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Bachelor Degree in Biomedical Engineering



What Is It? Biomedical Engineering is the discipline that combines engineering knowledge with medicine to create new tools, techniques, and technologies that enhance the quality of life for patients. By utilizing medical devices, implants, prototypes, software, and systems, biomedical engineers can contribute to the improvement of diagnosis, prevention, and treatment of various diseases. Additionally, they play a role in managing the technical resources used in hospital centers. These technologies enable healthcare professionals to improve patient care, providing greater efficiency in clinical practice.

What is it for? Our degree program prepares you to work as a biomedical engineering professional, providing you with the necessary skills to design, develop, and maintain medical equipment. You will acquire advanced knowledge in electronics, mechanics, computer science, and health sciences, enabling you to assist healthcare professionals in equipment management, providing technical support when needed, collecting and monitoring medical information, as well as researching and testing new technologies for manufacturing. Upon completion of the program, you will be able to work as a biomedical engineer in a wide range of fields, from research to manufacturing.



Will I have an international CV? You will have the opportunity to participate in national and international mobility programs, which will enhance your education and language proficiency. We will also provide you with language learning opportunities through the ESP (English for Specific Purposes) class sessions and the self-learning resource platform, CRAAL (free of charge).

? <https://internacional.ulpgc.es>
<http://auladeidiomas.ulpgc.es>



What career opportunities do I have?

Upon completing the degree, you will have the opportunity to find employment in various fields, such as: companies dealing with diagnostic, monitoring, and medical therapy equipment, technology-based healthcare service providers, pharmaceutical companies, biotechnology companies, clinical engineering departments in hospitals, clinical services in hospitals, universities and research institutes, as well as agencies and companies involved in the evaluation and transfer of healthcare technology. To assist you in this process, a career guidance service is provided to offer personalized information.

You will also have a degree guidance service that can provide you with personalized information.

? <https://empresayempleo.ulpgc.es/emplea/bolsa-de-empleo-emplea/>

How do I study it? This degree is offered in a face-to-face format, and in addition to the classes delivered by the faculty, you will have access to the Virtual Campus platform. Through this platform, online activities and virtual tutoring sessions are conducted, assignments are submitted, and you can access course materials and forums, among other functions. It also allows you to carry out academic and administrative tasks. Furthermore, we provide you with access to the University Library, where you can access the information you need either in person or virtually.

CURRICULUM

First Semester

Second Semester

1º

- Cálculo (Calculus)	6	- Ampliación de Cálculo (Advanced Calculus)	6
- Informática (IT)	6	- Álgebra (Algebra)	6
- Física para Biomedicina I (Physics for Biomedicine I)	6	- Física para Biomedicina II ((Physics for Biomedicine II)	6
- Inglés (English)	6	- Bioquímica (Biochemistry)	6
- Probabilidad (Probability)	3	- Biología Celular y Tisular (Cellular and Tissue Biology)	6
- La Ingeniería en Biomedicina (Biomedical Engineering)	3		

2º

- Principios de Electrónica (Principles of Electronics)	6	- Fisiología (Physiology)	6
- Fundamentos de Biomecánica (Fundamentals of Biomechanics)	6	- Bioestadística y Metodología (Biostatistics and Methodology)	6
- Física Médica (Medical Physics)	6	- Telecomunicación e Internet (Telecommunications and Internet)	6
- Anatomía Humana Aplicada a la Ingeniería Biomédica (Human Anatomy Applied to Biomedical Engineering)	6	- Procesado de Señales para Biomedicina (Signal Processing for Biomedicine)	6
- Programación en Ingeniería Biomédica (Programming in Biomedical Engineering)	6	- Bases de Datos y Computación en la Nube (Databases and Cloud Computing)	6

3º

- Sistemas TIC de Gestión Clínica (Clinical Management ICT Systems)	6	- Ingeniería Neural y Sensorial (Neural and Sensory Engineering)	6
- Computación de Imágenes Médicas (Medical Image Processing)	6	- Sistemas de Instrumentación Biomédica (Biomedical Instrumentation Systems)	6
- Tratamiento de Señales Fisiológicas (Physiological Signal Processing)	6	- Inteligencia Artificial en Biomedicina (Artificial Intelligence in Biomedicine)	6
- Diseño Biomecánico (Biomechanical Design)	6	- Biomateriales y Fabricación de Implantes (Biomaterials and Implant Manufacturing)	6
- Electrónica Digital (Digital Electronics)	6	- Sistemas Electrónicos Digitales (Digital Electronic Systems)	6

4º

- Sistemas de Asistencia en la Fragilidad y Dependencia (Assistance Systems for Frailty and Dependency)	6	- Prácticas en Tecnologías Médicas II (Medical Technologies Internship II)	6
- Planificación y Simulación en Técnicas Terapéuticas y Diagnósticas (Planning and Simulation in Therapeutic and Diagnostic Techniques)	6	- Modelos Sanitarios (Healthcare Models)	3
- Aplicaciones de Telemedicina (Telemedicine Applications)	6	- Trabajo Fin de Grado (Final Degree Project)	12
- Bioingeniería Regenerativa (Regenerative Bioengineering)	6	- Bioinformática (Bioinformatics)	3
- Prácticas en Tecnologías Médicas I (Medical Technologies Internship I)	6	- Biofabricación (Biofabrication)	3
		- Prótesis y Órtesis (Prosthetics and Orthotics)	3
		- Gestión de Proyectos en Ingeniería Biomédica (Project Management in Biomedical Engineering)	3
		- Tecnologías Avanzadas de Imagen no Invasiva en Medicina (Advanced Non-Invasive Imaging Technologies in Medicine)	3
		- Innovación en Tecnologías en Sistemas Biométricos (Innovation in Biometric Systems Technologies)	3
Basic and compulsory subjects (231 credits). Elective subjects (9 credits)			

How do I enroll?

Firstly, you will need to pre-enroll which can be done either via your school in April, or directly via the ULPGC at **ulpgcparati.es** in the second half of June. After, when the pre-enrolment process is finished and you are assigned a position, you can enroll.

 www.ulpgcparati.es

What financial assistance do I have?

You can apply for scholarships offered by the Ministry of Education and Vocational Training, the Government of the Canary Islands, and the island councils. Starting from the second year, enrolled students can also apply for scholarships and grants specific to ULPGC.

 <https://www.ulpgc.es/becas>

Why choose the ULPGC?

We offer quality accredited and externally evaluated education at public prices, along with a wide range of services (sports, culture, language courses, accommodation, library, computer rooms, summer universities, Wi-Fi connection across all campuses) that will facilitate your stay and complement your university education.

Moreover, ULPGC has been recognized as one of the top 10 universities in Spain for employability (Everis Foundation, 2018).



www.ulpgc.es/estudios

More Info

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