



Subject card

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|---|---|--|--|-------------------------------------|--|------------|-----|
| Subject name and code | , PG_00052341 | | | | | | |
| Field of study | Chemical Technology | | | | | | |
| Date of commencement of studies | October 2021 | | Academic year of realisation of subject | | 2023/2024 | | |
| Education level | first-cycle studies | | Subject group | | Optional subject group 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 | 3 | | Language of instruction | | Polish | | |
| Semester of study | 6 | | ECTS credits | | 2.0 | | |
| Learning profile | general academic profile | | Assessment form | | exam | | |
| Conducting unit | Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | prof. dr hab. inż. Kazimierz Darowicki | | | | |
| | Teachers | | prof. dr hab. inż. Kazimierz Darowicki | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 0.0 | 0.0 | 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 | | 2.0 | | 18.0 | 50 |
| Subject objectives | The aim of the course is to familiarize students with the topic of corrosion protection | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | K6_W07 | | Selection of corrosion protection techniques depending on the operating conditions of the structure. | | [SW3] Assessment of knowledge contained in written work and projects | | |
| | K6_U08 | | Obtaining knowledge in the field of corrosion protection. | | [SU3] Assessment of ability to use knowledge gained from the subject | | |
| Subject contents | Lecture: - Coating protection: types of coatings, application methods, control methods. - Cathodic and anodic protection. - Inhibitor protection: division of corrosion inhibitors, application. - Selection of construction materials: an overview of modern construction materials used in industrial installations. - Corrosion monitoring.Laboratory exercises: 1. Tests of paint and varnish components 2. Tests of paint products 3. Tests of paint coatings and polymer linings4. Efficiency of corrosion inhibitors 5. Temporal protection agents 6. Cathodic protection of steel 7. Anodic protection of stainless steel 8. Resistance of construction materials in various environments. 9. Corrosion monitoring. | | | | | | |
| Prerequisites and co-requisites | Knowledge of the basics of corrosion. | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | lab | | 60.0% | | 50.0% | | |
| | lecture | | 60.0% | | 50.0% | | |

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| Recommended reading | Basic literature | <p>Cathodic Corrosion Protection Systems: A Guide for Oil and Gas Industries 1st Edition</p> <p>Protective Coatings Film Formation and Properties</p> <p>Corrosion Inhibitors</p> |
| | Supplementary literature | There are no requirements. |
| | eResources addresses | Adresy na platformie eNauczanie: |
| Example issues/ example questions/ tasks being completed | Coating protection, inhibitory and cathodic. Selection of construction materials. Corrosion monitoring. | |
| Work placement | Not applicable | |