Załącznik nr 9
do Zarządzenia Rektora PŚk Nr 35/19
w brzmieniu ustalonym Zarządzeniem Nr 12/22

COURSE DESCRIPTION

Course code	full-time studies	
	part-time-studies	
Course name	**Podstawy grafiki komputerowej 2**	
Course name in English	**Basics of the computer graphics 2**	
Valid from academic year	**2022/23**	

PLACEMENT IN THE TEACHING PROGRAM

Field of study	**Computer Science**
Level of education	**1st degree**
Studies profile	**General**
Form and method of teaching classes	**Full-time and part-time studies**
Specialization	**All specializations**
Organizational unit responsible for the course	**Department of Computer Systems**
Course coordinator	**Grzegorz Łukawski**
Approved by	**Dean of the Faculty of Electrical Engineering, Automatic Control and Computer Science Roman Deniziak, KUT prof., DSc, PhD**

GENERAL CHARACTERISTIC OF THE COURSE

Course affiliation		**Introductory course**
Course status		**Mandatory**
Language		**English**
Semester	full-time studies	**4th**
	part-time-studies	**5th**
Requirements		**Basics of the computer graphics 1**
Exam (YES/NO)		**NO**
ECTS		**1**

Course form		**lecture**	**classes**	**laboratory**	**project**	**other**
Hours per semester	full-time studies	**-**	**-**	**-**	**15**	**-**
	part-time-studies	**-**	**-**	**-**	**9**	**-**

LEARNING RESULTS

Category	Result Symbol	Learning Results	References to the field of study results
Social competence	K01	Student is ready to analyse a programming problem, divide it into elements and cooperate in a team during its implementation.	INF_K1 INF_K2

COURSE CONTENT

Course Form	Content
project	Preparing an application realising a given algorithm for processing raster images or an application with visualisation using 3D graphics.

LEARNING RESULTS VERIFICATION METHODS

Result Symbol	Learning results verification methods					
	Oral Exam	Written Exam	Midterm	Project	Report	Other
K01				X	X	

ASSESSMENT FORMS AND CRITERIA

Course Form	Assessment Form	Assessment Criteria
project	Passing grade	The student should obtain at least 50% of points for the project task and report.

STUDENT'S VOLUME OF WORK

ECTS Balance												
No.	Activity Type	Student Involvement										Unit
		full-time studies					part-time-studies					
1.	Participation in classes according to the schedule	Lec	C	Lab	P	S	Lec	C	Lab	P	S	h
					15					9		
2.	Other (consultations, exams)				2					2		h
3.	**Total with the direct assist of an academic teacher**	**17**					**11**					h
4.	**Number of ECTS, that students obtains with the direct assist of an academic teacher**	**0,68**					**0,44**					ECTS
5.	**Hours of unassisted student work**	**8**					**14**					h
6.	**Number of ECTS that student obtains working unassisted**	**0,32**					**0,56**					ECTS
7.	**Practical classes volume of work**	**15**					**9**					h
8.	**Number of ECTS obtained by student at practical classes**	**0,6**					**0,36**					ECTS

9.	**Total student's volume of work expressed in hours**	**25**	**25**	h
10.	**ECTS**	**1**		ECTS

BIBLIOGRAPHY

1. Foley, James D.; van Dam, Andries; Feiner, Steven K.; Hughes, John: "Computer Graphics: Principles and Practice in C (2nd ed.)". Addison-Wesley 1995
2. Pavlidis, Theo: "Algorithms for Graphics and Image Processing", Berlin-Heidelberg-New York, Springer-Verlag 1982.
3. John Kessenich, Graham Sellers, Dave Shreiner: "OpenGL Programming Guide: The Official Guide to Learning OpenGL, 9th Edition", 2016.