

## 。 GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

Subject name and code	CAD - Computer Aided Design, PG_00044430								
Field of study	Engineering Management								
Date of commencement of studies	October 2021		Academic year of realisation of subject			2021/2022			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study			
						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	Department of Informatics in Management -> Faculty of Management and Economics								
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Igor Garnik							
	Teachers	dr inż. Igor Garnik							
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM	
of instruction	Number of study hours	0.0	0.0	16.0	0.0		0.0	16	
	E-learning hours included: 0.0								
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=16331 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	16		5.0		54.0		75	
Subject objectives	To familiarize the students with the basics of design using specialized CAD software. To transfer the knowledge in the field of computer-aided design and the practical use of selected CAD programs.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_U06] uses basic theoretical knowledge to solve selected organizational problems, design technical solutions and manage projects, including engineering projects		The student is able to perform technical documentation using the CAD/CAM/CAE software; is able to properly format the prints, visualisations and data sheets; can transfer data between different platforms (CAD/CAM/ CAE software, office software).			[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject			
	[K6_W05] knows the statistical and IT methods and tools that enable the acquisition and presentation of data on the organisation's resources, including technical resources		The student understands the specific of computer-aided design process; knows the rules and standards for creating technical documentation using CAD/CAM/CAE software.			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation			
Subject contents	Introduction. Fusion 360 user interface. Modelling of simple solids. Sketching. The use of SCULPT space. Modification of models and creation of components. Design project management. Assembly of components. Rendering and creating drawing documentation. CAM and animations.								
Prerequisites and co-requisites	Dasic knowledge of engineering drawing, knowledge of computer operating systems.								

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade			
	Midterm colloquium	60.0%	60.0%			
	Practical exercises	60.0%	40.0%			
Recommended reading	Basic literature	ercises 60.0% [40.0%   ire 1. Exercises shared by the instructors.   2. Software producer's training materials available online.   3.Jaskulski A. (2021), Autodesk Inventor Professional 202   2022+ / Fusion 360. Metodyka projektowania. Helion SA, Tutorial Books (2019), Autodesk Fusion 360 For Beginner Source Inc.				
	Supplementary literature	1 Any literature on the design with Eusian 360				
		1. Any inerature on the design with Fusion 500.				
Example issues/ example questions/ tasks being completed	eResources addresses   Using 3D modelling, follow these steps:1) create a cuboid with a base of a square with a geometric centre at the beginning of the coordinatesystem, with a side of 98 mm and a height of 37 mm2) set a cylinder with a diameter of 63 mm and a height of 31 mm on the rectangular prism3) using the SHELL command, convert the solid into a shell with a wall thickness of 5 mm4) cut the shell in half using the YZ plane5) create components from both halves and spread them apart Complete the model of the crank system based on the attached design documentation including the assembly drawing and executive drawings of individual components.					
Work placement	Not applicable					

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