Basic data of the subject	
University:	**University of Applied Sciences in Ferizaj**
Academic unit:	**Faculty of Engineering and Informatics**
Program:	**Applied Informatics**
Title of the subject:	**Mobile Application Development**
Level:	**Bachelor**
Course Status:	**Obligatory**
Year of studies:	**III, Semester V**
Number of hours per week:	**3**
Value of Credits - ECTS:	**5**
Time / location:	
Course lecturer:	
Contact details:	
Course Description:	*After completing this course, a student will acquire competence to develop and test a simple, dynamic user interface for Android applications and optimize it for different mobile devices. The student will learn how to create and test the mobile application that can save and display the entered user data. At the end of the course the students will present their projects - a dynamic user interface for Android applications with the database.*
Objectives of the course:	*The course objective is to teach students develop mobile application for Android OS using Eclipse and Android SDK.*
Expected learning outcomes:	*Upon successful completion of this course, student will be able to:* • *Be exposed to technology and business trends impacting mobile applications.* • *Apply knowledge of OOP for mobile application development.* • *Be competent with the characterization and architecture of mobile applications.* • *Be competent with understanding enterprise scale requirements of mobile applications.* • *Be competent with designing and developing mobile applications using Android Studio.* • *Create a graphical user interface for data entry and data searching.* • *Save, update, delete, and display records from a database.* • *Test created a mobile application.*
Prerequisites:	*Basic knowledge of programming and knowledge of Android operating systems.*

Contribution to the student load (which must correspond with learning outcomes)			
Activity	**Hour**	**Day/Week**	**In total**

Lectures with numerical exercises	3	15	45
Internship			
Contacts with teacher / consultations			
Field exercises			
Midterm, seminars and projects.	3	2	6
Homework			
Self-learning time student (at the library or at home)	3	15	45
Final preparation for the exam	7	2	14
Time spent on evaluation (tests, quiz and final exam)			
Projects and presentations.	3	5	15
Total			**125**

Teaching methodology:	*The course takes 15 weeks with 1.5 hours of lectures and 1.5 hours weekly individual and group exercises.* *Exercises will be held in the form of individual and group work in which concrete examples will be discussed.* *Active participation is extremely important so students are encouraged to attend lectures and exercises regularly and contribute to the discussions that take place in lectures. Lectures, exercise, individual work, discussions and group work.*
Assessment methods:	*The student can choose to be assessed one of the two forms of assessment, given below:* *1. Form 1: Evaluation with colloquiums and project* *2. Form 2: Evaluation with the final exam.* ***Form 1:*** *In the first form of assessment "Assessment with colloquiums and project" the student is assessed in four activities that are carried out during the lectures:* *1. Colloquium 1 (35%), individual assessment* *2. Colloquium 2 (35%), individual assessment* *3. Class activity (10%), individual assessment* *4. Project (20%), group assessment.* *If the student is not satisfied with the assessment achieved according to form 1, then he can undergo the assessment according to form 2 to obtain a higher assessment.* ***Form 2:*** *Through the final exam, the student can achieve a maximum of 70% of the points from the total of 100 points.* *The rest of the 20% points must be completed by group work in the Project, an activity carried out during the lectures.*

	In Colloquium 1, Colloquium 2 and the final exam, the evaluation of the students will be done through an evaluation form, which must be completed individually by the student. The evaluation form will contain 5 tasks through which the student's learning outcomes will be evaluated. *Activity in the class means the student's engagement in dealing with the issues discussed in the class, during the lectures.* *Project (20%), group assessment: it is an activity in which students apply the acquired knowledge in a concrete project. It is carried out in groups of 3 or 4 students who are obliged to carry out the activity, document and present it to the subject professor.* ***Rating:*** *91-100 points – graded 10 (ten)* *81-90 points – graded 9 (nine)* *71-80 points – grade 8 (eight)* *61-70 points – grade 7 (seven)* *51-60 points – grade 6 (six)* *0-50 points – The student repeats the exam*
The ratio of theory and practice:	*70% theory and 30% practice.*
Literature	
Basic Literature:	1. *Phillips, B. Stewart, C.Hardy, B., Marsicano, K. (2015). Android Programming:The Big Nerd Ranch Guide.600p*
Additional Literature:	2. *Manas, E. L., Grancini, D. (2016). Android High Performance Programming. Packt Publishing. 412 p.*
Designed learning plan	
Week:	**Lectures and exercises to be held**
Week one:	*Introduction.*
Week two:	*The Architecture of Android OS.*
Week three:	*Preparation to Android App Programming.*
Week four:	*Android Application Components.*
Week five:	*First project.*
Week six:	*Content of an Android app.*
Week seven:	*Test 1*
Week eight:	*IDE support.*
Week nine:	*Object – oriented design.*
Week ten:	*External Services.*
Week eleven:	*Internal Services.*
Week twelve:	*UI Development in Android.*
Week thirteen:	*Non-functional requirements and testing.*
Week fourteen:	*Wrap up.*
Week fifteen:	*Test 2*
Academic policies and rules of conduct	

Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.