## POZNAN UNIVERSITY OF TECHNOLOGY



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

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Passing project - Machines

Field of study Year/Semester

Construction and Exploatation of Means of Transport 3/6

Area of study (specialization)

Profile of study

Machines general academic
Level of study Course offered in

First-cycle studies Polish

Form of study Requirements full-time compulsory

Number of hours

Lecture Laboratory classes Other (e.g. online)

0 0

Tutorials Projects/seminars

0 0

**Number of credit points** 

5

Lecturers

Responsible for the course/lecturer: Responsible for the course/lecturer:

dr inż. Konrad Włodarczyk mgr inż. Jacek Marcinkiewicz

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Faculty of Civil and Transport Engineering Faculty of Civil and Transport Engineering

ul. Piotrowo 3, 60-965 Poznań ul. Piotrowo 3, 60-965 Poznań

### **Prerequisites**

Has a basic knowledge of the life cycle of machines. Has ordered, theoretically founded knowledge covering key issues useful in the design of working machines. He knows the principles of rational design of working machines. He can design selected sets of working machines - especially drive and working systems from components available on the market). Is able to use computer programs supporting the design process. Is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the responsibility for the decisions made.

# **Course objective**

Practical use of knowledge gained in the process of previous education. Acquiring the ability to

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independently solve problems in the field of study and specialization, designing devices and technological lines for industry, construction of working machines and methods of their testing and operation. The ability to calculate the strength of machines and their structures.

## **Course-related learning outcomes**

#### Knowledge

Has knowledge of the conditions that should be taken into account when developing a project (assessment of the current state of technical theory and practice, selection and justification of the solution, social aspects).

#### Skills

He can design, according to a given specification, a device, a technological line for the production or processing of food. He can evaluate the system of exploitation of technical objects.

# Social competences

Is aware of the ecological and social aspects of the project task.

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment of the completed project.

### **Programme content**

Mastering the principles of independent solving of engineering tasks and preparation for the implementation of a master's thesis in the field of Working Machines.

## **Teaching methods**

Consultations with the lecturer.

## **Bibliography**

Basic

Kłos Z. Rozprawy naukowe. Wydawnictwo Politechniki Poznańskiej, 2011

Additional

## Breakdown of average student's workload

	Hours	ECTS
Total workload	100	5,0
Classes requiring direct contact with the teacher	25	1,0
Student's own work (literature studies, interium project) <sup>1</sup>	75	4,0

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