

Code	<b>BENG521</b>
Name	<b>Biomedical Electronics</b>
Hour per week	3 (3 + 0)
Credit	3
ECTS	10
Level/Year	Graduate / anytime
Semester	Fall
Type	Elective
Prerequisites	-
Content	Fundamentals of bioinstrumentation, sensors and transducers. Origins of bioelectric signals. Cardiac and neural anatomy and physiology basics. Biosignal types and their properties. Artifact removal from biosignals: Filtering and time and frequency domain filters. Information extraction from morphology of biosignals. Frequency characterization of biosignals. Blood pressure and sound. Measurement of flow and volume of blood. Measurements of the respiratory system. Medical imaging systems. Therapeutic and prosthetic devices. Electrical safety.