GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

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| Subject name and code | Management of projects and implications, PG_00056140 | | |
| Field of study | Management and Production Engineering | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | 2023/2024 |
| Education level | first-cycle studies | Subject group | |
| Mode of study | Full-time studies | Mode of delivery | at the university |
| Year of study | 2 | Language of instruction | Polish |
| Semester of study | 3 | ECTS credits | 5.0 |
| Learning profile | general academic profile | Assessment form | exam |
| Conducting unit | Zakład Technologii Maszyn i Automatyzacji Produkcji -> Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr inż. Aleksandra Wiśniewska | |
| | Teachers | dr inż. Aleksandra Wiśniewska<br>dr hab. inż. Agnieszka Ossowska<br>dr inż. Bogdan Ścibiorski | |

| Lesson types and methods of instruction | | | | | | | |
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| | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 15.0 | 15.0 | 0.0 | 0.0 | 60 |
| | E-learning hours included: 0.0 | | | | | | |

| Learning activity and number of study hours | | | | | |
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| | Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
| | Number of study hours | 60 | 0.0 | 0.0 | 60 |

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| Subject objectives | The course is intended to:<br>• Understanding the nature and types of projects and implementations<br>• Understanding the methods of planning projects and implementations<br>• Understanding the methods of project management and implementation<br>• Acquiring the ability to design and use methods in project management and implementation |

| Learning outcomes | Course outcome | Subject outcome | Method of verification |
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| | [K6_U03] is able to communicate using various techniques in the professional environment and other environments, has language skills enabling free communication in the field of technical sciences related thematically to management and production engineering | The student is able to formulate statements and messages in a manner adapted to the level of thematic apperception of the recipient.<br>The student uses the trade vocabulary freely in the language Polish and English. | [SU5] Assessment of ability to present the results of task<br>[SU4] Assessment of ability to use methods and tools<br>[SU3] Assessment of ability to use knowledge gained from the subject |
| | [K6_W08] has basic management knowledge, including process and product quality management, and detailed knowledge of integrated and standardized quality, environmental, health and safety management systems | The student uses the knowledge of system management to identify opportunities and threats, identify the level of risk and build risk management systems in the area of quality and safety. | [SW3] Assessment of knowledge contained in written work and projects<br>[SW1] Assessment of factual knowledge |
| | [K6_K02] is able to interact and work in a group, assuming different roles, can inspire and organize the learning process of others, properly identifies priorities for realization of a task specified by themselves or others | The student is able to use the acquired knowledge in the field of team building to create an effective team of employees. The student uses dedicated methods of motivating to manage the work of the team, motivating employees and resolving conflicts. The student assumes the role of a leader and uses appropriate tools to improve communication in the team and build the team image within the organization and environment. | [SK1] Assessment of group work skills<br>[SK5] Assessment of ability to solve problems that arise in practice<br>[SK4] Assessment of communication skills, including language correctness<br>[SK3] Assessment of ability to organize work |
| | [K6_W06] has knowledge of the life cycle of products and mechanical devices and systems, in the field of machine parts manufacturing techniques, as well as the possibilities and trends in the development of machines and production devices and process control | The student knows the types of products and the differences between managing a production company and managing a service company. Based on the acquired knowledge of production systems, the student knows the specificity of production processes as well as the principles, methods and tools of production control. Based on the acquired knowledge of production and service processes as well as technical and information resources, the student is able to determine the pace and specificity of the development of machines and devices as well as production control processes. | [SW3] Assessment of knowledge contained in written work and projects<br>[SW2] Assessment of knowledge contained in presentation<br>[SW1] Assessment of factual knowledge |
| | [K6_U04] is able to develop documentation in the area of preparation, implementation and control of production processes in Polish and in a foreign language considered basic for scientific fields, is able to identify and formulate the basic objectives of quality management in the product life cycle, is able to use information and communication techniques appropriate to the implementation of tasks typical in engineering activities including preparation, production and supervision of the manufacturing process | The student is able to develop reports, procedures and instructions using the principles of standardization and visualization and in<br>compliance with the principles, methods and tools of information and communication techniques. At the same time, the student freely uses technical and industry vocabulary in the areas of the analyzed problems, expressing himself freely in Polish and English. | [SU5] Assessment of ability to present the results of task<br>[SU4] Assessment of ability to use methods and tools<br>[SU3] Assessment of ability to use knowledge gained from the subject<br>[SU1] Assessment of task fulfilment |

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| Subject contents | Basic issues related to project management. Project management methodologies. Project planning rules, incl. QFD analysis and SWOT-TOWS analysis. Project management areas and processes. Project integration management. Scope management in the project. Designing a network of activities in the form of a network diagram (CPM). Designing a network of activities from the task list, parent and child tasks (WBS). Resource management in the project (including financial analysis, commercialization). Time management in the project (Scheduling, Gantt chart). Project cost management (Earned Value Method). Quality management in the project. Project communication management. Risk management in the project (risk analysis). |
| Prerequisites and co-requisites | |

Assessment methods and criteria

| Subject passing criteria | Passing threshold | Percentage of the final grade |
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| Lectures | 60.0% | 40.0% |
| Laboratory | 60.0% | 30.0% |
| Exercises | 60.0% | 30.0% |

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| Recommended reading | Basic literature | 1. Efektywne zarządzanie projektami, Wysocki Robert, McGary Rudd, 2017<br>2. Grucza Bartosz, Zarządzanie inteesariuszami projektu., PWE 2019<br>3. Project Management Institute, Inc.: A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)<br>4. Redlarski, Krzysztof. *Podstawy metodyki zarządzania projektami w ujęciu klasycznym*. Wydawnictwo Politechniki Gdańskiej, 2016.<br>5. Trocki M.: Zarządzanie projektami, PWN Warszawa 2003r;<br>6. Wilczewski S.: MS Project 2010 i MS Project Server 2010. Helion 2011<br>7. Sońta-Drączkowska Ewa, Zarządzanie projektami we wdrażaniu innowacji., PWE 2018<br>8. Sońta-Drączkowska Ewa, Zarządzanie wieloma projektami, PWE 2012<br>9. Spałek Seweryn, Zarządzanie projektami w przedsiębiorstwie. Perspektywa czwartej rewolucji przemysłowej., PWE 2020<br>10. Metodyki i standardy zarządzania projektami, pod redakcją Michała Trockiego., PWE 2019 |
| | Supplementary literature | 1. Pritchard Carl L., Zarządzanie ryzykiem w projektach, WIG - PRESS Warszawa 2002;<br>2. Kerzner H.: Project Management a Systems Approach, To Pleanning, Scheduling and Controlling;<br>3. Chatfield C., Johnson T., MicrosoftOffice Project 2010 krok po kroku, RM Warszawa 2011 |
| | eResources addresses | Adresy na platformie eNauczanie:<br>Zarządzanie Projektami i Wdrożeniami, ZiIP, sem03, zima 23/24 - Moodle ID: 31980<br>https://enauczanie.pg.edu.pl/moodle/course/view.php?id=31980 |
| Example issues/ example questions/ tasks being completed | 1. QFD analysis;<br>2. SWOT-TOWS analysis;<br>3. WBS model;<br>4. Critical path method - CPM;<br>5. Earned Value method;<br>6. Risk analysis;<br>7. Commercialization. | |
| Work placement | Not applicable | |

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