



BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING
DEGREE PROGRAMME 2026/27

Course contents are available at this [link](#)

1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Mathematical Analysis 1	MATH-03/A	A	9	90
1	Chemistry	CHEM-06/A	A	6	60
1	Physics 1	PHYS-03/A	A	8	80
1	Integrated Course: Information Processing Systems - Module: Fundamentals of Computer Science	IINF-05/A	A	6	60
2	- Module: Computer Architectures	IINF-05/A	A	6	60
2	Physics 2	PHYS-03/A	A	7	70
2	Geometry and Algebra	MATH-02/B	A	7	70
2	Integrated Course: Human Body Biology - Module: Human Anatomy	BIOS-12/A	C	4	40
2	- Module: Biochemistry	BIOS-07/A	C	2	20
2	- Module: Fundamentals of Physiology	BIOS-06/A	C	3	30

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Mathematical Analysis 2	MATH-03/A	A	8	80
1	Integrated Course: Fundamentals of Mechanics and Biomaterials - Module: Fundamentals of Mechanics and Biomechanics	IIND-03/A	B	5	50
1	- Module: Biomaterials	ICHI-01/B	B	5	50
1	Applied Mathematics	MATH-05/A	A	6	60
1	Integrated Course: Biochemical Engineering - Module: Fundamentals of Biochemical Engineering	ICHI-01/B	B	5	50
2	- Module: Applications of Biochemical Engineering	ICHI-01/B	B	5	50
2	Integrated Course: Fundamentals of Information Engineering - Module: Fundamentals of Systems Theory	IINF-04/A	B	5	50
2	- Module: Fundamentals of Biomedical Signals Analysis	IBIO-01/A	B	7	70
2	Integrated Course: Electronic Design - Module: Analog Electronics	IINF-01/A	B	5	50
2	- Module: Digital Electronics	IINF-01/A	B	5	50
2	Lab of Matlab Fundamentals for Bioengineers	IBIO-01/A	F	2	20



3rd year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Electric Actuators and Converters	IIND-08/A	B	5	50
1	Integrated Course: Mechanical Bioengineering				
	- Module: Strength of Materials	IIND-03/A	B	5	50
1	- Module: Design of medical devices with structural functions	IBIO-01/A	B	5	50
1	Bioelectronics Fundamentals	IBIO-01/A	B	8	80
	Integrated Course: Fundamentals of Clinic and Pathology				
1	- Module: Pathology	MEDS-04/A	C	2	20
2	- Module: Internal Medicine	MEDS-05/A	C	2	20
2	- Module: Radiology and Nuclear Medicine	MEDS-22/A	C	2	20
2	- Module: Technologies and Instruments in Surgery	MEDS-06/A	C	2	20
2	Choose between:				
	Medical Instrumentation	IBIO-01/A	B	5	50
2	Applied Biomechanics	IBIO-01/A	B	5	50
	Choose between:				
	Integrated Course: Biosignals and Image Processing				
2	- Module: Processing of Digital Images	IINF-05/A	C	3	30
2	- Module: 1-D Biosignal Processing	IBIO-01/A	C	2	20
2	Electromagnetic Compatibility	IINF-02/A	C	5	50
2	Power and Electrical Safety in Hospital	IIND-08/B	C	5	50
2	Data acquisition systems	IMIS-01/B	C	5	50
2	Technologies and numerical techniques for clinical image processing	IINF-02/A	C	5	50

Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	English Language Test - B1 ¹		E	3	
	Elective activities ²		D	12	
	Other activities		F	2	
	Final Exam		E	6	

Other optional activities

Sem*	Laboratory	SSD*	TAF*	Credits	h
2	Numerical Algorithms for Engineering	MATH-05/A	F	2	20

The semester could change; check in [Course bulletin](#) of the academic year.

TOTAL CREDITS 180

(1) The credits of European language level can be acquired:

- passing the English language test at B1 European level (CEFR) at Centro Linguistico d'Ateneo,
- showing appropriate certification of B1 European level (CEFR) knowledge.

(2) The elective activities must be consistent with the personal educational plan and they need approval by the Degree Programme Board.



***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity