



MOLECULAR BIOLOGY II

Enrollment year	2019/2020
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/11 (MOLECULAR BIOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	BIOLOGICAL SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	3°
Period	1st semester (01/10/2021 - 14/01/2022)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	MAGA GIOVANNI (titolare) - 5 ECTS MAGNANI FRANCESCA - 1 ECTS
Prerequisites	Basic notions in Molecular Biology (structure and functions of RNA and DNA, replication, transcription and translation, structure and functions of the eukaryotic cell)
Learning outcomes	The student will acquire advanced notions on the molecular biology of viruses and on the molecular basis of their interactions with the eukaryotic cell. The student will acquire basic knowledge on the structural biology of macromolecules and its experimental methodology.
Course contents	Evolution and classification of viruses; Morphology and structure of viral particles; Replication of RNA and DNA viral genomes; Transcription and translation of viral genes; Infectious cycle of the most important viral human pathogens; Notions of antiviral chemotherapy; Notions of Immunology (innate and adaptive immunity). Introduction to the

	structural biology of macromolecules.
Teaching methods	Frontal lessons. Students will have access to the power point presentations
Reccomended or required readings	<p>Italian texts</p> <p>Dimmock, Easton, Leppard -Introduzione alla virologia moderna - 2017 - Casa Ed. Ambrosiana</p> <p>David Harper - Virus - 2013 - Zanichelli Ed.</p> <p>Giovanni Maga - Occhio ai Virus - 2021 - Zanichelli Ed.</p> <p>Giovanni Maga -AIDS, la verità negata - 2014 - Il Pensiero Scientifico Ed.</p> <p>English texts</p> <p>Jane Flint, Vincent Racaniello et al. - Principles of Virology (4th edition) -ASM Press</p>
Assessment methods	Oral examination. Evaluation scale: 0-30. Evaluation criteria: knowledge of the topics of the course; appropriateness of language; ability to make connections among related topics and to synthesise complex concepts.
Further information	<p>Students are welcome to come and talk during the semester for clarifications. Appoinmetns should be made by e-mail with Prof. Giovanni Maga at maga@igm.cnr.it</p> <p>Francesca Magnani francesca.magnani@unipv.it</p>
Sustainable development goals - Agenda 2030	<p>Health and wellbeing</p> <p>High quality education</p> <p>The goals</p>