

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:	VIROLOGY I
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Type:	Compulsory
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ECTS credits:	3
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Year:	3
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Code:	2050
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Teaching period:	Sixth semester
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Area:	Molecular Biomedicine
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Module:	Biochemistry and Molecular Biology
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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

Se busca proporcionar herramientas que permitan el estudio y comprensión de los fundamentos de la Virología, tanto su relación con la Biotecnología como con las Ciencias Biomédicas.

La Virología es una ciencia que estudia los virus, entidades sin organización celular que se multiplican en el interior de células metabólicamente activas. Es una asignatura enormemente interesante para los estudiantes de biotecnología por varias razones:

(1) los virus son responsables de múltiples enfermedades en todo tipo de hospedadores, que van desde cuadros infecciosos hasta algunos tipos de cáncer, (2) algunos virus se emplean como herramientas en distintas técnicas de biología molecular, para la preparación de vacunas, y como vehículos en terapia génica.

Frente al estudio "clásico" de la Virología como compendio de las singularidades de las familias de virus, se ofrece tanto una visión general como otra acorde a la titulación de Biotecnología, esto es mayor conocimiento desde el punto de vista estructural, molecular y aplicado.

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 be familiar with the applications of biotechnology in the healthcare, food, agrobiotechnological, environmental and chemical fields.

To understand the ethical implications of professional and personal activity.

Capacity for teamwork and group management.

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

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

To value sciences as a cultural fact.

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 develop oral and written communication skills.

Specific skills

To define the characteristics, properties and methods for studying viruses.

To be familiar with the molecular mechanisms involved in viral infections and the pathologies produced.

To be familiar with the procedures and strategies for developing biotechnological tools based on specific virus genera.

To identify the basic mechanisms and processes of the various human pathologies.

Capacity for written and oral communication of the knowledge acquired.

To analyse and sum up key ideas and content regarding all manner of texts; to discover the theses incorporated within them and the issues raised; and to make critical judgments about their form and content.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
32 hours	43 hours