UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Cytology and Comparative Anatomy

2122-1-E1301Q086

Aims

The courseprovides 12 CFU and is divided into two modules: **Cytology and Histology** (6CFU) (first module) and **Comparative Anatomy** (6CFU) (second module).
The **cytology and histology module** will provide the student with the basic knowledge of the animal eukaryotic cell, focusing on its morpho-functional characteristics to acquire, with the contents of histology, the knowledge concerning tissue organization. The lessons will be supplemented by laboratory work.
The **comparative anatomy module** is divided into two parts. The first part will provide the student with the basic concepts related to the phases that regulate the development of Vertebrates (from fertilization to organogenesis), concepts that will allow them to understand the embryological derivation of organs, systems, knowledge necessary for anatomy. The content of the anatomy will provide the student with notions related to the anatomy of Vertebrates in a functional and evolutionary key. The theoretical concepts provided in the classroom will be followed by the laboratory experience.

1. Knowledge and understanding
At the end of the course, the student will acquire knowledge about the animal eukaryotic cell and the organelles that characterize it in morpho-functional terms and the organization of the tissues. Furthermore, the student will know the organization of organs, systems from a morpho-functional and comparative point of view and will be able to recognize the histo-anatomical preparations.

2. Applying knowledge and understanding
At the end of the course the student will be able to apply the knowledge acquired in point 1 to the subsequent subjects he will study in the following years.

3. Making judgements
The student must be able to critically process the acquired knowledge and choose the most appropriate approach to link the morpho-functional characteristics of the animal eukaryotic cell to more complex organization levels such as tissues, organs and systems.

4. Comunication skills

At the end of the course, the student will be able to describe, with an appropriate scientific language, the cell organization and arrive, through the description of tissues and organs, to the systems.

5. Learning skills
At the end of the course, the student will have the skills to face the subsequent studies that require basic knowledge of cytology, histology and anatomy.
Furthermore, the student will be able to associate the knowledge learned with the concepts that he will assimilate in the subsequent studies that require cyto-isto-anatomical knowledge as prerequisites.

Contents

For contents, consult the program of each individual module

Detailed program

For contents, consult the program of each individual module

Prerequisites

For contents, consult the program of each individual module

Teaching form

For contents, consult the program of each individual module

Textbook and teaching resource

For contents, consult the program of each individual module

Semester

Cytology and Histology: first semester

Comparative Anatomy: second semester

Assessment method

There are no tests in progress.
Written and oral test.
Since the course is divided into two modules, there is a **written test for the Cytology and Histology module** and a **written test for the Comparative Anatomy module**.
Once the written test of the Cytology and Histology module has been passed, the student can access the written test of Comparative Anatomy.
Both written tests will take place in the calculation room (Moodle platform) with a closed-answer test (true/false, multiple choice, single answer).
The score of the two written tests allows admission to the oral exam and does not average the oral exam mark.

The two written tests will be followed by the oral test, which covers all the topics of the course.

Written test of the Cytology and Histology module (assessment object and criteria): the student's knowledge of the topics covered in classroom and her ability to recognize histological samples are evaluated.

Written test of the Comparative Anatomy module (assessment object and criteria): the student's knowledge of the topics covered in classroom is evaluated.

Oral exam (assessment object and criteria): the aim is to verify the knowledge of the contents related to Cytology, Histology and Comparative Anatomy. The student must demonstrate that he has understood the topics covered and that he has acquired an adequate scientific language to describe the different levels of biological organization (from the cell to the tissue to the organs up to the organism). You must also be able to recognize and describe histo-anatomical images with linguistic properties, critically re-elaborating the acquired concepts. the final grade will be expressed in thirtieths.

Office hours

Appointment request by e-mail to: anita.colombo@unimib.it

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION