



Subject card

Subject name and code	Ship Production Technology 1, PG_00045030						
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					
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	general academic profile	Assessment form			assessment		
Conducting unit	Department of Ship Manufacturing Technology, Quality Systems and Materials Science -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Ryszard Pyszko				
	Teachers		dr inż. Ryszard Pyszko mgr inż. Alicja Bera				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Technologia budowy okrętów I, W/L, BOIJ, sem.03, zimowy 21/22 (O:098010) - Moodle ID: 14422 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14422						
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		2.0		18.0	50
Subject objectives	To learn of student with processing of metal, measurement problems, kinds of shipyards as well as with basic methods of ship erection						
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		Student applies known methods and tools to solving the measurement problem		[SW1] Assessment of factual knowledge		
	[K6_W08] has knowledge of the principles of sustainable development		Student properly selects problems for content od project and decides on range of particular problems in whole project area		[SW3] Assessment of knowledge contained in written work and projects		
Subject contents	<p>Lectures: Prefabrication centre main characteristics, manufacturing processes of prefabrication. Initial prefabrication. Prefabrication of flat and curved 2 dimensional panels , 3 dimensional units and blocks. Technological division of hull structure, sequence of manufacturing operations; control processes, application of assembly surplus on panels, units and blocks. Auxiliary instrumentation, mechanization, automation and robotization of manufacturing processes, development trends. Manufacturing processes of hull structure assembly, basic rules, stages, sequence of operations. Assembly of typical structural elements, control of distortions, preparation for welding. Instrumentation of assembly works and their mechanization. Transport during hull production process.</p> <p>Concept Design-for-Production, technological-economic criteria. Integration of hull manufacturing processes with equipment processes. Launching of a hull - basics. Technological process of launching from longitudinal and transverse slipways theoretical background, instrumentation and methods of realization of the process, development trends. Characteristics of hull equipment processes. Equipment departments and their goals. Pipes preparation for installation in hull structure. Selected locksmith works. Technological process of rudder and propeller installation. Insulation and painting works. Commisioning tests.</p>						
Prerequisites and co-requisites	Knowledge based on subjects: Podstawy Technologii Okrętów , Podstawy Konstrukcji Okrętu , Rysunek okrętowy , Materiałoznawstwo okrętowe						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lectures - test	50.0%	50.0%
	Project - written report	90.0%	50.0%
Recommended reading	Basic literature	Wiebeck E.: Technologie des Schiffskorperbaus. Technik Berlin 1980. Ship Construction7th Edition Authors: George Bruce, David Eyres	
	Supplementary literature	E.Baker III: Introduction to Steel Shipbuilding, McGraw-Hill 1953 2. Kuzminow S.: Swarocznyje deformacji sudowych konstrukcji.Sudostrojenije 1974. 3. Wiebeck E.: Technologie des Schiffskorperbaus. Technik Berlin 1980.	
	eResources addresses	Technologia budowy okrętów I, W/L, BOIJ, sem.03, zimowy 21/22 (O: 098010) - Moodle ID: 14422 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=14422	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		