GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Ship Production Technology 1, PG_00046524		
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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	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 dr inż. Mohamed Behilil	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	10.0	0.0	10.0	0.0	0.0	20

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	20	2.0	28.0	50

Subject objectives

The aim of the course is to familiarize students with the basic organization of the processes occurring in the construction of a ship with a special explanation of the physics of the processes that govern the course of.

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 has knowledge of the organization of technological processes of building a steel hull of a ship	[SW1] Assessment of factual knowledge
[K6_W08] has knowledge of the principles of sustainable development	The student has knowledge of the ship's production processes, in particular the steel hull	[SW1] Assessment of factual knowledge

Subject contents

Center prefabrication - characterization, fabrication processes. Preliminary Fabrication. Fabrication lobar flat and curved sections, spatial sections and blocks. Technology divisions, the sequence of operations; audit work, the use of appendage assembly. Used equipment, mechanization, automation, robotics, trends. Hull assembly processes, principles, stages, sequence of operations. Installation of typical construction, the control strain, preparation for welding. Instrumentation assembly and mechanization. Transport in the production process of the hull. Technology of construction, technological and economic criteria. Process Integration Construction and Equipment. Methods of launching vessels. The technological process of launching ramps and slipways longitudinal transverse - theoretical foundations, equipment and implementation modalities, trends. Characteristics of the hull fitting process. Departments and outfitting their task. Technology pipelines. Technology selected works locksmith and tinsmith. Technology rudder and propeller assembly. Insulation and painting works. Attempts to interchange and receiving.
To define the value of the angle of torsion of a construction composes of a strake welds has one profiles, as well as the optimal comparison of results obtained with the results of calculate theoric. The study of the rules of bases uses in the process of raising of a construction welds, as well as the manual methods of elimination of the deformations of construction of a model of test. Determination of the coefficient of notch effect for selected model sodas in T using the elastooptic method. The methods engineering of the macro and microscopic tests of the joints of weldings. To define hardness in the various zones of the joint of marine steel welding of normal resistance after the operation of the process of welding. Methods uses to define the temperature of solidification on the basis of result of measurements of hardness and the period of cooling S800/500 0C by using curves CTPC-S. The use of program SPAWEX with an aim of defining different them parameters of weldings system of

Prerequisites and co-requisites	Subjects taught in the earlier years in the field: - Material science, - Welding, - metal forming.	
Assessment methods and criteria	Subject passing criteria	Passing threshold / Percentage of the final grade
	Reports from the lab	100.0% / 50.0%
	The oral examination	60.0% / 50.0%
Recommended reading	Basic literature	1.Doerffer J. Construction technology hulls. WM Gdynia 1971. 2.Doerffer J.: Technology Equipment of Ships. WM Gdynia 1975. 3.Mackiewicz W.: Warp tiechnołogji sudostrojenia. Leningrad in 1980. 4.Wiebeck E. Technologie des Schiffskorperbaus. Technik Berlin in 1980. 5.Bujniewicz Z., et al: Aluminum alloys in shipbuilding. WM Gdańsk in 1971. 6.Myśliwiec M.: Welding ship. WM Gdańsk in 1971. 7.Butnicki S. steels and cast iron for the shipbuilding industry. WM Gdynia 1959. 8.Kowarsch A., Żaczek Z. welding of ship structures shielding gas. WM Gdańsk in 1984. 9.Doerffer J.: Technology Equipment of Ships. WM Gdańsk in 1975. 10.Poradnik Engineer - Welding. WNT Warsaw, 1983. 11.Kuzminow S. Swarocznyje sudowych deformation of the structure. Sudostrojenije, 1974. 12.Janusz W. Geodetic service and constructions. PPWK Warsaw in 1971. 13.Żurowski A. Geodetic measurements in the marine construction industry. WM Gdańsk in 1980. 14.Mazurkiewicz B.: Encyclopedia of marine engineering. WM Gdańsk, 1986. 15.Doerffer J.: Technology repairs hulls. WM Gdynia 1966. 16.Bieńkowskij D.: Technology sudoremonta. Transportation Moscow 1976
	Supplementary literature	1 Teaching materials on the subject. 2 Materials in the form of drawings, catalogs and standards used in the preparation of production in the shipbuilding industry.
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. Discuss the principles of technological division of the hul2. Discuss the technological process of building a steel hull	
Work placement	Not applicable	