

Course name: BIOLOGY

Professors:

Cristina Sánchez and Javier Palazuelos
Department of Biochemistry and Molecular Biology
School of Biology
Universidad Complutense

General Objective:

The main objective of this course is to acquire the basic knowledge on the chemical nature, structural organization and functions of living organisms.

Language of Instruction: English

Syllabus:

UNIT 1: BIOMOLECULES

Introduction to Biology

The chemical bases of life

Structure and function of biomolecules:

- Carbohydrates
- Proteins
- Lipids
- Nucleic acids

UNIT 2: THE CELL: STRUCTURE

Structure and function of cell membranes

Structure and function of eukaryotic organelles:

- Cytoskeleton
- Mitochondria
- Chloroplasts
- Other organelles

UNIT 3: THE CELL: FUNCTIONS

Cell metabolism

Cell cycle

Genetics

References:

- Power point presentations provided by the lecturers (via Virtual Campus)
- Suggested books:
 - o Solomon, E.P.; Berg, L.R.; Martin, D.W.: "Biology" (10th ed) McGraw-Hill, 2014.
 - o Campbell, N.; Reece: J.: "Biology" (10th ed.) Ed. Panamericana 2014.
 - o Freeman, S.; Quillin, K; Allison, L.: "Biological Science" (5th ed.) Ed. Pearson 2016.

Assessment procedure:

Final written exam: 50%

Directed activities: 25%

Participation in class: 25%