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	1. Is aware of the need for life	felong learning; inspiring and orga	nizing the learning process of ot	her persons within the	
2. Student is aware of validity and understands non-technical aspects and effects of engineering activities, including the impact on the environment, and connected liability for making decisions - [K1A_K08]	2. Student is aware of validit				

Assessment methods of study outcomes				
-Formative evaluation:				
a) Exercise: based on the assessment of the current exercise progress of the ter				
b) Lecture: based on the answers to questions concerning the material from pre-				
Summary evaluation:				
a) Exercise: credit in the form of technical drawings from the implemented conte	nts of the program			
b) Lecture: credit in the form of a selection test	nie er nie program			
Course description				
·				
-Program content:				
The program of subject includes the following topics: types of drawings, sheet formats, standardized technical drawing elements, types and distribution of sections, views and intersections, dimensioning, tolerance of dimensions, shape and position, determination of surface roughness and waviness, connection of machine parts, axles, arbour, bearings, clutches and brakes. Drawing and reading of schemes: mechanical, hydraulic, pneumatic, thermal energy and vacuum technology, electrical drawing elements, chemical and architectural - construction. Drawings: Executives, assemblies, graphs and nomograms.				
Educational methods:				
a) Lecture: Monographic lecture using a computer with the division of program content into separate thematic issues in relation to the thematic scope of the exercises.				
b) Excercise: exercise method with elements of demonstration method and causerie method according to the program content.				
Basic bibliography:				
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2. Mazur J., Kosiński K., Polakowski K., Grafika inżynierska z wykorzystaniem r	netod CAD, OWPW, 20	14		
3. http://pbc.biaman.pl/Content/118/Grafika%20inzynierska.pdf				
4. http://bcpw.bg.pw.edu.pl/Content/756/drozdziel.pdf				
5. Dobrzański T., Rysunek techniczny maszynowy, Wydawnictwo WNT, Warsz	awa 2015.			
6. Filipowicz K., Kowal A., Kuczaj M., Rysunek techniczny, Wydawnictwo Polited		2016.		
7. Zakres aktualnych aktów normatywnych z zakresu rysunku technicznego ? w	ymagania ogólne.			
Additional bibliography:				
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2. PN-EN ISO 5456-1:2002 Rysunek techniczny. Metody rzutowania. Część 1: F				
3. PN-EN ISO 5456-2:2002 Rysunek techniczny. Metody rzutowania. Część 2: F	-	atne		
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5. PN-87/M-01145 Rysunek techniczny maszynowy. Tolerancje kształtu i położe				
 6. Molasy R., Rysunek techniczny: chropowatość i falistość powierzchni, tolerancje geometryczne i tolerowanie wymiarów, 				
Wydawnictwo Politechniki Świętokrzyskiej, Kielce, 2016				
Result of average student's workload				
Activity		Time (working hours)		
1. Lecture		12		
2. Classes	12			
3. Consultation	6			
4. Preparation for Classes		10		
Student's workload				
Source of workload	hours	ECTS		
Total workload	40	2		
Contact hours	30	2		
Practical activities	12	1		