GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Lean management, PG_00070303		
Field of study	Management		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	Optional subject group 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	6	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Management Engineering and Quality -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ewa Marjańska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	45.0	0.0	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	10.0	45.0	100

Subject objectives

The aim of the course is to prepare students to identify waste and to analyse and improve organisational processes using Lean Management principles, drawing on knowledge of creative and entrepreneurial approaches, while fostering attitudes of responsibility and reflective thinking.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K03] demonstrates the ability to think critically and analytically and integrates knowledge from many disciplines in order to make effective decisions	Critically evaluates their own knowledge required to solve cognitive and practical problems, addressing knowledge gaps by seeking the opinions of external experts.	[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice
[K6_W04] demonstrates creative and entrepreneurial activity in identifying and solving innovative ideas	Demonstrates creativity and an entrepreneurial mindset in developing and implementing innovative ideas.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Course content – lecture

1. Introduction to Lean Management and the Toyota Production System.
2. Stages of building a team focused on a common goal according to Patrick Lencioni.
3. “Start with Why” – Simon Sinek’s concept.
4. The 10 principles of Kaizen.
5. Three types of safety in an organisation: financial, psychological, and physical.
6. Three voices in an organisation: Voice of the Customer, Voice of the Business, and Voice of the Employee.
7. Management by Values. Team identity and values.
8. Lean Leadership – the role of leaders in building a culture of continuous improvement.
9. Continuous Improvement Management. Improvement Kata as a method for developing process improvement capabilities.
10. Waste identification and value stream analysis. Introduction to value stream mapping using the Makigami method.
11. Organisational process analysis and diagnosis – problem identification and current-state assessment based on case studies.
12. Setting improvement objectives and designing a future-state process vision.
13. Root cause analysis and the design of improvement actions.
14. Planning and implementing changes using roadmaps.
15. Developing alternative process improvement concepts considering resource and technological constraints (zero-budget solutions, low-cost improvements, and new technologies).
16. Change communication and employee engagement in continuous improvement processes.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
test	60.0%	40.0%
reflective journal	60.0%	10.0%
mini project with presentation	60.0%	50.0%

Recommended reading

Basic literature	Womack, J. P., & Jones, D. T. (2003). Lean Thinking: Banish Waste and Create Wealth in Your Corporation. Revised and Updated Edition. Free Press. Liker, J. K. (2004). The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer. McGraw-Hill.

	Supplementary literature	Rother, M. (2009). Toyota Kata: Managing People for Improvement, Adaptiveness and Superior Results. McGraw-Hill. Lencioni, P. (2002). The Five Dysfunctions of a Team: A Leadership Fable. Jossey-Bass.
	eResources addresses	
Example issues/ example questions/ tasks being completed	How can Lean Management principles and tools be applied to identify waste and improve organisational processes while considering resource constraints and employee engagement? How can leaders build a culture of continuous improvement and engage employees in identifying problems and implementing organisational changes?	
Practical activites within the subject	Not applicable	

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