GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Mobile multimedia technologies, PG_00047763		
Field of study	Informatics		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Geoinformatics -> Faculty of Electronics Telecommunications and Informatics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Przemysław Falkowski-Gilski	
	Teachers	dr inż. Przemysław Falkowski-Gilski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	12.0	0.0	9.0	6.0	0.0	27

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	27	10.0	63.0	100

Subject objectives

The goal of the subject is to familiarize the students with technologies applicable to mobile multimedia application development.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W02] knows and understands, to an increased extent, selected laws of physics and physical phenomena, as well as methods and theories explaining the complex relationships between them, constituting advanced general knowledge in the field of technical sciences related to the field of study	Students are able to properly design and implement appropriate algorithms.	[SW2] Assessment of knowledge contained in presentation
[K7_W03] knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum	Students are able to choose appropriate methods, tools, as well as hardware and software layer, depending on the specificity of the analyzed problem.	[SW3] Assessment of knowledge contained in written work and projects

<table>
<tr><td>Subject contents</td><td>1. Multimedia on mobile devices.

2. Video processing on mobile devices.

3. Mobile games.

4. Unity3D environment

5. Open GL ES

6. Augmented Reality</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Object-oriented programming.</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Written Exam</td><td>50.0%</td><td>40.0%</td></tr>
<tr><td>Project</td><td>50.0%</td><td>60.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>A. Munshi, D. Ginsburg, D. Shreiner: OpenGL ES 2.0 Programming Guide, Addison-Wesley, 2010.

Wright R. S., Haemel N., Sellers G., Lipchak B., “OpenGL SuperBible”, Addison-Wesley, 2010.

Hellman E., “Platforma Android – Nowe wyzwania”, Helion, 2014.</td></tr>
<tr><td>Supplementary literature</td><td>C. Morales, D. Nelson: Mobile 3D Game Development: From Start to Market;Charles River Media, 2007</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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