

- Course title: **Biology**.
- Course code: 5270
- Type of course: compulsory
- Level of course: basic
- Year of study: 1
- Semester: 2
- Number of credits allocated: 6
- Name of lecturer: Pilar Muñiz
- Objective of the course:
 - To understand and explain the structure and function of biomolecules that are produced by living organisms
 - To understand the structure, organization and functions of prokaryotic and eukaryotic cells
 - To understand and to be able to explain cell growth and its implications
 - To understand and to be able to explain the organization and functions of the genome
 - To understand the basis of research in Biology
- Prerequisites: no prior requirements.
- Course contents:
 - Introduction: Characteristics of living things, Levels of Organization.
 - Biomolecules: Carbohydrates, Lipids, Proteins, Nucleic acids.
 - Cells: introduction to cells; cellular membranes; cell walls; cytoplasm; vacuoles and vesicles; ribosomes; endoplasmic reticulum; golgi apparatus; the nucleus; lysosomes, mitochondria, plastids, nuclei, genomes, cell division.
 - Biology and Society: Biotechnology, Environment, Immunology, Biodiversity.
- Recommended reading:
 - LODISH and cols. (2008) Molecular Cell Biology (6th Ed.) Ed W.H. Freeman
 - ALBERTS B, HOPKIN J, LEWIS R. (2008). Molecular Biology of the Cell (5th Ed). ED. Taylor and Francis Group
 - MADER, S. (2009) Biology (10th Ed.). Ed. McGraw Hill College
 - KARP, G. (2005). Biología Celular y Molecular. Conceptos y Experimentos. McGraw Hill Interamericana.
 - SOLOMON, E (2008) Biología. (9th Ed.) Ed. McGraw Hill Interamericana.
 - CURTIS, H., BARNES, N.S. (2006) Biología. (6th Ed.) Ed. Médica Panamericana, Coop.
- Teaching methods:
 - Lectures: teachers explain the contents of the lessons.
 - Seminars: students and teacher discuss the problems and other points raised in class.
 - Practicals: students apply their knowledge to solve experimental laboratory problems..
- Assessment methods:
 - Resolution of problems, issues and other proposals: 20%
 - Group and individual analysis, presentation and discussion of practices and problems: 10%
 - Laboratory work: 15%
 - Written work and exams: 55%
- Language of instruction: Spanish and/or English