

Title <b>Fundamentals of Microprocessor Technology</b>	Code <b>1010331431010320627</b>
Field <b>Computer Science</b>	Year / Semester <b>2 / 3</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>2</b> Classes: -    Laboratory: -    Projects / seminars: -	Number of credits <b>0</b>
Language <b>polish</b>	

**Lecturer:**

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**Status of the course in the study program:**

Obligatory subject, Faculty of Electrical Engineering, full time undergraduate studies, field: Computer Science.

**Assumptions and objectives of the course:**

In-depth knowledge of theoretical and practical problems associated with the construction elements, components and microprocessor systems and the basis of their programming and design.

**Contents of the course (course description):**

Number systems, codes, digital logic circuits, gates, flip-flops, counters, shifters. Construction of processors - classification schemes. CPU, bus, programmable memory, mass, interfaces. Microprocessors, microcontrollers. Programmable Controllers PLC systems, input / output - RS-xxxx, I2C-bus and other communication systems - CAN protocols, and other surveillance systems (polling) and security, running. DSPs, ASICs, wireless sensor networks.

**Introductory courses and the required pre-knowledge:**

Basic knowledge of electrical engineering, electronics and digital-circuit engineering.

**Courses form and teaching methods:**

The lecture supported by multimedia presentation, laboratory classes.

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

Written tests, pass a written / oral.

**Basic Bibliography:**

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**Additional Bibliography:**

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