

Title Digital circuits	Code 1010331411010330610
Field Computer Science	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 2 Projects / seminars: -	Number of credits 6
	Language polish

Lecturer:

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Status of the course in the study program:

Obligatory course, Faculty of Electrical Engineering, field Computer science.

Assumptions and objectives of the course:

Knowledge of mathematical models, methods of synthesis and CAD tools of digital circuits.

Contents of the course (course description):

Combinatorial and sequential digital circuits. Boolean functions and finite automata as mathematical models of the circuits. Realization of Boolean functions with use of logic gates, multiplexors, demultiplexors, ROMs and logic arrays. Realization of automata with use of flip-flops. Integrated digital circuits. Microprogrammed circuits and flow diagrams. Concurrent circuits and Petri nets. CAD tools.

Introductory courses and the required pre-knowledge:

Fundamentals of mathematical logic and electronics.

Courses form and teaching methods:

Lectures, laboratory exercises.

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

Credit for lectures and laboratory exercises.

Basic Bibliography:

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Additional Bibliography:

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