GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Fundamentals of Machine Design II, PG_00040062		
Field of study	Mechanical Engineering, Mechanical Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
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	3	Language of instruction	Polish ..
Semester of study	5	ECTS credits	6.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Janusz Musiał	
	Teachers	dr hab. inż. Janusz Musiał	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	8.0	0.0	8.0	0.0	46
	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	46	14.0	90.0	150

Subject objectives	Giving information and teaching ability to use basic tachniques and methods utilized in design of machine parts

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U03] is able to identify, formulate and develop the documentation of a simple design or technological task, including the description of the results of this task in Polish or in a foreign language and to present the results using computer software or other aiding tools	Student can specify a simple design task	[SU1] Assessment of task fulfilment
[K6_W04] possesses knowledge on mechanics, including the processes of modelling mechanical systems, statics, kinematics and dynamics of rigid objects and basic knowledge on vibrations	Student has knowledge in the field of modeling methods and machine design	[SW1] Assessment of factual knowledge
[K6_W08] possesses basic knowledge including the methodology of designing machine parts, mechanical devices, selection of construction materials, manufacturing and operation, with the lifetime cycle	Student has a basic knowledge on methods of designing machine elements and devices	[SW3] Assessment of knowledge contained in written work and projects
[K6_U07] is able to design a typical construction of a mechanical device, component or a testing station using appropriate methods and tools, adhering to the set usage criteria	Student can design a standard mechanical device	[SU1] Assessment of task fulfilment
[K6_U11] is able to analyse the operation of devices and compare the construction solutions applying usage, safety, environmental, economic and legal criteria	Student is able to analyse operation of a mechanical design and compare different design versions	[SU1] Assessment of task fulfilment

Subject contents

welded joints, roller bearings, slider bearings, transmissions, springs, fatigue

Prerequisites and co-requisites

mechanics, strength of materials

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
project	50.0%	30.0%
tutorials	56.0%	20.0%
exam	56.0%	50.0%

Recommended reading

Basic literature	podręczniki PKM - wydawnictwo WNT skrypty PKM - PG MArek Dietrych PKM I II i III
Supplementary literature	Tim Brown - Change by przez Design
eResources addresses	Adresy na platformie eNauczanie: Podstawy konstrukcji maszyn II - Moodle ID: 27317 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27317 Podstawy konstrukcji maszyn II - Moodle ID: 27317 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27317 Podstawy konstrukcji maszyn II - Moodle ID: 27317 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27317

Example issues/ example questions/ tasks being completed

graphical form

Work placement

Not applicable