

**Medical Biophysics – General medicine – Biophysics for physiotherapy
2023/24**

Tue 12,00–12,50, /Thu 11,00–12,40, (B11, 114) Main lecturer: Prof. Mornstein

Tuesday September 19th

Medical Physics and Biophysics: Introduction

Thursday September 21st

Healthcare informatics (Dr. Bourek)

Tuesday September 26th

Thermodynamic principles.

Thursday September 28th

State holiday

Tuesday October 3rd

Thermodynamics and life

Thursday October 5th

Biomolecular and Cellular Research Devices

Tuesday October 10th

Resting and action membrane potential

Thursday October 12th

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

Tuesday October 17th

Sensory perception I (Intro + hearing)

Thursday October 19th

Sensory perception II (hearing and vestibular sense, eye)

Tuesday October 24th

Biosignals and their processing. Thermometry

Thursday October 26th

Biophysics of visual perception III (vision, sensory perception examination and aids)

Tuesday October 31st

Devices for electrochemical analysis. Auxiliary laboratory devices

Thursday November 2nd
Nanomedical Devices (Assoc. Prof. Bernard)

Tuesday November 7th
Endoscopes, tissue ablation devices and lithotripters

Thursday November 9th
X-ray Imaging

Tuesday November 14th
Nuclear medicine and radiotherapy I

Thursday November 16th
Magnetic resonance imaging (MRI). Infrared imaging

Tuesday November 21st
Biophysics of cardiovascular system. Biophysics of breathing. Spirography

Thursday November 23rd
Nuclear medicine and radiotherapy II

Tuesday November 28th
Safety aspects of air pressure and gravity changes, and ultrasound

Thursday November 30th
Microscopy (Mgr. Vlk)

Tuesday December 5th
Devices for substitution and assist of body organs

Thursday December 7th
Ultrasound diagnostics

Tuesday December 12th
Physical Therapy

Thursday December 14th
**Protection of the Patient from Ionizing Radiation and Image Quality Outcomes in
X-Ray Imaging**

*Tue December 19th and Thu December 21th
autopsy practice*