

## 。 GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

Subject name and code	Lean Management, PG_00064719							
Field of study	Management and Production Engineering							
Date of commencement of studies	February 2026		Academic year of realisation of subject		2025/2026			
Education level	second-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	1		Language of instruction			Polish		
Semester of study	1		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		dr inż. Ewa Marjańska					
	Teachers							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM
	Number of study hours	30.0	30.0	0.0	0.0		0.0	60
	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	60		9.0		31.0		100
Subject objectives	The concept of Lean increasing number of students to the world Production System) a leaders desired by th	Management is companies.Th of managemer and to support s e so-called Bes	s taking the wo erefore, the air ht concept base students in dev st in Class com	orld by storm an m of the Lean N ed on the Toyo veloping skills th opanies.	id is cur Aanager ta Produ nat will a	rently a ment co uction S allow the	reference po urse is to int ystem (TPS em to becom	bint for an roduce Toyota e process

Learning outcomes	Course outcome	Subject outcome	Method of verification			
	[K7_W03] demonstrates structured and theoretically based knowledge covering key issues in the field of Management and Production Engineering enabling the design and synthesis of stationary and non-stationary systems, devices and technological processes with continuous and discrete operation	The student has knowledge of leadership in accordance with the principles of lean management and end-to-end process analysis in order to improve processes and jobs in these processes.	[SW1] Assessment of factual knowledge			
	[K7_U12] dvelops her/his own potential and independently plans own, lifelong learning, while also being able to guide others in this regard	The student creates their development plan in relation to the subject and keeps a journal of reflections on the progress of this development. The development plan includes soft, managerial and hard skills. Knows the principles of Lean Thinking and uses them.	[SU1] Assessment of task fulfilment			
	[K7_U01] uses known analytical, simulation and experimental methods as well as mathematical models to analyze and evaluate stationary and non-stationary technological and production systems/processes with continuous and discrete operation	The student is able to perform value stream mapping using the Makigami method, identify losses in the process, prioritize and plan improvement actions.	[SU1] Assessment of task fulfilment			
	[K7_K01] is aware of the importance and understanding of non-technical aspects and effects of engineering/production activities, including its impact on the environment and the related responsibility for decisions made, demonstrating knowledge of actions aimed at reducing risk and anticipating the social and environmental effects of engineering/production activities	The student is able to indicate the role of team values, teamwork and communication in the implementation of changes in the processes in which people work. The student is able to define the values that guide them, develop team values and define attitudes that reflect these values.	[SK2] Assessment of progress of work			
Subject contents	<ul> <li>History of Toyota Production System</li> <li>Fundamental principles of Lean Management</li> <li>Lean Leadership and its key elements (work based on values, hoshin kanri, kaizen of employees and processes)</li> <li>My development plan. My reflections.</li> <li>Process improvement based on daily management (simulation game)</li> <li>Value stream mapping using the Makigami method</li> <li>Methods of engaging employees in changes</li> <li>Lean Taboo. Lean competency management.</li> </ul>					
Prerequisites and co-requisites						
Assessment methods and criteria	Subject passing criteria Extra tasks	Passing threshold	Percentage of the final grade 20.0%			
	Debate Exam Project Tasks	60.0% 60.0% 60.0%	10.0%           20.0%           50.0%			
Recommended reading Basic literature		Womack J.P.; Jones D.T. "Lean Thinking", Simon & Schuster, 2002Liker J.K., "The Toyota way. 14 management principles from the world's greatest manufacturer", McGraw-Hill Education, 2004				

	Supplementary literature	Bicheno J.R, Holweg M., "A Handbook for Lean Transformation", PICSIE Books, 2016			
Example issues/ example questions/	eResources addresses				
tasks being completed	<ol> <li>Make a Makigami process mapping</li> <li>Create a competency matrix for the team</li> <li>Design one-point lessons for selected lean tools</li> <li>Take part in a debate simulating the implementation of change in the company</li> </ol>				
Work placement	Not applicable				

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