



Subject card

Subject name and code	Fundamentals of Machine Design I, PG_00039876						
Field of study	Mechanical Engineering, Mechanical Engineering						
Date of commencement of studies	October 2020	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	Full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish Polish		
Semester of study	3	ECTS credits			6.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Machine Design and Vehicles -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Michał Wasilczuk					
	Teachers	dr hab. inż. Michał Wodtke mgr inż. Bartosz Bastian mgr inż. Katarzyna Mazur prof. dr hab. inż. Michał Wasilczuk mgr inż. Marek Łubniewski					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	30.0	0.0	0.0	75
	E-learning hours included: 0.0						
	Podstawy konstrukcji maszyn I (M:31538W0) - Moodle ID: 18804 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18804						
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	75	8.0		67.0	150	
Subject objectives	described in Learning outcomes						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U11] is able to analyse the operation of devices and compare the construction solutions applying usage, safety, environmental, economic and legal criteria	can analyse functioning of a basic device	[SU1] Assessment of task fulfilment
	[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	can prepare a technical documentation	[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	has knowledge in the field of mechanics	[SW3] Assessment of knowledge contained in written work and projects
	[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	has basic knowledge on methods of design	[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	can design a standard device	[SU1] Assessment of task fulfilment	
Subject contents	fundamentals of machine design		
Prerequisites and co-requisites	mechanics, fundamentals of strength of materials		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	tutorials	50.0%	70.0%
	CAD laboratory	50.0%	30.0%
Recommended reading	Basic literature	lectures at enauczanie	
	Supplementary literature	b	
	eResources addresses		
Example issues/ example questions/ tasks being completed	not relevant		
Work placement	Not applicable		