

Teaching guide

IDENTIFICATION DETAILS

Degree:	Biotechnology		
Field of Knowledge:	Science		
Faculty/School:	Experimental Science		
Course:	CELL BIOLOGY		
Type:	Basic Training	ECTS credits:	6
Year:	1	Code:	2010
Teaching period:	First semester		
Area:	Biology		
Module:	Fundamental sciences		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

SUBJECT DESCRIPTION

La asignatura de Biología Celular es una asignatura troncal que se imparte en el primer curso del Grado de Biotecnología. Esta asignatura esta integrada dentro del módulo de Ciencias Fundamentales, el cual tiene como objetivo formativo sentar las bases necesarias para conseguir posteriormente un conocimiento sólido e integrado de la biotecnología.

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

General Skills

To acquire firm theoretical, practical, technological and humanistic training needed to develop professional activity.

Capacity for teamwork and group management.

To have acquired the ability for analytical, synthetic, reflective, critical, theoretical and practical thought.

Capacity for problem-solving and decision-making.

To be able to plan time effectively.

To foster a concern for knowledge as a key tool in the personal and professional growth process of a student.

To recognise the mutual influence existing between science, society and technological development in order to strive for a sustainable future.

To develop an ability to search for, take in, analyse, sum up and relate information.

To be familiar with the basic principles and theories of human and experimental sciences.

To develop oral and written communication skills.

To understand the fundamental laws and principles of physics, mathematics, chemistry and biology as the foundation for the mental structure of a biotechnician.

To acquire the skills needed for experimental work: design, preparation, the compilation of results and the obtainment of conclusions, understanding the limitations of an experimental approach.

Specific skills

To understand the structure and function of the various cell organelles and compartments as well as the relationships between them.

To be familiar with the cell as a morphological and functional unit, and with the regulation of cellular mechanisms.

To work suitably in a laboratory with biological material (bacteria, fungi, viruses, animal and plant cells, plants and animals) and with regard to the safety, handling and disposal of biological waste.

To organise and suitably plan work in the laboratory.

To identify and define laboratory instruments and materials.

To be able to describe, quantify, analyse and critically assess the results of experiments performed in the laboratory.

To be able to approach a subject by means of rigorous, profound and comprehensive thought.

Capacity for written and oral communication of the knowledge acquired.

To be able to apply the theoretical knowledge acquired for solving problems and practical cases linked to the various subjects.

To be able to work in a team in an efficient and coordinated manner.

To be able to assess the knowledge acquired.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
60 hours	90 hours