

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

7. General information about the module	
Module name	Multimedia
Module code	W4-MT-S1-24-Mul
Number of the ECTS credits	2
Language of instruction	Polish
Purpose and description of the content of education	<p>Celem modułu jest</p> <ol style="list-style-type: none"> 1. Przegląd urządzeń multimedialnych; 2. Dźwięk – rejestrowanie dźwięku na komputerze, formaty plików dźwiękowych; 3. Reprezentacja obrazu w komputerze, wyjaśnienie pojęcia grafiki rastrowej i wektorowej, zalety i wady, zastosowanie, formaty zapisu, edytory grafiki; grafika trójwymiarowa. 4. Obsługa programu GIMP, Inkspace. 5. Opracowywanie filmu w programach komputerowych.
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)
Mul_1	zapoznaje się z możliwościami nowych urządzeń cyfrowych, objaśnia ich funkcję i towarzyszącego im oprogramowania oraz korzysta z ich możliwości	KN_I_U06 KN_I_W05	4 4
Mul_2	zna formaty plików dźwiękowych i potrafi zarejestrować dźwięk na komputerze	KN_I_U06 KN_I_W05	4 4
Mul_3	tworzy estetyczne kompozycje graficzne: tworzy kolaże, wykonuje zdjęcia i poddaje je obróbce zgodnie z przeznaczeniem, nagrywa krótkie filmy oraz poddaje je podstawowej obróbce cyfrowej	KN_I_U06 KN_I_W05	4 4
Mul_4	projektuje modele dwuwymiarowe i trójwymiarowe, tworzy i edytuje projekty w grafice rastrowej i wektorowej, wykorzystuje różne formaty obrazów, przekształca pliki graficzne, uwzględniając wielkość i jakość obrazów	KN_I_U06 KN_I_W05	4 4
Mul_5	tworzy i edytuje dwuwymiarowe oraz trójwymiarowe wizualizacje i animacje, stosuje właściwe formaty plików graficznych	KN_I_U06	3
Mul_6	korzysta z urządzeń do nagrywania obrazów, dźwięków i filmów, w tym urządzeń mobilnych	KN_I_U06	4

9. Methods of conducting classes		
Code	Category	Name (description)
d01	Programmed learning methods	Working with a computer <i>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</i>
f01	Methods of self-learning	Self-education <i>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</i>

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
Mul_fs_1	laboratory classes	30	course work	Mul_1, Mul_2, Mul_3, Mul_4, Mul_5, Mul_6	d01, f01

11. The student's work, apart from participation in classes, includes in particular:			
Code	Category	Name (description)	Is it part of the BUNA?
a02	Preparation for classes	Literature reading / analysis of source materials <i>reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class</i>	No
a03	Preparation for classes	Developing practical skills <i>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)</i>	No
a04	Preparation for classes	Consulting materials complementary to those indicated in the syllabus <i>agreeing on materials complementary to those indicated in the syllabus, supporting the implementation of tasks resulting from or necessary for class participation</i>	Yes
c01	Preparation for verification of learning outcomes	Determining the stages of task implementation contributing to the verification of learning outcomes <i>devising a task implementation strategy embracing the division of content, the range of activities, implementation time and/or the method(s) of obtaining the necessary materials and tools, etc.</i>	Yes
d01	Consulting the results of the verification of learning outcomes	Analysis of the corrective feedback provided by the academic teacher on the results of the verification of learning outcomes <i>reading through the academic teacher's comments, assessments and opinions on the implementation of the task aimed at checking the level of the achieved learning outcomes</i>	Yes

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>.