

Subject card

Subject name and code	Introduction to 3D Graphics, PG_00210552						
Field of study	Informatics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		3.0		
Learning profile	academic		Assessment form		exam		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Piotr Arłukowicz				
	Teachers		dr Piotr Arłukowicz				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Additional information:						
	Lecture, exercises, independent work						
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		0.0		20.0	50
Subject objectives	The aim of the course is to introduce students to the topics of creating three-dimensional graphics from a constructivist perspective. All necessary basic and advanced concepts are explained, and then through individual work, students prepare graphic projects using the techniques they have previously learned.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[INFL3_U01] can apply mathematical knowledge to formulate, analyze and solve problems related to computer science		The student is able to apply basic mathematical knowledge, particularly in analytical geometry, linear algebra, geometric transformations, and the description of three-dimensional space, to formulate, analyze, and solve problems related to modeling, texturing, lighting, and rendering 3D objects in computer graphics.		[SU4] test/exam - oral or written		
	[INFL3_K03] is able and ready to formulate opinions on basic IT issues		The student is able to formulate justified opinions on fundamental topics in computer graphics and 3D graphics, particularly those related to modeling, texturing, lighting, and rendering, and is prepared to assess the usefulness of selected techniques and tools in the implementation of simple computer science projects.		[SK4] test/exam - oral or written		

Subject contents	The course introduces students to the principles of three-dimensional computer graphics from a constructivist perspective. Through a combination of multimedia lectures, problem-based learning (PBL), case study analysis, and supervised individual exercises, students acquire both theoretical knowledge and practical skills in 3D modeling, lighting, texturing, and rendering using Blender. The course emphasizes self-directed learning and creative problem-solving within a technical context.		
Prerequisites and co-requisites	none		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	partial projects	51.0%	33.0%
	final project	51.0%	67.0%
Recommended reading	Basic literature	1. Jazemune Wualsona: The Essential Blender 4.1 2024 Guide For Beginners: Master 3D Modeling, Animation, and Rendering Techniques with Blenders Powerful Tools, Independently published (4 września 2024), ISBN-13: 979-8336929874	
	Supplementary literature	There are no up-to-date books specifically about Blender. However, any beginner-friendly book will provide some orientation on the topic.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Example assignments: https://inf.ug.edu.pl/~piotao/zajecia/egzamin/g3d/		
Work placement	Not applicable		

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