

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Tooling of manufacturing systems, PG_00064943								
Field of study	Mechanical Engineering								
Date of commencement of studies	February 2026		Academic year of realisation of subject			2026/2027			
Education level	second-cycle studies		Subject group		Specialty 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	1		Language of instruction			Polish			
Semester of study	2		ECTS credits			3.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Division of Manufactu Technology -> Facult	ring and Produ y of Mechanica	ction Engineering -> Institute of Manufacturing and Materials I Engineering and Ship Technology -> Wydziały Politechniki Gdańskiej				ls i Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor Teachers		prof. dr hab. inż. Adam Barylski						
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory Project		t	Seminar	SUM	
of instruction	Number of study hours	9.0	0.0	0.0 9.0			0.0	18	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity	Participation ir classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM	
	Number of study hours	18		11.0		46.0		75	
Subject objectives	Rules of universal workholders. Designs special workholders.								
Learning outcomes	Course out	come Subject outcome				Method of verification			
	[K7_U15] evaluates the feasibility of advanced methods and tools for solving complex engineering tasks of a practical nature, characteristic of the field of study, and selects and applies appropriate methods and tools for this purpose		Rules of universal workholders. Designs special workholders.			[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject			
	[K7_U01] utilizes information obtained from the literature and other sources in the field of Mechanics and Mechanical Engineering and presents and analyses the results of solutions to technical problems in this field		Rules of usage universal workholder			[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information			
	[K7_W03] demonstrates a well- structured and theoretically grounded knowledge of the key issues in Mechanical Engineering to enable the design and diagnosis of mechanical systems, processes and devices		Significance toolhoders and instrumentation in transportation systems			[SW3] Assessment of knowledge contained in written work and projects			
	[K7_W12] identifies and interprets the main developmental trends and significant new achievements in the field of engineering and technical sciences and disciplines relevant to the course of study		Significance of instrumentation in manufacturing process			[SW3] Assessment of knowledge contained in written work and projects			
Subject contents	LECTURE: Significance of instrumentation in a machine components manufacturing process. Errors influcencing on accuracy of workholger development. Setting an object in the workholder. Fastening an object in the workholder. Setting and fixing workholder in the machining tool. Principles of workholder design. Lathe chucks. Drill chucks. Milling fixtures. Modular fixtures. Toolholders. Assembly instrumentation. Instrumentation of transportation, manipulators and robots. Rules of computer aided and management of workplace aids. Principles of universal fixtures usage. Cost of instrumentation. PROJECT: Skills of setting and fastening objects in fixtures and implementation of machining fixture for a given operation.								

Prerequisites and co-requisites	Knowledge from recording design and manufacturing engineering					
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade			
and criteria	Project	60.0%	50.0%			
	Elaborate	60.0%	25.0%			
	Written test	60.0%	25.0%			
Recommended reading	Basic literature Feld M.: Uchwyty obróbkowe. WN-T, Warszawa 2002. Normy przedmiotowe. Normy przedmiotowe. Materiały informacyjne producentów oprzyrządowania. Artykuły z zakresu przedmiotu w dostępnych internetowych bazac bibliotecznych.					
	Supplementary literature	Dobrzański T.: Uchwyty obróbkowe. Poradnik konstruktora. WN-T, Warszawa 1987. Feld M.: Projektowanie procesów technologicznych typowych części maszyn. WN-T, Warszawa 2012. Poradnik Inżyniera. Obróbka skrawaniem. WN-T, Warszawa 1993.				
	eResources addresses					
Example issues/ example questions/ tasks being completed	Errors influcencing on accuracy of workholger development. Setting an object in the worhholder. Fastening an object in the workholder. Setting and fixing workholder in the machining tool.					
Work placement	Not applicable					

Document generated electronically. Does not require a seal or signature.