



## Subject card

|   |  |  |   |                                     |   |            |     |
|---|--|--|---|-------------------------------------|---|------------|-----|
| Subject name and code                       | Contemporary Problems in Ship Construction and Technology, PG_00062695   |  |   |                                     |   |            |     |
| Field of study                              | Naval Architecture and Offshore Structures   |  |   |                                     |   |            |     |
| Date of commencement of studies             | February 2024  |  | Academic year of realisation of subject |                                     | 2024/2025   |            |     |
| Education level                             | second-cycle studies   |  | Subject group                           |                                     | Specialty subject group<br>Subject group related to scientific research in the field of study |            |     |
| Mode of study                               | Part-time studies  |  | Mode of delivery                        |                                     | at the university   |            |     |
| Year of study                               | 1  |  | Language of instruction                 |                                     | Polish  |            |     |
| Semester of study                           | 2  |  | ECTS credits                            |                                     | 5.0   |            |     |
| 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 inż. Jakub Kowalski                  |                                     |   |            |     |
|   | Teachers   |  |   |                                     |   |            |     |
| Lesson types and methods of instruction     | Lesson type  | Lecture  | Tutorial                                | Laboratory                          | Project   | Seminar    | SUM |
|   | Number of study hours  | 18.0   | 0.0                                     | 9.0                                 | 18.0  | 0.0        | 45  |
|   | 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  | 45   |   | 8.0                                 |   | 72.0       | 125 |
| Subject objectives                          | The aim of the course is to familiarize and analyze the current structural and technological problems in shipbuilding and offshore construction. |  |   |                                     |   |            |     |

|                                 |   |   |  |
|---------------------------------|---|---|--|
| Learning outcomes               | Course outcome  | Subject outcome   | Method of verification   |
|                                 | [K7_W03] Demonstrates advanced skills in applying analytical methods and problem-solving techniques related to ocean engineering, using appropriate tools   | Students can apply advanced engineering tools to solve a specific problem   | [SW3] Assessment of knowledge contained in written work and projects |
|                                 | [K7_U01] Develops innovative strategies to solve complex and dynamic problems by synthesizing information from various sources and utilizing analytical, simulation, and experimental methods, considering environmental variability  | The student is able to analyze information from various sources and make a decision based on it   | [SU2] Assessment of ability to analyse information                   |
|                                 | [K7_U02] Presents convincing and logically justified arguments regarding outcomes through critical analysis of information in diverse technical contexts and an approach to their interpretation  | The student is able to critically analyze the results obtained  | [SU2] Assessment of ability to analyse information                   |
|                                 | [K7_W02] Explains the essence and relationships of key components describing systems and processes in ocean engineering, utilizing current knowledge from major scientific fields related to the field of study   | The student is able to identify cause-and-effect relationships in selected construction-technological processes in shipbuilding   | [SW3] Assessment of knowledge contained in written work and projects |
|                                 | [K7_W06] Capable of finding and utilizing credible sources of information crucial for analyzing issues within the field of study  | The student is able to verify the data obtained from various sources for its usefulness in engineering analysis   | [SW1] Assessment of factual knowledge                                |
|                                 | [K7_K01] Understands the need for lifelong learning, critically evaluate acquired knowledge, and comprehend the significance of knowledge in addressing cognitive and practical problems  | The student is aware of the dynamically changing environment, development of knowledge and engineering tools  | [SK2] Assessment of progress of work                                 |
| Subject contents                | Lecture<br>Analysis of selected current structural and technological problems in shipbuilding<br><br>Laboratory<br>- Participation of students in scientific (mechanical / technological) research currently carried out at the Institute<br><br>Project<br>- Use of surface geometry in the process of hull construction |   |  |
| Prerequisites and co-requisites | Knowledge of the ship's hull design and construction process  |   |  |
| Assessment methods and criteria | Subject passing criteria  | Passing threshold   | Percentage of the final grade  |
|                                 |   | 100.0%  | 33.0%  |
|                                 |   | 100.0%  | 33.0%  |
|                                 |   | 60.0%   | 34.0%  |
| Recommended reading             | Basic literature  | I. Lotsberg, Fatigue Design of Marine Structures. Cambridge University Press, 2016.<br><br>Y. Okumoto, Y. Takeda, M. Mano, and T. Okada, Design of Ship Hull Structures. 2009.<br><br>Bruce, George J. Eyres, David J.. (2012). Ship Construction (7th Edition), Elsevier |  |
|                                 | Supplementary literature  | Scientific articles indicated in class<br>Internet sources  |  |
|                                 | eResources addresses  | Adresy na platformie eNauczanie:  |  |
|                                 | Example issues/<br>example questions/<br>tasks being completed  |   |  |
| Work placement                  | Not applicable  |   |  |