



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Design and maintenance of management systems

### Course

Field of study

Production Engineering and Management

Area of study (specialization)

Quality management

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

Polish

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

15

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

PhD Piotr Pajzderski

email: [piotr.pajzderski@put.poznan.pl](mailto:piotr.pajzderski@put.poznan.pl)

tel. 61 665 26 21

Faculty of Mechanical Engineering

Piotrowo Street, No 3 60-965 Poznań

Responsible for the course/lecturer:

### Prerequisites

The student has knowledge of the attitudes of business management, understanding the need to learn and acquire new knowledge; perceiving the possibility of continuous improvement in various areas of life, including the activities of the organization, with



particular emphasis on production companies. Knowledge of the requirements of the ISO 9001 standard. Ability to interpret the requirements of standards. Ability to work in a team. Awareness of responsibility for the solutions adopted and consequences of the decisions made

### Course objective

To acquaint students with theoretical and practical issues related to the design of documentation in management systems and system maintenance. Developing pro-quality awareness. Ability to develop SZ documentation.

### Course-related learning outcomes

Knowledge

1. Knows the principles of designing documentation of management systems
2. Has knowledge of the documentation supervision requirements
3. Has a basic knowledge of the systemic elements of maintaining management systems (internal audits, management reviews)

Skills

The ability to translate the requirements of the standards into the ways of meeting them.

Social competences

1. Can explain the requirements of ISO 9001 from the point of view of documenting solutions
2. Is able to independently develop the initial version of documentation in the organization
3. Can develop individual procedures
5. The student is able to see threats (traditional approach) and use opportunities in the functioning of the organization.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Credit based on a test consisting of and 15 ÷ 20 multiple-choice test questions at the end of the semester. More than half of the questions must be answered correctly.

### Programme content

Course terminology: requirements, management systems, documentation, process, procedures



Introduction to QM design. Analysis of the requirements of ISO 9001 in terms of documentation. The content of the quality manual, procedures, instructions. Overview of the basic system tools supporting the maintenance of the QM - management reviews, internal audits, corrective and preventive actions. .

### Teaching methods

Lecture: multimedia presentation illustrated with examples;

### Bibliography

Basic

1. Hamrol A., Quality management with examples (in polish), PWN Warsaw, 2012
2. EN ISO 9001: 2015 Quality Management Systems. Requirements
4. EN ISO 9000: 2015 Quality Management Systems. Fundamentals and vocabulary

Additional

ISO 9001 for Small Businesses - what to do (available <http://www.iso.org>)

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2
Classes requiring direct contact with the teacher	30	1
Student's own work (literature studies, preparation for tutorials, preparation for tests/exam) <sup>1</sup>	20	1

---

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

