



Università di Camerino  
School of Bioscience  
and Veterinary Medicine

# BIOLOGICAL SCIENCES

## Master degree

Second Cycle Degree

**Duration** 2 years

**ECTS credits** 120

**Campus Location** Camerino

**web site**

[biologicalsciences.unicam.it](http://biologicalsciences.unicam.it)

*School of Bioscience  
and Veterinary Medicine*

## Director

prof. Guido Favia

[guido.favia@unicam.it](mailto:guido.favia@unicam.it)

## Course Coordinator

prof. Alessandro Malfatti

## Delegates

## Educational Guidance

prof. Gabriella Gabrielli

[gabriella.gabrielli@unicam.it](mailto:gabriella.gabrielli@unicam.it)

## Tutoring

prof. Consuelo Amantini

[consuelo.amantini@unicam.it](mailto:consuelo.amantini@unicam.it)

## International Mobility

prof. Stefania Pucciarelli

[stefania.pucciarelli@unicam.it](mailto:stefania.pucciarelli@unicam.it)

## Stage and Placement (Internship)

prof. Claudio Alimenti

[claudio.alimenti@unicam.it](mailto:claudio.alimenti@unicam.it)

## Educational Manager

dr. Alessandra Zampetti

[alessandra.zampetti@unicam.it](mailto:alessandra.zampetti@unicam.it)

## INTRODUCING THE MASTER

The second level degree in Biological Sciences (LM-6 class Biology) aims to train graduates with advanced knowledge and expertise in update biomolecular and biotechnological methodologies for application in diagnostic, nutritional, and environmental fields. Indeed, students can choose among three parallel curricula:

- molecular diagnostics and biotechnology
- nutrition and functional food
- biodiversity and ecosystems management.

These curricula, in combination with core courses, give students flexibility to tailor their degree to their background, interests, and career goals.

In order to support the mobility and the successful integration of students and graduates in an international context, all the courses will be presented in English.

## ADMITTANCE REQUIREMENTS

- Bachelor Degree that satisfies the requirements for access to University Master Degree courses
- List of subjects studied (transcript of records with grades obtained):
  - at least 15 ETCS in basic courses (Mathematics, Physics, Chemistry)
  - at least 60 ETCS in courses in biological areas
- Level of language proficiency (strongly recommended):  
ENGLISH level B2 (Independent User)

**Further information on admission rules, pre-admission deadline and other services at**  
<http://international.unicam.it>

## CAREER OPPORTUNITIES

The goal of the Master course in Biological Sciences is to prepare its graduates to start a career in different areas of Biological Sciences with particular regard to scientific research and diagnostics on biomedical, nutritional, and environmental fields. Graduates will be able to deal with the application of biology and biotechnology, at functional and molecular level, in industry, in service sector and in various areas of public administration. The degree in Biological Sciences, through the specific curricula, properly prepares professional figures, such as the nutritional biologist, who are allowed to formulate personal diets and oversee education programs and nutritional and environmental surveillance programs. All curricula will prepare students to engage in research, lead lab teams, make development and planning decisions, create and apply research modalities to large projects.

Graduates in Biological Sciences will be adequately prepared for access to third education level (PhD programs or specialization school) in molecular biology and biotechnology all over the world.

Classes are held in English



HR EXCELLENCE IN RESEARCH

## COURSE STRUCTURE

There are two Semesters, from October to the end of January, and from March to mid-June. The Winter Exam Session is in February. The programme of study proposes three different curricula focused to achieve a deeper education in specialized areas of Biology or Biotechnology.

### Nutrition and Functional Food

I year	ECTS	II year	ECTS
Genomics and Proteomics	12	Functional Food	6
High Performance Bio-Analytical Methods	6	Endocrinology and Metabolism	6
Epigenetics	6	Applied Nutrition II	8
Food Pathology	6	Epidemiology of Nutrition-Related Pathologies	6
Applied Nutrition I	10	Blood Parameters and Nutritional Conditions	6
Rotation Laboratory	6	Experimental Thesis	30
Student's choice	8	Master Thesis	4

### Molecular Diagnostics and Biotechnology

I year	ECTS	II year	ECTS
Genomics and Proteomics	12	Stem Cell Technologies and Animal Models	12
High Performance Bio-Analytical Methods	6	Molecular Parasitology	6
Epigenetics	6	Molecular Ecology	6
Biology of Cancer and Biomolecular Therapeutic Agents	6	Molecular Archeological and Forensic Anthropology	6
Clinical and Molecular Diagnostics	6	Microbial Pathogenesis and Biofilms	6
Rotation Laboratory	6	Experimental Thesis	30
Student's choice	8	Master Thesis	4

### Biodiversity and Ecosystems Management

I year	ECTS	II year	ECTS
Animal Digestive Adaptation to Environmental Conditions	5	Soil Microbiology and biodiversity	7
Principles of Landscape Ecology and Plant Sociology	5	Plant Population Genetics and Ecology	7
Biodiversity Assessment and Monitoring Schemes	12	Blood Parameters and Nutritional Conditions	6
Population Genetics and Animal Ecology	6	Ecosystem services	5
Food Pathology	6	Experimental Thesis	30
Applied Nutrition	8	Master Thesis	4
Applied Landscape Ecology and Ecosystems Management	5		
Rotation Laboratory	6		
Student's choice	8		

## QUALITY ASSURANCE SYSTEM

UNICAM Quality Management System Certificate ISO 9001:2008 (from AFAQ-France, a French leader and one of the first certification bodies at the global level) guarantees students the quality of services provided.

The guarantee is via a rigorous analysis of internal organizational procedures and the prompt addressing of any weaknesses or shortcomings whether detected or reported by the students themselves.

The Quality Management System includes the following support services for students: orientation and guidance, mentoring, International mobility, Internships and communication. These integrate with and support the educational activities, so as to contribute to the complete training of the student.



For 2019, in the **U-MULTIRANK** international ranking, UNICAM was placed among the top 25 universities in the world in the area of international orientation, chosen among 1700 universities (of which 49 are Italian) from 96 countries.

The annual ranking takes into consideration the areas of greatest interest to students such as teaching and learning, knowledge transfer, orientation and research.



a.y. 2019/2020