



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Passing Project [S2MiBP1E-PE>PP]

Course

Field of study	Year/Semester
Mechanical and Automotive Engineering	1/2
Area of study (specialization)	Profile of study
Product Engineering	general academic
Level of study	Course offered in
second-cycle	English
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
0	0	0
Tutorials	Projects/seminars	
0	4	

Number of credit points

5,00

Coordinators

prof. dr hab. inż. Zbigniew Kłos
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Lecturers

Prerequisites

KNOWLEDGE: Student has the basic knowledge from his/her field of study, specialization, preliminary seminar and area of diploma work. **SKILLS:** Student possesses ability of integrating and interpreting obtained information, of drawing the conclusions, elaborating simple engineering tasks **SOCIAL COMPETENCES:** Student has the consciousness of the validity of different form of communication, especially in reporting results of engineering tasks

Course objective

Subject is intended for mechanical engineering students of Product Engineering specialization, absoluees of B.Sc. studies, who want to broaden their education by the issues connected with creation of industrial products – technical objects or industrial processes (services) in their whole life cycle. The goal of study is to prepare young adepts, future product engineers, to formulate and solve problems leading to create more sustainable industrial products. The basics for this proposal is considering the analyzed products in their whole life cycle, starting from design and finishing at disposal stage.

Course-related learning outcomes

Knowledge:

Has a basic knowledge of general issues concerning relation: industrial products – environment and introduction into the area of creation and management of more sustainable industrial products, mainly technical objects: machines or devices, and processes.

Skills:

Is able to prepare technical information in the form of diploma work dealing with an engineering task, developing basic skills in the field of procedures leading to life cycle-oriented industrial products creation and management

Social competences:

Is aware of importance and understanding of the effects of undertaking innovative, market oriented, activities leading to creation of sustainable industrial products: technical objects and processes.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

Performing a practical task (project) with the use of different tools supporting analysis and creation, ended with the written report

Programme content

This subject activate them through education in the task system with design form, as well as technical and research activities and development of communication skills with verbal, text, graphics and multimedia measures. Therefore some knowledge leading to posses the knowledge and skills in these fields is delivered. Taking into consideration specificity of specialization 'Product Engineering' some basic knowledge on environment in which technical objects work, its elements and relations between them is presented. Other aspects like legal and economical aspects of sustainable development, economy of used elements of technical objects and vehicles are optionally added.

Course topics

none

Teaching methods

Project

Bibliography

Basic

1. Abele E., Anderl R., Birkhofer H., Environmentally-friendly product development. Springer, London 2005

2. Tools and methods of competitive engineering. Ed. I. Horvath, F. Mandorli, Z. Rusak, Delft University of Technology, Delft 2010

Additional

1. Abele E., Anderl R., Birkhofer H., Environmentally-friendly product development. Springer, London 2005

2. Tools and methods of competitive engineering. Ed. I. Horvath, F. Mandorli, Z. Rusak, Delft University of Technology, Delft 2010

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	4	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	121	4,00