

Title <b>Computer network devices</b>	Code <b>1018221010108010123</b>
Field <b>Electronics and Telecommunications</b>	Year / Semester <b>5 / 10</b>
Specialty <b>Information Transport Networks</b>	Course <b>core</b>
Hours Lectures: <b>2</b> Classes: -    Laboratory: -    Projects / seminars: <b>2</b>	Number of credits <b>6</b>
	Language <b>polish</b>

**Lecturer:**

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

Obligatory course for students of Electronics and Telecommunications, specialty: Information Transport Networks.

**Assumptions and objectives of the course:**

To provide students with theoretical and practical knowledge about computer network devices. To prepare students to design and configure optical networks.

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

IP router architectures; Packet path determination; Packet switching function; Switching network architecture; Buffering strategy; Optical router architectures; Photonic buffers; CAM, TCAM, RCAM memory; Network switch architectures, Power supply over networks ? PoE, Digital Subscriber Lines ? standards, networks, devices, protocols; ADSL, VDSL, HDSL; EPON ? Ethernet Passive Optical Networks, Drivers for network interface card in Linux, Network traffic analyze, Network mechanisms (three way handshaking, NAT, DHCP, Proxy-arp); Network filters, Configuration of network devices ? switches, routers, servers. Necessary configuration parameters.

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

Fundamentals of computer networks.

**Courses form and teaching methods:**

Lectures, laboratory projects.

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

Tests, written exam.

**Basic Bibliography:**

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**Additional Bibliography:**

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