

**Course Syllabus**

Course from study programme for the cycle: 2022/2023

**I. General Information**

Course name	Programming project: graphics programming
Programme	Informatics
Level of studies (BA, BSc, MA, MSc, long-cycle MA)	BA
Form of studies (full-time, part-time)	full-time
Discipline	Informatics
Language of instruction	polish

Course coordinator	Dr Krzysztof Bartyzel
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Type of class ( <i>use only the types mentioned below</i> )	Number of teaching hours	Semester	ECTS Points
lecture			3
tutorial			
classes			
laboratory classes	30	VI	
workshops			
seminar			
introductory seminar			
foreign language classes			
practical placement			
field work			
diploma laboratory			
translation classes			
study visit			

Course coordinator	Obligatory subjects and subjects chosen within the framework of specialisation, necessary for the completion of the task set in the Bachelor's thesis. The ability to program. Fundamentals of software engineering.
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**II. Course Objectives**

Design and implementation of an application by students for their Bachelor's thesis. Develop documentation of the created application. Testing the application.
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### III. Course learning outcomes with reference to programme learning outcomes

Symbol	Description of course learning outcome	Reference to programme learning outcome
<b>KNOWLEDGE</b>		
W_01	The student has a basic knowledge of the technology he/she has chosen to create the application,	K_W08
W_02	The student is familiar with the software engineering methodology needed to complete the design of his application.	K_W08
<b>SKILLS</b>		
U_01	The student is able to: - design and develop an application with documentation, using selected technology and software engineering methodology, - test their application, - present his/her programming project, - complete tasks specified in the programming project schedule conscientiously and on time.	K_U02, K_U04, K_U08, K_U17, K_U23, K_U30

### IV. Course Content

<ul style="list-style-type: none"> <li>- Designing and writing an application according to the topic of the Bachelor's thesis.</li> <li>- Development of project documentation and application usage manual.</li> <li>- Testing of the application.</li> <li>- Presentation of the created application.</li> </ul>
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### V. Didactic methods used and forms of assessment of learning outcomes

Symbol	Didactic methods <i>(choose from the list)</i>	Forms of assessment <i>(choose from the list)</i>	Documentation type <i>(choose from the list)</i>
<b>KNOWLEDGE</b>			
W_01	Work under the guidance design thinking	Project	Project evaluation sheet
W_02	Work under the guidance design thinking	Project	Project evaluation sheet
<b>SKILLS</b>			
U_01	Project method design thinking	Project	Project evaluation sheet

### VI. criteria, weighting factors

The assessment consists of:

- \* Settlement in accordance with the schedule of individual stages of building the application.
- \* Preparation and presentation of the finished application with documentation.
- \* Attendance at classes.at least one not discussed algorithm in the field of processing and analysis of digital images

**VII. Grading criteria, weighting factors**

Form of activity	Number of hours
Number of contact hours (with the teacher)	<b>50</b>
Number of hours of individual student work	<b>40</b>

**VIII. Literature**

Basic literature
Literature recommended by the seminary leader.
Additional literature