COURSE DESCRIPTIONS

Faculty	Science and Information Technology				
Department	Software Engineering			**NQF level**	6
Course Title	Mobile Application	**Code**	503410	**Prerequisite**	501317
Credit Hours	3	**Theory**	3	**Practical**	0
Course Leader	Nada Aljarrah	**email**	n.aljarrah@jadara.edu.jo		
Lecturers	Nada Aljarrah	**emails**	https://sites.google.com/site/azmihalasa		
Lecture time	11:30- 13:00 Sun, Tue 13:00-14:30 Mon,Wed	**Classroom**	Lab c10		
Semester	First	**Production**		**Updated**	2024-2025
Awards	Bachelor Degree			**Attendance**	Fulltime

Short Description
In this course, the students will be learning 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.
Course Objectives
▪ Describe the platforms upon which the Android operating system will run. ▪ Create a simple application that runs under the Android operating system. ▪ Access and work with the Android file system. ▪ Create an application that uses multimedia under the Android operating system. ▪ Access and work with databases under the Android operating system.

Learning Outcomes
A. Knowledge - Theoretical Understanding
a1. Describe the main concepts of mobile application development. (K1)
B. Skills - Generic Problem Solving and Analytical Skills
b1. Compare between Android Views, Activities, and Fragments. (S1)
C. Competence: Autonomy, Responsibility, and Context
c1. Work effectively taking both individual and collective responsibility to create mobile application. (C1)
Teaching and Learning Methods
• Lecture, • Lab (online), • Discussion

Assessment Methods
• Formative Assignment • Assignment and Labs • Midterm exam, • Final exam

Course Contents					
Week	**Hours**	**CILOs**	**Topics**	**Teaching & Learning Methods**	**Assessment Methods**
1	3	a1	Introduction to Mobile Apps Development Lab 1 : Setting up Android Studio	Standard Lecture+ Physical Labs	
2	3	a1,b1	App Architecture Lab 2: Build your first app Lab 3 Event Handling and Intent Objects, Sending data with intents	Standard Lecture+ Physical Labs	Tests – Quiz 1
3	3	a1, b1, c1	Mobile User Interface Design Lab 4 Build a Simple User Interface (UI)- Check the Edit Text if Empty or not & Add Toast Message	Standard Lecture+ Physical Labs	
4	3	a1, b1, c1	Designing UI for Android Lab 5 More UI Controls	Standard Lecture	Case Study Introduction
5-6	6	a1, b1, c1	Navigation and Application Structure Lab 6 More UI Controls Lab 7 Spinner	Standard Lecture+ Physical Labs	Tests – Quiz 1
7-8	6	a1, b1, c1	Notification & Alerts Lab 8 Alert Dialogs Lab 9 Notification	Standard Lecture+ Physical Labs	Mid Exam
9	3	a1, b1, c1	Accessing Local Files Lab 10 Accessing Local Files	Standard Lecture+ Physical Labs	
10-11	3	a1, b1, c1	Local Data Storage Lab 11 SqLite and Shared Preferences	Standard Lecture+ Physical Labs	Practical 1
12	3	a1, b1, c1	Maps and Geolocation Lab 12 Google Maps	Standard Lecture+ Physical Labs	Practical 2
14	3	a1, b1, c1	Deployment Lab 13 Geocoding Lab 14 Current Location	Standard Lecture	Final Exam

Infrastructure	
Textbook	**Bill Phillips, Chris Stewart, Brian Hardy, and Kristin Marsicano, Android Programming: The Big Nerd Ranch Guide, Big Nerd Ranch LLC, 3rd edition, 2017**
References	**Rajiv Ramnath, Roger Crawfis, and Paolo Sivilotti, Android SDK 3 for Dummies, Wiley.**
Required reading	
Electronic materials	**– Safari Text Books Online, http://library.ohio-state.edu/search/y?SEARCH=Safari – Business Source Complete, http://library.ohio-state.edu/record=e1000557**
Other	

Assessment Method		Grade	a1	b1	c1
First (Midterm)		30	10	10	10
Second (if applicable)		0			
Final Exam		50	15	15	20
Coursework		20			
Coursework assessment methods	Assignments				
	Case study				
	Discussion and interaction				
	Group work activities		5	10	5
	Lab tests and assignments				
	Presentations				
	Quizzes				
Total		**100**	30	35	35

Plagiarism
Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code). Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.