### Why select

Biomolecular and Industrial Biotechnology

**Because biotechnology provides modern tools to solve social problems** 

**Because the course of study offers methodologic and flexible training** 

Because teacher/student ratio is quite high

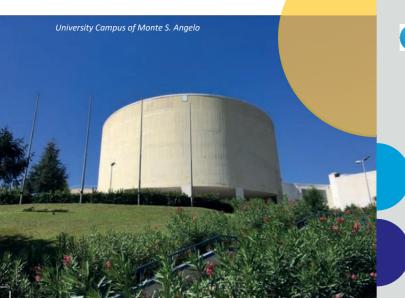
Because lectures and laboratories are located in the modern University Campus of Monte S. Angelo

Because the laboratory practice is an integral part of educational program of the industrial biotechnologist

Because industrial biotechnologists may work in numerous sectors of the production and of the services (environmental bioremediation, biosensors, biomaterials, renewable energy production, research centres, chemical, pharmaceutical and agri-food enterprises, quality control, teaching, service companies and public administration)

#### Coordinator of the course of study

Prof. Antonio Marzocchella antonio.marzocchella@unina.it





**Orientation points of contact** 

Prof. Angela Arciello anarciel@unina.it

Prof. Valeria Giosafatto

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Prof. Eugenio Notomista notomist@unina.it

**Student Office** 

Complesso Universitario di Monte S. Angelo Opening time:

Monday to Friday: 9.00 to 12.00

Tuesday and Thursday: the access time is extended from 14.30 to 16.30

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Biotecnologie Industriali Federico II





July 2020





# BIOMOLECULAR AND INDUSTRIAL

**BIOTECHNOLOGIES** 







## TRAINING OBJECTIVES

The Laurea (BSc - three year degree) in Biomolecular and Industrial Biotechnology provides a solid knowledge of biological systems and molecular biology techniques. Graduates will be able to successfully face subsequent studies, in particular the Master of Science in Molecular and Industrial Biotechnology. The training course provides the tools to become experts in managing biological systems and biotechnological processes for the production of biomolecules, biomaterials and energy. The Biotechnologists are also able to control, manage and validate biotechnological processes. such as fermentations bioconversions.



#### **ACCESS REQUIREMENTS**

**Course with limited number of admissions:** 

- compulsory admission test
- information on the number of students to be enrolled - set each year - is available at the website: www.biotecnologieindustriali.unina.it/en/

www.biotecnologieindustriali.unina.it/en/ and at the website:

- www.scuolapsb.unina.it/index.php/studiare-alnapoli/admission-to-courses
- info and terms to apply for the test are published in July on the University website (www.unina.it)
- characteristics of the test and training stage at the page www.cisiaonline.it in the CISIA-ENGINEERING section

#### **TRAINING**

FIRST YEAR	ECTF*
Mathematics and statistics	9
General chemistry	9
Introduction to biotechnology and biology	9
Physics and computer lab	9
Organic chemistry	9
English language	6
Genetics	6
SECOND YEAR	
Biochemistry	12
General and applied microbiology	9
Molecular biology	6
Molecular biotechnology	12
Microbial biotechnology	12
Bioprocess engineering principles	6
THIRD YEAR	
Bioanalytical chemistry	6
Introduction to biotechnological plants	6
Industrial enzymology	6
Advanced molecular biology	9
Perception and ethics of industrial	
biotechnology	6
<b>Selection of free educational activities</b>	18

\*ECTF= European Credit Transfer and Accumulation System

Orientation to the world of work and laboratory safety standards

**Training** 

Final exam

The educational laboratory

9

5



#### **JOB**

#### **OPPORTUNITIES**

Graduates in Biomolecular and Industrial Biotechnology may carry out technical tasks in scientific application contexts, such as research centres, industries, service enterprises. They are also able to carry out tasks in quality control, scientific dissemination and environmental protection. After the MSc in Molecular and Industrial Biotechnology, graduates are able to carry out responsibilities in research centres, services and public administration and manufacturing companies.

## CONTINUING STUDIES

The three-year degree course finds a natural continuation in the MSc in Molecular and Industrial Biotechnology.

#### **HEADQUARTERS**

University Complex of Monte S. Angelo, Via Cintia, Naples

#### Connections

- By car: Fuorigrotta exit of the ring road
- **Rail lines:**

Metro Line 2 (Campi Flegrei station), Circumflegrea (Mostra station)

Bus:

Piazzale Tecchio-MSA: 615; 180; R6 Piazza Leonardo (Vomero)¬-MSA: C33

 There are several connections with private buses from the province of Naples and other Campania provinces.

#### Services

Punto Adisu | Synapsi Center | Canteens | Bar Copy service | ATM