COURSE SPECIFICATION

Course code	full-time programme:	**M#2-S1-ME-306**
	part-time programme:	
Course title in Polish	**Komputerowy zapis konstrukcji**	
Course title in English	**Computer-Aided Engineering Drawing**	
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	**all**
Department responsible	**Department of Machine Design and Machining**
Course leader	**dr inż. Urszula Janus-Gałkiewicz**
Approved by	**dr hab. Jakub Takosoglu, prof. PŚk, Dean of the Faculty of Mechatronics and Mechanical Engineering**

COURSE OVERVIEW

Course type		**programme-specific**
Course status		**compulsory**
Language of instruction		**English**
Semester of delivery	full-time programme	**Semester III**
	part-time programme	
Pre-requisites		**Technical drawing Engineering drawing**
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**
Knowledge	W01	Has advanced knowledge in the field of engineering graphics that supports solving various types of engineering issues.	MiBM1_W03

	W02	Knows the principles, methods and purposes of creating technical documentation with elements of engineering design using graphic programs.	MiBM1_W09
Skills	U01	Is able to use knowledge from the area of basic sciences to solve tasks at the design stage. Is able to make assessments and express opinions and comments.	MiBM1_U01
	U02	Is able to use computer software in the field of mechanics and machine design.	MiBM1_U02
	U03	Is able to plan and implement his/her own learning, understands the need and knows the possibilities of continuous learning and improving professional qualifications.	MiBM1_U21
Competence	K01	He is ready to critically evaluate his knowledge and the need to acquire new information.	MiBM1_K01
	K02	Is ready to perform professional roles related to the field of study in mechanics and machine design and to comply with ethical principles.	MiBM1_K06

COURSE CONTENT

Type of instruction lecture	Topics covered
laboratory	Sketch entities, sketch tools, sketch relations. Application of operations: Extruded boss/base, extruded cut, revolved boss/base, revolved cut, swept boss/base. Modification of parts by adding fillets and chamfers. Simplification by using circular, linear and mirror elements. Preparation of the drawings from parts (selection of the main view, six views, minimum number of views). Sections, half-section, partial section, assembly drawing. Types, symbols and selection of surface roughness. Tolerances: shape and position.

ASSESSMENT METHODS

Outcome code	Methods of assessment *(Mark with an X where applicable)*					
	Oral examination	Written examination	Test	Project	Report	Other
W01				X		
W02				X		
U01			X			
U02			X			
U03			X			
K01				X		
K02				X		

ASSESSMENT TYPE AND CRITERIA

Mode of instruction	Assessment type	Assessment criteria

laboratory	non-examination assessment	Passing two tests with a minimum of 50%.

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	Lb	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. Dobrzański T., (2019), Rysunek techniczny maszynowy, Wydawnictwo Naukowe PWN, WNT, Warszawa
2. Lewandowski T., (2018), Rysunek techniczny dla mechaników, wyd. 17, Wyd. Szkolne i Pedagogiczne, Warszawa
3. Molasy R., (2012), Grafika Inżynierska, Wydawnictwo Politechniki Świętokrzyskiej, Kielce
4. Narayana K.L., Kannaiah P., Venkata K., (2006), Machine drawing, New Age International (P) Ltd.
5. Simmons C.H., Phelps N., Maguire D.E., (2012), Manual of Engineering Drawing, Elsevier
6. Kęska P. (2018), SOLIDWORKS 2018 Nowości w programie, porady praktyczne oraz ćwiczenia, CADvantage, Warszawa, 2018