COURSE DESCRIPTION CARD - SYLLABUS

Course name
Practical aspects of quality management [N2IBiJ1-JiEwBP>PAZJ]

Course

Field of study
Safety and Quality Engineering

Year/Semester
1/2

Area of study (specialization)
Quality and Ergonomics in Work Safety

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
10

Laboratory classes
0

Other
0

Tutorials
10

Projects/seminars
10

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

The student defines and describes the basic concepts of quality management, the foundations of organization and management. The student is able to verify and evaluate the phenomena occurring during the implementation of processes in enterprises and has the ability to interpret and describe observations and observations. The student is aware of the importance of quality for its recipients and the creators of its level. The student is aware of the need to shape products and processes, taking into account quality, normative and legal requirements.

Course objective

To acquaint students with the practical aspects of quality management. Acquisition by students of the practical ability to apply methods and tools of quality management in processes, projects, products and systems.

Course-related learning outcomes

Knowledge:
1. A student knows in a depth-degree the mechanisms of operations complex socio-technical systems

specific to quality management [K2_W02].
2. A student knows in depth-degree principles and rules of management supporting the implementation of the requirements of quality management systems in various industries [K2_W06].
3. A student has structured and theoretically based knowledge of the principles of quality management [K2_W08].
4. A student knows in depth the economic, legal, ethical, social and psychological aspects included in the industry standards of quality management [K2_W01].

Skills:
1. A student is able to develop and properly apply the principles, methods and tools for solving complex problems characteristic of quality management [K2_U03].
2. A student is able to design selected elements of quality management standards in a team using properly selected means, methods and techniques [K2_U05].
3. A student is able to identify changes in requirements and standards and use them properly in solving problems in the area of quality management [K2_U06].

Social competences:
1. A student is critical of his knowledge, is ready to seek the opinion of experts when solving cognitive and practical problems related to quality management and its impact on security in organizations [K2_K01].
2. A student correctly identifies and resolves dilemmas related to broadly understood safety, understands the need to make the public aware of the need to shape safety in various areas of the organization's functioning, including in the aspect of quality management [K2_K02].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:
Formative assessment: answers to questions about the content of previous lectures Summative assessment:
Passing is carried out in the form of a written test, each of the test questions is scored on a two-point scale of 0, 1. Passing point: over 50% of points.
Exercises:
Formative assessment: assessment of the current progress in the implementation of tasks, for each task the student receives a partial mark.
Summative assessment: arithmetic mean of partial grades obtained for individual tasks. Passing threshold: over 50% of points.
Design:
Formative assessment: assessment of the current progress in the implementation of tasks, for each task the student receives a partial mark.
Summative assessment: arithmetic mean of partial grades obtained for individual tasks. Passing threshold: over 50% of points.

Programme content

Lecture: Systemic quality management, concepts supporting activities carried out for quality
Exercises: Use of 7 old and 7 new tools, application of these tools in in-depth G8D analysis.
Project: Designing an employee suggestion system and verification of its effectiveness

Course topics

none

Teaching methods

Lecture: multimedia presentation illustrated with examples given on the board.
The lecture is conducted using distance learning techniques in a synchronous mode.
Acceptable platforms: eMeeting, Zoom, Microsoft Teams.
Exercises: a multimedia presentation illustrated with examples given on the blackboard and carrying out the tasks given by the teacher - practical exercises.
Project: multimedia presentation illustrated with examples given on the board and execution of project

tasks.

Bibliography

Basic:
Stadnicka D., Wybrane metody i narzędzia doskonalenia proesów w praktyce, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2017.
Hamrol A.: Zarządzanie i inżynieria jakości. Warszawa PWN, Warszawa 2017.
Pacana, A., & Siwiec, D. (2018). Analiza rozwiązania problemu wyrobów niezgodnych z wykorzystaniem metodyki 8D. Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska.
Gołaś H., Mazur A. (2012), Zarządzanie jakością, Wydawnictwo Politechniki Poznańskiej, Poznań
Jasiulewicz-Kaczmarek M., Misztal A. (2014), Projektowanie iintegracja systemów zarządzania jakością, Wydawnictwo Politechniki Poznańskiej, Poznań.
Mazur A. (2022) Quality management, Wydawnictwo Politechniki Poznańskiej, Poznań.
Mazur A. (2023), Siedem starych i siedem nowych narzędzi zarządzania jakością, Wydawnictwo Politechniki Poznańskiej, Poznań.

Additional:
Antosz K., Augustyn A., Jasiulewicz-Kaczmarek M., Application of VSM for improving the medical processes - case study, APMS 2021 IFIP AICT Springer.
Myszkowski, P., & Knop, K. (2019). Zastosowanie narzędzi koncepcji WCM typu S-Tag oraz Quick Kaizen do identyfikacji i rozwiązania problemu związanego z bezpieczeństwem pracy. Archiwum Wiedzy Inżynierskiej, 4, 15-18.
Łosyk, H., Szmołda, M., & Topczak, M. Koncepcja systemu sugestii opartego na kaizen. Aktualne trendy i badania w inżynierii, 16.
Mazur M., Quality management, Publishing House of Poznań University of Technology, 2022.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	70	3,00