SYLLABUS

Name: Quality Management in Industrial Enterprise
Name in Polish:
Name in English:

Information on course:

Course offered by department:	Faculty of Organisation and Management
Course for department:	Silesian University of Technology
Study level and form:	Master's degree/Bechelor's degree, Full-time, semester V
Term:	winter semester 2021/2022
Coordinator of course edition:	Dr hab. inż. Patrycja Hąbek, prof. PŚ

Default type of course examination report:

Language:
English

Course homepage:
https://platforma.polsl.pl/roz/

ECTS
6

Short description:
Based on the knowledge gained during the lecture, exercises, laboratory classes and the completed project, the student should acquire the knowledge and skills necessary for managing quality as well as solving quality problems in an industrial enterprise.

Description:
Evolution in quality management, implementation and evaluation of the quality management system, process approach, principles of quality management, quality management system documentation, methods and tools of quality improvement, accreditation and certification, the role of the quality manager.
Number of hours of classes with direct participation of academic teachers or other persons conducting classes and students
- Lecture: 30h
- exercises: 15h
- laboratory: 15h
- project: 30h
Number of hours devoted to the student's own work
- Preparation to pass the lecture: 30h
- Preparation for classes and preparation of reports from classes: 15h
- Preparation for laboratory classes and preparation of reports from classes: 15h
- Preparation of a report on project activities: 30h
Total Hours: 180h
Number of ECTS credits: 6

Bibliography:

1. Zairi M. (1991). Total Quality Management for Engineers, Woodhead Publishing limited, Cambridge
2. Lyonnet P. (1991). Tools of Total Quality. An introduction to statistical process control, Springer Netherlands
3. Tapiero Ch.S. (1996). The Management of Quality and its Control, SPRINGER SCIENCE+BUSINESS MEDIA, B.V.
4. Tague N. R. (2005). The Quality Toolbox, Second Edition, American Society for Quality, Quality Press, Milwaukee
5. Stamatis D. H. (2003). Failure Mode and Effect Analysis - FMEA from Theory to Execution, American Society for Quality, Milwaukee, Wisconsin
6. Hąbek P.: Intelligent Improvement of Quality Management Focused on Company Social Responsibility, w: R. Ulewicz, M. Blaskova (eds.), Quality Production Improvement, Oficyna Wydawnicza Stowarzyszenia Menedżerów Jakości i Produkcji, Częstochowa 2016, pp. 26-39
7. https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso9001-2015-process-appr.pdf
8. https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/
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10. Stamatis D. H. (2003). Failure Mode and Effect Analysis - FMEA from Theory to Execution, American Society for Quality, Milwaukee, Wisconsin

11. Hąbek P.: Quality Engineering Tools in Production Process Improvement, MODERN MATHEMATICAL METHODS IN ENGINEERING, Cross-Border Exchange of Experience Production Engineering Using Principles of Mathematics, 2018 pp. 58-64

12. Hąbek P.: The concept of using FMEA method for sustainable manufacturing, Systemy Wspomagania w Inżynierii Produkcji, Crossborder exchange of experience in production engineering using principles of mathematics, vol.6, iss.2, 2017, pp.49-55

Learning outcomes:

Knowledge. Knows and understands:
K1A _W2 Theories and general methodology of research in management and quality sciences as well as the nature, place and importance of social sciences in engineering and managerial activities specific to the management and organization of sociotechnical systems.

Skills. Is able to:
K1A _U2 Identify, analyze and interpret social and economic phenomena and processes using knowledge in the field of social sciences and standard methods and tools of management and quality sciences in engineering management activities aimed at shaping the efficiency, productivity and organization of production enterprises.
K1A _U4 When identifying and formulating specifications for engineering tasks and solving them recognize their system and non-technical aspects, including ethical aspects.
K1A _U10 Integrate and apply interdisciplinary knowledge from engineering and technical sciences incorporating principles and objectives of sustainable development to product life cycle management.

Social competences. Is ready for:
K1A _K2 Fulfilling social obligations, co-organizing activities for the social environment, initiating activities for the public interest, thinking and acting in an entrepreneurial manner.

Assessment methods and assessment criteria:

Lecture:
1. Passing the lecture is based on a positive grade from the exam.
2. The condition for a positive evaluation is obtaining a minimum of 6 points. with 10 possible to obtain points.
3. The student may take the exam on the zero date without obtaining partial grades from exercises, laboratory and project.
4. The student may take the exam on the first, second and third term after obtaining partial grades from the exercises, laboratory and project.
Participation in lectures is not obligatory.
Exercises:
1. To pass the exercises, a positive assessment of each of the report is required.
2. The reports are assessed in terms of technical preparation and their content.
3. The arithmetic mean of the grades obtained from all reports is a partial grade for the exercises
Laboratory:
1. To pass the laboratory, a positive assessment of each of the report is required.
2. The reports are assessed in terms of technical preparation and their content.
3. The arithmetic mean of the marks obtained from all reports is a partial grade from the laboratory
Project:
1. To complete the project, a positive evaluation of the project report is required.
2. The report is assessed in terms of technical preparation and its content.
The final grade for the subject is the value of the arithmetic mean of the exam grade and partial grades for exercises, laboratory and project classes.

Practical placement: