

BIOMEDICAL ENGINEERING DEGREE

**2024 Plan. It will be taken by all students,
except for those who have yet to pass only the end-of-degree project**

Centres (see)	ECTS CREDITS	
	Basic training (FB)	78
Compulsory (OB)	108	
Optional (OP)	24	
External practical (PE)	18	
End-of-degree Project (TFG)	12	
Total	240	



CLICK ON THE CODE OF EACH SUBJECT TO ACCESS THE COURSE HANDBOOK

FIRST YEAR

Code	Subject	Credits	Type	Semester
19695	MATHEMATICS I	6	FB	1
19696	PHYSICS I	6	FB	1
19697	GENERAL CHEMISTRY	6	FB	1
19698	ANATOMY	6	FB	1
19699	CELLULAR BIOLOGY AND GENETICS	6	FB	1
19700	MATHEMATICS II	6	FB	2
19701	PHYSIOLOGY	6	FB	2
19702	BIOCHEMISTRY	6	FB	2
19703	PROGRAMMING	6	FB	2
19704	ELECTRONICS TECHNOLOGY	6	OB	2

SECOND YEAR

Code	Subject	Credits	Type	Semester
19705	MATHEMATICS III	3	FB	1
19706	ALGORITHMS AND DATA STRUCTURES	6	FB	1
19707	DIGITAL CIRCUITS	6	OB	1
19708	SIGNALS AND SYSTEMS	6	OB	1
19709	BIOSTATISTICS	3	OB	2
19710	DIGITAL SIGNAL PROCESSING	6	OB	2
19711	BIOMEDICAL DATA MANAGEMENT	6	OB	2
19712	ADMINISTRATION AND MANAGEMENT OF BUSINESS AND TECHNOLOGICAL PROJECTS	6	FB	2
19713	PHYSICS II	9	FB	Annual
19714	PATHOPHYSIOLOGY	9	OB	Annual

THIRD YEAR

Code	Subject	Credits	Type	Semester
19715	BIOMECHANICS AND BIOMATERIALS	6	OB	1
19716	ELECTRONIC BIOINSTRUMENTATION	6	OB	1
19717	FUNDAMENTALS OF MACHINE LEARNING	6	OB	1
19719	FUNDAMENTALS OF DIGITAL IMAGE PROCESSING	6	OB	1
19725	CHEMICAL BIOSENSORS I	3	OB	1
20471	CHEMICAL BIOSENSORS II	3	OB	1
19718	INFORMATION SYSTEMS	6	OB	2
19720	SENSORS AND BIOSIGNAL CONDITIONING	6	OB	2
19721	FUNDAMENTALS OF WIRELESS DEVICES AND ELECTROMAGNETIC COMPATIBILITY	3	OB	2
19722	BIOMEDICAL DATA SCIENCE	6	OB	2
19723	FUNDAMENTALS OF BIOMEDICAL DIGITAL SIGNAL PROCESSING	3	OB	2
19724	TECHNOLOGICAL FUNDAMENTALS FOR MEDICAL IMAGING	6	OB	2

FOURTH YEAR

Code	Subject	Credits	Type	Semester
	OPTIONAL SUBJECTS	24	OP	1
19726	CLINICAL FUNDAMENTALS OF MEDICAL IMAGING	3	OB	1
19728	BIOETHICS	3	OB	1
20472	HOSPITAL ROTATIONS	9	PE	2
20473	PROFESSIONAL INTERNSHIP (1)	9	PE	2
20474	HOSPITAL ROTATIONS EXTENSION (1)	9	PE	2
20475	END-OF-DEGREE PROJECT	12	TFG	2

(1) Choose one.

OPTIONAL SUBJECTS

Code	Subject	Credits	Type	Semester
19732	NANOBIMATERIALS	6	OP	1
19733	CLINICAL SIMULATION AND MODELING	6	OP	1
19734	TISSUE ENGINEERING AND REGENERATIVE MEDICINE	6	OP	1
19735	BIOMEDICAL RADIOFREQUENCY, MICROWAVE AND ELECTROMAGNETIC SAFETY TECHNOLOGIES	3	OP	1
19736	BIOMEDICAL SIGNAL PROCESSING EXTENSION	3	OP	1
19737	SYSTEMS AND APPLICATIONS FOR e-HEALTH	6	OP	1
20268	EXTENSION IN TECHNIQUES AND TECHNOLOGIES FOR BIOMEDICAL ENGINEERING 1	6	OP	1
19739	DRUG DISCOVERY AND THERAPY EVALUATION	6	OP	1
19740	REHABILITATION TECHNOLOGIES	6	OP	1
20269	EXTENSION IN TECHNIQUES AND TECHNOLOGIES FOR BIOMEDICAL ENGINEERING 2	6	OP	1

CENTRE

Management

Administration Student:

Technical College
Campus de Cantoblanco
28049 – Madrid
Phone: + 34 91 4972223/
22 26

[Web Page ↗](#)

Teaching:

Technical College
Campus de Cantoblanco
28049 – Madrid
Phone: + 34 91 497 22
23/ 22 26

[Web Page ↗](#)

Faculty of Sciences
C/ Francisco Tomás
y Valiente, 7
Campus de
Cantoblanco
28049 – Madrid
Phone: + 34
914978264
[Web page ↗](#)

Faculty of Medicine
C/ Arzobispo Morcillo, 2
y 4
28029 – Madrid
Phone: + 34
914975344/5457/5458 y
5307
[Web page ↗](#)