

UNIVERSITY OF ECONOMICS - VARNA
MASTER DEGREE STUDIES CENTER
DEPARTMENT „INFORMATICS“

ACCEPTED BY:

Rector:

(Prof. Dr. Plamen Iliev)

SYLLABUS

SUBJECT: “MOBILE APPLICATION DEVELOPMENT”;

DEGREE PROGRAMME: “Computer Science”; MASTER`S DEGREE

YEAR OF STUDY: 5; SEMESTER: 10 (same field graduates);

YEAR OF STUDY: 6; SEMESTER: 11 (other fields graduates);

TOTAL STUDENT WORKLOAD: 210 h.; incl. curricular 60 h.

CREDITS: 7

DISTRIBUTION OF WORKLOAD ACCORDING TO THE CURRICULUM

<i>TYPE OF STUDY HOURS</i>	WORKLOAD, h.	TEACHING HOURS PER WEEK, h
CURRICULAR:		
incl.		
• LECTURES	30	2
• SEMINARS (lab. exercises)	30	2
EXTRACURRICULAR	150	-

Prepared by:

1.
(Prof. Dr. Vladimir Sulov)

2.
(Chief Assist. Prof. Dr. Ivan Kuyumdzhiev)

3.
(Assit. Prof. Bonimir Penchev)

Head of department:
“Informatics” (Prof. Dr. Vladimir Sulov)

I. ANNOTATION

The course aims to develop theoretical knowledge and practical skills for mobile application development. Topics cover the basic types of mobile operating systems, types of mobile applications and development tools.

Students have the opportunity to learn the specifics of the latest platforms for mobile applications development and to gain the necessary knowledge to make an informed choice of an appropriate methodology in the project development. The necessary prerequisites for better understanding of the topics are: basic knowledge in the fields of programming, web programming and database fundamentals.

After successful completion of the course, the students can work as developers of mobile applications.

II. THEMATIC CONTENT

No. by row	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	L.E.
1. Development of hybrid mobile applications		14		14
1.1	Introduction to mobile applications. Mobile operating systems - architecture, types and characteristics. Types of mobile applications.	4		
1.2	Development tools	6		8
1.3	Using database for hybrid mobile applications	2		4
1.4	Testing and implementation	2		2
2. Development of native mobile applications		8		8
2.1	Development tools	4		4
2.2	Working with databases	2		2
2.3	Testing and implementation	2		2
3. Development of mobile web applications		8		8
3.1	Development tools	4		4
3.2	Working with databases	2		2
3.3	Testing and implementation	2		2
Total:		30		30

III. FORMS OF CONTROL:

No. by row	TYPE AND FORM OF CONTROL	№	extracurricular, h.
1.	Midterm control		
1.1.	Theory test	1	30
1.2.	Practice test	1	30
1.3	Course project	1	30
Total midterm control:		3	90
2.	Final term control		
2.1.	Exam	1	60
Total final term control:		1	60
Total for all types of control:		4	150

IV. LITERATURE

REQUIRED(BASIC) LITERATURE:

1. McWherter, J., Gowell, Sc. Professional Mobile Application Development, Wrox, 2012.
2. Militaru, C. A Step By Step Guide to Cross Platform Hybrid (HTML5) Apps for Android, BlackBerry, FirefoxOS, iOS, and Windows Phone, 2013.

RECOMMENDED(ADDITIONAL)LITERATURE:

1. Burd, B. Android Application Development All-in-One For Dummies, 2015.
2. Camden, R. Apache Cordova in Action, Manning Publications, 2015.
3. Gerber, A., Craig Cl. Learn Android Studio: Build Android Apps Quickly and Effectively, Apress, 2015.
4. Hermes, D. Xamarin Mobile Application Development: Cross-Platform C# and Xamarin.Forms Fundamentals, Apress, 2015.
5. McClure, W. et al. Professional Android Programming with Mono for Android and .NET / C#, Wrox, 2012.
6. Phillips, B. et al. Android Programming: The Big Nerd Ranch Guide (2nd Edition), Big Nerd Ranch Guides, 2015.
7. Wargo, J. PhoneGap Essentials: Building Cross-Platform Mobile Apps, Addison-Wesley Professional, 2015.