

Bachelor • Lisboa

# BIOTECHNOLOGY



## Direction

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## Secretariat

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## Duration

3 Years

## Credits

180 ects

## Exams

Have one of the following national exams:

- 02 Biologia e Geologia
- 07 Física e Química
- 16 Matemática

## Presentation

What is Biotechnology? It is the application of science and technologies in microorganisms, plants and animals, for the development of products of interest to society in a sustainable way. Modern Biotechnology plays a crucial role in the society of the future and covers industrial, service and laboratory sectors, in areas such as agri-food, environmental (bioremediation processes in the treatment of polluting waste, new intelligent materials, renewable fuels, biodegradable products), pharmaceuticals, chemistry, forensic technologies and medicine, becoming one of the spearheads in the various areas of diagnosis in the treatment of diseases and the fight against pathogens. The course at University Lusofona of Lisbon aims to train professionals in a currently priority area, Biotechnology, at national and global level. In the degree in Biotechnology, areas of transversal knowledge are studied, combining disciplines ranging from cellular and molecular biology, microbiology, genetics, bioprocesses, chemical and information technologies, among other areas. This unique characteristic of Biotechnology has ensured a growing and considerable rate of employability in the various industrial and service sectors where the multipurpose character of Biotechnology has been predominant at different levels, such as the development of

this way, the course intends to respond to the needs of the industry and national and international analysis and research laboratories.

# STUDY PLAN

## 1st Year / Comon Core

1º Semestre	ects	2º Semestre	ects
Cell Biology	5	Food Science	5
General Chemistry	5	Fundamentals of Bioprocesses	5
Mathematics	5	General Physics	5
Software Applications	5	Introduction to Biotechnology	5
Statistics on Biotechnology	5	Microbiology	5
Vegetable Physiology	5	Organic Chemistry	5

## 2nd Year / Comon Core

1º Semestre	ects	2º Semestre	ects
Analysis Instruments and Methods	5	Chemistry of Natural Products	5
Applied Toxicology	5	Computational Methods in Biology	5
Biomaterials	5	Fundamentals of Bioreactors	5
Controle of Quality of Bioproducts	5	General Biochemistry	5
Food Biotechnology	5	Industrial Microbiology	5
Genetics	5	Option I	5

## 3rd Year / Comon Core

1º Semestre	ects	2º Semestre	ects
Bio-separations	5	Animal cell and tissue technologies	5
Environmental Biotechnology	5	Entrepreneurship - Technology and Innovation	5
Enzyme Technology	5	Forensic Technologies	5
Genetic Engineering	5	Nanotechnology	5
Option II	5	Option III	5
Pharmaceutical Biotechnology	5	Project	5

Linha direta  
para o teu futuro



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