Level: Undergraduate Vocational Studies in Optometry

Course title: Physics

Status: obligatory

**ECTS**: 7

### **Requirements:** -

# Learning objectives

To gain knowledge related to basic physical units and laws, as well as to processes leading to emission of electromagnetic radiation. Introduction to electromagnetic radiation and spectroscopy.

## Learning outcomes

Upon completion of the course, students should possess:

- General abilities: of analysis and synthesis, developing of simple models;
- Subject specific abilities: correct usage of physical units; knowledge acquiring and problems solving; understanding of physical basics of a material structure, origins and characteristics of the electromagnetic radiation.

### Syllabus

Theoretical instruction

Units and dimensions. Basics laws in mechanics. Conservation laws. Basics of thermodynamics. Laws of a black body radiation. Basics of physics of atoms. Continual and line spectra. Basics of spectroscopy.

Practical instruction

Practical laboratory and problem solving exercises based on the theoretical part.

# Weekly teaching load

Weekiy teaching load				Other
Lectures: 3	Exercises: 1	Other forms of	Student research: -	
		teaching: 2		

Other: -