Bachelor's Degree in Biomedical Engineering

Biomedical engineering is the discipline which makes use of the principles and methods of the engineering for the solution of problems in biology and medicine, and the improvement in prevention methods, diagnosis, treatment and rehabilitation.

This branch of the engineering has experienced a rapid growth in recent years. It is a spreading field which is producing a high demand for professionals who are able to integrate interdisciplinary teams and face new challenges in the development of the healthcare technology. Please find more information about the degree in this link.

Distribution of credits

Basic courses	Compulsory courses	Optional courses	Bachelor Thesis	Total ECTS Credits
60.00	144.00	19.50	12	240.00

First year

Code	Course Name	Term	ECTS Credits
13034	Mathematics I	A	6
13036	Physics I	A	6
13039	Graphic techniques in biomedical engineering	A	6
13040	Computing and networks	A	7.5
13045	The role of the biomedical engineering	A	4.5
13035	Mathematics II	B	6
13037	Physics II	B	6
13038	Chemistry	B	6
13042	Cell-level morphology	B	6
13043	Morphology and function of the human body	B	6
		Total	60

Second year

Code	Course Name	Term	ECTS Credit
13041	Economy and Business	A	4.5
13029	Biochemistry and molecular biology	A	6
13032	Statistics	A	6
13031	Mathematics III	A	4.5
13033	Biophysics	A	4.5
13051	Mechanical systems	A	4.5
13030	Diagnosis basics and treatment in medical-surgical pathology	B	9
13052	Materials	B	4.5
13057	Computational biology	B	6
13063	Hospital management and clinical engineering	B	6
13065	Radiotherapy and radiation protection	B	4.5
		Total	60

Third year

Code	Course Name	Term	ECTS Credit
13050	Numerical methods	A	4.5
13054	Feedback Control in Biomedicine	A	6
13053	Electronics	A	6
13058	Bioelectricity	A	6
13066	Biomechanics	A	6
13044	Bioethics and deontology	B	4.5
13060	Biomedical signals	B	6
13061	Biomedical image technics	B	6
13064	Innovated and entrepreneurship	B	4.5
13067	Biomaterials	B	6
13069	Biotechnology and nanotechnology	B	4.5
		Total	60

Fourth year (compulsory)

Code	Course Name	Term	ECTS Credit
13059	Biomedical instrumentation	A	6
13062	Biomedical images	A	6
13068	Information systems and telemedicine I	A	6
13056	Projects and manufacturing	A	6
13055	Hospital Practice	B	4.5
	Optional Courses (to choose from the list below)	B	19.5
13070	Bachelor Thesis	B	12
		Total	60

Through this link, you will find the elective courses available for the fourth year of the program.