



Fundusze Europejskie
dla Rozwoju Społecznego



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COURSE SPECIFICATION

Course code	full-time programme:	M#2-S1-ME-104
	part-time programme:	
Course title in Polish	Rysunek Techniczny	
Course title in English	Technical 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. Robert Molasy
Approved by	dr hab. Jakub Takosoglu, prof. PŚk, Dean of the Faculty of Mechatronics and Mechanical Engineering

COURSE OVERVIEW

Course type		basic
Course status		compulsory
Language of instruction		English
Semester of delivery	full-time programme	Semester I
	part-time programme	
Pre-requisites		
Examination required (YES/NO)		NO
ECTS value		3

Mode of instruction		lecture	class	laboratory	project	seminar
No. of hours per semester	full-time programme	15			30	
	part-time programme					



Politechnika Świętokrzyska
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Projekt „Dostosowanie kształcenia w Politechnice
Świętokrzyskiej do potrzeb współczesnej gospodarki”
nr FERS.01.05-IP.08-0234/23



Wydział Mechatroniki
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LEARNING OUTCOMES

Category of outcome	Outcome code	Course learning outcomes	Corresponding programme outcome code
Knowledge	W01	Knows, at an advanced level, the techniques of manufacturing machine parts and advanced knowledge enabling the design of the appropriate variant of the device, depending on the manufacturing techniques.	MiBM1_W06 MiBM1_W07
	W02	Knows, at an advanced level, the principles, methods and purposes of creating and analyzing technical documentation using standard design methods	MiBM1_W09 MiBM1_W15
	W03	Has structured knowledge of the principles of designing machine parts and mechanical structures used in mechanics and machine.	MiBM1_W09 MiBM1_W15
Skills	U01	Is able to use knowledge from the area of basic sciences to formulate and solve engineering tasks in various areas of mechanics and machine, at the stage of design, construction and selection of materials	MiBM1_U01
	U02	Is able to obtain information from literature, databases and other sources in various languages regarding mechanics and machine when designing machine structures	MiBM1_U01 MiBM1_U03
Competence	K01	Is aware of the importance and understanding of non-technical aspects and effects of engineering activities, including its impact on the safety of other people when designing machines and devices	MiBM1_K02
	K02	Is aware of the need to independently supplement and expand knowledge in the field of mechanics and machine	MiBM1_K02 MiBM1_K03

COURSE CONTENT

Type of instruction lecture	Topics covered
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lecture	<p>Discussion of the scope of the material with particular attention to the creation of technical documentation of machines and mechanical devices.</p> <p>Types of drawing lines and their use, technical writing, drawing scales, sheet formats and title block.</p> <p>Creating drawings from parts. Throwing methods, limit the number of views (and cuts and sections), choice of views. Section/cut in one plane. Section/cut in two parallel planes. Section/cut in two intersecting planes.</p> <p>Dimension lines, extension lines, dimensional signs and numbers. Arrangements of dimensions.</p> <p>Dimensioning of rotating elements. Dimensioning of symmetrical elements.</p> <p>Drawing simplifications (interrupted views and cuts, local cuts/sections, crop view, half in cut/section of symmetrical part, local views, details, $\frac{1}{2}$ and $\frac{1}{4}$ views and cuts, one view).</p>
project	<p>The student becomes familiar with creating drawings from parts. Learns general information on views and determines limit the number of views (and cuts and sections) for a specific detail. It uses section/cut in one plane, section/cut in two parallel planes, section/cut in two intersecting planes. In accordance with the principle and types of dimensioning, it calculates the necessary dimensions (taking into account the simplifications used in dimensioning). Depending on the complexity of the parts, drawing simplifications are used.</p>

ASSESSMENT METHODS

Outcome code	Methods of assessment <i>(Mark with an X where applicable)</i>					
	Oral examination	Written examination	Test	Project	Report	Other
W01			x	x		
W02			x	x		
W03			x	x		
U01			x	x		
U02				x		
K01				x		
K02				x		

ASSESSMENT TYPE AND CRITERIA

Mode of instruction	Assessment type	Assessment criteria
lecture	non-examination assessment	The pass mark is a minimum of 50% for all the in-class the final examination.
project	non-examination assessment	The pass mark is a minimum of 50% for all the in-class the developed projects.

OVERALL STUDENT WORKLOAD

ECTS weighting			
No.	Activity type	Student workload	Unit





		full-time programme					part-time programme					
		L	C	Lb	P	S	L	C	Lb	P	S	
1.	Scheduled contact hours	15			30							h
2.	Other contact hours (office hours, examination)	2			2							h
3.	Total number of contact hours	49										h
4.	Number of ECTS credits for contact hours	2,0										ECTS
5.	Number of independent study hours	26										h
6.	Number of ECTS credits for independent study hours	1,0										ECTS
7.	Number of practical hours	50										h
8.	Number of ECTS credits for practical hours	2,0										ECTS
9.	Total study time	75										h
10.	ECTS credits for the course <i>1 ECTS credit = 25-30 hours of study time</i>	3										ECTS

READING LIST

1. PN-EN, PN-ISO, PN.
2. Molasy R. Grafika Inżynierska – zasady rzutowania i wymiarowania, PŚk, Kielce
3. Molasy R. Rysunek Techniczny: chropowatość i falistość powierzchni, tolerancje geometryczne i tolerowanie wymiarów”, PŚk Kielce 2016.
4. Dobrzański T - Rysunek techniczny maszynowy - wyd. 06.2021
5. Figurski J, Popis S. – Rysunek techniczny w branży mechanicznej i samochodowej. Wyd. 06.2016
6. www.pkm.edu.pl

