



UNIVERSITÀ DI PAVIA

Anno Accademico 2020/2021

MOLECULAR BIOLOGY	
Enrollment year	2019/2020
Academic year	2020/2021
Regulations	DM270
Academic discipline	BIO/11 (MOLECULAR BIOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	BIOTECHNOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	1st semester (05/10/2020 - 14/01/2021)
ECTS	9
Lesson hours	72 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	MATTEVI ANDREA (titolare) - 6 ECTS BINDA CLAUDIA - 3 ECTS
Prerequisites	Basic knowledge in Chemistry, Physics and Mathematics is virtually a must for successfully following and tackling the course.
Learning outcomes	Knowledge of the molecular bases of biological processes and the main molecular biology techniques.
Course contents	The main theme of the course is the study of the biological macromolecules and their function in fundamental biological processes. Structure and function of DNA. DNA replication. Transcription and its regulation. Translation: structure and function of ribosomes Protein synthesis e folding mechanisms in vivo and in vitro. Methods for DNA manipulation and cloning.
Teaching methods	The course is organized in two parts: the first (6 CFU) deals with the

	<p>various biological processes at molecular level, whereas the second (3 CFU) describes the basic techniques of molecular biology. Both are carried out by lectures and no practicals are included because the methods will be fully covered during the laboratory activities in the third year.</p>
<p>Reccomended or required readings</p>	<p>- Molecular Biology of the cell, 6th Edition, Alberts et al, Garlanda Science</p> <p>- Biochemistry, 4th Edition Donald J. Voet, Judith G. Voet Wiley Editor Molecular Cell Biology Lodish, Berk, Matsudaira, Kaiser, Krieger, Scott, Zipursky, and Darnell W.H. Freeman & Company.</p>
<p>Assessment methods</p>	<p>The exam consist in an oral exam in which the student will be asked to reply on questions related to both course parts and, if sufficient, the final mark will be on a scale range of 18 to 30 cum laude.</p>
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<p>Sustainable development goals - Agenda 2030</p>	<p>\$Ibl legenda sviluppo sostenibile</p>