



Subject card

| | | | | | | | |
|---|---|--|--|-------------------------------------|---|------------|-----|
| Subject name and code | Project 3, PG_00041784 | | | | | | |
| Field of study | Ocean Engineering | | | | | | |
| Date of commencement of studies | October 2020 | | Academic year of realisation of subject | | 2023/2024 | | |
| Education level | first-cycle studies | | Subject group | | | | |
| Mode of study | Full-time studies | | Mode of delivery | | at the university | | |
| Year of study | 4 | | Language of instruction | | Polish | | |
| Semester of study | 7 | | ECTS credits | | 3.0 | | |
| 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. Krzysztof Wołoszyk | | | | |
| | Teachers | | dr inż. Krzysztof Wołoszyk | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 0.0 | 30.0 | 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 | | 40.0 | 75 |
| Subject objectives | To teach students designing of ship hull structures by performing a design exercise where a part of ship hull structure is designed based on the criteria of minimal thickness and local strength. The project shall be conducted based on the rules of Classification Societies. | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | [K6_U06] in compliance with a formulated specification and with the aid of appropriate tools and methods, is able to complete a simple engineering task within the range of design, construction and operation of ocean technology objects and systems | | Student is able to propose configuration and arrangement of basic elements forming a ship hull structure and find their scantlings that fulfill the criteria of strength. | | [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information | | |
| | [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 | | Student knows structures of typical floating objects and understands restrictions indicating from criteria to be fulfilled (stability, strength, technological aspects) and knows basic methods of strength analysis. | | [SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge | | |
| | [K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems | | Student understands influence of requirements concerning ship's stability, ability to float in flooded conditions, properties of ship propulsion system, sea keeping properties and characteristics of materials used – on ship hull structure. Student knows basic requirements of Classification Societies Rules. Student understands problem of strength of ship hull structures(predicting stress values, buckling and fatigue strength analysis. Student is able to make sketches showing typical arrangements of ship hull structures. | | [SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge | | |

| | | | |
|--|---|--|-------------------------------|
| Subject contents | Lecturer shows reasonable arrangement of basic structural elements of a similar structure, performs some computations to obtain required dimensions of the elements and their welded connections. Students may discuss with lecturer any technical problems related to their designed structure. | | |
| Prerequisites and co-requisites | Student should have knowledge on ship hull structures collected at lectures in semesters III and IV. | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | assessment of the design exercise | 50.0% | 100.0% |
| Recommended reading | Basic literature | 1. M.Bogdaniuk, Lectures on ship hull structures. 2. Polski Rejestr Statków, Rules for classification and construction of sea-going ships, Part II - Hull, 2019. | |
| | Supplementary literature | 1..S.Wewiórski, K.Wituszyński, <i>Konstrukcja stalowego kadłuba okrętowego</i> , Wyd. Morskie Gdańsk, 1977(in polish). | |
| | eResources addresses | Adresy na platformie eNauczanie: Praca projektowa II, P, Oce, Sem. 05, zimowy 23/24 (PG_00055297) - Moodle ID: 27733 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27733 | |
| Example issues/ example questions/ tasks being completed | Determine the thickness of outer bottom plating based on the local strength criteria and rules of classification societies. Determine the dimensions of upper deck stiffener based on the local strength criteria and rules of classification societies. Draw up the structural drawings. | | |
| Work placement | Not applicable | | |