



## Subject card

Subject name and code	Lean Management, PG_00049444						
Field of study	Engineering Management						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2021/2022		
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	Department of Industrial Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Joanna Czerska					
	Teachers	mgr Anna Wendt dr inż. Joanna Czerska					
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						
	Address on the e-learning platform: <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=9489">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=9489</a> Adresy na platformie eNauczanie:						
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	<p>The aim of the Lean Management course is to introduce students to the world of the management concept based on the Toyota Production System (TPS). The aim of the theoretical material (lectures) is to familiarize students with the so-called WHY ?, i.e. the reasons why the knowledge of Lean Management and the skills that students will develop during the exercises are of value for companies and their employees. The aim of the exercises is to support students in the development of skills that will allow them to become members of the labor market desired by Best in Class enterprises.</p>						
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 in the field of Lean Management and is able to apply it in practice, solving problems arising in production, service and logistics processes.			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	[K6_U10] uses tools to measure and improve technical solutions concerning: devices, objects, systems, processes, products and services	The student is able to evaluate the process and indicate its ineffectiveness. The student has developed the ability to work in a team based on values			[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		

Subject contents	<p>1. Introduction to Lean Management and Toyota Production System (2W)  2. Phases of building a team focused on a common goal according to Patric Lencioni (2W)  3. Begin with why. Simon Sinek's concept (2W)  4. 10 Kaizen (2W) principles  5. 3 types of security in the enterprise. Financial, mental and physical (2W)  6. 3 voices in the enterprise. Client's voice, the company's voice and the employee's voice. (2W)  Management by values (2W)  7. Improvement Kata simulation game (9C)  1. Team identity and values  2. Lean Leadership  3. Continuous improvement management  9. Learn to see. Introduction to value stream mapping with the Makigami method. (9C)  10. Analysis and improvement of the flow of processes on selected examples - case studies (12C)  Problem diagnosis. Diagnosis of the state of the existing process  Setting a goal for change. Building a process vision  Identifying root causes and designing improvement actions  Planning changes using the road map  Concept design: (1) budget PLN 0, (2) cheap, (3) new technologies with established limitations  Communication of changes</p>																	
Prerequisites and co-requisites																		
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="456 624 794 651">Subject passing criteria</th> <th data-bbox="799 624 1137 651">Passing threshold</th> <th data-bbox="1142 624 1481 651">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 658 794 707">Implementation of the development plan</td> <td data-bbox="799 658 1137 707">80.0%</td> <td data-bbox="1142 658 1481 707">25.0%</td> </tr> <tr> <td data-bbox="456 714 794 741">project</td> <td data-bbox="799 714 1137 741">60.0%</td> <td data-bbox="1142 714 1481 741">25.0%</td> </tr> <tr> <td data-bbox="456 748 794 775">Completion of the on-line course</td> <td data-bbox="799 748 1137 775">75.0%</td> <td data-bbox="1142 748 1481 775">25.0%</td> </tr> <tr> <td data-bbox="456 781 794 808">Attendance at class</td> <td data-bbox="799 781 1137 808">80.0%</td> <td data-bbox="1142 781 1481 808">25.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Implementation of the development plan	80.0%	25.0%	project	60.0%	25.0%	Completion of the on-line course	75.0%	25.0%	Attendance at class	80.0%	25.0%
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Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>Cel I. [T.] 1, Doskonałość w produkcji. Eliyahu M. Goldratt i Jeff Cox</p> <p>Pięć dysfunkcji pracy zespołowej. Opowieść o przywództwie. Patric Lencioni</p> <p>Zaczynaj od dlaczego. Jak wielcy liderzy inspirują innych do działania. Simon Sinek</p> <p>Poradnik Młodego Lean Lidera. red. Joanna Czerska</p> <p>Naucz się widzieć. Metoda mapowania strumienia wartości. John Shook, Mike Rother</p> <p>1. Narzędzia Lean Management. Joanna Czerska</p> <p>2. Doskonalenie strumienia wartości. Joanna Czerska</p>																
Example issues/ example questions/ tasks being completed	<a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=9489">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=9489</a>																	
Work placement	Not applicable																	