



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Holiday (summer) internship

### Course

Field of study

Electrical Engineering

Area of study (specialization)

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Level of study

First-cycle studies

Form of study

full-time

Year/Semester

2/4

Profile of study

practical

Course offered in

polish

Requirements

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

160

### Number of credit points

4

### Lecturers

Responsible for the course/lecturer:

Krzysztof Wanadchowicz, Ph.D, D. Sc., Eng.

Responsible for the course/lecturer:

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Faculty of Control, Robotics and Electrical

Engineering

Piotrowo 3A Street, 60-965 Poznań

### Prerequisites

A student starting this subject should have basic knowledge, skills and social competences resulting from the implementation of the study program for the field of Electrical Engineering in the group of basic and major subjects.

### Course objective

Gaining practical knowledge of issues related to the field of study.



### Course-related learning outcomes

#### Knowledge

1. Has practically founded knowledge in the field of the education program for the field of electrical engineering, in particular in the group of major subjects.
2. Knows and understands the basic laws of electrical engineering, properties of electric circuit elements, has detailed knowledge of the theory of electric circuits (for steady and transient states), knows and understands the transmission line theory.
3. He ordered the knowledge in the field of metrology and the characteristics and operation of modern measuring equipment.
4. Has ordered and theoretically founded knowledge of the construction, principles of operation and operation of transformers, electrical machines and technical systems, knows the processes taking place in their life cycle.
5. Has a basic knowledge of the management, creation, running and development of economic activity related to the given qualification.

#### Skills

1. Can use the knowledge of the education program for the field of electrical engineering, in particular in the group of major subjects.
2. Can plan and organize work individually and in a team, knows how to estimate the time needed to complete the commissioned task; is able to develop and implement a work schedule that ensures meeting the deadline.
3. Can plan and carry out an experiment, including testing and diagnosing simple electrical systems and devices.
4. Applies the principles of occupational health and safety.
5. Can assess the usefulness of basic methods and tools for solving practical engineering tasks, typical for the field of electrical engineering, and can select and use appropriate methods and tools.
6. Can properly use electrical devices in accordance with general requirements and technical documentation.

#### Social competences

1. Is aware of the need to initiate activities for the public interest, understands various aspects and effects of an electrical engineer's activity, including the impact on the environment, and the related responsibility for decisions made.
2. Is aware of the importance of their own work and the need to follow the rules of professional ethics, is ready to submit to the rules of teamwork and to bear responsibility for jointly performed tasks, as well as to care for the achievements and traditions of the profession.



3. Can think and act in an entrepreneurial way in the field of electrical engineering.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

An internship report certified by the internship tutor. An internship certificate issued by the host entity for the internship. A questionnaire describing the achieved learning outcomes.

### Programme content

Training in occupational health and safety and fire regulations. Acquainting with the applicable work regulations and conditions for the protection of state and official secrets. Acquainting with the structure and functioning of the enterprise (institution). Implementation of an individual internship program. Preparation of a report on the course of internships.

### Teaching methods

Teaching methods should be adapted to the individual internship program.

### Bibliography

Basic

1. Regulamin organizacji praktyk studenckich objętych programem studiów na Wydziale Automatyki, Robotyki i Elektrotechniki.
2. Regulamin studiów stacjonarnych i niestacjonarnych pierwszego i drugiego stopnia uchwalony przez Senat Akademicki Politechniki Poznańskiej.

Additional

1. Obwieszczenie Ministra Gospodarki, Pracy i Polityki Społecznej z dnia 28 sierpnia 2003 r. w sprawie ogłoszenia jednolitego tekstu rozporządzenia Ministra Pracy i Polityki Socjalnej w sprawie ogólnych przepisów bezpieczeństwa i higieny pracy. Dz.U. 2003 nr 169 poz. 1650.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	160	4,0
Classes requiring direct contact with the teacher	100	4,0
Student's own work (literature studies, preparation for design classes, preparation of the project, implementation of an individual internship program) <sup>1</sup>	100	4,0

<sup>1</sup> delete or add other activities as appropriate