



Università di Camerino  
Bioscienze e Medicina  
Veterinaria

# BIOSCIENCES AND BIOTECHNOLOGY

Università di Camerino

**Bachelor Degree**

First Cycle Degree

**Duration** 3 years

**ECTS credits** 180

**Location** Camerino

**All courses are taught in English**

*School of Bioscience  
and Veterinary Medicine*

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**web site**

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*Delegates*

**Educational Guidance**

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**Tutoring**

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The bachelor degree in Biosciences and Biotechnology is an interclass degree: it consists of a common first year, where the student is provided with a solid base in mathematics, physics, chemistry, and cell biology, followed by a second and third year when the student follows either the program leading to the Biology or Biotechnology degree. Upon enrollment in the interclass degree, students must indicate the qualification desired (Biology or Biotechnology); however, the final decision between the two program degrees can be delayed to the third year, provided that the missing credits have been fully covered.

The course benefits from a friendly and skillful teaching staff and reliable supporting structures, such as laboratories, libraries, in addition to dedicated tutorship services. The Bachelor in Biosciences and Biotechnology is in the geo-biological group which ranked first in Italy for the quality of education in the ranking of Italian Universities (CENSIS, Ranking 2017/18).

**Career opportunities**

The course in **Biology** is appropriate for students desiring a focused, in-depth grounding in all the essential elements of the biological sciences, and is particularly suitable for students intending to pursue graduate study in biological and applied sciences.

The course in **Biotechnology** focuses on the study of biological processes of living organisms. Students learn the skills needed to naturally manipulate processes in the development of new medicine, food and organic substances. This course provides students with a basic knowledge for the study of biotechnology with an emphasis on DNA technology, cell and molecular biology, and a wide range of practical skills, supplemented with relevant aspects of ethics law and business.

In both programs, the foundation of knowledge, plus laboratory experience, prepares students to function effectively in a variety of technical and laboratory research settings.

The graduates in **Biosciences and Biotechnology** are also qualified for access to Master courses in either biological and biotechnological fields, by which they could achieve higher professionalism and also access to doctoral courses in biology or related fields.

## COURSE STRUCTURE

Classes are held in two semesters, from the beginning of October to the end of January, and then from the beginning of March to the middle of June. The February break is devoted to the Winter Exam Session.

The program of study is structured around a comprehensive core curriculum that is common to both Biology and Biotechnology major but, upper-division level, coursework is designed to achieve a deeper education in specialized areas of Biology or Biotechnology. The course programs also offer flexibility through electives.

Completion of the degree program requires an internship carried out by the student under the supervision of an UNICAM tutor. An internship is a practical experience to be carried out in the university laboratories or in the workplace that offers the student an opportunity to apply, connect, and extend academic theory and competencies to build professional skills and network.

### Degree Biology (L-13)

| I year                           | ECTS | II year                             | ECTS | III year                                 | ECTS |
|----------------------------------|------|-------------------------------------|------|--|------|
| General Biology and Histology    | 12   | Molecular Biology, General Genetics | 14   | Hygiene and Clinical Microbiology        | 6    |
| General and Inorganic Chemistry  | 8    | Biochemistry                        | 8    | Physiology and Fundamentals of Pathology | 12   |
| Mathematics                      | 8    | Anatomy                             | 6    | Ecology and Parasitology                 | 6    |
| Physics                          | 7    | General Microbiology                | 6    | Molecular Genetics                       | 6    |
| Statistics and Computer Sciences | 8    | Zoology and Botany                  | 14   | Clinical Biochemistry                    | 6    |
| Organic Chemistry                | 7    | Cell and Developmental Biology      | 8    | Student's choice                         | 12   |
| English language - Level B2      | 6    | Laboratory II                       | 6    | Stage                                    | 5    |
| Laboratory I                     | 6    |                                     |      | Final Test                               | 3    |

### Degree Biotechnology (L-2)

| I year                           | ECTS | II year   | ECTS | III year  | ECTS |
|----------------------------------|------|---|------|---|------|
| General Biology and Histology    | 12   | Molecular Biology and General Genetics                    | 14   | Molecular Genetics, Genetics of Microorganism and Microbial Biotechnology | 12   |
| General and Inorganic Chemistry  | 8    | Biochemistry  | 8    | Physiology and Fundamentals of Pathology                                  | 12   |
| Mathematics                      | 8    | General and Industrial Microbiology                       | 12   | Clinical Biochemistry   | 6    |
| Physics                          | 7    | Intellectual Property, Regulatory and Bioethical Concerns | 6    | Molecular Applications in Biomedicine                                     | 8    |
| Statistics and Computer Sciences | 8    | Cell Biology and Biotechnology                            | 8    | Student's choice  | 12   |
| Organic Chemistry                | 7    | Food Chemistry and Processing                             | 6    | Stage   | 5    |
| English language - Level B2      | 6    | Laboratory II   | 6    | Final Test  | 3    |
| Laboratory I                     | 6    |   |      |   |      |

### Test 2018 for background knowledge

A verification of background knowledge is mandatory for all students who enroll at the University for the first time, but it does not affect in any way the registration. It is also possible to enroll before completing the verification.

<http://biologybiotechnology.unicam.it/test2018>

### ENTRY REQUIREMENTS

High School Diploma

(with minimum 12 years education) Level of language competence required: ENGLISH level B1 (Threshold level) of the CEFR

### INFORMATION FOR ENROLLMENT, TUITION FEES, OTHER SERVICES

at [www.unicam.it/international](http://www.unicam.it/international)

#### Didactic Manager

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