



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

**GSD3510 Android Mobile Application
Development**

Student Learning Outcomes & Enabling Objectives

1. Use of the developer environment
 - a. Demonstrate use of the Android software developer kit.
(<http://developer.android.com>)
 - b. Demonstrate use of Kotlin
 - c. Demonstrate interoperability of Java and Kotlin
 - d. Troubleshoot
2. Discover theory and design terminology
 - a. Apply the basic building blocks of an Android application
 - b. Apply the Activity Class
 - c. Apply Fragments
 - d. Apply Intents
 - e. Apply the Singleton class
 - f. Apply Lifecycle methods
 - g. Apply application navigation
 - h. Apply logging
 - i. Apply ViewModel and LiveData objects
3. Use the Room database object
 - a. Set up a database
 - b. Configure a database
 - c. Interact with a database
4. Use Coroutines to handle background processes

- a. Move data
 - b. Fetch live data
5. Use the RecyclerView
 - a. Display lists and grids
 - b. Make items clickable
6. Connect to the internet
 - a. Connect to a web service
 - b. Retrieve and display data
 - c. Handle network errors
7. Design for accessibility
 - a. Work with themes and styles
 - b. Work with material design
8. Build an application to work with many devices.
 - a. Utilize the Android Emulator
 - b. Select Access to your application
 - c. Utilize the application in older Android versions

Required Elements

- a. Setup and install the software developer kit and additional tools
- b. Create an Android Application

Big Ideas and Essential Questions

Big Ideas

- Familiarization with tools used for Android development
 - Android SDK
 - Kotlin and Java interoperability
 - Android emulator
- Building Android applications that can be accessed on multiple devices

Essential Questions

1. Why use the Android SDK?
2. What are the key components of an Android application?
3. How do Kotlin and Java work together to create Android applications?
4. Why is Kotlin preferred over Java?
5. How do we create applications for different devices?

These SLOs are approved for experiential
credit. **Effective: Fall 2022**