



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

1	Course title	Certified Software
2	Course number	1902458
3	Credit hours (theory, practical)	3 Credit Hours
	Contact hours (theory, practical)	3
4	Prerequisites/corequisites	Prerequisite: Object oriented programming-1 (Java)
5	Program title	Computer Information Systems
6	Program code	02
7	Awarding institution	The University of Jordan
8	Faculty	King Abdullah II School for Information Technology
9	Department	Computer Information Systems
10	Level of course	4
11	Year of study and semester (s)	Spring Semester – 2015/2016
12	Final Qualification	BSc
13	Other department (s) involved in teaching the course	-
14	Language of Instruction	English
15	Date of production/revision	January, 2016
16	Required/ Elective	Elective

16. Course Coordinator:**Rana Yousef, Phd.***Office numbers (11-12: Sun, Mon, Tue)**Tel: +96265355000 ex 22641**Email address: rana.yousef@ju.edu.jo***17. Other instructors:**

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18. Course Description:

This course helps students learn the essentials for Android application development, and provides students with the required skills for the design and implementation of different mobile applications. Topics include: building user interfaces, using internet resources, managing files and preferences, using maps and location-based services, working with audio, video and using the camera. This course is a lab-based course which includes in-class practical assignments and tasks.

19. Course aims and outcomes:

A- Aims:
The main goal of this course is to equip students with knowledge about Android application development, as well as the skills required to design and implement different mobile applications.
B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ...
A1. Understand the main concepts of mobile application development.
A2. Understand the basic components of Android as an open source software.
A3. Understand concepts of Intents, Broadcast receivers and working in the background
B1. Compare between Android Views, Activities, and Fragments.
B2. Compare between Intents, Broadcast receivers, and services
B3. Compare between the basic Android layouts.
C1. Be familiar with Android Studio as an IDE for developing Android applications
C2. Be familiar with the errors that could be encountered while implementing an application
C3. Use the Android SDK to implement mobile applications and run them on mobile devices.
D1. Work in groups as well as individually to design and implement mobile applications
D2. Work individually to handle errors while implementing Android applications

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Introduction <ul style="list-style-type: none"> • Android Overview • Setting up an android studio development environment • A tour of the android studio user interface • Creating an android virtual device in android 	1+2	Dr. Rana Yousef	A.1 A.2	T: Lecture, hands-on setting up of development environment L: Reading book chapters A: In class questions	Textbook: Chapter 1 Reference 1: Chapters 1-6

studio • Testing android studio apps on a physical android device					
Welcome app Introducing visual GUI Design, Layouts, Accessibility and Internationalization	3	Dr. Rana Yousef	B.3 C1-3 D.1 D.2	T: Lecture, hands-on app development L: Reading lecture notes and book chapters, and practicing app development A: practical exercise	Textbook: Chapter 2 e-learning website: Lecture Notes
Tip Calculator App: Introducing GridLayout, LinearLayout, EditText, SeekBar, Event Handling, NumberFormat and Defining App Functionality with Java	4+5	Dr. Rana Yousef	B.3 C1-3 D.1 D.2	T: Lecture, hands-on app development L: Reading lecture notes and book chapters, and practicing app development A: practical exercise	Textbook: Chapter 3 e-learning website: Lecture Notes
Twitter Searches App SharedPreferences, Collections, ImageButton, ListView, ListActivity, ArrayAdapter, Implicit Intents and AlertDialogs Midterm exam	6+7	Dr. Rana Yousef	A.3 B.2 C1-3 D.1 D.2	T: Lecture, hands-on app development L: Reading lecture notes and book chapters, and practicing app development A: Midterm exam	Textbook: Chapter 4 e-learning website: Lecture Notes
Flag Quiz App Fragments, Menus, Preferences, Asset Manager, Tweened Animations, Handler, Toasts, Explicit Intents, Layouts, Layouts for Multiple Device Orientations	8+9+10	Dr. Rana Yousef	B1-3 C1-3 D.1 D.2	T: Lecture, hands-on app development L: Reading lecture notes and book chapters, and practicing app development A: practical exercise	Textbook: Chapter 5 e-learning website: Lecture Notes
Databases and content providers Using SQLite	11+12	Dr. Rana Yousef	C1-3 D.1 D.2	T: Lecture, hands-on app development L: Reading lecture notes, and practicing app development A: practical exercise	Lecture Notes from the e-learning website

Working in the background: Services and notifications	13+14	Dr. Rana Yousef	B.2 D.2	T: Lecture, hands-on app development L: Reading lecture notes and book chapters, and practicing app development A: practical exercise	Lecture Notes from the e-learning website
Google Play and App Business Issues	15	Dr. Rana Yousef	A3	T: Lecture L: Reading lecture notes and book chapters A: in class questions	Textbook: Chapter 9 e- learning website: Lecture Notes
FINAL EXAM	16			Final Exam	

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Teaching (T) Strategies: Class Contact is 3 hours per week. The Course will be delivered using different means like lectures, discussions and hands-on exercises

Learning (L) Methods: Students attend classes, ask questions and participate in discussions, do in-class tasks during the semester as well as a project that includes most of the features covered in this course. All lectures are conducted in the lab. Students will access the e-learning platform for more instruction and supported learning materials.

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Assessment (A) Methods:

There will be several assessment methods to evaluate the performance of the students such as class participation, grading the project; conducting the Midterm and the Final Exams. Every student is expected to completely adhere to the project strict deadlines; absolutely no exceptions will be given.

Assessment Weights:

In class assignments and practical exercises	5%
Midterm Exam	30%
Project	15%
Final Exam	50%

23. Course Policies:

A- Attendance policies: Class attendance is mandatory. University regulations will be applied. Regular attendance is essential for satisfactory completion of this course.

B- Absences from exams and handing in assignments on time: Any student who misses any exam will receive a failing grade. Permission for makeup will be granted only if the student notifies the instructor in due time and presents evidence of an officially excused absence.

C- Health and safety procedures: -

D- Honesty policy regarding cheating, plagiarism, misbehavior: The honor code applies to all work turned in for this course including exams and assignments. It is important that you understand the solutions to all problems, and the best way to gain an understanding is to work them out and write them up by yourself. Hence the policy is that you must submit your own work. You may not share your work with other students, unless it is allowed as group. Violating the policy will be taken as a no submission state for the assignment. University regulations will be preserved at all times.

E- Grading policy:

0-45	F	46-49	D-	50-52	D	53-55	D+
56-58	C-	59-61	C	62-68	C+		
69-72	B-	73-76	B	77-82	B+	83-86	A- 87-100 A

F- Available university services that support achievement in the course: Samsung laptops and tablets with the required software installed on each laptop in Samsung lab: 104. KASIT Library and JU Main library.

24. Required equipment:

Required software: Android Studio

25. References:**Text book (TB):**

Android for Programmers: An App-Driven Approach, 2nd Edition (2014), By Paul Deitel, Harvey Deitel and Abbey Deitel. Prentice Hall.

References:

1. Android Studio Development Essentials, 2014, by Neil Smyth. Techotopia.
2. Android Developer website at: <http://developer.android.com/index.html>
3. Learn Android Studio, 2015, by Adam Gerber and Clifton Craig. Apress.
4. Reto Meier. Professional Android 4 Application development. Wrox. 3rd Edition, 2012. ISBN-10: 1118102274.

26. Additional information:

Name of Course Coordinator: Rana Yousef Signature: ----- Date: ----- Head
of curriculum committee/Department: ----- Signature: -----
Head of Department: ----- Signature: -----
Head of curriculum committee/Faculty: ----- Signature: -----
Dean: ----- -Signature: -----

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File