## Proposal of Subjects for the Biomedical Engineering Degree at ULPGC

| Academic courses | | 48 ECTS | 48 ECTS | 48 ECTS | 48 ECTS | 48 ECTS |
|---|---|---|---|---|---|---|
| 1° | S1 | Calculus I | Physics I | Fundamentals of Chemistry | Introduction to Computer Programming | Human Anatomy and Physiology |
| | S2 | Calculus II | Physics II | Introduction to Biomedicine | Introduction to Communication Networks | Introduction to Interconnected Embedded Systems |
| 2° | S1 | Mathematical Methods of Engineering | Introduction to Probability and Statistics | Introduction to Medical Technology | Signals and systems | Circuits and Electronics |
| | S2 | Biological Data & Signal Processing & Inference | Medical physics | Software Construction and Computational Systems Engineering | Visualization and Computer Graphics | Microcontrollers and Electronic systems |
| 3° | S1 | Automatic Learning | Fields, Forces and Flows in Biological Systems | Fundamentals of Computational Biology and systems | Computer Vision | Cloud Computing and Web Technologies |
| | S2 | Biomedical Imaging | Biomaterials, prosthesis and Implants | Medical Specialties | Telemedicine and mobile technology for health | Medical Devices Design |
| 4° | S1 | Health Economy | Surgical Planning, Navigation and Training | Hospital practice I | Principles and practices of AssistiveTechnologies | Degree dissertation |
| | S2 | Elective 1 \| Elective 2 | Elective 3 \| Elective 4 | Hospital practice II | ICTs & Hospital Information Systems | |

Electives (initial proposal): medical technology regulations; hospital engineering; bioinformatics and personalized medicine; simulation for surgical training; intensive and emergency medicine technologies; dermatological and pathological anatomy technologies; ophthalmologic, otorhinolaryngologic and dentistry (dental and oral medicine) technologies; technologies for sports medicine, cardiovascular medicine and pulmonology/pneumology medicine.