

MEDICINE FUNDAMENTALS I

Code: 11401

Main Scientific Area: Mathematics and Statistics

Lecturer: João Filipe Pedreira de Oliveira

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 60h Total Workload: 100h

ECTS: 6,0

Objectives

The main goal of this subject, as a crucial area in health sciences, is to acquire, develop and consolidate fundamental knowledge on both morphology and function of the human body, as demanded to any professional in health. It is intended to point out the practical interest of this knowledge, avoiding an encyclopedic program, and focusing the real needs of actual medicine that a future professional may need. The curiosity of the students will be challenged in order to stimulate their critical spirit regarding examples of several vital phenomena.

Learning Outcomes

The program under study will reach a considerable scientific level, so that the student may connect themes and understand the functioning of the human body. This will allow the student to face the problems in the future easily, building up solutions on top knowledge obtained in the classroom. Moreover, he will be able to bridge the fundamentals of human body function and application of existing and emergent technologies.

Course Contents

The contents are:

Introduction to the study of human anatomy and physiology;

Levels of organization of the human body;

Chemical composition of the human body;

Metabolism;

The cell;

Genetic code;

Homeostasis;

Nervous system;

Muscle System;

Sensorial system;

Recommended Bibliography

E. P. Widmaier, H. Raff, e K. T. Strang, Vander's Human Physiology

Dee Unglaub Silverthorn - Fisiologia Humana - Uma Abordagem Integrada

Seeley, Anatomia Fisiologia

Learning and Teaching Methods

The syllabus provides the foundations of Anatomy and Biochemistry to a better understanding of the teaching topics of Physiology. These will be supplemented with laboratory experience of the teacher in the class that will be shared in several ways. At the end of the course, students should have a knowledge that will allow the better resolution of technology problems through the creation of systems based on the knowledge and technology experience obtained in other subjects in the course.

Assessment Methods

The evaluation is made by 2 written tests, a presentation of a small dissertation (elaborated in groups) and the level of attendance in the classes; The minimum grade in any of the tests is 6 (out of 20). The minimum grade to be obtained in the mini dissertations is 10 (out of 20).

Missing one of the three evaluations refers directly to the final exam at the end of the semester.