Why enroll?

Reason to enroll – University of Naples Federico II?

The University of Naples Federico II is one of the oldest Universities in Italy and the world. The University is ranked among the top in Italy for the quality of research and teaching with an optimal student/teacher ratio.

Students will benefit from:

- Educational workshops, computerized classrooms and science laboratories
- University Campus equipped with study rooms, coffee bar, canteens and green areas
- Doctoral Schools
- Advanced courses
- EU Erasmus program
- CLA University Language Center
- SINAPSI University Center for disabled students tutoring and for active participation and inclusion of students
- Science and technological research in collaboration with companies, national research centers, Botanical Garden, Anton Dohrn Zoological Station
- Internships and training in territorial companies and research centers or abroad through Erasmus program.



Course Coordinator Prof. Viola Calabrò v.calabro@unina.it





Useful links:

Polytechnic and Basic Sciences School

http://www.scuolapsb.unina.it

Department of Biology

http://www.dipartimentodibiologia.unina.it

Student secretariat

http://www.unina.it/-/769598-segreteria-studenti-areadidattica-scienze-mm-ff-nn-

Opening time:

From Monday to Friday from 9:00 to 12:00 Tuesday and Thursday also from 2.30 pm to 4.30 pm Phone: 081 2531111 - 081 2537508 - 081 676550





nea**pōlis**

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II SCUOLA POLITECNICA E DELLE SCIENZE DI BASE



COLLEGIO

SCIENZE

MASTER'S DEGREE

BIOLOGY

DEGLISTUDIDI

Orientation referents:

- Prof. Carmen Arena c.arena@unina.it

- Prof. Donata Cafasso <u>cafasso@unina.it</u>



Academic year 2024/2025

EDUCATIONAL OBJECTIVES

The main goal of the **Master's degree in Biology** (course class LM6) is to provide advanced and operational knowledge to enable biologists to face the present and future challenges in various advanced fields of Biology.

The Master's degree in Biology offers different curricula to suit students' needs in different areas:

- Molecular and cellular biology
- Biology of differentiation and reproduction
- Nutrition biology
- Forensic biology
- Cell biology applied to the health and aesthetics of the skin

At the end of the course, students will gain solid knowledge and skills in advanced biology and its applications. They will also acquire, apply, analyse, evaluate and integrate knowledge in areas of great impact on the world of work and the society, such as those of reproductive biology, human metabolism and nutrition, cellular and molecular biology and genetics, bioinformatics and forensic biology.



ACCESS REQUIREMENTS

Students with a three-year degree in Biology (L13) from the Federico II University and a degree score equal to or greater than 90/110 are directly admitted to the master's degree in Biology.

Students from other degree programs or from other universities in Italy or abroad are invited to contact the Coordinator and consult the guidelines for enrollment at the following link:

http://www.dipartimentodibiologia.unina.it/cor si-di-laurea/laurea-in-biologia-2021/guidadello-studente/

TRAINING

All **curricula** have been organized balancing the acquisition of theoretical knowledge with practical activities and by combining the most current teaching and laboratory methods.

Molecular and Cellular Biology Curriculum

Advanced Biochemistry and Protein Engineering - Biological Physical Chemistry - General and Molecular Pathology and Immunology - Molecular Genetics - Advanced Molecular Biology - Molecular Microbiology - Advanced Methods in Cell Biology - Cellular and Molecular Plant Physiology -Computational and Statistical Biology

Biology of Nutrition Curriculum

Organic molecules of food interest - Nutritional biochemistry - Plants and nutrition - Microbiology and nutrition - Nutritional physiology - Nutrigenetics and nutrigenomics - Dietetics - Applied nutrition - Redox homeostasis and nutrition

Biology of Differentiation and Reproduction Curriculum

Reproductive biology - Cellular biochemistry - General and molecular pathology and immunology - Molecular biology of development and differentiation - Animal development and differentiation - Biotechnology of reproduction -Biology applied to reproduction and development -Genetics of development and differentiation - Cell and molecular physiology of plant

Forensic Biology Curriculum

Forensic Chemistry - Forensic Botany - Forensic Molecular Biology - Forensic Zoology - Forensic Metagenomics -Forensic Biochemistry - Forensic Genetics - Laboratory Quality and Safety - Legal-Criminal Aspects in Forensic Investigations

Curriculum Cell biology applied to the health and aesthetics of the skin

Cellular and applied biology of the skin - Biochemistry and molecular adaptations to cellular alterations - Anatomy and histology of the skin - Genetics and molecular biology of the skin - Physiology of the skin - Microbiota and skin well - being - Hygiene, quality and safety in laboratories -Nutrition and well -being of the skin - Natural substances for skin wellbeing

WORKING OPPORTUNITIES

The Master's degree in Biology entitles you to admission to the state exam for enrollment in the senior section of the professional register of Biologists to carry out activities as a freelancer;

Graduates will be able to carry out basic and applied research at universities and public and private research institutes, in biotechnological industries, in pharmaceutical, cosmetic or agrifood companies, in Italy or abroad.

Graduates will be able to find employment in teaching or scientific dissemination. They will be able to operate in public or private structures (Regions, Provinces, Municipalities). They will be able to work in the social health sector, in hospitals and clinical analysis laboratories or in professional offices operating in the environmental, health, forensic, nutritional or assisted reproduction fields.



The Master's Degree in Biology gives access to specialization schools, doctorates, second level masters and initial training courses for secondary school teachers.

HEADQUARTERS

The headquarters of the didactic activities is at the University Campus of Monte S. Angelo Via Cintia - 80126 Naples - Italy

