



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Specialist internship [S1Eltech2>PS]

Course

Field of study

Electrical Engineering

Year/Semester

3/6

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other

160

Tutorials

0

Projects/seminars

0

Number of credit points

4,00

Coordinators

dr hab. inż. Krzysztof Wandachowicz
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Lecturers

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. Possesses practical knowledge of the electrical engineering curriculum, particularly in the core subjects.
2. Possesses advanced knowledge of the power system, encompassing the generation, transmission, and distribution sectors; possesses knowledge of energy security and the development directions of the power industry.
3. Possesses advanced knowledge of computer-aided analysis and design tools for electrical equipment, systems, and installations.

4. Possesses the knowledge necessary to understand the non-technical (including economic, legal, and ethical) conditions of an electrical engineer's work; understands the basic principles of occupational health and safety and ergonomics, as well as the hazards associated with electrical engineering.
5. Possesses an advanced knowledge and understanding of the principles of selection and safe and ergonomic use of electrical components, equipment, and installations.
6. Possesses knowledge of the principles of establishing and developing a business, particularly as related to the field of study.

Skills:

1. The student is able to utilize knowledge within the electrical engineering curriculum, particularly within the core subjects.
2. When formulating engineering tasks, the student is able to perform a preliminary economic assessment of the production and operation of a typical electrical device and system.
3. The student is able to utilize known analytical, simulation, and experimental methods to design, analyze, and evaluate the functioning of electrical components and systems.
4. The student is able to plan and conduct simulation and physical experiments, including measuring, testing, and diagnosing simple electrical systems and devices.
5. The student is able to select equipment for measuring and acquiring basic measurable quantities characteristic of electrical engineering; the student is able to present obtained results numerically and graphically, interpret them, estimate errors, and draw appropriate conclusions.
6. The student is able to independently plan and implement lifelong learning (e.g., second-cycle studies, postgraduate studies, courses) to enhance professional and social competences.

Social competences:

1. Is willing to develop professional, personal, and social competencies; is aware that knowledge and skills in the field of electrical engineering are rapidly evolving.
2. Is willing to utilize scientific achievements and consult with experts in the field of electrical engineering to effectively solve engineering tasks beyond their own competence.
3. Is able to think and act entrepreneurially in the field of electrical engineering.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

A report on the internship, certified by the internship supervisor. A certificate of internship completion issued by the entity hosting the internship.

Programme content

Implementation of an individual internship program covering practical issues related to the field of study.

Course topics

Training in occupational health and safety and fire regulations. Familiarization with applicable work regulations and the protection of state and official secrets. Familiarization with the structure and operation of the enterprise (institution). Implementation of an individual internship program. Preparation of a report on the internship process.

Teaching methods

Teaching methods should be adapted to the individual internship program.

Bibliography

Basic:

1. Order No. 11 of the Rector of Poznań University of Technology of 29 March 2023 on the introduction of the Regulations for Student Internships at Poznań University of Technology, together with annexes.
2. Regulations for Full-Time and Part-Time First- and Second-cycle Studies, adopted by the Academic Senate of Poznań University of Technology.

Additional:

1. Announcement of the Minister of Economy, Labour and Social Policy of 28 August 2003 on the announcement of the consolidated text of the regulation of the Minister of Labour and Social Policy on general occupational health and safety regulations. Journal of Laws 2003 No. 169 item 1650.

Breakdown of average student's workload

| | Hours | ECTS |
|---|-------|------|
| Total workload | 160 | 4,00 |
| Classes requiring direct contact with the teacher | 160 | 4,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 0 | 0,00 |