

<b>Study program: Information Technology</b>			
<b>Course Title: VISUAL PROGRAMMING</b>			
<b>Teacher(s): Luković V. Vanja</b>			
<b>Course status: elective</b>			
<b>Number of ECTS credits: 5</b>			
<b>Prerequisite courses: Object-oriented programming, Databases</b>			
<b>Course objectives</b> Getting to know the basics of the .NET platform. Introduction to overloaded operators, delegates, classes, interfaces, and indexers. Familiarity with data collection, generic types, and methods. Familiarity with object-oriented event-driven programming for creating Windows and Web applications for working with databases. Within the course, the student independently works on a project. The project contains the practical implementation of a task and requires the application of acquired knowledge within the course.			
<b>Learning outcomes</b> Students will be introduced to overloaded operators, delegates, classes, interfaces, indexers, and collections. Students know what generic types and methods are. Students will know how to apply an object-oriented, event-driven approach to building Windows and Web applications. Also, students will be able to programmatically manage relational databases.			
<b>Content of the course</b> <i>Theoretical teaching</i> Basics of the .NET platform. Windows forms and controls, setting properties, and creating and handling events. Classes, constructors, properties, operator overloading, delegates, interfaces, indexers. Data collections. Generic types and methods. Nor. LINQ query language and working with databases. ASP.NET WebForms. <i>Practical teaching</i> Creation of computational examples of tasks in the computer classroom in accordance with theoretical teaching.			
<b>Literature:</b> [1] Albahari, Joseph. <i>C# 10 in a Nutshell</i> . O'Reilly Media, Inc., 2022, ISBN 978-1-098-12195-2. [2] Andrew Troelsen: <i>Pro C# 5.0 and the .NET 4.5 Framework</i> , Apress, 2012, ISBN 978-1-4302-4234-5 [3] Jesse Liberty, <i>Programming C#&gt; Building .NET Applications with C#</i> , O'Reilly Media, Inc., 2005, ISBN: 975-0-596-00699-0 [4] Laslo Kraus, <i>Programski jezik C# sa rešenim zadacima</i> , Akademska misao, Beograd, 2016, ISBN 978-86-7466-626-5 [5] Laslo Kraus, <i>Rešeni zadaci iz programskog jezika C#</i> , Akademska misao, Beograd, 2019, ISBN 978-86-7466-651-7 [6] Manual Radovanović : <i>Krenite u svet programiranja, sa C# programskim jezikom</i> , 2015.			
<b>Number of active teaching classes:</b> <b>4</b>	<b>Theoretical teaching: 2</b>	<b>Practical teaching: 2</b>	
<b>Teaching methods</b> Realization of lectures and exercises according to the model of interactive teaching (teaching methods: popular lecture, discussion, methods of practical work, workshops, playing); activated forms of learning: verbal meaningful receptive learning, discovery learning, cooperative learning, practical learning.			
<b>Evaluation of knowledge (maximum number of points 100)</b>			
<b>Pre-exam obligations</b>	<b>Points</b>	<b>Final exam</b>	<b>Points</b>
Activities during the teaching process	5	Final exam (written):	20
Practical teaching	/	Final exam (oral):	40
Colloquium	20		
Seminary work	15		