

## GDAŃSK UNIVERSITY

## Subject card

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Learning outcomes		30		0.0		0.0 30		30				
Learning outcomes	basics and advanced techniques of programming CNC machine tools. Acquisition by the students of practical programming skills CNC lathes and CNC milling machines and the selection of tools and machining parameters when programming machining cycles . familiarize yourself with the preparation of CNC machine tools to work ( to determine the center of the workpiece coordinate system , determine the dimensions of the tools , etc. ) .											
K6_V	Course outcome		1	ect outcome		Method of verification						
K6_1	K6_W08		He knows and knows the design and production processes using computer CAD / CAM systems.		[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects							
	K6_U05		Is able to use computer CAD / CAM systems for design and manufacturing solutions fluently. Can apply appropriate machining parameters. He knows the basics of programming CNC machine tools.		[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools							
K6_V	K6_W11		He has basic knowledge of the life of mechatronic devices, facilities and systems, in particular industrial robots and CNC machine tools.			[SW2] Assessment of knowledge contained in presentation						
K6_1			Is able to identify and formulate simple engineering tasks in the field of design and production with the use of CAD / CAM systems typical for mechatronics.		he n with ms	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject						
Subject contents No re	<u>U06</u>				No recommendations							
Prerequisites Basic and co-requisites		s										

Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade		
and criteria	Coloquium	65.0%	100.0%		
Recommended reading	Basic literature Supplementary literature	<ol> <li>Kosmol J.: Automation of machine tools and machining. WNT.</li> <li>Warsaw 1995.2. Scmid D. et al: Mechatronics . Rea . Warsaw 2002.3.</li> <li>MTS, Wolski P (trans.): Basics of CNC machine tools, vol. 1, p. 2 and t.3. REA . Warsaw 1999.4. Stryczek R., Pytlak B .: Flexible Programming Machine . PWN . Warsaw, 2011.5. W. Przybylski, M.</li> <li>Deja : Computer-aided manufacturing machines - basics and applications. WNT . Warsaw, 2007.6. Supplementary materials for laboratory classes of programming CNC machine tools. Gdańsk , 2005.</li> <li>Augustyn K.: EdgeCAM. Computer-aided manufacturing. Helion. Gliwice 2012.</li> </ol>			
	eResources addresses	Adresy na platformie eNauczanie:			
Example issues/ example questions/ tasks being completed	1. Characterize the CNC control systems.2. Replace the basic functions of the type of preparation G.3. Replace the basic functions of auxiliary devices such as M.4. Design a shaft-type object technology using EdgeCAM system.5. Design a plate-like object technology using EdgeCAM system.				
Work placement	Not applicable				