

Level: Undergraduate Vocational Studies in Optometry				
Course title: Biophysics foundations				
Status: elective				
ECTS: 6				
Requirements: none				
Learning objectives: Introducing students to physical aspects of biology and chemistry.				
Learning outcomes Upon completed course student should develop: <ul style="list-style-type: none"> • General ability to relate gained knowledge from different areas of modern science. • Subject-specific abilities: to learn and understand foundations of biophysics. 				
Syllabus <i>Theoretical instruction</i> Mechanics of jump, locomotor system, significance and role of atmosphere, biocapillarity and gas embolism, circulatory system of human, speech and hearing system, ultrasound, biosystem exchange of heat, bio-membranes, thermodynamics of biosystem, biodielectrics and bioconductors, biopotentials and biocurrents, biomagnetism, physics of eye, characterization of biomolecules, application of electromagnetic radiation in food technology, roentgen diagnostics foundations, bioluminescence and lasers, biomaterials, sample dating, biological effects and application of radioactive radiation. <i>Practical instruction</i> Problem solving related to the course objectives.				
Weekly teaching load				Other:-
Lectures: 3	Exercises: 2	Other forms of teaching: 0	Student research:-	