CIT 408– Android Programming with Java Teaching Plan

Course Name	Android Programming with Java
Course Code	CIT 408
Course Type	Major Area Elective
Course Level	Undergraduate
AKTS Credit	5 ECTS
Course hours per week (Institutional)	3
Practice hours per week	-
Laboratory hours per week	2
Academic Semester	2013-2014 Spring
Course coordinator(s)	Dr. Hüseyin Lort
Instruction system	
Medium language	English
Prerequisite	CIT 204 – Programming Languages II
Suggestions related to course	N/A
Training required	N/A
Aim of the course	The major goals of this course are the followings: **1.**Understand the anatomy of an android application. **2.**Design user friendly applications.. **3.**Design and implement a basic android app. **4.**Design and implement an android app with a GUI
Learning outcomes	At the end of this course students should, **1.** Use the development tools in the Android development environment. **2.** Use the major components of Android API set to develop their own apps. **3.** Describe the life cycles of Activities, Applications and Fragments. **4.** Use the Java programming language to build Android apps. **5.** Make UI-rich apps using all the major UI components. **6.** Be familiar with new UI components like Fragments and the Action Bar. **7.** Send and receive SMS messages programmatically.
Course Content	

	Week	**Topics**	
		Theory	**Practice**
Course content per week	1	Introduction to JAVA	Exercises in JAVA programming
	2	OOP in JAVA	Exercises in OOP
	3	The components of an Android application. Activities, Fragments and Intents	An introduction to Eclipse and the Android Developer Tool(ADT)
	4	My First Android Application, the "Hello World" application	Basic Android Applications
	5	The Android User Interface	Views, Layouts, Display Orientations, Resizing and Repositioning,

	6	Designing the User Interface	Button, ImageButton, EditText, CheckBox, ToggleButton, RadioButton, and RadioGroup Views
	7	Designing the User Interface	Button, ImageButton, EditText, CheckBox, ToggleButton, RadioButton, and RadioGroup Views
	8	Midterm	
	9	Displaying Pictures and Menus with Views	Gallery and ImageView Views, ImageSwitcher, Gridview, using menus with views, some additional views
	10	Displaying Pictures and Menus with Views	Gallery and ImageView Views, ImageSwitcher, Gridview, using menus with views, some additional views
	11	2D and 3D graphics	Canvas Drawing, Drawables, Bitmaps,
	12	2D and 3D graphics	Canvas Drawing, Drawables, Bitmaps,
	13	Animation	Transition, Background and surface view animation
	14	Messaging	Email and SMS
	15	Location-Based Services	Google Maps
	16	Final Exam	

Course book and references :	Lecture Notes

Evaluation

Project: 30%
Midterm exam: 30%
Final exam: 40%

Semester Activities	Number	Contribution percentage to course mark %
Project	1	30
Midterm Exam	1	30
Final Exam	1	40
TOTAL		**100**

Calculating workload (Teaching, learning and evaluation)
3 Theory Hour X 15 + 1 Practice Hour X 15 + 1 hour midterm + 2 hour final + 4 hours X 12 studying + 3 hours X 1 Project + 16 hours research in library= 150/30 = 5 ECTS credit

Programme and learning outcomes

Learning Outcomes (LO)	Programme Outcomes (PO)																
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PO 13	PO 14	PO 15	PO 16	PO 17
LO1	3																
LO2				3	3	3				3							
LO3				3	3	3				3							
LO4				4	4	4				5							
LO5	4			4	4	4				5							
LO6	4			4	4	4				5							
LO7	3			5	5	5				5							

*Contribution Level:

1 very low   **2** low   **3** medium   **4** high   **5** very high

CITT Department Programme Outcomes

1. Having adequate level of knowledge and skills in current/new computing and educational technologies.
2. Having sufficient communication and teaching skills in teaching profession.
3. Being able to teach updated computing technologies efficiently in English.
4. Being able to identify information technology problems through using various analysis and synthesis.
5. Being pragmatic to develop and apply persistent information technology solutions to educational and business problems.
6. Being able to use critical and computational thinking skills to produce alternative solutions at every level of project development life-cycle.
7. Being capable to work in disciplinary and interdisciplinary teamwork.
8. Being sensitive, reactive and responsive to professional, social and ethical issues. Having social and ethical awareness in teaching and in providing solutions to problems.
9. Having adequate level of knowledge and skills in current/new computer hardware, operating systems and computer networks.
10. Adequate level of knowledge and skills in current/new programming languages, programming paradigms (procedural and object-oriented) and programming environments (visual, console-based programming).
11. Being able to analyse, plan and manage educational software design and project development.
12. Having the capability of evaluating and criticising educational software design and development.
13. Adequate level of knowledge in using and integrating current/new e-learning and distance education systems such as learning management systems (LMS).
14. Having sufficient skills and knowledge in using instructional technology and material design.
15. Having skills to apply and use special teaching approaches, theories, teaching strategies, methods and techniques (such as to those people with disabilities).

16. Using appropriate measurement and evaluation techniques to assess students' learning and development in addition to supporting them with good level of feedback.