



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Modern management system

Course

Field of study

Construction and exploitation of means of transport

Area of study (specialization)

Product Engineering

Level of study

Form of study

Year/Semester

2/3

Profile of study

Course offered in

english

Requirements

Number of hours

Lecture

15

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

0

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

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Responsible for the course/lecturer:

Prerequisites

Knowledge: Student has a basic knowledge of economics, business in industrial companies, banking system, commercial law and accounting.

Skills: Student has ability to obtain information from literature, the Internet, databases and other sources.



Social competencies: Student has awareness and understanding of the importance and impact of non-technical aspects of engineering activities. He is able to think and act in an entrepreneurial manner

Course objective

Acquiring knowledge and skills as part of the processes and procedures used to ensure that the organization can fulfill all the tasks necessary to achieve its goals in terms of quality, environment, economics, the social impact of the development and production of technical facilities.

Course-related learning outcomes

Knowledge

Has a basic knowledge of quality management systems.

Has knowledge of the principles of safety and ergonomics in the design and operation of machines and the threats that machines pose to the natural environment.

Has in-depth knowledge of entrepreneurship and business economics.

Skills

He can estimate the potential threats to the environment and people from the designed working machine and vehicle from a selected group.

Can formulate and test hypotheses related to simple research problems.

Can interact with other people as part of teamwork and take a leading role in teams.

Social competences

He is ready to critically assess his knowledge and received content.

Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in case of difficulties in solving the problem on its own.

Is willing to think and act in an entrepreneurial manner.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: written test (7-10 open questions). Tutorials: assessment of tasks prepared for each meeting.

Programme content

The concept of management systems and the reasons for their implementation. Management system structure. Place of management systems in business management practice. Transforming sustainable development principles into management structures and procedures. Characteristics of selected systems: ISO 14001, EMAS, POEMS, IPP, OHSAS. Similarities and differences of selected systems. Establishment, supervision, audit, certification and development of management systems: case studies.

Teaching methods

Lecture: multimedial presentation, illustrated with examples on the board



Tutorials: group exercises covering the selected heuristic and supporting methods, done under the supervision of subject caretaker

Bibliography

Basic

ISO 14001:2015-09, Environmental management systems -- Requirements with guidance for use

Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)

OHSAS 18001:2007 Occupational health and safety management systems - Specification

Additional

Journal of Life Cycle Assessment - review of the annuals

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for tests, preparing for tutorials, consultation) ¹	20	1,0

¹ delete or add other activities as appropriate