



Subject card

Subject name and code	, PG_00054586						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2024/2025		
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			3.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Management Engineering and Quality -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ewa Marjańska					
	Teachers	dr inż. Ewa Marjańska mgr Anna Wendt					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	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	4.0		26.0		75
Subject objectives	Objective of the subject The objective of the Lean Manufacturing subject is to develop students' skills in using Lean Manufacturing tools to eliminate key challenges in production processes. The objective of the theoretical material (lectures) is to introduce students to problems that arise in production processes and the way in which the presented tools help to solve them. The objective of the exercises is to support students in developing skills, using tools for various processes and situations.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems		The student has basic knowledge of the use of Lean Manufacturing tools to eliminate key challenges in production processes.		[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	[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		The student is able to design solutions using the indicated Lean Manufacturing methods and tools		[SU4] Assessment of ability to use methods and tools		
Subject contents	1. Basic concepts related to Lean Manufacturing 2. 5S - commitment to eliminating waste 3. Visual management of results 4. One piece flow/Continuous flow 5. Work standardization 6. Milk run - organization of supplying stations with materials 7. Poka-yoke - right the first time 8. Kamishibai - layered auditing of standards 9. Suggestion system 10. SMED						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Debate	60.0%	10.0%
	Nonobligatory tasks	60.0%	15.0%
	Obligatory tasks	60.0%	25.0%
	Exam	60.0%	50.0%
Recommended reading	Basic literature	King, Peter L. Lean for the Process Industries	
	Supplementary literature	J. Liker, The Toyota Way J. Humble, Lean Enterprise: How High Performance Organizations Innovate at Scale.	
	eResources addresses	Uzupełniająca Adresy na platformie eNauczenie:	
Example issues/ example questions/ tasks being completed	1. What is the process of determining the milkman's route? 2. Retool the machine using the SMED methodology 3. Design a Poka Yoke solution		
Work placement	Not applicable		

Document generated electronically. Does not require a seal or signature.