



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Designing and auditing of quality management systems [S2IZarz1-ZZiPP>PASZJ]

Course

Field of study Engineering Management	Year/Semester 2/3
Area of study (specialization) Enterprise Resource and Process Management	Profile of study general academic
Level of study second-cycle	Course offered in Polish
Form of study full-time	Requirements compulsory

Number of hours

Lecture 15	Laboratory classes 0	Other 0
Tutorials 30	Projects/seminars 15	

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

Basic knowledge of enterprise management, quality management and project management.

Course objective

Understanding the basic principles of designing quality management systems. Ability to formulate design assumptions, identify input data for designing, indicate possible variants of implementing the requirements of standards in real conditions in enterprises. Ability to prepare and implement audits of the quality management system

Course-related learning outcomes

Knowledge:

The student defines the specifics and legal requirements for designing and auditing quality management systems, including industry standards and practices [P7S_WG_01].

The student lists the variety of research methods and tools used in designing and auditing quality

management systems [P7S_WG_04].

The student describes the impact of organizational structures on the effectiveness of quality management systems in network organizations [P7S_WG_06].

The student identifies the role of organizational culture and ethics in shaping effective quality management systems [P7S_WG_09].

The student characterizes ethical principles for auditing and designing quality management systems [P7S_WK_01].

Skills:

The student performs independent design of a quality management system and conducts internal and external audits using appropriate procedures and tools [P7S_UW_04].

The student interprets data and information related to quality management systems in a business and social context [P7S_UW_06].

The student analyzes and evaluates quality management processes, using research methods to identify areas for improvement [P7S_UW_07].

The student plans the application of quality management norms and standards in practical audit cases [P7S_UW_08].

The student uses evaluation of existing quality management solutions and proposes innovative improvements [P7S_UW_09].

Social competences:

The student develops the ability to work effectively in a team, taking into account the interdisciplinarity and diversity of skills needed for effective quality management [P7S_KK_01].

The student identifies cause and effect relationships in quality management systems and prioritizes improvement activities [P7S_KK_02].

The student develops ethical awareness and professional attitude in the processes of auditing and designing quality management systems [P7S_KR_01].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

- a) exercises: assessment of current progress of task implementation
- b) lectures: answers to questions about the content of previous lectures,
- c) project: assessment of the current progress of the project task

Summative rating:

- a) exercises: presentation of reports on exercises performed (arithmetic average of partial grades);
- b) lectures: Tests consist of 20-30 questions (test), scored on a two-point scale of 0, 1. Passing threshold: 50% of points. Assessment issues on the basis of which questions are prepared are based on the content provided to students during lectures, and additional materials indicated by the teacher.
- c) project: a project task presented to the teacher and its presentation

Programme content

The course covers the issues of designing quality management systems in companies from various industries, as well as the assessment of the conformity of the quality management system with the ISO 9001:2015 standard using the audit method.

Course topics

Requirements for quality management standards, examples of interpretation of requirements. Stages of designing quality management systems, methods supporting the implementation of project activities. Basics of auditing management systems. Types of audits, audit principles, audit objectives, system, process and product audit. Stages and audit process of the internal quality management system (initiating the audit, determining the feasibility of the audit, preparing audit activities, reviewing documents, preparing the audit plan, preparing working documents). Conducting internal audits (opening meeting, communication during the audit, guides and observers, collecting and verifying information). Identifying discrepancies and documenting audit results (developing audit findings, preparing audit conclusions, conducting a closing meeting, preparing and disseminating an audit report, completing the audit)

Teaching methods

- 1) Lecture: multimedia presentation, illustrated with examples on the board, discussion.
2. Exercises: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises.
- 3) Project: multimedia presentation illustrated with examples given on the board and discussion of the concept of possible solutions to the design task

Bibliography

Basic:

1. Jasiulewicz-Kaczmarek M., Misztal A. Projektowanie i integracja systemów zarządzania projakościowego, Wydawnictwo PP 2014
2. Hamrol A., Zarządzanie i inżynieria jakości, PWN, Warszawa 2018
3. Misztal A., Kryteria brzegowe implementacji systemów zarządzania jakością w przedsiębiorstwach branży motoryzacyjnej, Wydawnictwo Politechniki Poznańskiej, Poznań 2015
4. PN-EN ISO 9000:2015 System zarządzania jakością - Podstawy i terminologia
5. PN-EN ISO 9001:2015 Systemy zarządzania jakością - Wymagania
6. PN-EN ISO 19011:2018 Wytyczne dotyczące auditowania systemów zarządzania

Additional:

1. Bugdoł M., System Zarządzania Jakością Według Normy ISO 9001:2015, Wydawnictwo OnePress 2018
2. Stabryła A. (red.), Analiza i projektowanie systemów zarządzania przedsiębiorstwem 2009
3. Pacana A., Stadnicka D., Nowoczesne systemy zarządzania jakością zgodne z normą ISO 9001:2015, Wydawnictwo Politechniki Rzeszowskiej 2017
4. Czasopismo „Problemy jakości”
5. https://www.academia.edu/29010360/Analiza_i_projektowanie_system%C3%B3w_zarz%C4%85dzania_przedsi%C4%99biorstwem_red._A._Stabry%C5%82a

Breakdown of average student's workload

	Hours	ECTS
Total workload	70	2,00
Classes requiring direct contact with the teacher	60	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	10	0,50