

Study program: Multimedia Communication Technologies			
Course title: Multimedia Applications Development			
Professor/assistant: Slavimir Stosovic, Ph. D.			
Type of course: elective			
ECTS credits: 7			
Pre-requisites:			
Aims of the course:			
Prepare students for:			
<ul style="list-style-type: none"> - understanding the basic terms of multimedia applications development for modern devices, - applying modern technologies in application design for different devices, - analyzing client requests and creating applications scenarios and modern users experience, - using different application environments for users interface design, - using multiplatform application development tools. 			
Learning outcomes:			
By mastering the subject, a student will be able to:			
<ul style="list-style-type: none"> - identify different kinds of multimedia applications and explain the difference between them, - structure, formulate and project an application for different screen sizes using the most effective methods and technologies, - develop application scenario, wireframes, user interface, and appropriate user experience for devices with the required complexity using one selected development platform, - develop a multiplatform application with an appealing user interface. 			
Syllabus			
<i>Theoretical part</i>			
Introduction to the development of mobile and web applications, web storefronts and markets, challenges and application architecture. Creating an appropriate user interface and taking care of user experiences. Review and comparison of technical capabilities of the three leading mobile operating systems - Apple (iOS), Google (Android), and Microsoft (Mobile OS). Installation, development, testing and distribution of applications. The challenge of developing mobile applications for different types and sizes of screens, graphical user interfaces and available devices. User interface, wireframes, sound and animation. Testing user satisfaction with the interface and the application scenario. Virtual reality and increased reality.			
<i>Practical part</i>			
Practical exercises will follow theoretical lessons. Students will be able to create an application scenario through the project task, design a user interface and develop the application using the Sketch software tools for creating multiplatform applications. They will learn to test and eliminate design errors, and to use tools to test user experience.			
Literature			
<ol style="list-style-type: none"> 1. Designing Interfaces, Patterns for Effective Interaction Design, Jenifer Tidwell, O'Reilly Media, 2010. 2. James Talbot, Justin McLean, Programiranje Android aplikacija, Addison-Wesley, CET, 2014. 3. Spring for Android Starter, Anthony Dahanne, Packt publishing, 2013. 4. J. Conway, A. Hillegass, iOS Programming, Big Nerd Ranch, 2012. 			
Number of active classes 75			Other forms of teaching:
Lectures: 45	Practical classes: 30	Research work:	
Teaching methods			
Grading system (maximum 100 points), grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.			
Pre-exam obligations	Points	Final exam	points
activity during theoretical lectures	10	written exam	20
practical training	20	oral exam	10
colloquium(s)/seminar papers	30+10		
Sum	70	Sum	30