, 14, 16, 18, 19

Assessment

NOTE: *This subject does not provide for a single assessment system.*

The competences of the subject are evaluated through two partial exams, each with a weight of 50% to the final grade of the subject. The subject of each partial exam can be eliminated if the students reach a minimum grade of 5.00. All students will have two opportunities to pass the two parts of the subject: partial exam (during the semester) and retrieval exam (at the end of the semester).

PARTIAL EXAMS:

The subject will program 2 partial exams with a weight of 50% each.

- First partial: This partial exam will focus on the contents (Lectures, seminars and practicals) of the respiratory and the urogenital systems. Seminars and practicals attendance is mandatory to take this partial exam.
- Second partial: It will focus on the contents of the digestive system (Lectures, seminars and practicals). Seminars and practicals attendance is mandatory to take this partial exam.

Each partial will consist of: written evaluations:

- Multiple-choice test: test with 5 answers, only 1 true and with a penalty of 0.25 points for incorrect answer. This test represents 60% of the partial mark.

- No test evaluation - This test represents 40% of the partial mark.

The mark of each partial = test evaluation (60%) + no test evaluation (40%).

It is mandatory to have a minimum grade of 5.00 on each partial to pass the subject. The student will have to submit to the examination of recovery of the part not eliminated.

RECOVERY EXAM:

The students who have eliminated subjects in the partial evaluations will not be obligated to make the final evaluation or recovery.
The subject will schedule a final assessment, in accordance with the Faculty's teaching calendar.

Students with the following criteria have to attend the final evaluation:

- Students who have not eliminated material in 1 or 2 partials
- Students who have not submitted to any of the partial exams.

- Students who have eliminated material but want to upgrade one or both partial exams. In these cases:
  a) An email must be sent to the coordinator of the subject at least 1 week before the recovery exam.
  b) The student will have to submit both evaluations of the partial/s that wishes to upgrademark
  c) Although the student presents to the recovery exam to upgrade, it is mandatory to have a minimum grade of 5.0 on the theoretical examination and a minimum grade of 5.0 on practical examination of the recovery exam. Otherwise, the student will have suspended the subject.
- The recovery exam of each partial will consist of written evaluations (test and no test exams) based in lectures, SEM and PLAB contents.

The student who has to recover the 2 partials, will recover the 1st part + the 2nd part. It will have, then, a partial note of recovery of the 1st part and another of the 2nd part.

GRADE OF THE SUBJECT:

Grade of the subject = Respiratory and urogenital system (50%) + digestive system (50%).

The final grade of the subject will have anumerical expression, with a decimal on the scale of 0-10and with the qualitative equivalence by the criteria of the UAB, of "suspens" (0-4.9), "aprovat" (5.0-6.9), "notable" (7.0 -8.9) and "excellent" (9.0-10.0). The following indications of the UAB will be rounded off to the nearest whole number when it isone tenth of a value that entails a qualitative change of qualification. The honour distinction will be among students who have achieved an excellent qualification. The number of license plates awarded may not exceed 5% as established by the academic regulations of the UAB.

To pass the subject it is necessary to obtain a minimum grade of 5.0 in each part (respiratory and urogenital system + digestive system). In case that a part has a good mark but in the other part the mark isless than 5.0, the student's mark will be 4.8 points maximum, although the weighted sum of the two parts is greater than or equal to 5.0. The mark of each part is that obtained in the partial exams or in the recovery exam.

It is considered non-evaluable student, who has NOT performed a minimum of two written assessments.

ANNOUNCEMENTS, REVISIONS:
Exams (day, hour, classroom ...) and revision of the marks will be announced through the UAB moodle. The procedure for reviewing marks will be in accordance with the current regulations of the UAB and in any case be individually.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
A) Multiple choice evaluation nº 1	30%	2	0.08	1, 17, 8, 9, 10, 6, 7, 11, 15, 13, 12, 14, 16
B) No test evaluation nº 1	20%	2	0.08	1, 17, 8, 9, 10, 6, 7, 11, 15, 13, 12, 14, 16
C) Multiple choice evaluation nº 2	30%	2	0.08	1, 17, 3, 4, 5, 8, 9, 10, 6, 7, 2, 11, 15, 13, 12, 14, 16, 18, 19
D) No test evaluation nº 2	20%	2	0.08	1, 17, 3, 4, 5, 8, 9, 10, 6, 7, 2, 11, 15, 13, 12, 14, 16, 18, 19

Bibliography

TEXTBOOKS

- Drake RL, Vogl W, Mitchell AW (2020). Gray- Anatomia para estudiantes. 4ª ed. Ed. Elsevier Science, Madrid. Format E-book a la Biblioteca de la UAB
- Garcia-Porrero JA, Hurlé JM (2020). Anatomia Humana. 2ª edición Ed. McGraw-Hill Interamericana. Format E-book a la Biblioteca de la UAB
- Sadler TW (2023) Embriología médica de Langman. 15ª edición. Wolters Kluwer/Lippincott Williams & Wilkins. Format E-book a la Biblioteca de la UAB

ATLAS

- Gilroy AM et al. PROMETHEUS Atlas de Anatomía (2021). 4ª ed. Ed. Panamericana: Buenos Aires. Format E-book a la Biblioteca de la UAB
- Rohen JW, Yokochi C, Lütjen-Drecoll E (2021). Atlas de Anatomía Humana. 10ª ed. Ed. Elsevier Science, Madrid Format E-book a la Biblioteca de la UAB

WEB

- Videos de dissecció: https://www.youtube.com/channel/UCjAj3yIS_wAsWZZOdR2koNQ
- Examen test: https://www.sanfoundry.com/human-anatomy-multiple-choice-questions-answers/
- Examen multiple choice: http://novella.mhhe.com/sites/0070272468/student_view0/chapter17/multiple_choice_quiz.html

Software

For this subject we do not need any specific software.