

Title Fundamentals of electroheat	Code 1010324281010320375
Field Electrical engineering	Year / Semester 4 / 8
Specialty -	Course core
Hours Lectures: 8 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

PhD, DSc Jacek Hauser
Institute of Electrical Engineering and Electronics
60-965 Poznań, ul. Piotrowo 3a
tel. +48 -61 665 26 88
e-mail: Jacek.Hauser@put.poznan.pl

Faculty:

Faculty of Electrical Engineering
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2539, fax. (061) 665-2548
e-mail: office_deef@put.poznan.pl

Status of the course in the study program:

Obligatory course of the study program in Electrical Engineering Faculty for extramural undergraduate study.

Assumptions and objectives of the course:

The student should obtain knowledge all types electromagnetic energy conversion into heat. He should learn about structure and electric or energetic parameters of different electroheat devices.

Contents of the course (course description):

Electroheat and its field and sections, flame vs. elektrothermal heat generation. Spectrum of electromagnetic waves used in electroheat, energetic balance of electroheating devices. Electroheating methods: resistance, electrode, induction, arc, plasma, dielectric, microwave, photon, electronic, glowing and ultrasonic methods. Fundamental laws of thermokinetics. Pyrometry and thermometry.

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:

Examination, laboratory reports

Basic Bibliography:

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Additional Bibliography:

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