

1.	Field of study	Computer Science
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2024/2025 (winter term)
4.	Level of qualifications/degree	first-cycle studies (in engineering)
5.	Degree profile	general academic
6.	Mode of study	full-time

7. General information about the module	
Module name	Computer Graphics
Module code	W4-IN-S1-24-3-GK
Number of the ECTS credits	5
Language of instruction	Polish
Purpose and description of the content of education	<p>Celem modułu jest zdobycie przez studiumującego wiedzy i umiejętności w zakresie następujących treści kształcenia:</p> <ol style="list-style-type: none"> 1. Znajomość podstawowych pojęć, definicji i algorytmów stosowanych w grafice komputerowej 2D i 3D. 2. Znajomość podstawowych technologii i interfejsów graficznych do tworzenia animacji 2D i 3D. 3. Umiejętność samodzielnego modelowania obiektów i tworzenia animacji 3D. 4. Umiejętność programowania gry 2D.
List of modules that must be completed before starting this module (if necessary)	not applicable

8. Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)
U01	potrafi wymodelować obiekt 3D użyciem popularnych narzędzi do modelowania	IN_U07	3
U02	potrafi stworzyć animację 3D w wybranym środowisku projektowym	IN_U07	2
U03	potrafi stworzyć grę 2D w wybranym języku programowania	IN_U07	2
W01	zna podstawowe pojęcia i algorytmy z zakresu grafiki 2D i 3D	IN_W01	2
W02	zna podstawowe metody tworzenia grafiki 2D i 3D statycznej i animowanej	IN_W08	3
W03	ma wiedzę w zakresie programowania grafiki interaktywnej 2D	IN_W03	2

9. Methods of conducting classes		
Code	Category	Name (description)
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture <i>a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided</i>
d01	Programmed learning methods	Working with a computer

		e.g., Webquest; implementation of educational tasks using electronic and digital devices, computer programs and Internet applications; the academic teacher acts as a consultant; students' work is carried out step by step according to the plan laid own by the person teaching the course and following his instructions, and proceeds towards producing the indicated results within the set deadline
d02	Programmed learning methods	Working with a programmed textbook working with a textbook containing instructional material covering part of or the entire curriculum of the module as well as a formula for studying the content; includes working with a subject textbook, an atlas, a catalogue, a problem book, etc.
e01	Practical methods	Laboratory exercise / experiment [also conducted as fieldwork] a method of practical application of knowledge; implemented in three stages: the recognition of a problem induced by the task content, the formulation of the problem and the attempt to solve it accompanied by the assessment of the effects; the goal is to acquire skills, abilities and habits, and to consolidate the acquired knowledge so that it becomes operational; the laboratory method assumes greater independence of learners than carrying out an experiment
f01	Methods of self-learning	Self-education a method which involves independent acquisition of knowledge, skills and social competences, extending their scope and quality; complementary to the learning process taking place in class; taking on the task of developing and adjusting qualifications on one's own; self-study

10. Forms of teaching

Code	Name	Number of hours	Assessment of the learning outcomes of the module	Learning outcomes of the module	Methods of conducting classes
01	lecture	30	course work	W01, W02, W03	a01
02	laboratory classes	30	course work	U01, U02, U03	d01, d02, e01, f01

11. The student's work, apart from participation in classes, includes in particular:

Code	Category	Name (description)	Is it part of the BUNA?
a01	Preparation for classes	Search for materials and review activities necessary for class participation reviewing literature, documentation, tools and materials as well as the specifics of the syllabus and the range of activities indicated in it as required for full participation in classes	No
a02	Preparation for classes	Literature reading / analysis of source materials reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class	No
a03	Preparation for classes	Developing practical skills activities involving the repetition, refinement and consolidation of practical skills, including those developed during previous classes or new skills necessary for the implementation of subsequent elements of the curriculum (as preparation for class participation)	No

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <https://usosweb.us.edu.pl>.