

**BASIC INFORMATION:**

	<i>The code</i>	<i>The content</i>
Organizational unit	01.07.300	Faculty of Information Technologies
Abbreviation	01.07.300	FIT
Chair		The Department of Computer Graphics and Design (KatDiz)
Course/module	1.02.02.01.012	<b>Vector Graphics and Design</b>

**TYPE OF COURSE:**

Functional area	SPECIALIZED
Level of abstraction	MIDDLE
Course type - obligation	MANDATORY

**COURSE REGISTRATION:**

	<i>The code</i>	<i>The content</i>
Scientific field	1.00.00	Natural Sciences
Scientific area	1.02.00	Computer and Information Sciences
Narrow scientific field	1.02.02	Information Sciences and Bioinformatics
Subdistrict	1.02.02.01	Computer Multimedia and Graphics

**COURSE DESCRIPTION:**

Educational and professional goals:	In the context of this course, students acquire basic knowledge of vector graphics and design, including hardware and software components of computer graphics, creating, manipulating, and storing graphic content, color theory, computer graphics for business purposes, computer graphics for the Internet, design elements, which provide an excellent foundation for design, graphic editing, and design projects. Using a selected software tool as an example, students are trained to independently create graphic objects and use them for various purposes.
Competences/educational outcomes:	Students will be proficient in: <ul style="list-style-type: none"> <li>• Creating moderately complex vector graphic works.</li> <li>• Integrating text and images.</li> <li>• Integrating vector and bitmap graphics.</li> <li>• Basic and intermediate user-level skills in working with the computer graphics program Adobe Illustrator.</li> <li>• Working independently or in teams</li> </ul>
Skills mastered:	Working in Adobe Illustrator
Course content:	<p><i>Theoretical instruction:</i></p> <p>The teaching is based on interactive lectures, which are scheduled and utilize modern presentation and demonstration tools and techniques, taking into account the prior knowledge and specific experiences of each individual in the field, as well as an understanding of the continuity of material mastery. Through theoretical instruction, students will grasp the basic principles and rules of creating, manipulating, and distributing vector shapes and formats. The teaching is organized through typical lessons that successfully guide the student through the world of vector graphics and provide practical knowledge in the field.</p> <p><i>Practical instruction:</i></p>

	<p><i>Conducted in a modern multimedia laboratory where students acquire proficiency in the latest software tools for working with vector graphics (with a focus on Adobe Illustrator):</i></p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Drawing</li> <li>• Layers</li> <li>• Working with multiple objects</li> <li>• Object outlines (Stroke)</li> <li>• Basics of color theory</li> <li>• Object filling (Fill)</li> <li>• Text</li> <li>• Basics of working with bitmaps</li> <li>• Supplementary tools</li> <li>• Special effects</li> <li>• Printing and print preparation</li> </ul>
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**COURSE METRICS:**

ECTS	Teaching activities (lesson)					Individual work		TOTAL hours of work	
	Contact lessons		Exercises and trainings	Seminar and stud. papers	Pedagogical workshops	Professional and clinical practice	Individual. and group learning		Source research
	R	E							
<b>5</b>	20	10	30	24			60	6	<b>150</b>

<b>Teaching languages:</b>	<b>English</b>			
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**ACCESS CONDITIONS**

Code	Course/Module title	Grade	Description of conditions (additional)

**COURSE METHODOLOGY**

<p><i>Lectures:</i></p> <p>Classes are conducted according to a predetermined schedule, utilizing modern presentation and demonstration tools and techniques with the application of interactive methods of working with students. This allows gaining insights into their prior knowledge and specific experiences related to the discussed topics, as well as an understanding of the continuity of material mastery. Lectures are delivered using didactic and educational content in electronic and digital formats (including recorded lectures and mentor exercises). The entire teaching process is carried out using information and communication technologies (ICT), enabling students to actively engage in the process of knowledge acquisition through computer-supported learning and research. It fosters a deeper interaction with educational content and the application of research techniques during the knowledge acquisition process.</p> <p><i>Practical exercises:</i></p> <p>Practical exercises are designed for the hands-on exploration of topics in computer vector graphics. The content of the exercises follows the thematic units covered in lectures. During practical exercises, students will master the techniques of independently creating graphic objects and using them for various purposes, with the help of appropriate software tools.</p> <p><i>Seminar papers:</i></p> <p>Seminar papers represent a specific form of independent student work, where students are tasked with creating graphic works using specified software tools for graphic processing. Through seminar papers, students also practice methods and techniques for independent research and the use of academic sources, expanding their knowledge in the thematic field of computer graphics through practical application.</p>
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## STUDENT WORK EVALUATION

No.	Type of evaluation	partial/ final	elective / mandatory	percenta ge of participat ion
01	Participation in contact work - interaction in lectures	Pre-exam obligation or requirement	Mandatory	5%
02	Activity in exercises/laboratory work	Pre-exam obligation or requirement	Mandatory	5 %
03	Student's professional seminar paper	Pre-exam obligation or requirement	Optional	10 %
04	Examination activities - Defense of a practical problem task	Final	Mandatory	80%

## LITERATURE / SOURCES (listed in order of relevance)

Author (Last Name, First Name)	Publication title	Publisher's headquarter s	Publisher	Editio n year	Type of publicati on*
a/ Basic literature					
Adobe Systems	Adobe Illustrator Classroom in a Book	San Jose, California	Adobe Press	2022	Book
b/ Supplementary literature					
c/ Other sources – journals					
Author - Surname, First name (if the source is an article)	Journal title	Publisher's headquarter s	Publisher	Editio n year	Type of journal*
c/ Other sources – Internet (WEB) sources					
Site name	Site address	Title of work/hyperlink		Read	
<a href="https://creativecloud.adobe.com/">https://creativecloud.adobe.com/</a>	<a href="https://creativecloud.adobe.com/learn/app/illustrator">https://creativecloud.adobe.com/learn/app/illustrator</a>			2023	
(*)Type of publication (book, script, compendium, multimedia)					