



Subject card

|   |   |  |  |                                     |  |            |     |
|---|---|--|--|-------------------------------------|--|------------|-----|
| Subject name and code                       | Industrial Revolution, PG_00060397  |  |  |                                     |  |            |     |
| Field of study                              | Mechanical and Naval Engineering  |  |  |                                     |  |            |     |
| Date of commencement of studies             | October 2024  | Academic year of realisation of subject                  |  |                                     | 2024/2025  |            |     |
| Education level                             | first-cycle studies   | Subject group  |  |                                     |  |            |     |
| Mode of study                               | Part-time studies   | Mode of delivery   |  |                                     | at the university  |            |     |
| Year of study                               | 1   | Language of instruction                                  |  |                                     | Polish   |            |     |
| Semester of study                           | 1   | ECTS credits   |  |                                     | 2.0  |            |     |
| Learning profile                            | general academic profile  | Assessment form  |  |                                     | assessment   |            |     |
| Conducting unit                             | Zakład Systemów i Urządzeń Energetyki Ciepłej -> Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology   |  |  |                                     |  |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor  |  | dr hab. inż. Michał Klugmann   |                                     |  |            |     |
|   | Teachers  |  |  |                                     |  |            |     |
| Lesson types and methods of instruction     | Lesson type   | Lecture  | Tutorial   | Laboratory                          | Project  | Seminar    | SUM |
|   | Number of study hours   | 18.0   | 0.0  | 0.0                                 | 0.0  | 0.0        | 18  |
|   | 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   | 18   |  | 0.0                                 |  | 0.0        | 18  |
| Subject objectives                          | Discussion of the industrial revolution as a process that shaped the modern world - that is, the period from the eighteenth century to modern times, against the background of the timeline of the universal history of technology. Discussion of selected fields of technology developed in this period, profiles of technical people and selected inventions. Explanation of the role of technical progress as a key factor in the development of humanity. Discussion of controversies, doubts and ethical and ecological aspects of progress. |  |  |                                     |  |            |     |
| Learning outcomes                           | Course outcome  |  | Subject outcome  |                                     | Method of verification   |            |     |
|   | [K6_U14] is able to analyse the operation of devices and compare the construction solutions applying usage, safety, environmental, economic and legal criteria  |  | The student knows the historical background basic branches of technology, encountered in everyday life. He is aware of values historical items, he can place them in chronology development.   |                                     | [SU3] Assessment of ability to use knowledge gained from the subject<br>[SU4] Assessment of ability to use methods and tools<br>[SU2] Assessment of ability to analyse information |            |     |
|   | [K6_K01] is aware of the need for complementing the knowledge throughout the whole life, is able to select proper methods of teaching and learning, critically assesses the possessed knowledge; is aware of the importance of professional conduct and following the rules of professional ethics; is able to show resourcefulness and innovation in the realisation of professional projects  |  | The listener is aware the importance of heritage historical for development both the technique itself and broader awareness - ethical, ecological, aesthetic. It has awareness of meaning humanistic foundation in engineer's work.                |                                     | [SK5] Assessment of ability to solve problems that arise in practice   |            |     |
|   | [K6_W15] possesses a knowledge necessary to understand the ex-technical conditions of engineering activity, possesses knowledge on management, including quality management and running commercial enterprise, within the range of protection of intellectual property and patent law; knows general principles of creating and developing forms of individual entrepreneurship and basic HSE rules applicable to machine industry  |  | The student is able to perform basic activities related to inventory and formal securing items historical. He knows the rule activities and historical context basic technical objects to the extent that they can classification and description. |                                     | [SW1] Assessment of factual knowledge  |            |     |

| Subject contents   | <p>1. Introduction to the general history of technology, from the Stone Age to the end of the 17th century (2 hours).</p> <p>2. Industrial revolution - genesis, pillars, stages, the most important inventions, people of the era, effects (2 hours).</p> <p>3. 19th century (2 hours).</p> <p>4. 20th century (2 hours).</p> <p>5. Gdansk against the backdrop of the industrial revolution, Gdansk University of Technology as the heritage and icon of the industrial revolution (4 hours).</p> <p>6. History of selected fields of technology: construction and architecture, photography, cinematography, television, water supply and sewage systems, computers, nuclear energy (6 hours).</p> |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
|--|---|-------------------------------|--|--------------------------|----------------------------|-------------------------------|--------------------------|---|--------|----------------------|----------------------------------|--|
| Prerequisites and co-requisites                                |   |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Assessment methods and criteria                                | <table border="1"> <thead> <tr> <th data-bbox="456 719 794 750">Subject passing criteria</th> <th data-bbox="799 719 1137 750">Passing threshold</th> <th data-bbox="1142 719 1481 750">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 757 794 784">Essay</td> <td data-bbox="799 757 1137 784">56.0%</td> <td data-bbox="1142 757 1481 784">100.0%</td> </tr> </tbody> </table>   |                               |  | Subject passing criteria | Passing threshold          | Percentage of the final grade | Essay                    | 56.0%   | 100.0% |                      |                                  |  |
| Subject passing criteria                                       | Passing threshold   | Percentage of the final grade |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Essay  | 56.0%   | 100.0%                        |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Recommended reading  | <table border="1"> <tbody> <tr> <td data-bbox="456 790 794 822">Basic literature</td> <td colspan="2" data-bbox="799 790 1481 822">No english literature yet.</td> </tr> <tr> <td data-bbox="456 828 794 878">Supplementary literature</td> <td colspan="2" data-bbox="799 828 1481 878">[1] Act of 23 July 2003 on the protection and care of monuments, Journal of Laws 2003 No. 162 item 1568</td> </tr> <tr> <td data-bbox="456 884 794 920">eResources addresses</td> <td colspan="2" data-bbox="799 884 1481 920">Adresy na platformie eNauczanie:</td> </tr> </tbody> </table>   |                               |  | Basic literature         | No english literature yet. |                               | Supplementary literature | [1] Act of 23 July 2003 on the protection and care of monuments, Journal of Laws 2003 No. 162 item 1568 |        | eResources addresses | Adresy na platformie eNauczanie: |  |
| Basic literature   | No english literature yet.  |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Supplementary literature                                       | [1] Act of 23 July 2003 on the protection and care of monuments, Journal of Laws 2003 No. 162 item 1568   |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| eResources addresses   | Adresy na platformie eNauczanie:  |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Example issues/<br>example questions/<br>tasks being completed | <p>1. Description of the history of the selected field of technology.</p> <p>2. Biography of a selected person associated with the development of technology.</p>   |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |
| Work placement   | Not applicable  |                               |  |                          |                            |                               |                          |   |        |                      |                                  |  |