
جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan



Course Syllabus

***According to JORDAN National Qualification
Framework (JNQF)***

**Course Name: Mobile Application
Programming**

Course Number: 0130436

General Course Information:

Course Title	Mobile Application Programming
Course Number	0130436
Credit Hours	3 credit hours
Education Type	Traditional learning
Prerequisites/Co-requisites	Visual Programming (0130232)
Academic Program	Computer Science
Program Code	0130
Faculty	Faculty of Information Technology
Department	Computer Science
Level of Course	4
Academic Year /Semester	2024/2025 2 st Semester
Awarded Qualification	BS'c
Other Department(s) Involved in Teaching the Course	-
Language of Instruction	English
Date of Production	2024-2025
Date of Revision	

Course Coordinator:

Coordinator's Name	Mr Basem Alokush
Office No.	9119
Office Phone Extension Number	-
Office Hours	
E-mail	Basem.alakush@zuj.edu.jo

Other Instructors:

Instructor Name	
Office No.	
Office Phone Extension Number	
Office Hours	
Email	

Course Description (English/Arabic):

English	<i>mobile developer is responsible for developing applications for devices powered by the Android operating system and IOS. Due to the fragmentation of this ecosystem, a mobile developer must pay special attention to the application's compatibility with multiple versions of different operating systems types. They must also have a strong understanding of the patterns and practices that revolve around such a platform.</i>
Arabic	مطور الأجهزة المحمولة مسؤول عن تطوير التطبيقات للأجهزة التي تعمل بنظام التشغيل Android و IOS. نظرًا لتجزئة هذا النظام البيئي، يجب على مطور الأجهزة المحمولة أن يولي اهتمامًا خاصًا لتوافق التطبيق مع إصدارات متعددة من أنواع مختلفة من أنظمة التشغيل. ويجب أن يكون لديهم أيضًا فهم قوي للأنماط والممارسات التي تدور حول مثل هذه المنصة.

Textbook: Author(s), Title, Publisher, Edition, Year, Book website.

Flutter for App Development with Dart: A Comprehensive Guide by Benjamin Evans 2025

References: Author(s), Title, Publisher, Edition, Year, Book website.

1. Thomas Bailey, Flutter for Beginners: An introductory guide to building cross-platform mobile applications with Flutter 2.5 and Dart, Packt Publishing,
2. Flutter Cookbook: 100+ step-by-step recipes for building cross-platform, professional-grade apps with Flutter 3.10.x and Dart 3.x
3. Flutter and Dart Cookbook: Developing Full-Stack Applications for the Cloud

Course Educational Objectives (CEOs):

CEO1	Ability to design, develop, and test functional mobile applications for Android, iOS, or both platforms.
CEO2	Gain a deep understanding of the mobile platforms (e.g., Android, iOS) and relevant development frameworks, including the use of development tools, libraries, and APIs.
CEO3	Possess UI and UX design skills, allowing them to create user-friendly and visually appealing mobile apps that provide an excellent user experience.
CEO4	Develop strong problem-solving and debugging skills, enabling them to identify, diagnose, and resolve issues in mobile applications and adapt to evolving technology.

Intended Learning Outcomes (ILO's):

Intended learning outcomes (ILOs)		Relationship to CEOs	Contribution to PLOs	Bloom Taxonomy Levels*	JNQF Descriptors**
K	Knowledge and Understanding				
ILO1-k	knowledge of the major mobile operating systems (e.g., Android, iOS) and their respective app ecosystems.	1, 2, 3	PL02	Remembering	k, S
ILO2-k	Understand the programming languages (e.g., Dart, Java, Kotlin for Android; Swift for iOS) and development tools	4	PL02	Understanding	K,S
S	Intellectual skills				
ILO3-s	Skill to analyze complex mobile app development challenges, identify potential issues, and devise effective solutions	1, 2	PL04	Applying	K, S, C
ILO4-s	Skill to think creatively, design unique user interfaces, and develop innovative solutions that make their apps stand out in the market.	3, 4	PL05	Analyzing	S,C
C	Subject specific skills				
ILO5-c	Ability to create mobile applications that can run on multiple platforms (e.g., Android and iOS) using cross-platform development tools and frameworks (e.g., React Native, Flutter).	1, 2, 3, 4	PL06	Applying	K, S
D	Transferable skills:				
ILO6-d	Ability to work effectively in teams, communicate ideas, delegate tasks, and	2, 3, 4	PL07		

	contribute to the collective success of a project					
*Bloom Taxonomy Levels:						
Level #	1	2	3	4	5	6
Level Name	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
** Descriptor (National Qualification Framework Descriptors): K: Knowledge, S: Skill, C: Competency.						

Program Learning Outcome (PLOs):

(PLOs)		JNQF Descriptors**		
		K	S	C
1.	Knowledge of professional ethics, social responsibility, and the regulations governing them.	√		
2.	Understanding various programming techniques, the stages of software development, and the fundamental principles of security.	√		
3.	Skill in applying mathematical concepts to analyze and design algorithms and verify their correctness		√	
4.	Skill in using different programming languages and applying them to develop software and computer applications.		√	
5.	The ability to analyze, design, and develop effective and reliable computer programs that meet user requirements and adhere to professional ethics.			√
6.	The ability to keep up with continuous advancements in computer science, innovate, and work independently or as part of a team.			√
7.	The ability to work collaboratively, communicate effectively, and demonstrate teamwork spirit.			√

** Descriptors according to the national qualifications framework (K: knowledge, S: skill, C: Competency)

Weekly Schedule (please choose the type of teaching)

- Face to Face (F2F)**
 Hybrid (One – To - One)
 Online

Schedule of Simultaneous and their Topics:

Week	First Lecture (F2F)	Second Lecture (F2F)	ILOs	PLOs	JNQF Descriptors *
1	Getting started with Android	Create and activate an emulator	ILO1-K ILO2-K	PLO2	K
2	Creating a Hello World App	Learning Dart Basics	ILO2-K ILO3-S	PLO2	K,S
3	Creating a Starter Project Template	String array	ILO2-K ILO3-S ILO4-S	PLO2 PLO4	K,S
4	Radio group, check box	Understanding the Widget Tree	ILO3-S ILO4-S	PLO4 PLO5	S
5	Using Common Widgets	Using Common Widgets	ILO3-S ILO4-S	PLO4 PLO5	S

6	Adding Animation to An App	Creating An App's Navigation	ILO4-S ILO5-C	PLO4 PLO5	S,C
7	revision	revision			
Midterm Exam (30%)					
9	Creating An App's Navigation	Creating Scrolling Lists and Effects	ILO4-S ILO5-C	PLO2 PLO4 PLO5	S,C
10	Creating Scrolling Lists and Effects	Building Layouts	ILO4-S ILO5-C	PLO2 PLO5	S,C
11	Applying Interactivity	Writing Platform-Native Code	ILO2-K ILO3-S ILO4-S	PLO4 PLO5	K,S ,C
12	Local Databases	Local Databases	ILO2-K ILO3-S ILO4-S	PLO5 PLO6	K,S
13	Introduction to Web API	Introduction to GPS	ILO4-S ILO5-C	PLO5 PLO6	S,C
14	Introduction to Firebase	Introduction to Firebase	ILO4-S ILO5-C	PLO5 PLO6	S,C
15	Projects Discussion				
16	Final Exam				

* K: Knowledge, S: Skills, C: Competency

Teaching Methods and Assignments:

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

- Lecture.
- flipped learning.
- learning through projects.
- learning through problem solving.
- participatory learning

Course Policies:

A- Attendance policies:

The maximum allowed absences is 15% of the lectures.

B- Absences from exams and handing in assignments on time:

Midterm exam can be retaken based on approval of excuse by the instructor's discretion.

Not handing assignment on time will incur penalties.

C- Academic Health and safety procedures

D- Honesty policy regarding cheating, plagiarism, and misbehaviour:

Cheating, plagiarism, misbehaviour will result in zero grade and further disciplinary actions may be taken.

E- Grading policy:

- All homework is to be posted online through the e-learning system.
- Exams will be marked within 72 hours and the marked exam papers will be handed to the students.
- Online Activities (Course Videos, Practice labs, Discussion Forums, Quizzes) **20%**
- Midterm **30%**
- Final Exam **50%**

F- Available university services that support achievement in the course: **E-Learning Platform, Labs, Library.**

Required Equipment:

- PC / Laptop with webcam and mic
- Internet Connection
- Access to the ZUJ E-Learning Platform at <https://exams.zuj.edu.jo/>
- E-learning plan
- Satisfaction questionnaires for online and face-to-face learning
- Software for e-learning
- Training

Assessment Tools Implemented in the Course:

- Final Exam
- Midterm Exam
- Quizzes
- Homework
- Practice Labs
- Discussion Forums
- Periodic reports for learning assessment
- Improvement plans for online or face-to-face teaching.
- Others...

Responsible Persons and their Signatures:

Course Coordinator	Mr Basem Alokush	Completed Date	13/11/2025
		Signature	
Received by (Department Head)		Received Date	/ /
		Signature	
