



Subject card

Subject name and code	CAD. 3D Modeling, PG_00052766						
Field of study	Architecture						
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	2	ECTS credits			2.0		
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 hab. inż. arch. Maria Helenowska-Peschke				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30		2.0		18.0	50
Subject objectives	<ol style="list-style-type: none"> Expanding knowledge and deepening skills in the use of advanced digital tools for creating complex geometric structures and arbitrary (curvilinear) forms. Expanding knowledge and deepening skills in the use of advanced rendering engines that simulate the physical characteristics of the real world for the presentation of designed architectural objects. Gaining knowledge about current trends in the development of tools for advanced modeling of architectural objects (parametric modeling, animation, BIM). 						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U03] is able to prepare a graphic, written and oral presentation of your own design concepts in the field of architecture and urban planning, meeting the requirements of a professional record appropriate for architectural and urban design		Uses various techniques and tools in a professional environment appropriate for architectural and urban design; understands the specifics and capabilities of different computer tools and can select the appropriate digital tool for the project task being undertaken (drawing, modeling, documentation development); comprehends the role of architectural visualization in communicating design ideas.		[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools		
Subject contents	<p>Course content – laboratory</p> <ol style="list-style-type: none"> 3D geometry modeling in AutoCAD v 2024 - tools for modeling Solid, Surface (Nurbs), and Mesh objects. Creating project presentations using advanced rendering and the layout of multiple views in AutoCAD v 2024. Utilizing modeling and visualization skills for the task completed in the Architectural Project course, semester 2. 						

Prerequisites and co-requisites	<ol style="list-style-type: none"> 1. Ability to create 2D architectural drawings. 2. Ability to build models of architectural objects with simple geometry. 3. Ability to perform final processing of raster images. 											
Assessment methods and criteria	<table border="1"> <thead> <tr> <th>Subject passing criteria</th> <th>Passing threshold</th> <th>Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>80.0%</td> <td>50.0%</td> </tr> <tr> <td>50</td> <td>80.0%</td> <td>50.0%</td> </tr> </tbody> </table>	Subject passing criteria	Passing threshold	Percentage of the final grade	50	80.0%	50.0%	50	80.0%	50.0%		
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Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>Manual and help on line</p> <p>https://help.autodesk.com/view/ACD/2024/ENU/?guid=GUID-5B6347C1-B458-4336-AB2A-C16AF161B755</p> <p>https://help.autodesk.com/view/ACD/2024/ENU/?guid=AUTOCAD_2024_UPDATES</p> <p>1. AutoCAD 2024 Instructor JAMES A. LEACH</p> <p>2. https://www.autodesk.com/autodesk-university/</p>										
Example issues/ example questions/ tasks being completed	<p>Model of an object with free curvilinear geometry</p> <p>Photorealistic visualization of the external scene (object with its surroundings)</p> <p>Development of variants of material and color solutions of your own design</p>											
Practical activities within the subject	Not applicable											

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