



DEGREE PROGRAM ACADEMIC YEAR 2025/2026						
Classe LM-6 R - Biology (D.M. 270/04)						
Master's Degree Course "APPLIED AND MOLECULAR BIOLOGY"						
CURRICULUM BIOTECHNOLOGY						
	SUBJECT	Tipologia	SETTORE		Tot. CFU	Tot. Ore
FIRST YEAR						
1	BIOCHEMICAL BIOTECHNOLOGIES	Caratt.	BIO/10		6	48
2	CELLULAR BIOTECHNOLOGY	Caratt.	BIO/06		6	48
3	COMBINED COURSE: BIOINFORMATICS					
	Module 1 BIOINFORMATICS	Caratt.	BIO/18	6	10	80
	Module 2 BIOINFORMATICS	Aff.	FIS/07	4		
4	REPRODUCTIVE TECHNOLOGIES	Caratt.	BIO/06		6	48
5	COMBINED COURSE: BIOCHEMICAL AND MICROBIOLOGICAL DIAGNOSTIC				12	96
	BIOCHEMICAL ANALYSIS	Caratt.	BIO/10	6		
	DIAGNOSTIC MICROBIOLOGY	Aff.	MED/07	6		
6	MOLECULAR BIOTECHNOLOGIES	Caratt.	BIO/11		6	48
7	GENETIC ENGINEERING	Caratt.	BIO/11		6	48
8	BIOTECHNOLOGY OF MICROORGANISMS	Aff.	AGR/16		6	48
	LANGUAGE ADVANCED LEVEL				3	
	ELECTIVE CREDITS *				6	48
			Totale CFU		67	
SECOND YEAR (to be activated 2026/2027)						
9	APPLIED GENETIC	Caratt.	BIO/18		6	48
10	NANOBIOTECHNOLOGIES	Aff.	CHIM/06		6	48
11	ADVANCED BIOLOGICAL IMAGING	Caratt.	BIO/10	2+2+2	6	48
	PLANT BIOTECHNOLOGY	Altre	BIO/04		6	48
	ELEMENTS OF LEGISLATION, CERTIFICATION AND QUALITY MANAGEMENT IN THE PROFESSION OF BIOLOGIST	Altre	BIO/19		3	24
	PRATICAL TRAINING	Altre			6	48
	ELECTIVE CREDITS *				6	48
	THESIS				14	
			Totale CFU		53	
			TOT		120	
12	COURSES FOR ELECTIVE CREDITS *					
	BACTERIOLOGY **	D	BIO/19		6	48
	LABORATORY OF BIOACTIVE MOLECULES **	D	CHIM/06		6	48
	FERMENTATION BIOTECHNOLOGY	D	AGR/16		6	48
	OXIDATIVE STRESS IN BIOLOGICAL SYSTEMS (ENG)	D	BIO/10		6	48
	FORENSIC GENETICS	D	MED/43		6	48
	MEDICAL AND MOLECULAR VIROLOGY	D	MED/07		6	48
	FUNDAMENTALS OF STRUCTURAL BIOLOGY FOR ENZYMOLOGY (Eng)	D	BIO/10		6	48

The courses for credits to be chosen are valid for both curricula

* At least 6 CFU must be acquired attending one of the following optional courses

** to be inserted in the career of students that didn't submit an individual study plan

> Bacteriology - first year

> Laboratory of bioactive molecules - second year

a) 1 credit= 8 hours. Together with the theoretical lectures, all courses must have at least 1 credit of experimental session

b) combined courses involve various courses with only one final examination

c) there are no compulsory prerequisite exams

d) Practical training has to be carried out in structures outside DiSVA for 150 hours



DEGREE PROGRAM ACADEMIC YEAR 2025/2026						
Classe LM-6 - Biology (D.M. 270/04)						
Master's Degree Course "APPLIED AND MOLECULAR BIOLOGY"						
CURRICULUM COMPUTATIONAL BIOLOGY						
	SUBJECT	Tipologia	SETTORE		Tot. CFU	Tot. Ore
FIRST YEAR						
1	BIOCHEMICAL BIOTECHNOLOGIES	Caratt.	BIO/10		6	48
2	CELLULAR BIOTECHNOLOGY	Caratt.	BIO/06		6	48
COMBINED COURSE: BIOINFORMATICS						
3	Module 1 BIOINFORMATICS	Caratt.	BIO/18	6	10	80
	Module 2 BIOINFORMATICS	Aff.	FIS/07	4		
4	INFORMATIC SKILLS	Altre	ING-INF/05		6	48
5	COMBINED COURSE: COMPUTATIONAL AND MOLECULAR BIOLOGY				12	96
	STRUCTURAL BIOINFORMATIC	Caratt.	BIO/11	6		
	BIOMOLECULAR SIMULATION LABORATORY	Caratt.	BIO/09	6		
6	MOLECULAR BIOTECHNOLOGIES	Caratt.	BIO/11		6	48
7	GENETIC ENGINEERING	Caratt.	BIO/11		6	48
8	MOLECULAR BIOPHYSICS (Eng)	Aff.	FIS/07		6	48
	LANGUAGE ADVANCED LEVEL				3	
	ELECTIVE CREDITS *				6	48
			Totale CFU		67	
SECOND YEAR (to be activated 2026/2027)						
	GENOMICS LABORATORY (Eng)	Altre	BIO/18		6	48
9	MODELLING AND RATIONAL DESIGN OF BIOACTIVE MOLECULES	Aff.	CHIM/06		6	48
10	APPLIED TRASCRITTOMIC	Caratt.	BIO/06		6	48
11	ADVANCED BIOLOGICAL IMAGING	Caratt.	BIO/10		6	48
	ELEMENTS OF LEGISLATION, CERTIFICATION AND QUALITY MANAGEMENT IN THE PROFESSION OF BIOLOGIST	Altre	BIO/19		3	24
	PRATICAL TRAINING	Altre			6	
	ELECTIVE CREDITS *				6	
	THESIS				14	
			Totale CFU		53	
			TOT		120	
12	COURSES FOR ELECTIVE CREDITS *					
	PROGRAMMING IN C/C++ (Eng) **	D	FIS/07		3	24
	R PROGRAMMING (Eng) **	D	ING-INF/05		3	24
	DATABASES AND WEB APPLICATIONS	D	INF/01		3	24
	FUNDAMENTALS OF STRUCTURAL BIOLOGY FOR ENZYMOLOGY (Eng)	D	BIO/10		6	48
	GENOMIC AND PERSONALIZED MEDICINE	D	BIO/18		3	24

The courses for credits to be chosen are valid for both curricula

* At least 6 CFU must be acquired attending one of the following optional courses

** to be inserted in the career of students that didn't submit an individual study plan

> Programming in C/C++ (Eng) /R programming (Eng) - first year

> Databases and web applications/Genomic and personalized medicine - second year

a) 1 credit= 8 hours. Together with the theoretical lectures, all courses must have at least 1 credit of experimental session

b) combined courses involve various courses with only one final examination

c) there are no compulsory prerequisite exams

d) Practical training has to be carried out in structures outside DISVA for 150 hours