

COURSE GUIDE

<u>Course title</u>	Quality Management
<u>Specialization</u>	Management
<u>Form of study</u>	Full-time studies
<u>Qualification level</u>	Second-degree studies
<u>Year</u>	2
<u>Semester</u>	IV
<u>Unit running the program</u>	Department of Production Engineering and Safety
<u>Author</u>	dr hab. inż. Robert Ulewicz prof. PCz.
<u>Profile</u>	General academic
<u>Number of ECTS credits</u>	6

COURSE TYPE – NUMBER OF SEMESTER HOURS

LECTURE	CLASSES	LABORATORY	PROJECT	SEMINAR
30E	15	-	-	-

COURSE DESCRIPTION

COURSE OBJECTIVE

- C1. Knowledge of fundamentals of quality management (systems, standards, procedures).
 C2. Using practical tools and methods of quality management.

INITIAL REQUIREMENT FOR THE KNOWLEDGE, ABILITIES AND OTHER COMPETENCES

- The student knows the basics of production processes.
 The student has knowledge of the overall functioning of the economy.
 The student knows the basics of management.
 Student is able to perform mathematical calculations.

THE EFFECTS OF LEARNING

- EU 1 – Student know the quality standards and quality management system documentation.
 EU 2 – The student describes the theoretical basis for conducting audits in companies.
 EU 3 – The student is able to use the traditional tools and methods of quality management
 EU 4 – The student has the ability to synthesize and use of knowledge from different areas of learning in order to analyze and solve a given problem qualitative.

COURSE CONTENT

Form of teaching – LECTURE 30 hours	Number of hours
L 1 – Development of quality management including the reasons for success of Japanese and Western concepts of quality management. Basic concepts in the field of quality.	3
L 2 – Presentation and discussion of standards for quality management. Variability, randomness, variety in quality management.	2
L 3 – Model of quality management process	2
L 4 – Total Quality Management – TQM. TQM and process changes within the company. Strategic areas of TQM. Evolution of Quality Management. TQM by Deming, Juran, and Oakland.	3
L 5 – Special processes	2
L 6 – Quality management methods .	4
L 7 – Internal control in the enterprise: the concept of auditing, auditing standards, internal auditor, audit models.	3
L 8 – Qualitative research capabilities.	2
L 9 – Principle of quality management	2

L 10 – Characteristics of special processes and their management.	2
L 11 – Improving quality in services.	2
L 12 – The basic documents of the quality management system based on ISO standards. The problems associated with the introduction of quality management.	3
Form of teaching – CLASSES 15 hours	Number of hours
C1 – Classes requirements. 7 quality tools	6
C2 – 7 new quality tools	2
C3 - Failure Mode and Effects Analysis (FMEA) method	2
C4 – Control card (X-R, X-S) use and interpretation	2
C5 Statistical process control (SPC). Six Sigma and Cp i Cpk factors.	2
C6 – Final test	1

TEACHING TOOLS

Lecture with the use of audiovisual

ISO norm

Chalk board

Manuals and scripts

WAYS OF ASSESSMENT (F – FORMING, P – SUMMARY)

F1. Evaluation of sub-projects

F2. Observation of student work to assess

P1. Final test

P2. The written examination

STUDENT WORKLOAD

Forma aktywności		Average number of hours for realization of the activity		
		[h]	ECTS	ECTS
Contact hours with the teacher	Lecture	30	1,2	2,28
Preparation for the exam		24	0,96	
Attendance at the exam		3	0,12	
Contact hours with the teacher	Exercises	15	0,6	3,72
Preparation of the exercise report		15	1	
Preparation for the colloquium of exercises		15	0,6	
Work with bibliography		28	1,12	1,12
Consultations		20	0,4	0,4
TOTAL NUMBER OF HOURS / ECTS POINTS FOR THE COURSE		Σ 150 h	Σ 6 ECTS	

BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

Basic resources

- Okes D. Root Cause Analysis. The Core of Problem Solving and Corrective Action. American Society of Quality. Milwaukee 2009.
- Bean J. Customer Experience Rules!: 52 Ways to create a great customer experience. Brigantine Media, Vermont 2015.
- Watkinson M. The Ten Principles Behind Great Customer Experiences. FT Publishing, 2013.
- Joyner J.M. Quality Still Works: How to make your organization even more successful. University Publishers, 2014.
- Boutros T., Cardella J. The Basics of Process Improvement. Taylor & Francis Group 2016.

Supplementary resources

- Montgomery D.C. Statistical Quality Control. John Wiley & Sons 2013.
- Westcott R.T. The Certified Manager of Quality/Organizational Excellence Handbook. American Society of Quality 2013.

3. Ulewicz, R., Ingaldi, M., Klimecka-Tatar, D., Knop, K., Krynke, M., Mazur, M., Mielczarek K., Rosak-Szyrocka J. Narzędzia jakości w praktyce. Poradnik dla biznesu, Oficyna Wydawnicza Stowarzyszenia Menedżerów Jakości i Produkcji, Częstochowa, 2018.

TEACHERS (NAME, SURNAME, ADRES E-MAIL)

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MATRIX OF REALIZATION OF LEARNING EFFECTS

The learning effect	Reference to the effects of the defined effects for the entire program (PEK)	Course aims	Course content	Teaching tools	Evaluation method
EU 1	K_W01, K_W05, K_W10, K_U01, K_U10, K_K01	C1, C2	L1-L30 P1-P15	1,2,3,4	F1, F2, P1, P2
EU 2	K_W07, K_W05, K_W10, K_U01, K_U03, K_U04, K_U10, K_K01, K_K05	C1, C2	L1-L30 P1-P15	1,2,3,4	F1, F2, P1, P2
EU 3	K_W01, K_W05, K_W08, K_W10, K_U01, K_U03, K_U04, K_U10, K_K01, K_K05	C1, C2	L1-L30 P1-P15	1,2,3,4	F1, F2, P1, P2
EU 4	K_W01, K_W10, K_U03, K_U10, K_K01	C1, C2	L1-L30 P1-P15	1,2,3,4	F1, F2, P1, P2

EVALUATION FORM – DETAILS

	For a grade of 2	For a grade of 3	For a grade of 4	For a grade of 5
Effect 1	The student does not know the basic standards and quality management system documents.	Students know only certain standards and quality management system documents.	The student knows all the standards and quality management system documents presented in the classroom.	The student knows all the standards and quality management system documentation can point out the differences between them.
Effect 2	The student is able to use the concepts of quality management and to express an opinion on these.	The student knows the basic terminology of accreditation, certification and quality management system.	The student knows the system of accreditation and certification and quality management system.	The student knows the system of accreditation and certification and quality management system, can express their opinion on their actions.
Effect 3	Students can not use the traditional tools and methods of quality management.	The student knows selected traditional tools and methods of quality management.	The student knows the traditional tools and methods of quality management is able to use them.	The student knows the traditional tools and methods of quality management is able to use them, learn from them suitable applications are able to select methods or tools according to your needs.

Effect 4	The student does not have the skills of synthesis and use of knowledge from different areas of learning in order to analyze and solve a given problem of quality.	The student uses the "dry method" performance of their knowledge and can not adequately analyze or solve the problem of quality.	Students can use their knowledge to solve the problem of quality.	Students can use their knowledge to properly address the problem of quality and is able to suggest directions of improving.
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OTHER USEFUL INFORMATION ABOUT THE SUBJECT

Information where you can see the presentations to classes, instructions to the lab, etc. – the information presented to students in the class, if required by the formula classes are sent electronically to the e-mail addresses of individual groups dean.

Information about the location of event schedule – information can be found on the website of the department.

Information on the timing of the course (day of week / time) – information can be found on the website of the department.

Information on the consultation (hours + seats) – are given to students at the first meeting can be found on the website of the department and in the doorway of individual employees.