

BIOMEDICAL ENGINEERING DEGREE

**2025 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)	75
	Compulsory (OB)	111
	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	OB	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
<u>19715</u>	BIOMECHANICS AND BIOMATERIALS	6	OB	1
<u>19716</u>	ELECTRONIC BIOINSTRUMENTATION	6	OB	1
<u>19717</u>	FUNDAMENTALS OF MACHINE LEARNING	6	OB	1
<u>19719</u>	FUNDAMENTALS OF DIGITAL IMAGE PROCESSING	6	OB	1
<u>20471</u>	CHEMICAL BIOSENSORS I	3	OB	1
<u>20508</u>	CHEMICAL BIOSENSORS II	3	OB	1
<u>19718</u>	INFORMATION SYSTEMS	6	OB	2
<u>19720</u>	SENSORS AND BIOSIGNAL CONDITIONING	6	OB	2
<u>19721</u>	FUNDAMENTALS OF WIRELESS DEVICES AND ELECTROMAGNETIC COMPATIBILITY	3	OB	2
<u>19722</u>	BIOMEDICAL DATA SCIENCE	6	OB	2
<u>19723</u>	FUNDAMENTALS OF BIOMEDICAL DIGITAL SIGNAL PROCESSING	3	OB	2
<u>19724</u>	TECHNOLOGICAL FUNDAMENTALS FOR MEDICAL IMAGING	6	OB	2

FOURTH YEAR

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

(1) Choose one.

OPTIONAL SUBJECTS

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