

Title Selected aspects of circuit theory	Code 10103222110103201096
Field Electrical Engineering	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 2 Classes: 1 Laboratory: - Projects / seminars: -	Number of credits 5
	Language polish

Lecturer:

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Status of the course in the study program:

Obligatory course at the Faculty of Electrical Engineering, majoring in electrical engineering, full-time second degree.

Assumptions and objectives of the course:

Extending knowledge of basic theory of circuits. Knowledge of methods of calculating the nonlinear circuits, filters, and modeling of electrical circuits. Signal flow graphs.

Contents of the course (course description):

Linear and nonlinear elements. Nonlinear circuits for DC and AC. Graphical and numerical method for solving nonlinear circuits. Analysis and synthesis of magnetic circuits. Passive filters type k. Frequency response / damping. Active Filters with operational amplifiers. Modeling of electrical circuits. Block diagrams. Conversion of flowcharts. Signal flow graphs.

Introductory courses and the required pre-knowledge:

The fundamental rights of Electrotechnical Standardization. Classical method and function analysis of Laplace States transitional linear systems. Basic of the theory-way.

Courses form and teaching methods:

Lecture illustrated slides and simulation, accounting

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

Tests written for exercises

Basic Bibliography:

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Additional Bibliography:

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