



Subject card

| | | | | | | | |
|---|--|--|---|-------------------------------------|--|------------|-----|
| Subject name and code | Fuels, Oil and Greases, PG_00049455 | | | | | | |
| Field of study | Power Engineering, Power Engineering, Power Engineering, Power Engineering, Power Engineering | | | | | | |
| 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 | | |
| Mode of study | Full-time studies | | Mode of delivery | | at the university | | |
| Year of study | 2 | | Language of instruction | | English | | |
| Semester of study | 3 | | ECTS credits | | 1.0 | | |
| Learning profile | general academic profile | | Assessment form | | assessment | | |
| Conducting unit | Department of Ship and Land Based Power Plants -> Faculty of Ocean Engineering and Ship Technology | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr inż. Piotr Bzura | | | | |
| | Teachers | | dr inż. Piotr Bzura | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 15.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15 |
| | E-learning hours included: 0.0 | | | | | | |
| | Adresy na platformie eNauczenie: Fuels, Oil and Greases - Moodle ID: 17957 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=17957 | | | | | | |
| | Additional information: Classes conducted remotely and conducted on the MS Teams platform | | | | | | |
| 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 | 15 | | 3.0 | | 32.0 | 50 |
| Subject objectives | Gaining knowledge about fuels, oils and greases by the student | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | K6_W06 | | The student is able to explain the origin, describe the properties and characterizing indices, classify and present the operational issues of fuels, oils and greases | | [SW2] Assessment of knowledge contained in presentation | | |
| | K6_K03 | | The student is aware of the impact of engineering activities on the environment | | [SK5] Assessment of ability to solve problems that arise in practice | | |
| Subject contents | Division and origin of fuels. Resources of fossil energy resources in Poland and in the world. Production and structure of fuel consumption. Main directions of crude oil processing. Classification and physical properties of gaseous and liquid fuels - natural gas, gasoline, kerosene, diesel oil, heating oil. Classification and characteristic indicators of solid fuels - hard coal, lignite, peat. Fuel contaminants and methods of their removal. Classification, characteristics and properties of lubricating oils and greases. Guidelines for the selection of lubricants. | | | | | | |
| Prerequisites and co-requisites | | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | Test | | 50.0% | | 100.0% | | |

| | | |
|--|--------------------------|--|
| Recommended reading | Basic literature | <p>1. Molenda J.: Technologia chemiczna. WSiP.W-wa 1997</p> <p>2. Baczewski K., Kałdoński T.: Paliwa do silników o zapłonie samoczynnym. WKŁ, W-wa 2008</p> <p>3. Baczewski K., Kałdoński T.: Paliwa do silników o zapłonie iskrowym. WKŁ, W-wa 2008</p> <p>4. Podniało A.: Paliwa, oleje i smary w ekologicznej eksploatacji. Poradnik. WNT, W-wa, 2002.</p> <p>5. Urbański P.: Paliwa i smary. Gdańsk 1997</p> |
| | Supplementary literature | Catalogs and brochures of producers of fuels, lubricating oils and technical devices |
| | eResources addresses | Fuels, Oil and Greases - Moodle ID: 17957 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17957 |
| Example issues/ example questions/ tasks being completed | | |
| Work placement | Not applicable | |