# uc3m Universidad Carlos III de Madrid

## Beginners biomedicine

Academic Year: (2020 / 2021) Review date: 28-04-2017

Department assigned to the subject: Bioengineering and Aeroespace Engineering Department

Coordinating teacher: RIO NECHAEVSKY, MARCELA ANDREA DEL

Type: Courses of humanities ECTS Credits: 2.0

Year: 4 Semester:

#### REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

No specific requirements.

#### **OBJECTIVES**

It is expected that students acquire basic biomedical knowledge to enable it to develop as a critical attitude to the advances that appear on the media daily. The aim of the subject is that students can understand the basics of the experiments that have been the foundation of modern biology. Tissue engineering, stem cells and new concepts of genetic and epigenetic be reviewed and discussed with intent to provide students a current scientific-technological vision.

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

- 1. Genetic for beginners
- Gene therapy
- 3. Cell therapy
- 4. ¿Designer baby¿: selection of embryos / the umbilical cord
- 5. Organ transplants from living donors and cadavers.
- 6. Transplant of Bioengineering -Organ. The bicentennial man

### LEARNING ACTIVITIES AND METHODOLOGY

In classes, in addition to the teacher's presentation, there will be discussions around the concepts presented, proposed either by the teacher and / or the students. In addition, the professor will propose exercises to be solved by the students. The tutoring schedule will tell you the first day of class.

#### ASSESSMENT SYSTEM

Continuous evaluation will consist of a total of 3 multiple choice exams. These tests will be performed in person and individually in a computer classroom (test online through Aula Global ¿securely window¿) in the presence of teachers and will last about 40-60 minutes.

% end-of-term-examination: 0

% of continuous assessment (assigments, laboratory, practicals...): 100

#### **BASIC BIBLIOGRAPHY**

- Albert Molecular biology of the cell, Garland, 5 th edition.