

## BIOMEDICAL ENGINEERING DEGREE

Centres ( <a href="#">see</a> )	ECTS CREDITS	
	Basic training (FB)	78
Compulsory (OB)	105	
Optional (OP)	24	
External practical (PE)	24	
End-of-degree Project (TFG)	9	
<b>Total</b>	<b>240</b>	



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

### FIRST YEAR

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

### SECOND YEAR

Code	Subject	Credits	Type	Semester
<a href="#">19705</a>	MATHEMATICS III	3	FB	1
<a href="#">19706</a>	ALGORITHMS AND DATA STRUCTURES	6	FB	1
<a href="#">19707</a>	DIGITAL CIRCUITS	6	OB	1
<a href="#">19708</a>	SIGNALS AND SYSTEMS	6	OB	1
<a href="#">19709</a>	BIostatISTICS	3	OB	2
<a href="#">19710</a>	DIGITAL SIGNAL PROCESSING	6	OB	2
<a href="#">19711</a>	BIOMEDICAL DATA MANAGEMENT	6	OB	2
<a href="#">19712</a>	ADMINISTRATION AND MANAGEMENT OF BUSINESS AND TECHNOLOGICAL PROJECTS	6	FB	2
<a href="#">19713</a>	PHYSICS II	9	FB	Annual
<a href="#">19714</a>	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>19725</u>	CHEMICAL BIOSENSORS	3	OB	1
<u>19726</u>	FUNDAMENTALS OF CLINICAL MEDICAL IMAGING	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>19728</u>	BIOETHICS	3	OB	1
<u>19727</u>	HOSPITAL ROTATIONS	12	PE	2
<u>19729</u>	PROFESSIONAL INTERNSHIP (1)	12	PE	2
<u>19730</u>	HOSPITAL ROTATIONS EXTENSION (1)	12	PE	2
<u>19731</u>	END-OF-DEGREE PROJECT	9	TFG	2

(1) Choose one.

#### OPTIONAL SUBJECTS

Code	Subject	Credits	Type	Semester
<u>19732</u>	NANOBIMATERIALS	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>19739</u>	DRUG DISCOVERY AND THERAPY EVALUATION	6	OP	1
<u>19740</u>	REHABILITATION TECHNOLOGIES	6	OP	1
<u>20268</u>	EXTENSION IN TECHNIQUES AND TECHNOLOGIES FOR BIOMEDICAL ENGINEERING 1	6	OP	1
<u>20269</u>	EXTENSION IN TECHNIQUES AND TECHNOLOGIES FOR BIOMEDICAL ENGINEERING 2	6	OP	2

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 ↗](#)