Course Syllabus

Code - Course Title	**AYG223 - Mobile Application Development**
Course Type	III. SEMESTER
Laboratory + Practice	2+1
ECTS	**3.0**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	ÖĞR. GÖR. AHMET MÜCAHİD ARVASİ

Mode of Delivery	Face to face
Prerequisites	There are no prerequisites or corequisites for this course.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Mobile Application Fundamentals: Development Environments (IDE) Setup and Introduction to Mobile Operating Systems Architecture	
Week - 2		User Interface (UI) Design 1: Basic Components (Widget/View Concepts) and Screen Layouts	
Week - 3		User Interface (UI) Design 2: Multi-Screen Supports, Dynamic Lists, and Navigation Structures	
Week - 4		Introduction to State Management and Application Lifecycle	
Week - 5		Advanced State Management: Data Flow and Intra-App Synchronization with State Managers (Provider, BLoC, etc.)	
Week - 6		Back-End Integration 1: Network Requests (HTTP) Configuration and JSON Data Processing	
Week - 7		Back-End Integration 2: Web Service Consumption (API Integration) and Asynchronous Data Management	
Week - 8		Midterm Exam	
Week - 9		Local Data Storage 1: User Preferences Management (SharedPreferences/UserDefaults) and File Operations	
Week - 10		Local Data Storage 2: CRUD Operations with On-Device Databases (SQLite, Room/Hive)	
Week - 11		Device Hardware Access 1: Permission Management, Camera Integration, and Gallery Access	
Week - 12		Device Hardware Access 2: Location Services and Map Integrations	
Week - 13		Interaction and Background: Push Notification Management and Background Services	
Week - 14		Publishing Processes: Application Packaging (APK/AAB/IPA), Store Distribution Stages (Google Play/App Store), and Project Presentations	

Learning Outcomes

#	Learning Outcome
1	Upon successful completion of this course, students will gain the competence to design user-friendly interfaces with basic components, screen layouts, and navigation structures by grasping the architecture of mobile operating systems and development environments; control data flow with modern state managers by understanding the application lifecycle; flawlessly perform back-end integrations with web service consumption and asynchronous network requests; produce local data storage solutions with on-device databases and user preferences; securely manage access to hardware features like cameras, location services, and notifications; and ultimately run the publishing processes professionally end-to-end by packaging the mobile applications they develop in appropriate formats and distributing them on app stores (Google Play, App Store).

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.