

Medical Biophysics – General medicine – 2019/20

Wednesdays 11,00 – 11,50, A11, 114/Thursdays 13,00 – 14,50, A11,114

Main lecturer: Prof. Mornstein

Wed September 18th

Medical Physics and Biophysics: Introduction

Thu September 19th

Healthcare informatics (dr. Bourek)

Wed September 25th

Thermodynamic principles.

Thu September 26th

Structure of matter. Structure of living matter (Mgr. Vlk)

Wed October 2nd

Thermodynamics and life

Thu October 3rd

Introduction to biophysics of receptors. Biophysics of hearing and vestibular sense

Wed October 9th

Biophysics of visual perception

Thu October 10th

Resting and action membrane potential

Wed October 16th

Matriculation

Thu October 17th

Biomolecular and Cellular Research Devices (Vlk)

Wed October 23rd

Sensory perception examination and aids

Thu October 24th

X-ray Imaging

Wed October 30th

Biosignals and their processing. Thermometry

Thu November 31st

Magnetic resonance imaging (MRI). Infrared imaging

Wed November 6th

Devices for electrochemical analysis. Auxiliary laboratory devices

Thu November 7th

Nuclear medicine and radiotherapy I

Wed November 13th

Nuclear medicine and radiotherapy I

Thu November 14th

Biophysics of cardiovascular system. Biophysics of breathing. Spirography

Wed November 20th

Devices for substitution and assist of body organs

Thu November 21st

Nanomomedical Devices (Mgr. Bernard)

Wed November 27th

Safety aspects of air pressure and gravity changes, and ultrasound

Thu November 28th

Microscopy

Wed December 4th

Physical Therapy

Thu December 5th

Ultrasound diagnostics

*Wed November 11th and Thu November 12th
autopsy practice*

Wed December 18th

Endoscopes, tissue ablation devices and lithotripters

Thu December 19th

**Protection of the Patient from Ionizing Radiation and Image Quality Outcomes in
X-Ray Imaging**