GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Production Engineering, PG_00040526		
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	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Industrial Management -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Jolanta Łopatowska	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	16.0	16.0	0.0	0.0	0.0	32

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	32	8.0	60.0	100

Subject objectives

The aim of the course is to understand the essence of production planning and control at every level of operational activity and to acquire the skills to ensure the efficient running of production processes.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U11] can plan and control production and production quality, including the identification and formulation of specifications for simple engineering tasks	Uses basic methods of production planning and control.	[SU4] Assessment of ability to use methods and tools
[K6_W10] has the knowledge of the life cycle of the production system and the product	Identifies elements of the production system. Decomposes the production system.	[SW3] Assessment of knowledge contained in written work and projects
[K6_W12] has a basic knowledge of production management and occupational safety and ergonomics management, as well as information technologies necessary for engineering management	Describes the activities carried out in the planning and control process.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Production system and production process. Decomposition of the production system. Activities in production planning and control. Demand forecasting. Planning of production capacity. Sales and operations planning S&OP). Maste plan scheduling The order of tasks. Pull and push concepts. Production planning and control according to MRP. Planning and control in MRPII / ERP systems. Balancing production in JiT systems (OPF), heijunka. Kanban system, supermarket. Production planning and control according to the Theory of Constraints, DBR method. .

Prerequisites and co-requisites

production management

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
colloquium	60.0%	25.0%
reports	50.0%	25.0%
exam	60.0%	50.0%

Recommended reading

Basic literature	Brzeziński M.: Organizacja i sterowanie produkcją. Placet, Warszawa 2002 Waters D.: Zarządzanie operacyjne. Towary i usługi. PWN, Warszawa 2012 Bozarth C., Handfield R.: Wprowadzenie do zarządzania operacjami I łańcuchem dostaw. Helion 2007

	Supplementary literature	Goldratt M. Cox J.: Cel. Doskonałość w produkcji, Mint Books 2008 Pasternak K.: Zarys zarządzania produkcją, PWE 2005 Pająk E.: Zarządzanie produkcją, PWN 2006, Pająk E., Klimkiewicz M., Kosieradzka A., Zarządzanie produkcją i usługami, PWE, 2014. The Productivity Press Development Team: Kanban na hali produkcyjnej. Prod.Publishing, 2010, Balle F., Balle M.: Kopalnia złota, Lean Enterprise Institute, Wrocław 2013
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Strategies for building sales and operations. plans S&OP.. Characteristics of the method of drum-buffer-rope.	
Work placement	Not applicable	