



## Subject card

|   |   |  |  |                                     |   |            |     |
|---|---|--|--|-------------------------------------|---|------------|-----|
| Subject name and code                       | Designing corrosion protection, PG_00039693   |  |  |                                     |   |            |     |
| Field of study                              | Materials Engineering, Materials Engineering, Materials Engineering   |  |  |                                     |   |            |     |
| Date of commencement of studies             | February 2023   |  | Academic year of realisation of subject  |                                     | 2022/2023   |            |     |
| Education level                             | second-cycle studies  |  | Subject group  |                                     | Optional subject group<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                               | 1   |  | Language of instruction  |                                     | Polish  |            |     |
| Semester of study                           | 1   |  | ECTS credits   |                                     | 2.0   |            |     |
| Learning profile                            | general academic profile  |  | Assessment form  |                                     | assessment  |            |     |
| Conducting unit                             | Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry   |  |  |                                     |   |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor  |  | dr hab. inż. Stefan Krakowiak  |                                     |   |            |     |
|   | Teachers  |  | dr hab. inż. Stefan Krakowiak  |                                     |   |            |     |
| Lesson types and methods of instruction     | Lesson type   | Lecture  | Tutorial   | Laboratory                          | Project   | Seminar    | SUM |
|   | Number of study hours   | 15.0   | 0.0  | 15.0                                | 0.0   | 0.0        | 30  |
|   | 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   | 30   |  | 5.0                                 |   | 15.0       | 50  |
| Subject objectives                          | Teaching students to carry out a technological project for corrosion protection and selection of construction materials.  |  |  |                                     |   |            |     |
| Learning outcomes                           | Course outcome  |  | Subject outcome  |                                     | Method of verification  |            |     |
|   | K7_K02  |  | The student cooperates in solving design problems with the team.   |                                     | [SK4] Assessment of communication skills, including language correctness<br>[SK1] Assessment of group work skills |            |     |
|   | K7_U04  |  | The student defines environmental hazards of industrial construction. The student will identify the types of corrosion occurring in the given corrosive environment. |                                     | [SU3] Assessment of ability to use knowledge gained from the subject  |            |     |
|   | K7_W04  |  | The student presents a project of corrosion protection of an industrial facility indicated by the lecturer.  |                                     | [SW1] Assessment of factual knowledge   |            |     |
|   | K7_W05  |  | The student presents a project of corrosion protection of an industrial facility indicated by the lecturer.  |                                     | [SW1] Assessment of factual knowledge   |            |     |
| Subject contents                            | Technical documentation of the project. Pre-design corrosion measurements. Technical description of the project. Consistency of the construction and technical design and corrosion protection design. Conditions for the implementation of corrosion protection. Surveillance system and work acceptance conditions. |  |  |                                     |   |            |     |
| Prerequisites and co-requisites             | Knowledge of the basics of corrosion protection technology.   |  |  |                                     |   |            |     |
| Assessment methods and criteria             | Subject passing criteria  |  | Passing threshold  |                                     | Percentage of the final grade   |            |     |
|   | Project 2   |  | 100.0%   |                                     | 30.0%   |            |     |
|   | Project 1   |  | 100.0%   |                                     | 70.0%   |            |     |
| Recommended reading                         | Basic literature  |  | Literature available on the e-learning site. Corrosion standards.  |                                     |   |            |     |
|   | Supplementary literature  |  | Catalogs of producers of organic coatings and corrosion resistant alloys.  |                                     |   |            |     |
|   | eResources addresses  |  | Adresy na platformie eNauczanie:   |                                     |   |            |     |

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| Example issues/<br>example questions/<br>tasks being completed | Project of corrosion protection of the supporting structure of pipeline flyover for transshipment of petroleum products in the Baltic sea port. |
| Work placement   | Not applicable  |