



Subject card

Subject name and code	, PG_00041836						
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		Obligatory subject group in the field of study		
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish laboratory classes can be conducted in Polish and English		
Semester of study	3		ECTS credits		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Marine Mechatronics -> Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Paulina Strąkowska				
	Teachers		dr inż. Paulina Strąkowska mgr inż. Jacek Frost				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	0.0	30.0	0.0	0.0	40
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie:						
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	40		5.0		55.0	100
Subject objectives	The aim of the subject is to master the basic techniques of implementing algorithms and creating computer programs by students (Matlab), AS also raising Skills in the field of using SIE basic IT tools (MS Excel, MS Access).						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W04] has a basic knowledge in IT, electronics, automation and control, computer graphics useful to understand the possibilities of their application in ocean technology		The student is able to analyze the problem of student understands the principles of creating algorithms student is able to assess the suitability of the program.		[SW1] Assessment of factual knowledge		
	[K6_U01] can obtain information from literature, databases and other sources, can verify and organize the obtained information, interpret them and form conclusions and justified opinions		The student implements the algorithm in the form of a program. The student is able to apply the methods of structural and procedural programming.		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information		
Subject contents	Algorithms and types of variables, data structures. Basic programming (Matlab, Excel) formation forkmuł, function, the use of the correct syntax of the command elements of structured programming, variables, structures, procedures and functions, transfer of arguments, the algorithm and its implementation example, a simple program that calculates the volume or weight of the selected space figure.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Practical exercise		60.0%		100.0%		

Recommended reading	Basic literature	<ul style="list-style-type: none"> • https://www.mathworks.com/ • https://support.office.com/pl-pl/article/podstawowe-zadania-w-programie-excel-dc775dd1-fa52-430f-9c3c-d998d1735fca • Cormen T.H., Leiserson Ch.E., Rivest R.L. Wprowadzenie do algorytmów. WNT, Warszawa, 1997. Dasgupta S., Papadimitriou Ch., Vazirani U. Algorytmy. Wydawnictwo Naukowe PWN, Seria Fundamenta Informatyki, Warszawa 2010. Banachowski L., Diks K., Rytter W. Algorytmy i struktury danych. WNT, Warszawa, 1996 • K. Masłowski. Microsoft Excel 2003 ćwiczenia zaawansowane. ENI Publishing Limited. • Mirosława Kopertowska-Tomczak Excel 2007 Ćwiczenia Wyd I, Wydawnictwo Naukowe PWN 2011 • Maciej Gonet Excel w obliczeniach naukowych i inżynierskich. Wyd.2 Helion 2011 • Mirosława Kopertowska, Witold Sikorski Funkcje w Excelu Wyd II, Wydawnictwo Naukowe PWN 2012 • Grzegorz Kowalczyk Word 2007, Ćwiczenia praktyczne Helion
	Supplementary literature	<ul style="list-style-type: none"> • Makro polecenia w Excelu. Opis języka VBA na przykładach, A.Snarska, Wyd I, Wydawnictwo Naukowe PWN 2007 • Excel w biurze i nie tylko, Sergiusz Flanczewski, Wyd II, Helion 2010 • Excel 2007 w analizach i finansach, Andrzej Tor, Tortech 2010
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	