Laurea Magistrale (MSc) in Biomedical Engineering

Milano Leonardo Campus

www.polinternational.polimi.it
Presentation

This postgraduate programme provides students with an engineering education applied to medical and biological issues. The educational path is intended to train students in the design of biomedical equipment, devices, materials and procedures and to offer a correct introduction to the management of biomedical technologies in companies and health bodies. The peculiar multidisciplinary structure of the programme allows the development of a strong knowledge in electronics and informatics, in mechanical, chemical and material engineering and promotes the integration of technical studies with life science disciplines like biology, physiology and medicine. The programme is taught in English.

Eligible students

Students holding a Bachelor degree in a related field are eligible for application.

Fees

For EU students fees are based on students’ family income and the study plan presented. They range from about €800 to €3,300 per year. For Non-EU students fees are equal to about €3,300 per year.

Subjects

Four specializations available:
- Clinical Engineering
- Electronic Technologies
- Biomechanics and Biomaterials
- Cell, Tissue and Biotechnology Engineering

Mandatory courses for all areas:
- mathematical and digital methods for engineering
- bioengineering of the motor system
- mechanics of biological structures
- bioengineering of autonomic control and respiratory systems
- biofluid dynamics
- biomechanical design
- biomachines (with laboratory)
- biomaterials
- endoprostheses
- biomimetics and tissue engineering
- biotechnological applications and bioreactors
- design of life support systems
- laboratory of tissue characterization
- laboratory of biomaterials + lab. of instrumental analysis
- laboratory of biofluid dynamics
- laboratory of biomechanical design
- computational biomechanics laboratory