



Subject card

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| Subject name and code | Laminate Yacht Construction, PG_00056250 | | | | | | |
| Field of study | Design and Construction of Yachts | | | | | | |
| Date of commencement of studies | October 2022 | 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 | 2 | Language of instruction | | | Polish | | |
| Semester of study | 3 | ECTS credits | | | 2.0 | | |
| Learning profile | practical profile | Assessment form | | | assessment | | |
| Conducting unit | Zakład Projektowania Okrętów i Robotyki Podwodnej -> 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. Lech Rowiński | | | | | |
| | Teachers | dr hab. inż. Lech Rowiński | | | | | |
| 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 | 4.0 | | 16.0 | | 50 |
| Subject objectives | Provide student with knowledge regarding design principles of yacht hull structures made of composites referenced to procurement of structures and calculations based on rules of classification societies | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | | Method of verification | |
| | K6_U06 | | Student is able to design (define geometry) of an element of ship structure following requirements of Polish Register of Ships | | | [SU1] Assessment of task fulfilment | |
| | K6_U05 | | Student is able to define a task regarding definition of requirements to composite hull structure based on indicated standards | | | [SU3] Assessment of ability to use knowledge gained from the subject | |
| | K6_W05 | | Student knows principles of design of reinforced plastic structures and relationships between design and processes of manufacturing of the structures | | | [SW1] Assessment of factual knowledge | |
| Subject contents | Review and the selection of non-metal materials applied in shipping constructions. The relationship of the construction with the technology in composite constructions. Review of constructional joints and the principles in designing process. Basic constructional calculations. The technological process of composite constructions. Technologies of forming the elements of the construction from reinforced resins. Technological gear and tools. Technological materials. The organization of the technological process. Investigation of the effectiveness of the technological process. The completion of constructional elements and finishing works. Technological requirements resulting from the recipes of classifying companies and norms. Seminary: The composite ingredients and technological requirements Technological Preparation of the technological gear Contac forming Vacuum forming and infusion Vacuums forming with the injection | | | | | | |
| Prerequisites and co-requisites | | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | Short test during every lesson | | 60.0% | | 100.0% | | |

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| Recommended reading | Basic literature | <p>1. Berger M. i inni: Poliestry wzmocnione w budownictwie okrętowym, Wydawnictwo Morskie, Gdynia, 1961.</p> <p>2. Kozłowski J., Wilczopolski M., Wituszyński K.: Konstrukcje okrętowe z kompozytów polimerowych; Wydawnictwo Morskie, Gdańsk, 1982.</p> <p>3. Przepisy klasyfikacji i budowy jachtów morskich (JAC), Część II, Kadłub 1996/1998</p> <p>4. Przepisy klasyfikacji i budowy łodzi motorowych (MOT), Część II, Kadłub 1996/1998</p> |
| | Supplementary literature | <p>1. Pielichowski J., "Technologia tworzyw sztucznych", Wydawnictwo Naukowo-Techniczne, wyd VI, 2003.</p> <p>2. Rabek J., "Współczesna wiedza o polimerach", wyd PWN, Warszawa 2009</p> |
| | eResources addresses | <p>Podstawowe https://gardner.dragonforms.com-CompositesWorldmagazine - https://www.r-g.de/ - Uzupełniające Adresy na platformie eNauczanie: Konstrukcja jachtu laminatowego (PG_00056250) PBJ 2023 - Moodle ID: 33212 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33212</p> |
| Example issues/ example questions/ tasks being completed | | |
| Work placement | Not applicable | |