





The Bioengineering Institute of Technology is one of the institutes at UIC Barcelona, created with the aim of combining knowledge of engineering and the application of biological systems. The research it does is carried out by developing biomaterials and devices that improve people's quality of life.

We are experts in understanding cross-disciplinary problems and providing solutions that can be directly applied to society.

We work with state-of-the-art technology and have a multidisciplinary team with extensive business experience.

We believe in cooperation between academia and business to advance technological development and innovative solutions.

The cross-disciplinary nature of bioengineering and the versatility of our team allows us to develop customised programs and projects for different sectors and specialist area both in the field of health and technology, such as general medicine, pharmaceutics, surgery, physiotherapy and dentistry, as well as other fields. To all of them we bring our multidisciplinary and multisectoral knowledge that allows us to create and develop new solutions for everyday problems.



#### Research areas

Our main objective is to establish new systems and devices that can stimulate the regeneration of damaged or injured tissue. To this end, the Bioengineering Institute of Technology is divided into the following research areas:

- Biomolecule/cell distribution systems
- Substrates for tissue regeneration
- (Bio)materials for replacement of body parts
- Graphic design and 3D printing
- Electronics and robotics
- Finite elements

A bioengineer understands a problem from different angles due to cross-disciplinary knowledge.





We provide tailored solutions in a fast, flexible and dynamic way.

A multidisciplinary team of professionals at your disposal.

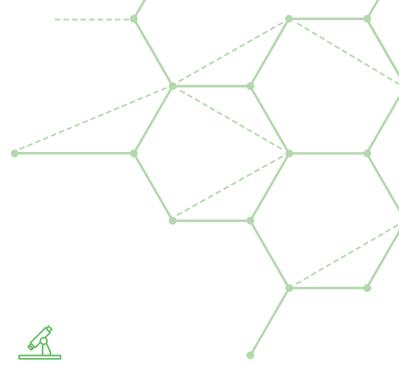


#### **Facilities**

The Sant Cugat Campus in UIC Barcelona has **21.868 m**<sup>2</sup> for research and teaching.

A total of 329.63 m<sup>2</sup> exclusively for Bioengineering laboratories.

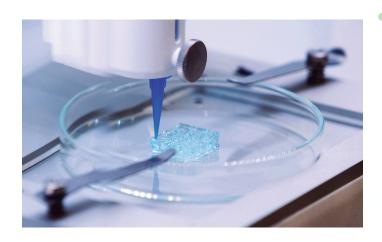
We work together with the different faculties and departments on Campus: Dentistry, Nursing, Physiotherapy, Medicine, Psychology, and Biomedical Sciences.

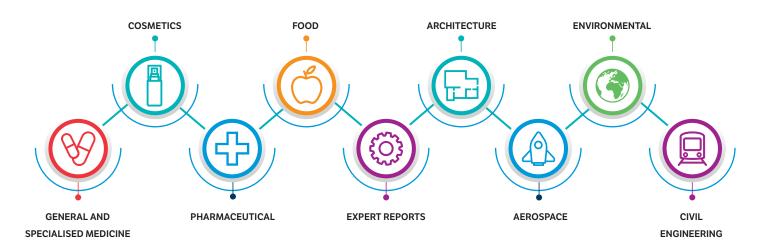


## **Equipment**

At the Institute we carry out both basic and more complex research with the aim of transferring technology to companies. The facilities and equipment we have available allow us to carry out projects using different techniques, these include a cell culture room, confocal microscopes, electronic scanning microscope, cell characterisation, (bio)chemical trials, 3D cell and material printing, bacterial and viral cultures, (bio)mechanical trials, (bio) material creation and therapeutic agent trials.

We are focused on working with and advising a wide range of of sectors related to our areas of knowledge.





# The bioengineering vision that will improve your business strategy



**CROSS-DISCIPLINARY KNOWLEDGE** 



**INNOVATIVE SOLUTIONS** 





(TELE)

COMMUNICATION

CELL AND

MOLECULAR

BIOLOGY





#### Multidisciplinary team

We have a team of professionals from different areas of knowledge, which allow us to put forward innovative solutions. Our professionals also bring their extensive experience to the table when teaching on the bachelor's degree in Bioengineering. In this way, future bioengineers learn about needs in the sector and the real application of the education they are acquiring.



ANTIBACTERIA

MATERIALS

AND COATING

(BIO)

MATERIALS



#### **Business services**

Bioengineering is a rapidly evolving sector with good job prospects due to its ability to connect the vision of different specialist areas. From the Bioengineering Institute of Technology, we offer the following services to companies:

- Consultancy and technology transfer in different fields
- Product development and optimisation
- 3D models and 3D printing
- Clinical characterisation trials
- Accredited bespoke education
- Scientific interpretation and training for networks

## In-company work placements

UIC Barcelona's Bioengineering bachelor's degree students can bring an innovative vision to all types of products or services. Hosting a future bioengineer for their final degree project in the format of a work placement will give you a first-hand understanding of the benefits and opportunities of having a bioengineer in your team.

3D (BIO)

PRINTING

TISSUE

REGENERATION

MEDICAL

DEVICES







## UIC Barcelona, #DrivingResearchForward

The Universitat Internacional de Catalunya (UIC Barcelona) was founded in 1997 with the aim of providing quality university education and promoting research to benefit society. Linked to the business world and with a strong international outlook, the University offers sixteen degree programmes, thirty international degree programmes and a wide range of postgraduate degree programmes on two campuses, located in Barcelona and Sant Cugat del Vallès. We have a total of around 8,000 students studying with us. The links to the business world are demonstrated through sixteen company-sponsored chairs and four company-sponsored classrooms, and five research institutes, including the Bioengineering Institute of Technology.

The Sant Cugat Campus is home to the Faculty of Medicine and Health Sciences, the Faculty of Dentistry, and the Faculty of Education. In addition, it houses the University Dental Clinic and Support – University Psychology and Psychiatry Clinic. Located in the facilities of the University General Hospital of Catalonia, the Sant Cugat Campus covers a total area of 21.868 m<sup>2</sup>.

Universitat Internacional de Catalunya

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