COURSE DESCRIPTION CARD - SYLLABUS

Course name
Specialization project [S2ZiIP2-IiZJ>PSp]

Course

Field of study
Management and Production Engineering

Year/Semester
1/2

Area of study (specialization)
Quality Engineering and 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
0

Laboratory classes
0

Other (e.g. online)
0

Tutorials
0

Projects/seminars
60

Number of credit points

5,00

Coordinators

prof. dr hab. inż. Adam Hamrol
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Lecturers

Prerequisites

The student knows the relationship between engineering and managerial activities in a production enterprise. Has knowledge in the area of quality theory and engineering. Can develop a concept, design, implement and/or maintain solutions that, as a result, translate into benefits for an enterprise, measured, among others, by increased customer satisfaction. Can work in a team.

Course objective

To link the knowledge and skills acquired by students in the course of study in order to carry out a project, develop/and/or implement solutions, using broadly understood tools applied in quality engineering and management.

Course-related learning outcomes

Knowledge:
The student has knowledge of developmental trends and recent achievements in the field of engineering and technical sciences as well as the discipline of mechanical engineering and related to management and production engineering. Knows and understands the idea of process management in modern enterprises. Knows the specificity of manufacturing and service activity. Has knowledge of the

design and implementation of management systems (in particular quality management systems).

Skills:
The student has the skills of designing products, processes, systems and planning and controlling the course of production processes. Can indicate the current possibilities and ways of obtaining funds for running (registering) business activity. Can carry out a project in an enterprise in the area of quality engineering and management.

Social competences:
The student is creative and responsible for decisions made. Can determine the priorities of the activities performed. Can organize and work in a team.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Checking the progress of project work in accordance with the prepared project implementation schedule. Credit obtained on the basis of a team report prepared for the project and project defense in the form of a presentation. Credit threshold - achievement of the project objective in 51%.

Programme content

Carrying out a team project in the area of quality engineering and management. Project topics selected individually (applicable to teams) - may include detailed issues in the field of planning, controlling, ensuring and improving the quality of processes and products; with the simultaneous use of a wide range of quality management tools. Project structure:
1. Project objective and scope, definition of a problem
2. Project schedule and plan
3. Literature analysis
4. The concept of solving a problem
5. Developing a solution
6. Verification
7. Summary and conclusions

Course topics

none

Teaching methods

Project: solving practical problems, searching for sources, teamwork, discussion.

Bibliography

Basic:
1. Hamrol A., Strategie i praktyki sprawnego działania, PWN, Warszawa 2023
2. Starzyńska B., Hamrol A., Grabowska M., Poradnik menedżera jakości. Kompendium wiedzy o narzędziach jakości, Wydawnictwo Politechniki Poznańskiej, Poznań 2010

Additional:
1. Hamrol A., Zarządzanie i inżynieria jakości ze spojrzeniem w rzeczywistość 4.0, PWN, Warszawa 2023

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	65	2,50