



## Subject card

Subject name and code	Production Quality Management, PG_00040589						
Field of study	Engineering Management						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	3	Language of instruction			Polish		
Semester of study	5	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Grzegorz Zieliński					
	Teachers	mgr Anna Wendt dr inż. Grzegorz Zieliński					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	0.0	0.0	45
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours		Self-study		SUM
	Number of study hours	45	6.0		49.0		100
Subject objectives	Understanding of quality management basis, quality measurement and improvement tools, as well as basis of normalization and SPC						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U11] can plan and control production and production quality, including the identification and formulation of specifications for simple engineering tasks	know how to plan production quality			[SU4] Assessment of ability to use methods and tools		
	[K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes	Student plans quality management processes. Use quality problems solving tools including the cause and effects tools.			[SU4] Assessment of ability to use methods and tools		
	[K6_K01] can define priorities related to the implementation of team tasks as well as individual tasks	Knows how to work in group Knows how to use of group problems solving tools and quality improvement			[SK1] Assessment of group work skills		
	[K6_W07] knows the basic conditions concerning norms and standards covering particular areas of the organization's functioning, including in particular those concerning technical resources and processes	Knows how to use quality methods to solve quality problems			[SW3] Assessment of knowledge contained in written work and projects		

Subject contents	LECTURES Quality definitions; Quality management development; Products and services quality; Quality determinants and its importance level; CSI and ESI index; QFD method and house of quality; Classical seven tools of quality; New seven tools of quality; ISO 9000 as the normalization example; Environment management system ISO 14000; ISO 18000; HACCP and ISO 22000; Quality management conceptions of E. Deming, J. Juran and Ph. Crosby; Excellence Models; Costs of Quality. TUTORIALS Products and services characteristics identification; Determinants examples of the products and services; Counting of the customer and employee satisfaction level with CSI and ESI index useing; House of the quality building; Using of the cause and effects tools; Using of the seven classic quality tools; Using of the seven new quality tools; Group methods of the problems solving; Creating of the quality politics; Quality documents in normalization; Environment politics; Statistical methods of quality; Control charts; Counting of the Cp and Cpk indexes; Deming, Crosby and Juran quality thesis; Excellence Models Criteria; Counting of the quality costs.		
Prerequisites and co-requisites	No requirements		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Midterm colloquium	60.0%	20.0%
	Exam	60.0%	50.0%
	Practical exercise	60.0%	30.0%
Recommended reading	Basic literature	Dahlgaard J., Kristensen K., Kanji G., Podstawy zarządzania jakością, Wyd. PWN, Warszawa 2002. Urbaniak M., Zarządzanie jakością. Teoria i praktyka, Wyd. Difin, Warszawa 2005 Lock D., Podręcznik zarządzania jakością, Wyd. PWN, Warszawa 2002	
	Supplementary literature	Hamrol A., Zarządzanie jakością z przykładami, Wyd PWN, Warszawa 2005	
	eResources addresses	Adresy na platformie eNauczanie: Zarządzanie Jakością Produkcji - INŻ - ZIMA 2023/2024 - Moodle ID: 33527 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33527">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33527</a>	
Example issues/ example questions/ tasks being completed	1 - Describe "House of quality"  2 - Describe control card - type X  3 - Describe control card - type R  4 - Calculate Cp and Cpk index  5 - Describe Kaizen conception		
Work placement	Not applicable		