GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

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|---|---|---|---|
| Subject name and code | Workflow Management, PG_00068485 | | |
| Field of study | Engineering Management | | |
| Date of commencement of studies | October 2025 | Academic year of realisation of subject | 2025/2026 |
| Education level | first-cycle studies | Subject group | Obligatory subject group in the field of study<br>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 | 1 | Language of instruction | Polish |
| Semester of study | 2 | ECTS credits | 5.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Department Of Management -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | |
| | Teachers | | |

**Lesson types and methods of instruction**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 16.0 | 0.0 | 16.0 | 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 | 5.0 | 88.0 | 125 |

**Subject objectives**

Analyzes and evaluates work processes in various contexts, selecting appropriate advanced methods

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [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 identify areas for improvement within work structures and apply suitable tools and approaches to optimize the flow of organizational processes | [SU3] Assessment of ability to use knowledge gained from the subject |
| [K6_W07] knows and understands advanced methods for analyzing the management process in technical, legal, economic, financial, and social contexts. | has knowledge of approaches that support the assessment and improvement of work processes in organizations, taking into account diverse conditions—ranging from technical to social and regulatory | [SW3] Assessment of knowledge contained in written work and projects |
| [K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions. | is able to assess the impact of organizational solutions in the workplace and make informed decisions that promote operational efficiency while considering broader social and environmental factors | [SK5] Assessment of ability to solve problems that arise in practice |

**Subject contents**

LECTURE
Evaluation and analysis in the organization of work processes
Human-centric work systems
Research and improvement of work processes
Standardizing the times of work processes
Evaluation and analysis of workload
Predispositions of operators and performance of work
Enriched work concepts
Organization of shift work
Organization of work loaded with monotony
Valuation and qualification of work processes
Selection and optimization of resources in work systems
Assessment of information links and information security
Shaping the spatial structure of work
Design and standardization of processes in the organization
Standardization of work processes
LABORATORY
Identification, notation and mapping of processes in VISIO
Modeling the assignment of tasks and roles in processes in ADONIS
Evaluation of the functionality of work systems using the 5M and 5S methods in the EXCEL program
ETA and FTA techniques for examining work processes in the VISIO program
Techniques of mapping work processes in EXCEL
Timing and snapshot observations in EXCEL
Normalization using the MTM normative technique in the STATISTICA program
Analysis and simulation of workload in the ADONIS program
Identification of hazards and assessment of biomechanical loads
Methodology of psychometric normalization
Shift work organization techniques
Methods of evaluating and reducing work monotony
Work requirements and assessment of the operator's predisposition
Methods of job evaluation and qualification
Optimization of the course and resources of work processes in the SOLVER program

**Prerequisites and co-requisites**

**Assessment methods and criteria**

| Subject passing criteria | Passing threshold | Percentage of the final grade |
|---|---|---|
| Lab reports | 100.0% | 30.0% |
| Tests during the semester | 60.0% | 20.0% |
| Essay, presentation | 60.0% | 30.0% |
| Exam | 60.0% | 20.0% |

**Recommended reading**

Basic literature

Gałaj-Emiliańczyk K, 2020 Wdrożenie systemu zarządzania bezpieczeństwem informacji zgodnie z normą ISO/IEC 27001. Wydawnictwo ODDK
Gawin B., Marcinkowski B. 2013 Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce. Wydawnictwo Helion
Grabosz J. 2014 Audyt komunikacji wewnętrznej w przedsiębiorstwie propozycja narzędzia diagnostycznego Wydawnictwo WZiE Politechnika Gdańska
Horst W.(red.) 2006 Ergonomia z elementami bezpieczeństwa pracy. Wydawnictwo PP Poznań
Piotrowski M. 2016 Procesy biznesowe w praktyce projektowanie, testowanie i optymalizacja, Wydawnictwo Helion
Rostek K, (red) M. Wiśniewski M. (red), 2020 Modelowanie i analiza procesów w organizacji Wydawnictwo OWPW
Stadnicki J. 2006 Teoria i praktyka rozwiązywania zadań optymalizacji Wydawnictwo W-NT, Warszawa 2006
Szatkowski K. 2022 Nowoczesne zarządzanie produkcją - ujęcie procesowe. Wydawnictwo Naukowe PWN

Supplementary literature

Auksztol J. Chomuszko M. 2021 Modelowanie organizacji procesowej. Wydawnictwo PWN
Buslawski A. Kulińska E. 2021 Zarządzanie procesem produkcji. Wydawnictwo Difin
Grabosz J. 2000 Identyfikacja procesów w przedsiębiorstwie, Wydawnictwo PZ Zielona Góra
Karczewski J, Szuman P. 2019 Scilab. Modelowanie i symulacja pracy układó. Wydawnictwo NAKOM
Kusztelak P. 2020 Analiza i modelowanie danych finansowych, Wydawnictwo PWE
Krupa K. 2017 Modelowanie, symulacja i programowanie. Wydawnictwo PWN
Lewis H., Rachel Zas R. 2021 Matematyka dyskretna. Niezbędnik dla informatyków Wydawnictwo PWN
ISO 45 001 2018 Occupational health and safety management systems Requirements with guidance for use

eResources addresses

Adresy na platformie eNauczanie:

**Example issues/ example questions/ tasks being completed**

Workflow mapping

**Work placement**

Not applicable

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