GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer software in designing for mechanical and medical engineering, PG_00039384		
Field of study	Medical and Mechanical Engineering, Mechanical and Medical 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	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Zakład Konstrukcji Maszyn i Inzynierii Medycznej -> Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

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: 0.0

Additional information:
in the event of a pandemic - via ZOOM

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	3.0	17.0	50

Subject objectives

The use of CAD programs in engineering analysis and design.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_U03	The student uses CAD software, which use engineering algorithms of varying degrees ofsophistication.	[SU4] Assessment of ability to use methods and tools
K6_W09	The student uses CAD program tools that use the finite element method.	[SW1] Assessment of factual knowledge
K6_U05	The student solves partially open problems, the result of which depends on the taken assumptions and the software tools used by the student.	[SU3] Assessment of ability to use knowledge gained from the subject
K6_U08	The student solves partially open problems, the result of which depends on the taken assumptions and the software tools used by the student.	[SU3] Assessment of ability to use knowledge gained from the subject

Subject contents

Acquainting with CAD software: Inventor - in the scope of creating 2D and 3D technical documentation, strength analysis and searching for natural frequencies and forms of natural vibrations. Familiarization with the possibility of using predefined machine elements from the library of the programme; AutoCAD - in the field of creating 2D technical documentation.

The ability to analyse of simple engineering problems using CAD software.

Prerequisites and co-requisites

Engineering graphics, Mechanics, Strength of materials, Mechanical design and basic skills of using Inventor programme.

<table>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Test of the qualifying I</td><td>50.0%</td><td>50.0%</td></tr>
<tr><td>Test of the qualifying II</td><td>50.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">Help system of Inventor and AutoCAD programme.</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Any literature concerning Inventor and AutoCAD programme.</td></tr>
<tr><td>eResources addresses</td><td colspan="2">Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3"></td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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