GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Descriptive geometry, PG_00055590		
Field of study	Architecture		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2021/2022
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Visual Techniques -> Faculty of Architecture		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. arch. Anna Wancław	
	Teachers	mgr inż. arch. Michał Malewczyk mgr inż. arch. Dariusz Cyparski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	15.0	0.0	45

E-learning hours included: 0.0

Adresy na platformie eNauczanie:
Descriptive Geometry I, 2021/22 - Moodle ID: 16419
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=16419

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	45	8.0	47.0	100

Subject objectives

Development of the ability of spatial manipulation in two dimensional drawing. Acquiring skills in using axonometric drawing.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U04] is able to use analytical methods to formulate and solve project tasks	He can use various methods of space mapping to solve simple spatial problems. He can present the effects of work in an attractive way. Has manual skills in the precise execution of linear drawings.	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
[K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design	He knows various methods of mapping space. Correctly constructs and reads spatial objects in various types of projections, also with the use of popular digital programs.	[SW1] Assessment of factual knowledge

Subject contents	Descriptive Geometry, lecture: 1. Introduction, elements of the space, projection, Monge projections 2. Projection of point, line and plane 3. Common elements, shadows 4. Parallelism, perpendicularity, transformation 5. Construction of polyhedrons, 6. Sections of polyhedrons, compounds of collineation 7. Revolution, developments of polyhedrons 8. Piercing points, intersection of polyhedrons 9. Orthogonal axonometric projection 10. Oblique axonometric projection 11. Geometry of roofs 12. Spatial model of the roof, digital visualization 13. Horizontal projection 14. Horizontal projection, engineering application 15. The road in the terrain Descriptive Geometry, project: 1. Introduction, elements of the space, projection, Monge projections 2. Projection of point, line and plane, transformation 3. Affiliation of elements 4, 5. Common elements, shadows 6. Construction of polyhedrons, 7. Sections of polyhedrons, compounds of collineation 8. Revolution, developments of polyhedrons, piercing points, 9. Intersection of polyhedron with line

	10.Test 1.Common elements, shadows. Polyhedrons 11, 12. Orthogonal axonometric projection, intersection of polyhedrons 13, 14. Oblique axonometric projection, shadows 15. Test 2. Axonometry
Prerequisites and co-requisites	
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
Quality of drawings from Descriptive Geometry	100.0%	50.0%
Aquiring minimum points form Descriptive Geometry reviews	51.0%	50.0%

Recommended reading	Basic literature	Górska Renata, *Descriptive geometry. Freshman Level Course Addressed to the Engineering Students* Wyd. Polit. Krakowskiej 2013
	Supplementary literature	Błach A., *Inżynierska geometria wykreślna,* Gliwice 2002 Grochowski B., *Geometria wykreślna z perspektywą stosowaną,* PWN 2018 Otto F.E., *Geometria wykreślna, PWN* 1977
	eResources addresses	Descriptive Geometry I, 2021/22 - Moodle ID: 16419 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=16419
Example issues/ example questions/ tasks being completed	1. Construct shadows of polyherdra and line 2. Construct projections of the polyhedron, based on the data of the axis of symmetry and one of the vertices 3. Construct the line of intersection of two given polyhedra 4. In axonometry defined by axes *x, y, z* contruct a polyhedron and its own shadow and the shadow cast on the planes of projection	
Work placement	Not applicable	