COURSE SPECIFICATION

Course code	full-time programme:	**M#2-S1-ME-KWW-609**
	part-time programme:	
Course title in Polish	**Komputerowe modelowanie części maszyn II**	
Course title in English	**Computer-Aided Design of Machine Part II**	
Valid from (academic year)	**2024/2025**	

GENERAL INFORMATION

Programme of study	**MECHANICAL ENGINEERING**
Level of qualification	**first-cycle**
Type of education	**academic**
Mode of study	**full-time programme**
Specialism	**Computer-Aided Manufacturing**
Department responsible	**Department of Machine Design and Machining**
Course leader	**dr inż. Michał Skrzyniarz**
Approved by	**dr hab. Jakub Takosoglu, prof. PŚk, Dean of the Faculty of Mechatronics and Mechanical Engineering**

COURSE OVERVIEW

Course type		**specialism-related**
Course status		**compulsory**
Language of instruction		**English**
Semester of delivery	full-time programme	**Semester VI**
	part-time programme	
Pre-requisites		
Examination required (YES/NO)		**NO**
ECTS value		**2**

Mode of instruction		**lecture**	**class**	**laboratory**	**project**	**seminar**
No. of hours per semester	full-time programme				**30**	
	part-time programme					

LEARNING OUTCOMES

Category of outcome	Outcome code	Course learning outcomes	Corresponding programme outcome code
Skills	U01	The student can apply knowledge gained from the basic sciences to solve problems when designing machine parts.	MiBM1_U01 MiBM1_U02 MiBM1_U19
	U02	The student will be able to complete a project using advanced design tools, including the ability to design machine parts.	MiBM1_U01 MiBM1_U02 MiBM1_U19
	U03	The student will be able to use computer software in mechanics and engineering to design and construct machine parts.	MiBM1_U01 MiBM1_U02 MiBM1_U19
Competence	K01	The student is able to analyse comprehensively and carry out assigned tasks efficiently.	MiBM1_K06
	K02	The student is aware of the need to continually expand their knowledge, including familiarising themselves with new applications and modelling techniques.	MiBM1_K02

COURSE CONTENT

Type of instruction lecture	Topics covered
project	Complete a comprehensive project for a selected mechanism that fulfils specific kinematic tasks. Develop solid models for individual components. Create an assembly model. Produce 2D documentation for selected detail drawings. Produce an assembly drawing..

ASSESSMENT METHODS

Outcome code	Methods of assessment *(Mark with an X where applicable)*					
	Oral examination	Written examination	Test	Project	Report	Other
U01				X		
U02				X		
U03				X		
K01				X		
K02				X		

ASSESSMENT TYPE AND CRITERIA

Mode of instruction	Assessment type	Assessment criteria
project	non-examination assessment	A pass mark for the project.

OVERALL STUDENT WORKLOAD

ECTS weighting

No.	Activity type	Student workload										Unit
		full-time programme					part-time programme					
1.	Scheduled contact hours	L	C	Lb	P	S	L	C	L b	P	S	h
					30							
2.	Other contact hours (office hours, examination)				2							h
3.	**Total number of contact hours**	**32**										h
4.	**Number of ECTS credits for contact hours**	**1,3**										ECTS
5.	**Number of independent study hours**	**18**										h
6.	**Number of ECTS credits for independent study hours**	**0,7**										ECTS
7.	**Number of practical hours**	**50**										h
8.	**Number of ECTS credits for practical hours**	**2,0**										ECTS
9.	**Total study time**	**50**										h
10.	**ECTS credits for the course** *1 ECTS credit = 25-30 hours of study time*	**2**										ECTS

READING LIST

1. Mazur D., Rudy M.: Modelowanie w systemie NX CAD. Oficyna Wydawnicza Politechniki Rzeszowskie Rzeszów 2016
2. Menchen P., Budzyński A.: NX 8.5 Ćwiczenia. GMSystem Wrocław 2012
3. Menchen P.: NX 9.0. Ćwiczenia „Od koncepcji do wytwarzania – krok po kroku". GM System Wrocław 2013.
4. Przybylski W., Deja M.: Komputerowo wspomagane wytwarzanie maszyn. Podstawy i zastosowanie. WNT Warszawa 2007.
5. Antosiewicz M.: Modelowanie powierzchniowe, Tom I. Wydawnictwo CAMdivision, Rzeszów 2022.
6. Antosiewicz M.: Modelowanie powierzchniowe, Tom II. Wydawnictwo CAMdivision, Rzeszów 2022.
7. Jóźwiak D., Antosiewicz M.: Podstawy modelowania Synchronous & Realize Shape, Wydawnictwo CAMdivision, Miękkinia 2015.