BAKER COLLEGE
STUDENT LEARNING OUTCOMES

GSD3520 Advanced Android Mobile Application Development
3 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Create mobile app notifications.
    a. Create in-app notifications
    b. Create push notifications

2. Use advanced graphics within an Android App.
    a. Build custom views
    b. Draw on a canvas
    c. Clip canvas objects
    d. Use shaders

3. Use animation within an Android App.
    a. Use animation to indicate state change
    b. Use ObjectAnimator to change the properties of objects

4. Integrate Google Maps within an Android App.
    a. Display different map types
    b. Style your map
    c. Add markers to your map
    d. Enable a point of interest (POI) marker
    e. Enable location tracking

5. Testing your App.
    a. Write and run unit tests
    b. Utilize Test Driven Development (TDD)
    c. Utilize sources sets, Roboelectric, and AndroidX
    d. Test ViewModels and LiveData
    e. Create and use test doubles
    f. Use manual dependency injection for unit and integration tests

6. Enable login capabilities
    a. Add Firebase to your project
    b. Implement login support

c. View the current authentication status of your app
d. Log user out

Big Ideas

- Android User Interfaces
- Using outside content within your app
- Using advanced graphics and animation
- Testing your app
- Creating login capabilities

Essential Questions

1. What are the best ways of creating the user interface, and how do you make them scalable over multiple sized devices?

2. What are some things you can do with Google Maps within your app?

3. What other sources of content can you use for your apps and how do you access them?

4. What is the importance of using advanced graphics and animation in your app?

5. What options do you have for testing your app?

6. Why would you implement login capabilities within your app?

These SLOs are approved for experiential credit.

Effective: Fall 2022