

Title Lighting engineering and electroheat	Code 10103222110103201091
Field Electrical engineering	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: 2 Projects / seminars: -	Number of credits 3
	Language polish

Lecturer:

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Status of the course in the study program:

Obligatory course of the study program in Electrical Engineering Faculty for Full time graduate studies

Assumptions and objectives of the course:

The student should obtain knowledge all types electromagnetic energy conversion into heat or light energy. He should learn about structure and operation light and electroheat devices

Contents of the course (course description):

Electroheat and its field and sections, flame vs. elektrothermal heat generation, electroheating methods: resistance, electrode, induction, arc, plasma, dielectric, microwave, photon, electronic, glowing and ultrasonic methods. Fundamental laws of thermokinetics. Optical radiation. Physiology and neurophysiology of visual process, optical components of the eye, basis function of the eye. Basic quantities of photometry and colorimetry. Methods of calculation of photometry quantities. Lamps and luminaires types and characteristics. Lighting system design considerations.

Introductory courses and the required pre-knowledge:

Basic knowledge of physics and electrical engineering

Courses form and teaching methods:

Lectures, practical training in laboratory

Form and terms of complete the course - requirements and assessment methods:

Tests, laboratory reports

Basic Bibliography:

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Additional Bibliography:

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