



Subject card

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| Subject name and code | , PG_00056297 | | | | | | |
| Field of study | Ocean Engineering | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | 2024/2025 | | |
| Education level | first-cycle studies | Subject group | | | | | |
| 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 | | | assessment | | |
| Conducting unit | Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr hab. inż. Damian Bocheński | | | | |
| | Teachers | | | | | | |
| 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 | | 3.0 | | 17.0 | 50 |
| Subject objectives | To acquaint students with the technical, economic and ecological aspects of the selection and operation of a ship's propulsion | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_W08] has knowledge of the principles of sustainable development | The student has structured knowledge related to the design of ship propulsion systems | | | [SW1] Assessment of factual knowledge | | |
| | [K6_U05] can formulate a simple engineering task and its specification within the range of design, construction and operation of ocean technology objects and systems | The student is able to find the relationship between efficiency and economy of the drive. He can determine the influence of the type of propulsion on ecological threats. | | | [SU1] Assessment of task fulfilment | | |
| | [K6_W06] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of ocean technology objects and systems | The student is able to assess the efficiency of various ship propulsion systems. | | | [SW1] Assessment of factual knowledge | | |
| Subject contents | Technical requirements for ship propulsion, selection of propulsion system for various types of transport ships. Analysis of the selection of the ship's propulsion and energy system, taking into account the influence of economic criteria (investment and operating costs). Impact of the type of ship propulsion on environmental pollution. | | | | | | |
| Prerequisites and co-requisites | | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | Test | | 60.0% | | 100.0% | | |

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| Recommended reading | Basic literature | <p>1. Balcerski A.: Siłownie okrętowe. Wyd. PG 1990</p> <p>2. Urbański P.: Gospodarka energetyczna na statkach, Wyd. Morskie 1978</p> <p>3. Woud H. K., Stapersma D.: Design of propulsion and electric power generation systems. IMarEST, London 2002</p> <p>4. Kosowski K, Ship Turbine Power Plans, Wyd. PG Delft University, Gdańsk 2004</p> |
| | Supplementary literature | Dr.C.B.Barrass: Ship_Design_and_Performance_for_Masters_and_Mate Elsevier |
| | eResources addresses | Adresy na platformie eNauczanie: |
| Example issues/ example questions/ tasks being completed | | |
| Work placement | Not applicable | |