

26000 - Human Anatomy

Syllabus Information

Academic Year: 2022/23

Subject: 26000 - Human Anatomy

Faculty / School: 127 - Facultad de Ciencias de la Salud

Degree: 276 - Degree in Occupational Therapy

ECTS: 10.0

Year: 1

Semester: Annual

Subject Type: Basic Education

Module:

1. General information

1.1. Aims of the course

The main objective of this course is to acquire a complete knowledge of the human body structure, at macro and microscopic levels, and the capacity to explain this knowledge with appropriate terminology and accuracy.

The approaches and objectives of the course are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>): Goal 3. Health and Well-being; Goal 4. Quality Education, in such a way that the acquisition of the course learning outcomes provides training and competence to contribute to some extent to their achievement.

1.2. Context and importance of this course in the degree

The subjects of Human Anatomy, Human Kinesiology and Human Biomechanics and Physiology are considered basic training subjects of the branch of knowledge and their contents are necessary for the subsequent development of other subjects of the Degree in Occupational Therapy.

1.3. Recommendations to take this course

The Human Anatomy subject has a broad theoretical content that is complemented with practical classes and problem solving and case studies, so it is essential that students study and work continuously to achieve the learning outcomes that define the subject.

Regular attendance to theory, practical and problem-solving classes is important for a progressive knowledge of the subject.

2. Learning goals

2.1. Competences

On passing the course, the student will be more competent to apply their skills and knowledge ...

ACCORDING TO THE DEGREE'S VERIFICATION REPORT:

- structure and function of the human body within the context of Occupational Therapy.
- to occupations therapeutically.
- to Orthoprosthetic Techniques within the context of Occupational Therapy.
- to activities of daily living therapeutically in all areas of occupational performance.
- to Ergonomics within the context of Occupational Therapy.
- to undertake appropriate and systematic assessments in the areas of occupational performance (self-care, productivity and leisure and recreation) using appropriate tools and frameworks, taking into account relevant physical, social, cultural, psychological, spiritual and environmental factors.
- to recognise and interpret signs of function-dysfunction of the person in occupational assessment and diagnosis
- to respond to the patient's needs by assessing, planning and developing the most appropriate individualised programmes together with the person and their environment, their carers and families and other professionals

- to interpret, evaluate and synthesise a range of information to determine if the person is suitable for Occupational Therapy treatment
- for the treatment of all occupational performance impairments in institutional, home and work settings
- to elaborate and implement programmes for health promotion, prevention of occupational dysfunction, health education and social reintegration
- to participate in school, work and social integration health programmes
- to intervene in the adaptation and re-adaptation of the physical, social and cultural environment
- to the scientific method to verify the effectiveness of the intervention methods, to evaluate the working methods applied and to disseminate the results.

ACCORDING TO ORDER CIN/729/2009

Know and understand the structure and function of the human body in order to evaluate, synthesise and apply occupational therapy treatments.

Acquire teamwork skills as a unit in which professionals and other personnel related to the diagnostic evaluation and treatment of occupational therapy are structured in a uni or multidisciplinary and interdisciplinary way.

2.2. Learning goals

In order to pass this subject, the student must demonstrate the following learning outcomes:

- Have learned and be able to use the terminology used in Anatomy and Health Sciences.
- Identify cells and the structure and function of their components and recognise the types of tissues.
- Describe bones, joints and the muscles that move them.
- Describe the structures and analyse the functions of the different parts that make up the nervous system and the sense organs.
- Identify the different viscera, organs and structures that make up the systems and apparatus: Circulatory, Respiratory, Digestive and Urogenital.
- Work individually and in teams, and obtain, analyse, summarise and interpret information related to human anatomy.

2.3. Importance of learning goals

Starting from a basic knowledge of the structures that make up the human body, their organisation and functions, students will be able to better assimilate the functions and dysfunctions that are studied in other subjects of the degree.

Teamwork and the acquisition of a language that allows students to communicate with health science professionals is also important, as they can form part of multidisciplinary teams in the development of their professional life.

3. Assessment (1st and 2nd call)

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

Students must demonstrate that they have achieved the expected learning outcomes by passing the following assessment activities:

- **Assessment of participation in theory, practical and problem solving and case studies classes** (30% of the final mark).

- **Attendance and participation in theory classes:** attendance and active participation in theory classes throughout the academic year will account for 3% of the final mark.
- **Practical classes:** in practical classes, attendance and completion of the activities proposed for each class (identification of structures in images or models, watching videos or other planned activities) will be assessed. This assessment will account for 15% of the final mark.
Students who attend less than 80% of the practical classes must take a Practical Exam in the official examination date of the course.

- **Problem solving and case study classes:** during the problem solving and case study classes, the participation and competences shown by the students (individually and in groups) on the different topics proposed by the teacher will be evaluated. This assessment will account for 12% of the final mark.

In this way, the evaluation of participation in the course will account for 30% of the final mark (3% participation in theory classes + 15% practical classes + 12% solving problems and practical cases).

- **Objective tests of the theoretical contents** (70% of the final mark).

Mid-term exams will be held throughout the course, eliminating material for the official examination of the course (1 May/June and 2 June/July).

At each official examination session (1 May/June and 2 June/July), a final exam will be held for the whole course or, where appropriate, for the part that has not been eliminated by the mid-term exams.

Each exam, corresponding to each part, will consist of 15 to 30 multiple-choice questions with penalties for incorrect answers.

In order to pass the course, the student must have passed each of the parts to be assessed (evaluation of class participation and objective tests).

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The learning process that has been designed for this course is based on the following:

The subject, although extensive, has a basic orientation and focuses on the knowledge of human anatomy at a macro and microscopic level. To this end, activities are proposed that complement each other and allow students to learn about the composition and functions of the different parts that make up the human body.

4.2. Learning tasks

The programme offered to the student to help him/her achieve the expected results comprises the following activities:

- **Theoretical classes for the whole group** (65 hours) (learning outcomes 1, 2, 3, 4 and 5). Participative lectures in which the topics will be presented, doubts from previous topics will be solved and those that arise during the presentation will be resolved.

- **Problem and case solving classes** (10 hours) (learning outcomes 1, 4, 5 and 6). Prior to the class, the student will review the documentation provided by the teacher regarding one of the parts of the syllabus. Subsequently, in class, doubts will be resolved and the teacher will explain the subject and the students will work in small groups (4-5 students) to solve the different problems and cases proposed.

Theoretical classes and the resolution of problems and cases will involve a study time for the student equivalent to 3 ECTS credits.

- **Practical classes for small working groups** (1 ECTS credit / 25 hours) (learning outcomes 1, 3, 4, 5 and 6). Small working groups will be able to complete the theoretical knowledge acquired in the theoretical classes and participate in different practical activities proposed by the teacher in the practical room.

All the complementary material and recommendations to be able to follow the different classes will be found in the Moodle course of the subject.

- **Other activities** (6 ECTS / 150 hours) (learning outcomes 1, 2, 3, 4, 5 and 6). Watching videos for the preparation of the practicals, practical activities, study of the subject, preparation of exams, bibliographic research, etc.

4.3. Syllabus

The course will address the following topics:

SECTION 0. INTRODUCCION

SECTION 1. CYTOLOGY AND HISTOLOGY

- 1.1- Cell. Definition. Generalities. Components.
- 1.2- Tissues. Concept, types and main characteristics.

SECTION 2. MUSCULOSKELETAL SYSTEM

- -2.1- Bones: types, structure and functions. Growth and bone reconstruction. Bone tissue.
- -2.2- Vertebral column: Vertebrae.
- -2.3- Vertebral column as a whole. Thoracic cage.
- -2.4- Upper limb bones.
- -2.5- Lower limb bones.
- -2.6- Cranium bones. Cranial roof and base.

- -2.7- Facial skeleton. Facial fossae.
- -2.8- Joints: Generalities. Components and classification.
- -2.9- Skeletal muscles: Estructure and muscles types. Tendons. Fasciae and sheaths.

SECTION 3.- NERVOUS SYSTEM

- Introduction to the Nervous System study. Phylogenesis and Ontogenesis. Nervous tissue. Neurons and glia.
- 3.1- PERIPHERAL NERVOUS SYSTEM
 - 3.1.1- Spinal Nerves. Posterior Ramus.
 - 3.1.2- Cervical plexus.
 - 3.1.3- Brachial plexus.
 - 3.1.4- Intercostal nerves.
 - 3.1.5- Lumbar plexus.
 - 3.1.6- Sacral plexus.
 - 3.1.7- Pudendal plexus. Nerves of the vegetative nervous system.
- 3.2- CENTRAL NERVOUS SYSTEM (CNS)
 - 3.2.1- Spinal cord. Sensory and motor grey matter. White matter. Ascending and descending tracts.
 - 3.2.2- Brainstem.
 - 3.2.3- Craneal Nerves.
 - 3.2.4- Cerebellum.
 - 3.2.5- Diencephalon.
 - 3.2.6- Cerebral cortex. Motor, sensory and association areas.
 - 3.2.7-. Pyramidal system. Extrapyramidal system.
 - 3.2.8-. Sensory pathways in the CNS.
 - 3.2.9-. Meninges. Cerebrospinal fluid.
 - 3.2.10-. Vascularization of the CNS.
- 3.3- SENSES
 - 3.3.1- Eyeball
 - 3.3.2- Ear: Sense of hearing and balance.
 - 3.3.3- Sense of smell.
 - 3.3.4- Skin and annexes. Sense of touch.
- 3.4- ENDOCRINE SYSTEM
 - 3.4.1- Pituitary gland. Pineal gland
 - 3.4.2- Thyroid gland. Parathyroid gland. Adrenal glands. Gonads.

SECTION 4.- VASCULAR AND VISCERA ANATOMY

- 4.1- CARDIOVASCULAR SYSTEM
- 4.2- RESPIRATORY SYSTEM
- 4.3- UROGENITAL SYSTEM
- 4.5- DIGESTIVE SYSTEM

4.4. Course planning and calendar

Calendar of theoretical, practical, problem solving sessions and exams:

- **Theoretical classes:** 3h/week during the 1st four-month period and 2h/week during the 2nd four-month period.
- **Practical classes:** 1h/week throughout the course.
- **Problem solving and case studies classes:** 10 hours throughout the course, distributed in 5 classes of 2 hours each.
- **Partial eliminatory exams** according to agenda and evolution of the course.
- **Final exam:** 1st official exam in May/June and 2nd official exam in June/July.

4.5. Bibliography and recommended resources

Course recommended bibliography can be found in:

<http://psfunhttp://psfunizar10.unizar.es/br13/egAsignaturas.php?id=1876>

Other recommended resources:

- [Open acces to Virtual Atlas of Anatomy_Zygotebody](#)
- [BlueLink: University of Michigan Anatomy](#)