



DEGREE PROGRAM ACADEMIC YEAR 2021/2022						DEGREE PROGRAM ACADEMIC YEAR 2021/2022					
CLASS L-13 - BIOLOGICAL SCIENCES (D.M. 270/04)						CLASS L-13 - BIOLOGICAL SCIENCES (D.M. 270/04)					
Degree Course: BIOLOGICAL SCIENCES						Degree Course: BIOLOGICAL SCIENCES					
CURRICULUM BIOMOLECULAR						CURRICULUM MARINE					
SUBJECT	Tipologia	SETTORE	Tot. CFU	Tot. Ore		SUBJECT	Tipologia	SETTORE	Tot. CFU	Tot. Ore	
FIRST YEAR						FIRST YEAR					
MATHEMATICS AND STATISTICS	Base	MAT/05	9	72	1	MATHEMATICS AND STATISTICS	Base	MAT/05	9	72	
PHYSICS	Base	FIS/07	8	64	2	PHYSICS	Base	FIS/07	8	64	
CYTOLOGY AND HISTOLOGY	Base	BIO/06	7	56	3	CYTOLOGY AND HISTOLOGY	Base	BIO/06	7	56	
ZOOLOGY	Base	BIO/05	7	56	4	ZOOLOGY	Base	BIO/05	7	56	
BOTANY	Base	BIO/01	7	56	5	BOTANY	Base	BIO/01	7	56	
<i>COMBINED COURSE: CHEMISTRY</i>						<i>COMBINED COURSE: CHEMISTRY</i>					
> GENERAL CHEMISTRY	Base	CHIM/03	8	15	120	> GENERAL CHEMISTRY	Base	CHIM/03	8	15	120
> ORGANIC CHEMISTRY	Base	CHIM/06	7			> ORGANIC CHEMISTRY	Base	CHIM/06	7		
ENGLISH	LS		4	/		ENGLISH	LS		4	/	
		Total CFU	57					Total CFU	57		
SECOND YEAR (to be activated 2022/2023)						SECOND YEAR (to be activated 2022/2023)					
LABORATORY OF APPLIED BIOLOGY	Aff.	BIO/13	6	48	7	LABORATORY OF APPLIED BIOLOGY	Aff.	BIO/13	6	48	
BIOCHEMISTRY	Caratt.	BIO/10	7	56	8	BIOCHEMISTRY	Caratt.	BIO/10	7	56	
ECOLOGY	Caratt.	BIO/07	7	56	9	ECOLOGY	Caratt.	BIO/07	7	56	
GENERAL PHYSIOLOGY	Caratt.	BIO/09	6	48	10	GENERAL PHYSIOLOGY AND PHYSIOLOGY OF MARINE ANIMALS	Caratt.	BIO/09	10	80	
HUMAN ANATOMY	Caratt.	BIO/16	6	48	11	MARINE GEOLOGY	Aff.	GEO/01	5	40	
<i>INTEGRATED COURSE: MOLECULAR BIOLOGY AND GENETICS</i>						<i>INTEGRATED COURSE: MOLECULAR BIOLOGY AND GENETICS</i>					
MOLECULAR BIOLOGY	Caratt.	BIO/11	6	12	96	MOLECULAR BIOLOGY	Caratt.	BIO/11	6	12	96
GENETICS	Caratt.	BIO/18	6			GENETICS	Caratt.	BIO/18	6		
CELL BIOLOGY	Aff.	BIO/06	7	56	13	MARINE BIOLOGY	Aff.	BIO/07	7	56	
BIOLOGICAL BASIS OF NUTRITION	Aff.	BIO/16	6	48		OPTIONAL CREDITS *			6	16	
OPTIONAL CREDITS *			6								
		Total CFU	63					Total CFU	60		
THIRD YEAR (to be activated 2023/2024)						THIRD YEAR (to be activated 2023/2024)					
DEVELOPMENTAL BIOLOGY	Caratt.	BIO/06	7	56	14	DEVELOPMENTAL BIOLOGY	Caratt.	BIO/06	7	56	
PLANT PHYSIOLOGY	Caratt.	BIO/04	6	48	15	PLANT PHYSIOLOGY	Caratt.	BIO/04	6	48	
COMPARATIVE ANATOMY	Caratt.	BIO/06	7	56	16	COMPARATIVE ANATOMY	Caratt.	BIO/06	7	56	
GENERAL MICROBIOLOGY	Caratt.	BIO/19	7	56	17	GENERAL MICROBIOLOGY AND MARINE MICROBIOLOGY	Caratt.	BIO/19	10	80	
<i>INTEGRATED COURSE: BIOMOLECULAR LABORATORY</i>						<i>INTEGRATED COURSE: BIOMOLECULAR LABORATORY</i>					
LABORATORY OF MOLECULAR BIOLOGY	Caratt.	BIO/11	5	10	80	18	MARINE ANIMAL BIODIVERSITY	Caratt.	BIO/05	5	40
LABORATORY OF GENETICS	Aff.	BIO/18	5			19	BIODIVERSITY OF ALGAE AND MARINE PLANTS	Aff.	BIO/01	5	40
2 MODULES TO CHOOSE BETWEEN:			6			2 MODULES TO CHOOSE BETWEEN:			6		
DATA ANALYSIS	Altre	INF/01	3			DATA ANALYSIS	Altre	INF/01	3		
ELEMENTS OF LEGISLATION AND QUALITY MANAGEMENT SYSTEMS***	Altre	BIO/19	3			ELEMENTS OF LEGISLATION AND QUALITY MANAGEMENT SYSTEMS***	Altre	BIO/19	3		
START-UP AND BUSINESS PLANS	Altre	ING-IND/26	3			START-UP AND BUSINESS PLANS	Altre	ING-IND/26	3		
BIOMEDICAL LABORATORY SAFETY***	Altre	MED/44	3			BIOMEDICAL LABORATORY SAFETY***	Altre	MED/44	3		
OPTIONAL CREDITS*			6	/		OPTIONAL CREDITS*			6	/	
PRACTICAL TRAINING			5	/		PRACTICAL TRAINING			5	/	
FINAL EXAM			6	/		FINAL EXAM			6	/	
		Total CFU	60					Total CFU	63		
COURSES FOR OPTIONAL CREDITS *						COURSES FOR OPTIONAL CREDITS *					
PHARMACOLOGY **	D	BIO/14	6	48	20	PHARMACOLOGY	D	BIO/14	6	48	
BIOETHICS **	D	BIO/07	6	48		BIOETHICS **	D	BIO/07	6	48	
INSTRUMENTAL ANALYTICAL CHEMISTRY	D	CHIM/01	6	48		INSTRUMENTAL ANALYTICAL CHEMISTRY	D	CHIM/01	6	48	
ETOLOGY	D	BIO/05	6	48		ETOLOGY **	D	BIO/05	6	48	
FUNDAMENTALS OF GEOLOGY	D	GEO/01	6	48		FUNDAMENTALS OF GEOLOGY	D	GEO/01	6	48	
GENERAL PALEONTOLOGY	D	GEO/01	6	48		GENERAL PALEONTOLOGY	D	GEO/01	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

> Bioethics - second year

> Pharmacology - third year (curriculum biomoleculare)

> Etology - third year (curriculum marine)

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

>Elements of legislation and quality management systems ->Biomedical Laboratory Safety

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

b) to take the third year examinations students have to have passed the English Language test

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