GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CAD - Computer Aided Design, PG_00053771		
Field of study	Engineering Management		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2020/2021
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	Full-time studies	Mode of delivery	e-learning
Year of study	1	Language of instruction	Polish
Semester of study	1	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 of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	0.0	0.0	30

E-learning hours included: 30.0

Adresy na platformie eNauczanie:

Komputerowe wspomaganie projektowania - st. stacjonarne, 2020-2021 - Moodle ID: 6008
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=6008

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	30	5.0	40.0	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 understands the specific of computer-aided design process; knows the rules and standards for creating technical documentation using CAD/CAM/ CAE software	[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
[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 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).	[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge

Subject contents

Introduction. Fusion 360 user interface. Modeling of simple solids. Sketching. The use of FORM space. Modification of models and creation of components. Design project management. Assembly of components. Rendering and creating drawing documentation. Simulation environment. CAM. Assembly animations.

Prerequisites and co-requisites

Basic knowledge of engineering drawing, knowledge of computer operating systems

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Colloquium	60.0%	60.0%
Practical exercises	60.0%	40.0%

Recommended reading	Basic literature	1. Exercises shared by the instructors. 2. Software producer's training materials available online.
	Supplementary literature	1. Any literature on the design with Fusion 360.
	eResources addresses	Uzupełniające Komputerowe wspomaganie projektowania - st. stacjonarne, 2020-2021 - Moodle ID: 6008 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=6008
Example issues/ example questions/ tasks being completed	• Using 3D modeling, follow these steps: 1) create a cuboid with a base of a square with a geometric center at the beginning of the coordinate system, with a side of 98 mm and a height of 37 mm 2) set a cylinder with a diameter of 63 mm and a height of 31 mm on the rectangular prism 3) using the SHELL command, convert the solid into a shell with a wall thickness of 5 mm 4) cut the shell in half using the YZ plane 5) 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	