

CS 3180 : MOBILE APPLICATION DEVELOPMENT

<i>Semester Hours:</i>	3.0	<i>Contact Hours:</i> 3
<i>Coordinator:</i>	Abbas Heydarnoori	
<i>Text:</i>	Mobile App Development with Android and Jetpack Compose	
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<i>Year:</i>	2024	

SPECIFIC COURSE INFORMATION

Catalog Description:

An introduction to the fundamentals of mobile application design and development, including a focused study on Android Development. Topics covered range from mobile user interface/experience design, navigation, data sharing, data access, and the use of various tools and libraries. Prerequisite: Grade of C or better in CS 2020.

Course type: **SELECTED ELECTIVE**

SPECIFIC COURSE GOALS

- I can explain the fundamentals of mobile application development
- I can understand the fundamental terminology and tools used in mobile application development
- I can create, debug, and test mobile applications
- I can implement solutions that use external, internal, and persistent data
- I can design and implement a basic user interface for a mobile application
- I can demonstrate technical skills required by mobile application developers

LIST OF TOPICS COVERED

- Fundamentals of Mobile Application Development
 - General paradigm
 - Unique requirements & design
 - Programming languages & Platforms (Android, iOS, Cross-Platform)
- Layouts, UI/UX
- Views and Pages
 - Specialized views
- Navigation
- Data Sharing
 - Sharing data between views/pages

- Sharing data between applications
- Data Access
 - Database Access
 - API Access
 - Data Persistence
 - Data models
 - Data binding
- Tools & Libraries
 - IDEs
 - Testing
 - Package Management