GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056524		
Field of study	Engineering Management		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2025/2026
Education level	first-cycle studies	Subject group	
Mode of study	Part-time studies (on-line)	Mode of delivery	blended-learning
Year of study	4	Language of instruction	Polish
Semester of study	7	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 -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ewa Marjańska	
	Teachers	dr inż. Ewa Marjańska Łukasz Rogatka	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	8.0	0.0	16.0	0.0	0.0	24
	E-learning hours included: 18.0						

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	24	0.0	0.0	24

Subject objectives

The aim of the Lean Manufacturing course is to develop students' skills in using Lean Manufacturing tools to eliminate key challenges in production processes.
The aim of the theoretical material (lectures) is to familiarize students with the problems that arise in production processes and the way in which the presented tools help in solving them The aim of the exercises is to support students in the development of skills and the use of 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.	[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects
[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

Basic concepts related to Lean Manufacturing5S - involvement in the elimination of wasteVisual performance managementOne piece flow / Continuous flowStandardization of workMilk run - organization of supplying stations with materialsPoka-yoke - good the first timeKamishibai - tiered standards auditingSuggestion systemSMED

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3"></td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Quizes on e-nauczanie</td><td>85.0%</td><td>15.0%</td></tr>
<tr><td>Mini projects</td><td>60.0%</td><td>20.0%</td></tr>
<tr><td>Presence</td><td>75.0%</td><td>15.0%</td></tr>
<tr><td>Final exam</td><td>60.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">Narzędzia Lean Manufacturing, Joanna Czerska

Pozwól płynąć swojemu produktowi, Joanna Czerska</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Doskonalenie strumienia wartości. Joanna Czerska</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3"></td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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