

## 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	1 and 2
<a href="#">19714</a>	PATHOPHYSIOLOGY	9	OB	1 and 2

**THIRD YEAR** IMPLANTATION: YEAR 2022/23

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
19718	INFORMATION SYSTEMS	6	OB	1
19719	FUNDAMENTALS OF DIGITAL IMAGE PROCESSING	6	OB	1
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
19725	CHEMICAL BIOSENSORS	3	OB	2
19726	FUNDAMENTALS OF CLINICAL MEDICAL IMAGING	3	OB	2

**FOURTH YEAR** IMPLANTATION: YEAR 2023/2024

Code	Subject	Credits	Type	Semester
19727	HOSPITAL ROTATIONS	12	PE	1
	ELECTIVES A	18	OP	1
19728	BIOETHICS	3	OB	2
19729	PROFESSIONAL INTERNSHIP	12	PE	2
19730	HOSPITAL ROTATIONS EXTENSION	12	PE	2
	ELECTIVES B	6	OP	2
19731	BACHELOR THESIS	9	TFG	2

**OPTIONAL SUBJECTS A**

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 TECHNOLOGIES OF RADIOFREQUENCY, MICROWAVE AND ELECTROMAGNETIC SECURITY	3	OP	1
19736	BIOMEDICAL SIGNAL PROCESSING EXTENSION	3	OP	1
19737	SYSTEMS AND APPLICATIONS FOR e-HEATH	6	OP	1

**OPTIONAL SUBJECTS B**

Code	Subject	Credits	Type	Semester
19738	ENTREPRENEURSHIP FOR KNOWLEDGE-BASED COMPANIES	6	OP	2
19739	DRUG DISCOVERY AND THERAPY EVALUATION	6	OP	2

Code	Subject	Credits	Type	Semester
19740	REHABILITATION TECHNOLOGIES	6	OP	2

**CENTRE**

**Management**

**Administration Student:**

Technical College  
Campus de Cantoblanco  
28049 – Madrid  
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**Teaching:**

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y Valiente, 7  
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Faculty of Medicine  
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914975344/5457/5458 y  
5307  
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