COURSE SPECIFICATION

Course code	full-time studies	**Z-ZB-E-502b**
	part-time studies	**-**
Course title in English	**Quality management**	
Course title in Polish	**Zarządzanie jakością**	
Valid from academic year	**2025/2026**	

PLACEMENT IN THE TEACHING PROGRAM

Programme of study	**BUSINESS MANAGAMENT**
Level of education	**1st degree**
Studies profile	**academic**
Form and mode of study	**full-time programme**
Scope	**all**
Academic unit responsible for the course	**Department of Quality Management and Intellectual Property**
Course coordinator	**dr inż. Agnieszka Czajkowska**
Approved by	**dr hab. inż. Dariusz Bojczuk, prof. uczelni**

GENERAL CHARACTERISTIC OF THE COURSE

Teaching block		**Directional subject**
Course status		**Elective**
Language of instruction		**English**
Semester of delivery	full-time studies	**Semester V**
	part-time-studies	**-**
Prerequisites		**NO**
Exam (YES/NO)		**NO**
ECTS		**3**

Method of conducting classes		**lecture**	**classes**	**laboratory**	**project**	**other**
Number of hours per semester	full-time	**15**			**30**	
	part-time					

LEARNING OUTCOMES

Category	Outcome code	Course learning outcomes	Reference to the directional learning effect
Knowledge	W01	The student has knowledge about the importance of quality in processes manufacturing and services. Knows methods, tools and systems related to quality management.	ZB1_W02 ZB1_W07
	W02	The student has knowledge about the role of quality management at various stages of the product life cycle.	ZB1_W07
	W03	The student has knowledge of methods and techniques supporting the process of modifying existing and introducing new products. Understands the role of innovation.	ZB1_W07
Skills	U01	The student uses definitions from the field of management quality and organization of control and analysis of the quality level	ZB1_U01
	U02	The student is able to analyze the quality of selected industrial products using quality management tools and methods.	ZB1_U02
	U03	The student is able to prepare a quality analysis for selected service processes and evaluate this process.	ZB1_U13
Social competences	K01	The student understands the need to constantly supplement knowledge quality management area.	ZB1_K02
	K02	The student is able to think and act entrepreneurially, taking into account non-technical aspects of production processes.	ZB1_K04
	K03	The student is aware of the role of a university graduate in the process of transmitting knowledge and shaping views society.	ZB1_K08

COURSE CONTENT

Method of conducting classes	Course content
lecture	Contemporary perception and concept of quality. Quality classes, reliability issues. Evolutionary changes in the approach to quality issues. The TQM concept, assumptions and essence of the concept. The creators of the concept (Deming, Crosby and others). Quality awards – procedures for awarding awards. Benchmarking. Quality management standards - ISO 9000 series, the issue of certification and system audits. Environmental management systems (linkage to ISO 9001). Work safety management systems. Hazard Analysis and Critical Control Points HACCP – food safety issue. Principles and essence of the HACCP system. Critical control points. Rate product compliance – CE mark. Traditional quality management tools - general requirements. A group of modern quality management tools - general requirements. Methods supporting quality management. FMEA – cause and effect analysis defects. Methods supporting quality management: QFD – development of the quality function. Examples of other quality activities: Poka Joke, TMP, SMED. Service quality testing method. Servqual method. The issue of quality costs, definitions, division.

project	Discussion of the principles of organization and conditions for passing the course. Application of quality management tools to solve engineering problems. Project overview. Preparation of qualitative data collection check sheets. Analysis of the causes of quality problems based on the Ishikawa diagram - building a diagram for a selected example. Principles of constructing the Pareto-Lorenz diagram. Using the Pareto-Lorenz diagram to analyze non-conformities occurring in the production process of a selected product. Preparing and conducting a risk analysis and indicating preventive actions for a selected product using the FMEA method. Analysis of the level of customer satisfaction using the SERVQUAL method on the example of a selected service provision process. Analysis of plans for solving quality problems using 7 new ones quality management tools.

METHODS FOR VERIFYING LEARNING OUTCOMES

Outcome code	Learning outcomes verification methods					
	Oral examination	Written examination	Test	Project	Report	Other
W01			X			
W02			X			
W03			X			
U01			X			X
U02			X			X
U03			X			X
K01						X
K02						X
K03						X

FORM AND CONDITIONS OF ASSESSMENT

Form of classes	Assessment type	Assessment Criteria
lecture	Credit with grade	Semester colloquium
project	Credit with grade	Passing the colloquium with a minimum of 50% and student activity during classes

STUDENT WORKLOAD

ECTS Balance							
No.	**Activity type**	**Student workload**					**Unit**
		full-time					
1.	Scheduled contact hours	W	C	L	P	S	h
		15			**30**		
2.	Other (consultations, exams)	**2**			**2**		h
3.	**Total number of contact hours**	**49**					h
4.	**Number of ECTS credits for contact hours**	**2,0**					ECTS
5.	**Number of hours of independent student work**	**26**					h
6.	**Number of ECTS points that a student obtains through independent work**	**1,0**					ECTS
7.	**Workload related to practical classes**	**50**					h
8.	**Number of ECTS credit points which a student receives for practical classes**	**2,0**					ECTS
9.	**Total number of hours of a student's work**	**75**					
10.	**ECTS credits for the course** *1 1 ECTS credit =25 student learning hours*	**3**					ECTS

W - LECTURE C – CLASSES L – LABORATORY P- PROJECT S – SEMINAR

READING LIST

1. Sartor M., Guido Orzes G. (2019), Quality Management, Emerald Publishing Limited, ISBN 1787698041
2. Czajkowska A., Ingaldi M. (2024), The Application of Selected Tools, Methods, and Techniques of Quality Management in Practice, Kielce University of Technology, ISBN: 9788366678613.
3. Oakland J.S., Oakland J. R., Turner M., A. (2020)Total Quality Management and Operational Excellence, Routledge, London, ISBN 9781315815725