

Teaching guide

IDENTIFICATION DETAILS

Degree:	Biotechnology
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Field of Knowledge:	Science
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Faculty/School:	Experimental Science
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Course:	PROTEIN CHEMISTRY AND ENGINEERING
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Type:	Compulsory
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ECTS credits:	3
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Year:	3
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Code:	2058
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Teaching period:	Sixth semester
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Area:	Advanced Biotechnology Training Technologies
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Module:	Biotechnological Tools
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Teaching type:	Classroom-based
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Language:	Spanish
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Total number of student study hours:	75
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SUBJECT DESCRIPTION

Además de exponer los fundamentos científicos de la relación entre la estructura de las proteínas y su función biológica también se pretende describir las herramientas tanto experimentales como teóricas que permitan la comprensión de los mecanismos por los que las proteínas ejercen su función.

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.

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

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.

To acquire the molecular biology and biochemistry knowledge needed to develop biotechnological processes and products.

Specific skills

To learn and be able to apply classical techniques in the chemical analysis of proteins.

To be familiar with the host of technologies and experimental strategies used for the analysis and mass quantification of proteins.

To be familiar with and understand the structure and function of enzymes and their applications in the biotechnological industry.

To be familiar with the main methods of the chemical modification of biomolecules and the application of these bioactive molecules in the various biotechnology fields.

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 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
30 hours	45 hours