

#### POZNAN UNIVERSITY OF TECHNOLOGY

**EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)** 

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Pre-diploma Internship [N1MiBP1>PRAKT]

Course

Field of study Year/Semester

Mechanical and Automotive Engineering 3/6

Area of study (specialization) Profile of study

— general academic

Level of study Course offered in

first-cycle polish

Form of study Requirements part-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

0 0 120

Tutorials Projects/seminars

0 0

Number of credit points

4,00

Coordinators Lecturers

dr hab. inż. Wojciech Cieślik wojciech.cieslik@put.poznan.pl

### **Prerequisites**

KNOWLEDGE: The student has knowledge of the applicable rules for the implementation of internships. He knows the regulations of internships and the conditions for passing them. Has basic knowledge of issues covered by the study program. Has knowledge related to the basic issues of mechanics and machine construction, in particular: designing structures, designing technological processes, research and operation of machines and vehicles, manufacturing processes, assembly and supervision of the operation of machines, diagnosing the technical condition of machines and devices and repair technology. SKILLS: The student has the ability to creatively use the knowledge acquired during the first degree studies. SOCIAL COMPETENCES: The student is able to work in a working group. Is able to transparently distribute tasks in a group. Is able to interpret and perform received tasks correctly and is able to make a verbal presentation of the results of his work.

### Course objective

Verification of the theoretical knowledge possessed by the student with reality, gaining new professional experience in real working conditions. Practical application of knowledge and skills acquired during studies in practice. Familiarizing the student with the realities of the functioning of the workplace against the background of applicable law, business hierarchy, secrets, interpersonal relations, learning to analyze and choose good practices (especially duty, loyalty to the parent company, responsibility, sense of identity, self-esteem, etc.) useful in the next life, especially in the professional sphere. An attempt to assess the role and importance of the workplace in the economy and life of the local community, and the student to gain experience in the labor market.

#### Course-related learning outcomes

#### Knowledge:

Has extended basic knowledge necessary to understand specialist subjects and specialist knowledge about the construction, construction methods, manufacturing and operation of a selected group of working, transport, thermal and flow machines covered by the diploma path.

Has elementary knowledge of the life cycle of machinery, recycling of machine elements and construction and consumables.

Has elementary knowledge of law, in particular security, copyright and security law industrial property and its influence on the development of technology.

#### Skills:

Can use the experience gained in an environment professionally involved in engineering activities related to the maintenance of devices, facilities and systems typical for the field of study. Can interact with other people as part of teamwork (also of an interdisciplinary nature). Has the ability to self-educate with the use of modern teaching tools, such as remote lectures, websites and databases, teaching programs, e-books.

#### Social competences:

Is ready to fulfill social obligations and co-organize activities for the benefit of the social environment. Is willing to think and act in an entrepreneurial manner.

is ready to fulfill professional roles responsibly, including:

- observing the rules of professional ethics and requiring this from others,
- caring for the achievements and traditions of the profession.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Credit for internships based on the internship report, certified by the enterprise, assessment of the internship tutor by the enterprise. Possibility of crediting professional work towards professional practice (condition of program compliance)

## Programme content

Familiarization with the functioning of manufacturing, commercial or service enterprises related to the general construction of machines, companies employing mechanics or maintenance specialists, companies giving the opportunity to learn the basic issues of mechanics and machine construction, such as:

- structure design (including: selection of engineering materials used as elements of machines and devices as well as methods and techniques of computer aided design of machines),
- design of technological processes,
- research and operation of machines and vehicles (including management elements)
- processes for the production, assembly and supervision of the operation of machines (including, among others: basic workshop work: locksmith and assembly work, machine tools, machine tools, welding devices, technological measuring and diagnostic equipment used in the manufacture, assembly and repair of machines, devices or vehicles )
- diagnosing the technical condition of machines and devices and repair technology (including: technologies used in machine repairs, machine operation and repair systems, regeneration technologies of machine and device parts, organization of production processes and supervision over the operation

of machines, applicable OHS regulations in maintenance, designing regeneration processes for machine parts, techniques for diagnosing the technical condition of machines and devices).

- and other related.

# **Teaching methods**

Presentation of the requirements for the implementation of pre-graduate practice at an organized meeting with students. Electronic transmission of information. Verification of the completeness and correctness of documentation related to the implementation of pre-graduate practice.

# **Bibliography**

Basic Additional

# Breakdown of average student's workload

	Hours	ECTS
Total workload	120	4,00
Classes requiring direct contact with the teacher	0	0,00
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	120	4,00