

Middle East Technical University
Biomedical Engineering Graduate Program

BME 501 - Introduction to Biomedical Engineering

Bioelectric Part Program:

1. Bioelectric phenomena 3h Dr. Yeşim Serinağaoğlu
(Resting electrical properties of cells and electrical equivalent model, action potential properties, action potential propagation and external fields, synaptic transmission and neuromuscular junction, Electroneurogram, Electromyogram, Electrocardiography, Electroencephalography)
2. Medical Instrumentation 2h Dr. Nevzat G. Gençer
(Biopotential electrodes, biopotential amplifiers, patient safety, isolation, grounding and shielding in biomedical instrumentation, therapeutic and prosthetic devices)
3. Mathematical modeling of physiological control systems 1h Dr. Nevzat G. Gençer
4. Medical Imaging 3h Dr. B. Murat Eyüboğlu
(X-ray imaging, Computerized Tomography, Medical Ultrasound Imaging, Nuclear Medicine Imaging, Magnetic Resonance Imaging)