GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	WORKFLOW MANAGEMENT, PG_00070630		
Field of study	Engineering Management		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Management -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Sławomir Ostrowski	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	30.0	0.0	0.0	60

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	60	3.0	37.0	100

Subject objectives

Preparation for the use of methods and tools for organizing work processes based on knowledge in the field of analysis and improvement of work processes, as well as shaping attitudes of ethical and social responsibility in the context of designing, evaluating and optimizing work systems.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions.	is ready to make competent and ethical decisions in the workplace, particularly by assessing the organizational impact of solutions in the context of social and environmental values.	[SK5] Assessment of ability to solve problems that arise in practice
[K6_W07] knows and understands advanced methods for analyzing the management process in technical, legal, economic, financial, and social contexts.	knows and understands methods of analyzing management processes in technical, social, legal, and financial contexts, with reference to designing and improving work processes within an organization.	[SW1] Assessment of factual knowledge
[K6_U01] is able to analyze and evaluate complex processes in terms of their improvement, using various methods, including analytical and simulation techniques.	is able to analyze and evaluate complex work processes using analytical and optimization techniques tailored to the specific characteristics of the organization	[SU1] Assessment of task fulfilment

Subject contents	Course content – lecture 1. Evaluation and analysis in the organization of work processes 2. Human-centric work systems 3. Research and improvement of work processes 4. Standardizing the times of work processes 5. Evaluation and analysis of workload 6. Predispositions of operators and performance of work 7. Enriched work concepts 8. Organization of shift work 9. Organization of work loaded with monotony 10. Valuation and qualification of work processes 11. Selection and optimization of resources in work systems 12. Assessment of information links and information security 13. Shaping the spatial structure of work 14. Design and standardization of processes in the organization 15. Standardization of work processes Course content – laboratory 1. Identification, notation and mapping of processes 2. Modeling the assignment of tasks and roles in processes 3. Evaluation of the functionality of work systems using the 5M and 5S methods 4. ETA and FTA techniques for examining work processes 5. Techniques of mapping work processes 6. Timing and snapshot observations 7. Analysis and simulation of workload 8. Identification of hazards and assessment of biomechanical loads 9. Methodology of psychometric normalization 10. Shift work organization techniques 11. Methods of evaluating and reducing work monotony 12. Work requirements and assessment of the operator's predisposition 13. Methods of job evaluation and qualification 14. Optimization of the course and resources of work processes
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Problem-based test (colloquium)	60.0%	15.0%
Exam	60.0%	30.0%
Team project	60.0%	30.0%
Analytical essay	60.0%	25.0%

Recommended reading

Basic literature	1. Gałaj-Emiliańczyk K, 2020 Wdrożenie systemu zarządzania bezpieczeństwem informacji zgodnie z normą ISO/IEC 27001. Wydawnictwo ODDK 2. Gawin B., Marcinkowski B. 2013 Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce. Wydawnictwo Helion 3. Grabosz J. 2014 Audyt komunikacji wewnętrznej w przedsiębiorstwie propozycja narzędzia diagnostycznego Wydawnictwo WZiE Politechnika Gdańska 4. Horst W.(red.) 2006 Ergonomia z elementami bezpieczeństwa pracy. Wydawnictwo PP Poznań 5. Piotrowski M. 2016 Procesy biznesowe w praktyce projektowanie, testowanie i optymalizacja, Wydawnictwo Helion 6. Rostek K, (red) M. Wiśniewski M. (red), 2020 Modelowanie i analiza procesów w organizacji Wydawnictwo OWPW 7. Stadnicki J. 2006 Teoria i praktyka rozwiązywania zadań optymalizacji Wydawnictwo W-NT, Warszawa 2006 8. Szatkowski K. 2022 Nowoczesne zarządzanie produkcją - ujęcie procesowe. Wydawnictwo Naukowe PWN
Supplementary literature	1. Auksztol J. Chomuszko M. 2021 Modelowanie organizacji procesowej. Wydawnictwo PWN 2. Buslawski A. Kulińska E. 2021 Zarządzanie procesem produkcji. Wydawnictwo Difin 3. Grabosz J. 2000 Identyfikacja procesów w przedsiębiorstwie, Wydawnictwo PZ Zielona Góra 4. Karczewski J, Szuman P. 2019 Scilab. Modelowanie i symulacja pracy układó. Wydawnictwo NAKOM 5. Kusztelak P. 2020 Analiza i modelowanie danych finansowych, Wydawnictwo PWE 6. Krupa K. 2017 Modelowanie, symulacja i programowanie. Wydawnictwo PWN 7. Lewis H., Rachel Zas R. 2021 Matematyka dyskretna. Niezbędnik dla informatyków Wydawnictwo PWN 8. ISO 45 001 2018 Occupational health and safety management systems Requirements with guidance for use
eResources addresses	
Example issues/ example questions/ tasks being completed	Workflow mapping

Practical activites within the subject	Not applicable

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