

Title Electrical Machines	Code 1010324241010320344
Field Electrical Engineering	Year / Semester 2 / 4
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: - Projects / seminars: -	Number of credits 0
	Language polish

Lecturer:

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Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Extramural first-degree studies

Assumptions and objectives of the course:

The student should obtain knowledge of the magnetic circuits of electrical machines and knowledge of the constructions and performances of transformers and induction machine.

Contents of the course (course description):

Magnetic circuits. Transformers: transformer on no-load, transformer equivalent circuits, transformer on load, transformers for three phase circuits, parallel operation, selected transients. Electromechanical energy conversion principles. Rotating machines-basic concepts: distributed windings, rotating magnetic field, electromotive force induced by a rotating magnetic field, winding factors. Induction machines: basic theory and construction, equivalent circuit, speed-torque curves, squirrel-cage rotor, skin effect in rotor bars, speed control.

Introductory courses and the required pre-knowledge:

Elementary knowledge of electromagnetism and knowledge of electric circuit analysis.

Courses form and teaching methods:

Lectures supported by transparencies, exercises related to practical problems.

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

Oral examination

Basic Bibliography:

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Additional Bibliography:

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