

Title <b>Data Security</b>	Code <b>1010331441010330639</b>
Field <b>Computer Science</b>	Year / Semester <b>2 / 4</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>2</b> Classes: -    Laboratory: <b>1</b> Projects / seminars: -	Number of credits <b>5</b>
	Language <b>polish</b>

**Lecturer:**

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**Faculty:**

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

- Obligatory course at the Faculty of Electrical Engineering, field of study Computer Science

**Assumptions and objectives of the course:**

-Presentation of practical problems dealing with data security.

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

-Threats to data security. Methods of data protection. Antivirus protection, RAIDs, UPSs, steganography. Cryptographic algorithms and protocols for data protection: ciphers, hash functions, digital signature, cryptographic keys management. Cryptographic techniques: confidentiality of data, data integrity, authentication of data and subjects (users), nonrepudiation, access control. Virtual Private Networks. Firewalls. Intrusion Detection Systems. Intrusion Prevention Systems.

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

- Mathematics and computational complexity.

**Courses form and teaching methods:**

- Lecture, laboratory.

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

-Written or/and oral examination based on lecture, laboratory participation.

**Basic Bibliography:**

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**Additional Bibliography:**

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