



## Subject card

|   |   |   |                                     |            |  |         |     |
|---|---|---|-------------------------------------|------------|--|---------|-----|
| Subject name and code   | Labour Process Organization, PG_00040574  |   |                                     |            |  |         |     |
| Field of study  | Engineering Management  |   |                                     |            |  |         |     |
| Date of commencement of studies   | October 2021  | Academic year of realisation of subject   |                                     |            | 2022/2023  |         |     |
| 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   | Full-time studies   | Mode of delivery  |                                     |            | at the university  |         |     |
| Year of study   | 2   | Language of instruction   |                                     |            | Polish   |         |     |
| Semester of study   | 4   | ECTS credits  |                                     |            | 4.0  |         |     |
| Learning profile  | general academic profile  | Assessment form   |                                     |            | exam   |         |     |
| Conducting unit   | Department of Informatics in Management -> Faculty of Management and Economics  |   |                                     |            |  |         |     |
| Name and surname of lecturer (lecturers)  | Subject supervisor  | dr inż. arch. Karolina Krause-Brykalska   |                                     |            |  |         |     |
|   | Teachers  | dr inż. arch. Karolina Krause-Brykalska<br>dr hab. Beata Basińska<br>mgr inż. Jerzy Grabosz                               |                                     |            |  |         |     |
| Lesson types and methods of instruction   | Lesson type   | Lecture   | Tutorial                            | Laboratory | Project  | Seminar | SUM |
|   | Number of study hours   | 15.0  | 0.0                                 | 30.0       | 0.0  | 0.0     | 45  |
|   | E-learning hours included: 0.0  |   |                                     |            |  |         |     |
| Organizacja procesów pracy (STAC 2022/2023) - Moodle ID: 27799<br><a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27799">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27799</a> |   |   |                                     |            |  |         |     |
| 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   | 45  | 6.0                                 | 49.0       | 100  |         |     |
| Subject objectives  | Mastering the skills of analyzing, modeling and sumulating work processes using IT software   |   |                                     |            |  |         |     |
| Learning outcomes   | Course outcome  | Subject outcome   |                                     |            | Method of verification   |         |     |
|   | [K6_W02] has a basic knowledge of the different types of departments in the organisation, with particular emphasis on structures of an engineering nature                               | It has a basic knowledge of engineering analyzing, organizing, and improving the structure of work processes.             |                                     |            | [SW1] Assessment of factual knowledge  |         |     |
|   | [K6_W12] has a basic knowledge of production management and occupational safety and ergonomics management, as well as information technologies necessary for engineering management     | It has a basic knowledge of management, evaluation and categorization of work processes.                                  |                                     |            | [SW1] Assessment of factual knowledge  |         |     |
|   | [K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems   | It has a basic knowledge of mathematics, physics and chemistry, which is essential for proper solving technical problems. |                                     |            | [SW1] Assessment of factual knowledge  |         |     |
|   | [K6_U07] can work independently and in a team   | Uses assessment methods, modeling and work using computer software  |                                     |            | [SU1] Assessment of task fulfilment  |         |     |
|   | [K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes | Uses assessment methods, modeling and simulation work using computer software company BOC Adonis and Profit.              |                                     |            | [SU3] Assessment of ability to use knowledge gained from the subject   |         |     |

| Subject contents   | Lecture Assessment and analysis of the organization of work processes.; Systems of man-oriented works.; The study and improvement of work processes.; Standardization of time work processes.; Assessment and analysis of the human work load.; Suitability of operators to perform the work.; Concepts of extended work.; The organization of shift work.; Organization of loading work monotony.; Evaluation and qualification of work processes.; Selection and optimization of resources in the systems of work.; Evaluation of information links and information security.; Shaping the spatial structure of work.; Design and standardization of processes across the organization.; Standardization of work processes. Laboratory Identification, notations and mapping of processes in Visio.; Modeling the allocation of activities and roles in the processes in ADONIS.; Evaluation of functionality of systems by work methods 5S 5M in EXCEL.; Techniques ETA and FTA of study of work processes in VISIO.; Technology mapping of work processes in EXCEL.; Timing and snapshot observations in EXCEL.; Standardization of MTM technique norms in the program STATISTICA.; Analysis and simulation of the load process, in the program ADONIS.; Hazard identification and assessment of biomechanical loads.; Psychometric methodology standardization.; Technology of shift work organization; Methods of assessing and reducing of monotonous work. Work requirements and assessment of the suitability of the operator.; Methods for evaluation and qualification of work.; Optimization of work processes and resources in the program SOLVER. |   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
|--|---|---|--|--------------------------|-------------------|-------------------------------|-----------|-------|-------|--------------------|--------|-------|--------------------|-------|-------|--------------|-------|-------|
| Prerequisites and co-requisites                                | Management<br><br>Foundations of Computer Science<br><br>Fundamentals of statistics   |   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Assessment methods and criteria                                | <table border="1" data-bbox="448 698 1487 871"> <thead> <tr> <th data-bbox="448 698 794 734">Subject passing criteria</th> <th data-bbox="794 698 1141 734">Passing threshold</th> <th data-bbox="1141 698 1487 734">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 734 794 770">Oral exam</td> <td data-bbox="794 734 1141 770">58.0%</td> <td data-bbox="1141 734 1487 770">20.0%</td> </tr> <tr> <td data-bbox="448 770 794 806">Laboratory Raports</td> <td data-bbox="794 770 1141 806">100.0%</td> <td data-bbox="1141 770 1487 806">40.0%</td> </tr> <tr> <td data-bbox="448 806 794 842">Midterm colloquium</td> <td data-bbox="794 806 1141 842">58.0%</td> <td data-bbox="1141 806 1487 842">20.0%</td> </tr> <tr> <td data-bbox="448 842 794 871">Written exam</td> <td data-bbox="794 842 1141 871">58.0%</td> <td data-bbox="1141 842 1487 871">20.0%</td> </tr> </tbody> </table>  |   |  | Subject passing criteria | Passing threshold | Percentage of the final grade | Oral exam | 58.0% | 20.0% | Laboratory Raports | 100.0% | 40.0% | Midterm colloquium | 58.0% | 20.0% | Written exam | 58.0% | 20.0% |
| Subject passing criteria                                       | Passing threshold   | Percentage of the final grade   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Oral exam  | 58.0%   | 20.0%   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Laboratory Raports   | 100.0%  | 40.0%   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Midterm colloquium   | 58.0%   | 20.0%   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Written exam   | 58.0%   | 20.0%   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Recommended reading  | Basic literature  | Literatura podstawowa 1.Grabosz J.: Perspektywy telepracy i telekooperacji Ergonomia i eksploatacja w edukacji menedżerskiej PG Gdańsk 2001. 2.Grajewski Organizacja procesowa PWE Warszawa 2007. 3.Limoncelli T.A.: Zarządzanie czasem strategii dla administratorów systemów Helion SA 2007 4.Martyniak Z.: Metody organizowania procesów pracy. PWE Warszawa 1996. 5.Rummler G.A. Brache A.P.: Podnoszenie efektywności organizacji. PWE Warszawa 2000. 6. Gawin B., Marcinkowski B. Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce. Wydawnictwo Helion, 2013. 7. Oldham, G. R., & Fried, Y. (2016). Job design research and theory: Past, present and future. <i>Organizational Behavior and Human Decision Processes</i> , 136, 20-35. |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
|  | Supplementary literature  | Literatura uzupełniająca 1.Dudek B., Waszkłowska M., Merecz D., Hanke W.: Ochrona pracowników przed skutkami stresu zawodowego. IMP. Łódź 2005. 2.Grabosz J.: Identyfikacja procesów w przedsiębiorstwie, Zielona Góra 2000. 3.Horst W.(red.): Ergonomia z elementami bezpieczeństwa pracy PP Poznań 2006. 4.Piotrowski M.: BPMN notacja modelowania procesów biznesowych BTC Warszawa 2007. 5.Stadnicki J.: Teoria i praktyka rozwiązywania zadań optymalizacji W-NT, Warszawa 2006. 6. Gajek L., Kałuszka M. Wnioskowanie statystyczne. Metody i modele. WNT, 1996.   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
|  | eResources addresses  |   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Example issues/<br>example questions/<br>tasks being completed | Process mapping work  |   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |
| Work placement   | Not applicable  |   |  |                          |                   |                               |           |       |       |                    |        |       |                    |       |       |              |       |       |