



Subject card

Subject name and code	Lean Management, PG_00049444						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
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	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Katedra Inżynierii Zarządzania i Jakości -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ewa Marjańska					
	Teachers	mgr Anna Wendt dr inż. Ewa Marjańska					
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	7.0		48.0	100	
Subject objectives	The Lean Management course aims to introduce students to management concepts rooted in the Toyota Production System (TPS). The theoretical part aims to explain the significance of Lean Management knowledge and skills (WHY?) for enterprises and their employees. Exercises aim to help students develop skills sought after by top-tier enterprises, enhancing their marketability.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U10] uses tools to measure and improve technical solutions concerning: devices, objects, systems, processes, products and services	The student is able to make an assessment process and point to it inefficiencies. The student developed a skill teamwork based on values			[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems	The student has basic knowledge of scope of Lean Management and can apply it in practice solving emerging problems in production processes, services and logistics.			[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge		

Subject contents	<p>The lecture includes an introduction to Lean Management and the Toyota Production System, key Lean Management tools in the improvement process (Management system development tools, Flow improvement tools, Efficiency improvement tools, Pace and quality improvement tools, Management system development tools), and issues related to Lean Leadership. A manager managing an organization that is constantly improving must have a number of skills, such as managing the continuous development of a team. The exercises include the Improvement Kata simulation game (identification of team identity and values, management of continuous improvement) and management of competence development. Lean Management tools will also be discussed, including value stream mapping using the Makigami method, analysis and improvement of process flow using case study examples, problem diagnosis, diagnosis of the state of the existing process, setting the goal of changes, building a process vision, identifying root causes and designing improvement actions, planning changes using a roadmap and concept design and communication of changes.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	competencies matrix	60.0%	6.0%
	one point lessons	60.0%	15.0%
	makigami design	60.0%	39.0%
	development plan	60.0%	20.0%
theoretical quizzes	60.0%	20.0%	
Recommended reading	Basic literature	Oto tytuły książek w języku angielskim: 3. "Start with Why: How Great Leaders Inspire Everyone to Take Action" by Simon Sinek, 2014. "Learning to See: Value Stream Mapping to Add Value and Eliminate MUDA" by John Shook and Mike Rother, 2017	
	Supplementary literature	1. The Lean Toolbox, John Bicheno	
	eResources addresses	Adresy na platformie eNauczanie: Lean Management_ZiE lato 2024 - Moodle ID: 35036 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35036	
Example issues/ example questions/ tasks being completed	1. Develop a set of team values 2. Develop a team competence matrix 3. Build one-point lessons for selected lean tools 4. Analyze the process using the makigami method 5. Use the priority matrix to determine key changes in the process 6. Design changes in the process using the makigami method 7. Build and evaluate your development plan based on lean management		
Work placement	Not applicable		