GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Project 1, PG_00041791		
Field of study	Ocean Engineering, Ocean Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2021/2022
Education level	first-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	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. Agnieszka Maczyszyn	
	Teachers	dr inż. Agnieszka Maczyszyn dr inż. Piotr Bzura	

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

Adresy na platformie eNauczanie:

Praca projektowa I, P, OCE, stacjonarne, sem.4, letni 21/22 (PG_00041791) - Moodle ID: 22276
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22276

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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

Familiarize students with the principles of designing one- and two-stage reducers.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	The student is able to choose the optimal solution to the problem related to the implementation of the project.	[SW2] Assessment of knowledge contained in presentation
[K6_U02] can work individually and in a team, communicate through various techniques in professional environment and also record, analyse, and present the results of work, can estimate the time needed to complete a given task	The student is able to make drawing documentation of the reducer.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
[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	The student is able to make a machine shaft design.	[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	The student knows the rules and tools helpful in the design.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

1: introduction, assignment of reducer types2: Introduction to Gear Design 3: design and calculation of single-stage reducer gearbox 4: design and calculation of shafts, bearings and gear grooves of a single-stage reducer 5: design and calculation of two-stage reducer gear 6: design and calculation of shafts, bearings and gear drains of a single-stage reducer 7: handing over ready-made projects.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
ship propulsion system design	60.0%	50.0%
Project from parts of on-board equipment	60.0%	50.0%

Recommended reading

Basic literature	Wojtaszczyk B.: Urządzenia przeładunkowe drobnicowców, Wydawnictwo Morskie 1988 Pałuch k., Puchalski J., Śliwiński A.: Statki poziomego ładowania, Trademar, Gdynia 1996 Płuciennik P., Projektowanie elementów maszyn z wykorzystaniem programu Autodesk Inventor reduktor jedno- i dwustopniowy, Wydawnictwo WNT, Warszawa 2017
Supplementary literature	Wojtaszczyk B.: Urządzenia przeładunkowe drobnicowców, Wydawnictwo Morskie 1988 Płuciennik P., Projektowanie elementów maszyn z wykorzystaniem programu Autodesk Inventor obliczenia przekładni, PWN, Warszawa 2015 Płuciennik P., Projektowanie elementów maszyn z wykorzystaniem programu Autodesk Inventor, Wydawnictwo Naukowe PWN, Warszawa 2013
eResources addresses	Praca projektowa I, P, OCE, stacjonarne, sem.4, letni 21/22 (PG_00041791) - Moodle ID: 22276 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22276 Praca projektowa I, P, OCE, stacjonarne, sem.4, letni 21/22 (PG_00041791) - Moodle ID: 22276 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22276

Example issues/ example questions/ tasks being completed

Work placement

Not applicable