GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Production Quality Management, PG_00068418		
Field of study	Engineering Management		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department Of Management Engineering And Quality -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	8.0	24.0	0.0	0.0	0.0	32

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	32	4.0	64.0	100

Subject objectives

Uses modern methods of designing production quality assurance systems, taking into account economic and environmental criteria

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U05] designs innovative solutions for complex management processes by utilizing appropriate methods and techniques.	is able to develop and implement improvements in the quality of production processes, selecting methods appropriate to the nature of the problem and the operational context of the enterprise	[SU3] Assessment of ability to use knowledge gained from the subject [SU5] Assessment of ability to present the results of task
[K6_W04] possesses advanced knowledge of the principles of creative and entrepreneurial activity, enabling the identification and implementation of innovative ideas while ensuring compliance with copyright protection requirements.	understands how to integrate innovation-oriented approaches with quality requirements in production processes, while respecting intellectual property principles and industry standards	[SW3] Assessment of knowledge contained in written work and projects
[K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions.	is able to make informed decisions aimed at improving production quality, considering their impact on operational efficiency, social context, and environmental factors	[SK5] Assessment of ability to solve problems that arise in practice

<table>
<tr><td>Subject contents</td><td>LECTURE
Quality definitions
Development of quality management
Quality of products and services
Quality determinants and their level of importance
CSI and ESI index; QFD method and quality house
Tools of the classic seven of quality
New quality seven tools
Normalization on the example of ISO 9000
ISO 14000 Environmental Management System; ISO 18000; HACCP and ISO 22000
Quality management concepts by E. Deming, J. Juran, Ph. Crosby
Models of Excellence
Quality costs
TUTORIAL
Identification of features of products and services
Examples of quality determinants in products and services
Calculation of the level of customer and employee satisfaction using the CSI and ESI indexes
Quality cottage construction
Use of cause and effect tools
The use of the tools of the classic seven of quality
The use of tools of the new quality seven
Group problem solving methods
Creating a quality policy
Quality documents in standardization
environmental policy
Statistical methods in quality
Control cards
Calculation of the Cp and Cpk indices
Deming's quality theses; Juran and Crosby
Excellence Model Criteria
Calculation of quality costs</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Report</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>Tests during the semester</td><td>60.0%</td><td>50.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Hamrol A., Zarządzanie i inżynieria jakości, Wyd PWN Warszawa 2023</td></tr>
<tr><td>Supplementary literature</td><td>Hamrol A., Zarządzanie jakością z przykładami, Wyd PWN, Warszawa 2005

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</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Discuss the construction of the "Quality House"
Discuss the construction of the type X control card
Discuss the construction of an R-type control card
Calculate the Cp and Cpk index
Discuss the concept of Kaizen</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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