



## Subject card

|   |   |   |                                     |            |  |  |     |
|---|---|---|-------------------------------------|------------|--|--|-----|
| Subject name and code   | Labour Process Organization, PG_00040527  |   |                                     |            |  |  |     |
| Field of study  | Engineering Management  |   |                                     |            |  |  |     |
| Date of commencement of studies   | October 2019  | Academic year of realisation of subject   |                                     |            |  | 2020/2021  |     |
| 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  |                                     |            |  | e-learning   |     |
| 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  |   | mgr inż. Jerzy Grabosz              |            |  |  |     |
|   | Teachers  |   | mgr inż. Jerzy Grabosz              |            |  |  |     |
| Lesson types and methods of instruction   | Lesson type   | Lecture   | Tutorial                            | Laboratory | Project  | Seminar  | SUM |
|   | Number of study hours   | 8.0   | 0.0                                 | 16.0       | 0.0  | 0.0  | 24  |
|   | E-learning hours included: 24.0   |   |                                     |            |  |  |     |
| Organizacja procesów pracy - lato 2020-2021 - Moodle ID: 15211<br><a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=15211">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=15211</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   | 24  | 6.0                                 | 70.0       | 100  |  |     |
| Subject objectives  | Mastering the skills of analyzing, modeling and simulating work processes using IT software   |   |                                     |            |  |  |     |
| Learning outcomes   | Course outcome  | Subject outcome   |                                     |            | Method of verification   |  |     |
|   | [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_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.                                  |                                     |            | [SW3] Assessment of knowledge contained in written work and projects |  |     |
|   | [K6_U07] can work independently and in a team   | Uses assessment methods, modeling and work using computer software  |                                     |            | [SU3] Assessment of ability to use knowledge gained from the subject |  |     |
|   | [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.              |                                     |            | [SU4] Assessment of ability to use methods and tools                 |  |     |
|   | [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.             |                                     |            | [SW3] Assessment of knowledge contained in written work and projects |  |     |

| Subject contents   | Lecture Assessment and analysis of the organization 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.; Evaluation and qualification of work processes.; Selection and optimization of resources in the systems of work.; 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.; Techniques ETA and FTA of study of work processes in Visio.; Standardization of MTM technique norms in the program STATISTICA.; Analysis and simulation of the load process, in the program ADONIS.; Technology of shift work organization.; Methods of assessing and reducing of monotonous 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"> <thead> <tr> <th data-bbox="451 535 794 568">Subject passing criteria</th> <th data-bbox="794 535 1137 568">Passing threshold</th> <th data-bbox="1137 535 1493 568">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 568 794 602">Midterm colloquium</td> <td data-bbox="794 568 1137 602">60.0%</td> <td data-bbox="1137 568 1493 602">30.0%</td> </tr> <tr> <td data-bbox="451 602 794 636">Written exam</td> <td data-bbox="794 602 1137 636">60.0%</td> <td data-bbox="1137 602 1493 636">15.0%</td> </tr> <tr> <td data-bbox="451 636 794 669">Oral exam</td> <td data-bbox="794 636 1137 669">60.0%</td> <td data-bbox="1137 636 1493 669">15.0%</td> </tr> <tr> <td data-bbox="451 669 794 705">Laboratory Rapports</td> <td data-bbox="794 669 1137 705">100.0%</td> <td data-bbox="1137 669 1493 705">40.0%</td> </tr> </tbody> </table>                          |   |  | Subject passing criteria | Passing threshold | Percentage of the final grade | Midterm colloquium | 60.0% | 30.0% | Written exam | 60.0% | 15.0% | Oral exam | 60.0% | 15.0% | Laboratory Rapports | 100.0% | 40.0% |
| Subject passing criteria                                       | Passing threshold   | Percentage of the final grade   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Midterm colloquium   | 60.0%   | 30.0%   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Written exam   | 60.0%   | 15.0%   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Oral exam  | 60.0%   | 15.0%   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Laboratory Rapports  | 100.0%  | 40.0%   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Recommended reading  | Basic literature  | Literatura podstawowa 1.Grabosz J.: Perspektywy telepracy i telekooperacji w zb. Ergonomia i eksploatacja w edukacji menedżerskiej PG Gdańsk 2001. 2.Grajewski Organizacja procesowa PWE Warszawa 2007 3.Koradecka D.: Bezpieczeństwo pracy i ergonomia, t. 2. CIOP Warszawa 1997. 4.Martyniak Z.: Metody organizowania procesów pracy. PWE Warszawa 1996. 5.Rummler G.A. Brache A.P.: Podnoszenie efektywności organizacji. PWE Warszawa 2000. Gawin B., Marcinkowski B. Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce. Wydawnictwo Helion, 2013. |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
|  | 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. Gajek L. Kałużka M. Wnioskowanie statystyczne. Modele i metody. WNT, 1996.      |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
|  | eResources addresses  |   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Example issues/<br>example questions/<br>tasks being completed | Process mapping work  |   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |
| Work placement   | Not applicable  |   |  |                          |                   |                               |                    |       |       |              |       |       |           |       |       |                     |        |       |