UNIVERSITA'
POLITECNICA
DELLE MARCHE

Dipartimento
di Scienze
della Vita
e dell'Ambiente
DISVA

## DEGREE PROGRAM ACADEMIC YEAR 2021/2022

### Classe LM-6 - Biology (D.M. 270/04)

### POSTGRADUATE PROGRAMME "APPLIED AND MOLECULAR BIOLOGY"

**CURRICULUM BIOTECHNOLOGY**

| SUBJECT | Tipologia | SETTORE | | Tot. CFU | Tot. Ore | |
|---|---|---|---|---|---|---|
| **FIRST YEAR** | | | | | | |
| BIOCHEMISTRY AND BIOTECHNOLOGY OF PROTEINS | Caratt. | BIO/10 | | 8 | 64 | 1 |
| CELLULAR BIOTECHNOLOGY | Caratt. | BIO/06 | | 6 | 48 | 2 |
| *COMBINED COURSE: BIOINFORMATICS* | | | | 10 | 80 | 3 |
| Module 1 BIOINFORMATICS | Caratt. | BIO/18 | 6 | | | |
| Module 2 BIOINFORMATICS | Aff. | FIS/07 | 4 | | | |
| BIOCHEMICAL ANALYSIS | Caratt. | BIO/10 | | 6 | 48 | 4 |
| BIOMOLECULAR TECHNOLOGIES: ADVANCED MOLECULAR BIOLOGY AND GENETIC ENGINEERING | Caratt. | BIO/11 | | 12 | 96 | 5 |
| BIOTECHNOLOGY OF MICROORGANISMS | Aff. | AGR/16 | | 7 | 56 | 6 |
| REPRODUCTIVE TECHNOLOGIES | Caratt. | BIO/06 | | 6 | 48 | 7 |
| LANGUAGE ADVANCED LEVEL | | | | 3 | | |
| OPTIONAL CREDITS * | | | | 6 | 48 | |
| | | **Totale CFU** | | 64 | | |
| **SECOND YEAR (to be activated 2022/2023)** | | | | | | |
| APPLIED GENETIC | Caratt. | BIO/18 | | 6 | 48 | 8 |
| BIOMOLECULAR NANOTECHNOLOGIES | Aff. | CHIM/06 | | 6 | 48 | 9 |
| *COMBINED COURSE: BIOMEDICAL MICROBIOLOGY* | | | | 12 | 96 | 10 |
| BACTERIOLOGY | Caratt. | BIO/19 | 6 | | | |
| DIAGNOSTIC MICROBIOLOGY | Caratt. | MED/07 | 6 | | | |
| MODELLING OF BIOLOGICAL SYSTEMS | Aff. | CHIM/06 | | 5 | | 11 |
| ELEMENTS OF LEGISLATION, CERTIFICATION AND QUALITY MANAGEMENT IN THE PROFESSION OF BIOLOGIST | Altre | BIO/19 | | 2 | 16 | |
| PRATICAL TRAINING | Altre | | | 5 | | |
| OPTIONAL CREDITS * | | | | 6 | | |
| THESIS | | | | 14 | | |
| | | **Totale CFU** | | 56 | | |
| | | **TOT** | | 120 | | |
| **COURSES FOR OPTIONAL CREDITS *** | | | | | | 12 |
| MOLECULAR BIOPHYSICS | D | FIS/07 | | 6 | 48 | |
| FERMENTATION BIOTECHNOLOGY | D | AGR/16 | | 6 | 48 | |
| MOLECULAR GENETIC ** | D | BIO/18 | | 6 | 48 | |
| LABORATORY OF BIOACTIVE MOLECULES ** | D | CHIM/06 | | 6 | 48 | |
| MEDICAL AND MOLECULAR VIROLOGY | D | AGR/16 | | 6 | 48 | |
| STRUCTURAL BIOINFORMATICS AND METHODS FOR BIOSIMULATIONS | D | BIO/11 | | 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

> Molecular genetic - 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 carryied out in structures outside DiSVA for 120 hours


## DEGREE PROGRAM ACADEMIC YEAR 2021/2022

### Classe LM-6 - Biology (D.M. 270/04)

### POSTGRADUATE PROGRAMME "APPLIED AND MOLECULAR BIOLOGY"


**CURRICULUM SCIENCE OF NUTRITION**

| SUBJECT | Tipologia | SETTORE | | Tot. CFU | Tot. Ore |
|---|---|---|---|---|---|
| **FIRST YEAR** | | | | | |
| BIOCHEMISTRY OF NUTRITION | Caratt. | BIO/10 | | 8 | 64 |
| CELLULAR BIOTECHNOLOGY | Caratt. | BIO/06 | | 6 | 48 |
| *COMBINED COURSE: BIOINFORMATICS* | | | | 10 | 80 |
| Module 1 BIOINFORMATICS | Caratt. | BIO/18 | 6 | | |
| Module 2 BIOINFORMATICS | Aff. | FIS/07 | 4 | | |
| BIOCHEMICAL ANALYSIS | Caratt. | BIO/10 | | 6 | 48 |
| BIOMOLECULAR TECHNOLOGIES: ADVANCED MOLECULAR BIOLOGY AND GENETIC ENGINEERING | Caratt. | BIO/11 | | 12 | 96 |
| BIOTECHNOLOGY OF MICROORGANISMS | Aff. | AGR/16 | | 7 | 56 |
| PHYSIOLOGY OF NUTRITION | Caratt. | BIO/09 | | 7 | 56 |
| LANGUAGE ADVANCED LEVEL | | | | 3 | |
| OPTIONAL CREDITS * | | | | 6 | 48 |
| | | **Totale CFU** | | 65 | |
| **SECOND YEAR (to be activated 2022/2023)** | | | | | |
| APPLIED GENETIC | Caratt. | BIO/18 | | 6 | 48 |
| MICROBIOLOGICAL QUALITY AND SAFETY OF FOOD | Aff. | AGR/16 | | 7 | 56 |
| CHEMICAL ANALYSIS OF FOODS | Aff. | CHIM/01 | | 7 | 56 |
| APPLIED DIETETIC SCIENCES AND TECHNIQUES | Caratt. | MED/49 | | 8 | 64 |
| ELEMENTS OF LEGISLATION, CERTIFICATION AND QUALITY MANAGEMENT IN THE PROFESSION OF BIOLOGIST | Altre | BIO/19 | | 2 | 16 |
| PRATICAL TRAINING | Altre | | | 5 | |
| OPTIONAL CREDITS * | | | | 6 | |
| THESIS | | | | 14 | |
| | | **Totale CFU** | | 55 | |
| | | **TOT** | | 120 | |
| **COURSES FOR OPTIONAL CREDITS *** | | | | | |
| *INTEGRATED COURSE: ALGAE AND NUTRITION* | | | | 6 | 48 |
| > ALGAE IN HUMAN NUTRITION | D | BIO/04 | 3 | | |
| > ALGAE AND FOOD CONTAMINATION | D | BIO/01 | 3 | | |
| NUTRIGENETICS AND NUTRITIONAL GENOMICS | D | BIO/10 | | 6 | 48 |
| FOODBORNE MICROBIAL DISEASES | D | MED/07 | | 6 | 6 |
| OXIDATIVE STRESS IN BIOLOGICAL SYSTEMS | D | BIO/10 | | 6 | 6 |
| BIOTECHNOLOGY OF FUNCTIONAL FOODS | D | AGR/16 | | 6 | 6 |
| DIET AND METABOLIC DISORDERS | D | BIO/10 | | 6 | 6 |


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