



الجامعة الافتراضية السورية
SYRIAN VIRTUAL UNIVERSITY

Mobile Applications Programming

Course Definition File

Information

Technology

Engineering



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1. Basic Information:

Course Name	Mobile Applications Programming
Course ID	BMP601
No. of Recorded Sessions*	24
No. of Synchronized Sessions*	12
No. of Quizzes (hrs.)	2
Exam (hrs.)	1
Registered Sessions Work Load (hrs.)	72
Synchronized Sessions Work Load (hrs.)	63
Credit Hours	6

*Each presentational session comprises both recorded lecture (1.5 hrs.) and interactive learning content (1.5 hrs.).

**Each synchronous session comprises the interactive lecture carried out in real time in a virtual class (1.5 hrs.).

***Each shorter test is 0.5 hr. long. The final exam is 2 hrs. long.

N.B.

Generally, each chapter requires two presentational sessions: one for the recorded content and one for the interactive content (unless the chapter is too long, in which case it may require more sessions (This note applies to synchronous sessions as well, where each chapter requires one synchronous session generally.

2. Pre-Requisites:

Course	ID
Web Programming II	BWP501

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3. Course Objectives:

The course "Programming Mobile Applications" aims to identify the basics of programming applications for mobile phones that run on their operating systems and within wireless networks. The identification process comprises:

- Basics of mobile telecommunications
- Types of wireless networks and their relevant technologies
- The use of mobile applications, messaging techniques and client applications
- The use of services connected to web sites and GIS
- The use of modern and emerging services

4. Learning Outcomes (LO):

By the end of this course, the learner is expected to:

- Understand Android and android structure
- Understanding android studio configuration
- Understanding android studio IDE
- Using Layouts views
- Understanding how to send message to user
- Understanding menus types
- Understanding Activities state and its lifecycle
- Understanding Intent types and how to using it
- Saving data persistently
- Understanding Fragments and managing them
- Understanding Content provider

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5. Assessment Results:

Chapter No.	Chapter Title	Intended Objectives	Assessment Type				
			Developed content/ Recorded Sessions	Practical Activities (Synchronized Sessions)	Quizzes and Exams	Presentations And Interviews	Reports
CH1	Introduction to Android	Comprehension –Analytical Thinking	✓	✓	✓	✓	✓
CH2	Android Studio Setup	Comprehension –Analytical Thinking –Tools And Application Hands– On	✓	✓	✓	✓	✓
CH3	Android Studio Environment	Comprehension –Analytical Thinking –Tools And Application Hands– On	✓	✓	✓	✓	✓
CH4	Layouts	Comprehension –Analytical Thinking –Tools And Application Hands– On	✓	✓	✓	✓	✓

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CH5	Android UI & basic Widgets	Comprehension -Analytical Thinking -Tools And Application Hands- On	✓	✓	✓	✓	✓
CH6	Messages	Comprehension -Analytical Thinking -Tools And Application Hands- On	✓	✓	✓	✓	✓
CH7	Menus	Comprehension -Analytical Thinking	✓	✓	✓	✓	✓
CH8	Activity Lifecycle	Comprehension -Analytical Thinking	✓	✓	✓	✓	✓
CH9	Dealing with Intent	Comprehension -Analytical Thinking	✓	✓	✓	✓	✓
CH10	Save Data Permanently	Comprehension -Analytical Thinking	✓	✓	✓	✓	✓
CH11	Fragment	Comprehension -Analytical Thinking	✓	✓	✓	✓	✓

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CH12	Content provider	Comprehension –Analytical Thinking	✓	✓	✓	✓	✓
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***The final exam is two hours long and is given at the end of the course.**

****Shorter tests are about 30 minutes long and are given after three or four lectures throughout the semester during synchronous sessions.**

*****Presentations, interviews, and reports are submitted once after each three or four lectures throughout the semester during synchronous sessions.**

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6. Course Syllabus

Chapter No.	Chapter Title	Chapter Content (Syllabus)	No. of Theoretical Learning Units	No. of Practical Learning Units)
CH1	Introduction to Android	<ol style="list-style-type: none"> 1. What is Android? 2. What is Open Handset Alliance? 3. Features of Android 4. Categories of Android applications 5. Android Architecture 6. Android Studio 7. Why Java 8. Android Developers Society 	8	4
CH2	Android Studio Setup	<ol style="list-style-type: none"> 1. System Requirements 2. Android Studio Installation 3. Hello world Installation 	3	2
CH3	Android Studio Environment	<ol style="list-style-type: none"> 1. Main Editing Window 2. Main Designing Window 3. Android Project folder Structure 4. Android Application Files Structure 5. The Application Manifest File 6. Android res/values folder 7. Android build.gradle 8. Basic Android terms 9. Build a chapter application (how old I am) 	9	4

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CH4	Layouts	<ol style="list-style-type: none"> 1. Layouts Type in android 2. Constraint Layout 3. Linear Layout 4. Frame Layout 5. Table Layout 	5	2
CH5	Android UI & basic Widgets	<ol style="list-style-type: none"> 1. User Interface 2. Basic Views 3. Recycler View & Card View 4. Spinner view 	4	2
CH6	Messages	<ol style="list-style-type: none"> 1. Toast 2. Alert Dialog 3. Snack bar 	3	1
CH7	Menus	<ol style="list-style-type: none"> 1. Introduction 2. Option Menu 3. Context Menu 4. Pop up Menu 	4	2
CH8	Activity Lifecycle	<ol style="list-style-type: none"> 1. Introduction 2. Activity Lifecycle 3. Handle Activity State Changes 4. Save Instance State 	4	2
CH9	Dealing with Intent	<ol style="list-style-type: none"> 1. An Overview of Intents 2. The Intent Types 3. Intent Filter 4. Explicit Intent Practical Example 5. Implicit Intent Practical Example 6. Checking Intent Availability 	6	3

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CH10	Save Data Permanently	<ol style="list-style-type: none"> 1. Shared Preferences 2. Internal Storage 3. External Storage 	3	1
CH11	Fragments	<ol style="list-style-type: none"> 1. What is a Fragment? 2. Creating a Fragment 3. Fragment Lifecycle 	3	1
CH12	Content provider	<ol style="list-style-type: none"> 1. Introduction 2. Local Database 3. Content Provider 	3	1

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7. Practical Activity:

- Tools and Labs:

Tool Name	Description
Android Studio	Integrated Development Environment IDE For Applications Implementation Using A Virtual Environment

- Practical Activities per Chapters:

Chapter	Practical Activity	Remarks
All chapters	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Experiment	During the sessions, the teacher implements multiple applications according to the sessions and classes, and the student re-implements these applications.

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