



Subject card

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|---|--|--|---|-------------------------------------|--|------------|-----|
| Subject name and code | Production Engineering, PG_00040526 | | | | | | |
| Field of study | Engineering Management | | | | | | |
| Date of commencement of studies | October 2020 | | Academic year of realisation of subject | | 2022/2023 | | |
| 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 | Faculty of Management and Economics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr inż. Jolanta Łopatowska | | | | |
| | Teachers | | dr inż. Jolanta Łopatowska | | | | |
| 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). Master plan scheduling The order of tasks. Pull and push concepts. Production planning and control in MRP/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 | | | | | | |

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| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | exam | 60.0% | 50.0% |
| | colloquium | 60.0% | 25.0% |
| | reports | 50.0% | 25.0% |
| Recommended reading | Basic literature | Brzeziński M.: Organizacja i sterowanie produkcją. Placet, Warszawa 2002. Waters D.: Zarządzanie operacyjne. Towary i usługi. PWN, Warszawa 2021. Bozarth C., Handfield R.: Wprowadzenie do zarządzania operacjami i łańcuchem dostaw. Helion 2021. | |
| | Supplementary literature | Goldratt M. Cox J.: Cel. Doskonałość w produkcji, Mint Books 2008. Pająk E.: Zarządzanie produkcją, PWN 2021. 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: Inżynieria produkcji Nst 2022/2023 - Moodle ID: 23489 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=23489 | |
| | 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 | | |