

**BACHELOR'S DEGREE IN HEALTH ENGINEERING***1st Year*

Code	Course	ECTS	Semester
8213	Algebra	6	Fall
8214	Physics Applied to Health	6	Fall
8215	Bioethics, Deontological Code and Legal Basis of Health	6	Fall
8216	Principles of computing	6	Fall
8217	Cellular and Genetic Biology	6	Fall
8218	Calculus	6	Spring
8219	Fundamentals of Electricity in Medicine	6	Spring
8220	Structure and Function of the Human Body I	6	Spring
8221	Programming	6	Spring
8222	Structural and Metabolic Biochemistry	6	Spring

2nd Year

Code	Course	ECTS	Semester
8223	Structure and Function of the Human Body II	6	Fall
8224	Molecular Genetics	6	Fall
8225	Biostatistics	6	Fall
8226	Databases	6	Fall
8227	Programming Methodology	6	Fall
8228	Human Physiopathology	6	Spring
8229	Principles of Communications and Networks	6	Spring
8230	Electronics	6	Spring
8231	Data Structures and Algorithms	6	Spring
8232	Clinical Software Engineering and Project Management	6	Spring

3rd Year

Code	Course	ECTS	Semester
8233	Genetic Engineering and Gene Therapy	6	Fall
8234	Control Engineering	6	Fall
8235	Biomedical Data Sources and Semantic Web	6	Fall
8236	Intelligent Systems Applied to Health	6	Fall
8237	Bioinformatics	6	Fall
8238	Mechanical Design	6	Spring
8239	Biomedical Instrumentation and Biomedical Signals	6	Spring
8240	Data Mining Applied to Clinical and Biological Problems	6	Spring
8241	Computer Architecture	3	Spring
8242	Telemedicine	3	Spring
8243	Mandatory Internship Experience in Hospital/Companies	6	Spring

4th Year (to be implemented in 2022/2023)

Code	Course	ECTS	Semester
8244	Biomics	6	Fall
8245	Precision treatment and precision prevention	4,5	Fall
8246	Electronic systems for disability support	3	Fall
8247	Medical robotics	6	Fall
8248	Clinical information management systems	4,5	Fall
8249	Biomedical image processing	6	Fall




8250	Biomedical big data	3	Spring
8251	Advanced programming in bioinformatics	3	Spring
8252	Final degree project	15	Spring

OPTIONAL COURSES: (Choose 9 ECTS credits)

Code	Course	ECTS	Semester
8253	Clinical interpretation of laboratory data	3	Spring
8254	Artificial intelligence platforms in health	3	Spring
8255	Biomechanics	3	Spring
8256	Understanding the patient needs	3	Spring
8257	Precision pharmacology	3	Spring
8258	Regenerative and precision medicine	3	Spring
8259	Optional internship experience in hospital/companies	6	Spring

IMPORTANT INFORMATION

 English Friendly Courses.
<ul style="list-style-type: none">• Fall Semester = 1º Semester• Spring Semester= 2º Semester
Optional courses require a minimum of students and could change the semester
Final Degree Dissertation and Internships may need special requirements