GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer-aided design, PG_00061990		
Field of study	Management and Production Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
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	at the university
Year of study	2	Language of instruction	Polish Polish
Semester of study	4	ECTS credits	5.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Zakład Technologii Maszyn i Automatyzacji Produkcji -> Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Piotr Sender	
	Teachers	dr inż. Ewa Kozłowska	

Lesson types and methods of instruction							
	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	30.0	0.0	60
	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	60	5.0	60.0	125

Subject objectives	Acquiring knowledge and skills in designing using CAD systems.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U04] is able to develop documentation in the area of preparation, implementation and control of production processes in Polish and in a foreign language considered basic for scientific fields, is able to identify and formulate the basic objectives of quality management in the product life cycle, is able to use information and communication techniques appropriate to the implementation of tasks typical in engineering activities including preparation, production and supervision of the manufacturing process	The student is able to create documentation in the area of preparation, implementation and control of production processes in the metric and imperial notation systems.	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[K6_W07] has knowledge of methods, errors and measurement uncertainty, product geometry specifications and assessment of their accuracy	The student acquires the ability to create and read technical documentation containing markings of shape deviations, dimensional tolerances, notation of fits and markings of roughness profile parameters.	[SW3] Assessment of knowledge contained in written work and projects
	[K6_W09] knows the general principles of creating and developing forms of individual entrepreneurship and stimulating employee creativity, using knowledge in the field of design, production and operation of machinery and technical devices	The knowledge acquired by the student allows the student to visualize, using CAD software, for creating of drawing documentation of various technical elements that the student may have into contact with in his professional life.	[SW3] Assessment of knowledge contained in written work and projects
	[K6_K01] feels the need for self-realization by learning throughout life, is looking for modern and innovative solutions in their actions, is able to think creatively and act in an entrepreneurial way	The student acquires basic skills in using the CAD system, enabling further self-education.	[SK2] Assessment of progress of work
	[K6_W03] has knowledge of the design record (the record structure)for the preparation of the manufacturing process documentation and basic knowledge of the implementation and management of production systems, including the principles of designing machine parts and manufacturing technologies using information techniques	The student acquires knowledge in the field of creating technical documentation.	[SW3] Assessment of knowledge contained in written work and projects
Subject contents	Familiarization with 3D CAD software (e.g. Inventor) in the field of creating 2D and 3D technical documentation.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	attendance at classes	80.0%	20.0%
	assessment of project implementation	60.0%	80.0%
Recommended reading	Basic literature	Andrzej Jaskólski, Autodesk Inventor Professional 2024 PL / 2024+ / Fusion 360. Effective design methodology. Helion Publishing House. Andrzej Jaskólski, AutoCAD 2021 PL/EN/LT. Methodology for effective parametric and non-parametric 2D and 3D design. Helion Publishing House.	
	Supplementary literature	Tutorials of any CAD systems (e.g. Inventor, AutoCAD)	
	eResources addresses	Podstawowe https://web.iitd.ac.in/~hirani/Inventor%20Notes.pdf - introduction Adresy na platformie eNauczanie: Komputerowe wspomaganie projektowania (CAD), PG_00061990 - Moodle ID: 34827 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34827	

Example issues/ example questions/ tasks being completed	Draw an assembly containing elements created in sheet metal, surface module, etc.
Work placement	Not applicable

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