



## Subject card

|  |  |  |                                     |            |  |         |     |
|--|--|--|-------------------------------------|------------|--|---------|-----|
| Subject name and code  | Production Management, PG_00037706   |  |                                     |            |  |         |     |
| Field of study   | Management   |  |                                     |            |  |         |     |
| Date of commencement of studies  | October 2020   | Academic year of realisation of subject  |                                     |            | 2021/2022  |         |     |
| 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  |                                     |            | English  |         |     |
| Semester of study  | 4  | ECTS credits   |                                     |            | 4.0  |         |     |
| Learning profile   | general academic profile   | Assessment form  |                                     |            | exam   |         |     |
| Conducting unit  | Department of Industrial Management -> Faculty of Management and Economics   |  |                                     |            |  |         |     |
| Name and surname of lecturer (lecturers)   | Subject supervisor   | dr inż. Joanna Czerska   |                                     |            |  |         |     |
|  | Teachers   | dr inż. Joanna Czerska<br>dr inż. Ewa Marjańska<br>dr Mateusz Muchlado   |                                     |            |  |         |     |
| Lesson types and methods of instruction  | Lesson type  | Lecture  | Tutorial                            | Laboratory | Project  | Seminar | SUM |
|  | Number of study hours  | 15.0   | 30.0                                | 0.0        | 0.0  | 0.0     | 45  |
|  | E-learning hours included: 0.0   |  |                                     |            |  |         |     |
| Production Management 2022 - Moodle ID: 20759<br><a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20759">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20759</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   | 8.0                                 | 47.0       | 100  |         |     |
| Subject objectives   | The aim of the course is to equip students with the basic knowledge of production management mechanisms and process optimization in this field |  |                                     |            |  |         |     |
| Learning outcomes  | Course outcome   | Subject outcome  |                                     |            | Method of verification   |         |     |
|  | [K6_W07] knows statistical and IT methods and tools that enable to obtain and present data on the organisation's resources                     | Students can identify statistical and IT tools supporting production management  |                                     |            | [SW3] Assessment of knowledge contained in written work and projects   |         |     |
|  | [K6_U10] uses the acquired knowledge to work in a team based on basic teamwork techniques  | Student knows the principles of teamwork and works in accordance with them   |                                     |            | [SU1] Assessment of task fulfilment  |         |     |
|  | [K6_U06] predicts phenomena and processes in the organization, taking into account social aspects  | Student is able to predict the production phenomena and processes taking into account the organisational and social aspects.                           |                                     |            | [SU4] Assessment of ability to use methods and tools<br>[SU5] Assessment of ability to present the results of task   |         |     |
|  | [K6_W08] has a basic knowledge of the methods and tools used to conduct research related to particular areas of business activity              | The knowledge allows the students to use the basic tools of lean manufacturing and quality management in the production management of an enterprise.   |                                     |            | [SW2] Assessment of knowledge contained in presentation<br>[SW3] Assessment of knowledge contained in written work and projects  |         |     |
|  | [K6_U09] uses theoretical knowledge to design solutions for managing the organization's resources  | The student has extended theoretical knowledge in the field of managing production processes, taking into account effective use of available resources |                                     |            | [SU3] Assessment of ability to use knowledge gained from the subject<br>[SU4] Assessment of ability to use methods and tools<br>[SU5] Assessment of ability to present the results of task |         |     |

| Subject contents   | <ol style="list-style-type: none"> <li>1. Introduction to Production Management</li> <li>2. Key Performance Indicators &amp; Daily Management</li> <li>3. Efficiency management</li> <li>4. Total productive maintenance</li> <li>5. Flexibility management</li> <li>6. Workload management</li> <li>7. Competency management</li> <li>8. Work standardization</li> <li>9. Job instruction</li> <li>10. Safety awareness management</li> <li>11. Environmental management in production</li> <li>12. Production workflow management</li> <li>13. Production workflow management (ERP and MES)</li> </ol> |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|--|--|--|-------------------------------|--------------------------|-------------------|-------------------------------|------|-------|-------|-------|-------|-------|--------|-------|-------|
| Prerequisites and co-requisites                          |  |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
| Assessment methods and criteria                          | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Subject passing criteria</th> <th style="width: 33%;">Passing threshold</th> <th style="width: 34%;">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td>Exam</td> <td>60.0%</td> <td>30.0%</td> </tr> <tr> <td>Tasks</td> <td>60.0%</td> <td>50.0%</td> </tr> <tr> <td>Quizes</td> <td>80.0%</td> <td>20.0%</td> </tr> </tbody> </table>   |  |                               | Subject passing criteria | Passing threshold | Percentage of the final grade | Exam | 60.0% | 30.0% | Tasks | 60.0% | 50.0% | Quizes | 80.0% | 20.0% |
|  | Subject passing criteria   | Passing threshold  | Percentage of the final grade |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  | Exam   | 60.0%  | 30.0%                         |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  | Tasks  | 60.0%  | 50.0%                         |                          |                   |                               |      |       |       |       |       |       |        |       |       |
| Quizes   | 80.0%  | 20.0%  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  |  |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  |  |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  |  |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
| Recommended reading                                      | Basic literature   | <ul style="list-style-type: none"> <li>• The Goal: A Process of Ongoing Improvement, <a href="#">Goldratt Eliyahu M.</a></li> <li>• The Toyota Way, Second Edition: 14 Management Principles from the World's Greatest Manufacturer, <a href="#">Liker Jeffrey K.</a></li> </ul>   |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  | Supplementary literature   | <p>Technical resources management</p> <ul style="list-style-type: none"> <li>• Ahuja, Inderpreet P. Singh, and Jaimal Singh Khamba. "Total productive maintenance: literature review and directions." <i>International journal of quality &amp; reliability management</i> (2008).</li> </ul> <p>Risk management</p> <ul style="list-style-type: none"> <li>• Adam S. Markowski, Agata Kotynia, Bow-tie model in layer of protection analysis, <i>Process Safety and Environmental Protection</i>, Volume 89, Issue 4, 2011,</li> </ul> <p>Environmental management in production</p> <ul style="list-style-type: none"> <li>• Market orientation practices enhancing corporate environmental performance via knowledge creation: Does</li> <li>• environmental management system implementation matter?, Wenbo Jiang Francesco Rosati Huaqi Chai Taiwen Feng</li> <li>• Environmental management system according to ISO 14001:2015 as a driver to sustainable development, Laura Bravi Gilberto Santos Alessandro Pagano Federica Murmura</li> <li>• Does environmental management system foster corporate green innovation? The moderating effect of environmental regulation, Dayuan Li, Fei Tang &amp; Jialin Jiang</li> <li>• An integrated approach to environmental management, E A Zhirnova, I V Trifanov, O A Sukhanova and V I Trifanov</li> <li>• ISO 14000: Assessing Its Perceived Impact on Corporate Performance, Frank Montabon, Steven A. Melnyk, Robert Sroufe, Roger J. Calantone</li> </ul> |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
|  | eResources addresses   |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
| Example issues/ example questions/ tasks being completed |  |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |
| Work placement   | Not applicable   |  |                               |                          |                   |                               |      |       |       |       |       |       |        |       |       |