GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Coordinate measuring techniques, PG_00040092		
Field of study	Medical and Mechanical Engineering, Medical and Mechanical Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
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	3	Language of instruction	Polish
Semester of study	5	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Manufacturing and Production Engineering -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Michał Dobrzyński	
	Teachers	dr inż. Michał Dobrzyński	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

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	15	3.0	7.0	25

Subject objectives

Understanding the construction and operation of coordinated measuring machines and learning of measurement methods quantities.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_U06	Student explains construction and principle of operation of coordinated measuring machines. Student chooses suitable measuring strategy for measure given quantity. Student measures. Student analyses results of measurements.	[SU4] Assessment of ability to use methods and tools
K6_W13	The construction and operation of coordinated measuring machines and learning of measurement methods quantities.	[SW1] Assessment of factual knowledge

Subject contents

The content will include: the importance of coordinated measurements in a machining process, components of CMM, types of probe heads, the measurement methods for the combined quantities and indirect quantities in the measurement systems, computer aided programming of CMM, the measurement systemsthe measurement data recording, analysis and conclusive results

Prerequisites and co-requisites

Metrology

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Written exam	50.0%	100.0%

Recommended reading

Basic literature	1. Ratajczak E., Woźniak A.: Współrzędnościowe systemy pomiarowe. Oficyna Wydawnicza Politechniki Warszawskiej. W-wa 2014. 2. Jakubiec W., Malinowski J.: Metrologia wielkości geometrycznych.WNT. W-wa 2009 .
Supplementary literature	1. Lesiak P., Świsulsk D.i: Komputerowa technika pomiarowa. Warszawa, Agenda Wydawnicza PAK 2002.
eResources addresses	

Example issues/ example questions/ tasks being completed

1. Describe main elements of CMM.

Work placement

Not applicable