GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Information Techniques in Urban Planning, PG_00068293		
Field of study	Spatial Development		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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 Arts -> Faculty of Architecture -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. arch. Małgorzata Rogińska-Niesłuchowska	
	Teachers	mgr inż. arch. Barbara Chomicka dr inż. arch. Małgorzata Rogińska-Niesłuchowska	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	45.0	0.0	0.0	45

E-learning hours included: 0.0

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	5.0	50.0	100

Subject objectives

The course aims to provide students with a foundational understanding of the application of information and communication technologies (ICT) in spatial and urban planning practice. Particular emphasis is placed on developing essential skills in the digital visualization and analysis of both natural and built environments. Students will learn to utilize specialized computer software to create graphic materials and visual presentations that effectively support the communication of planning concepts and analyses.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U07] evaluates the usefulness of standard methods and tools used in planning and management of spatial development and is able to select and apply the most appropriate ones	The student is able to assess the applicability of standard methods and tools used in the process of spatial planning and development management, and is capable of selecting and applying the most appropriate ones.	[SU4] Assessment of ability to use methods and tools
[K6_U02] has the ability to abstractly understand technical problems; applies basic mathematical and simulation methods in urban design and spatial planning; uses information and communication techniques used in planning practice to present studies and design solutions related to spatial management and to conduct social discussions	The student demonstrates basic skills in the digital visualization of natural and built environments and is able to use CAD-type software to develop graphic presentations of planning studies and design proposals related to spatial management.	[SU4] Assessment of ability to use methods and tools

Subject contents

Course content – laboratory

The course addresses issues related to the use of CAD software in urban design and spatial planning. It covers the types of CAD tools applied in planning practice and explores the integration of graphics with numerical and textual data. In the context of planning and design work, particular emphasis is placed on developing skills in data exchange, enhancing design proficiency, and optimizing methods of both individual and collaborative work.

Prerequisites and co-requisites		
Assessment methods and criteria		

Subject passing criteria	Passing threshold	Percentage of the final grade
	50.0%	50.0%
	50.0%	50.0%

Recommended reading	Basic literature	1. Course materials on the course websites 2. User manuals available within the programs and/or provided online by the manufacturers
	Supplementary literature	1. Andrzej Pikoń , "AutoCAD 2024 PL. Pierwsze kroki", wyd. Helion 2. A. Jaskulski, AutoCAD 2020/LT20120 (2013+) Podstawy projektowania parametrycznego i nieparametrycznego. Wersja polska i angielska, PWN 2019 + ćwiczenia https://it.pwn.pl/ Artykuly/ AutoCAD-2020-LT-2020-2013 3. A. Jaskulski, AutoCAD 2021 PL/EN/LT. Metodyka efektywnego projektowania parametrycznego i nieparametrycznego 2D i 3D, wyd. Helion 4. Zbigniew Krzysiak, "Modelowanie 3D w programie AutoCAD", wyd. Helion 5. Pottmann H, Asperl A., Hofer M., Kilian A.: Architectural Geometry. Bentley Institute Press
	eResources addresses	
Example issues/ example questions/ tasks being completed	Sample assignment topics: Creating a drawing template in .dwt format Creating blocks of symbols and conventional symbols used on a base map Creating blocks with attributes (text information, numerical variables) - e.g., building plans, plot outlines Preparing tabular summaries of data contained in block attributes Creating simple blocks of dynamic symbols and conventional symbols used on a base map Using maps and external references (xrefs) Creating a digital version of a fragment of a local development plan (MPZP) Performing spatial development analyses 3D models of simple buildings in an urban layout. Modeling the terrain surface Defining views in axonometric projections, perspective projections, terrain sections, street frontages, and/or city squares Multi-view presentations in 2D and 3D (projections, sections, perspective, or 3D axonometric views)	
Practical activites within the subject	Not applicable	

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