

CS 344: Mobile Application Development

Spring 2021

Instructor: Michael P. Rogers
Office: Halsey 214
Office Hours: TuTh 3:00-5:00 PM, Fr 1:30-2:30 PM (via Collaborate Ultra & Zoom)
Email: rogersm@uwosh.edu
Phone: 920-424-1388 / 309-825-6454

Class Times: MW 3:30-5:00 PM, Halsey Lab 101C
Credits: 3

Prerequisites: A grade of C or better in CS 262.

Delivery: This class will be taught using the HyFlex model - you may participate face-to-face or online, and transition between the two at your discretion. The class will be synchronous.

Description: An introduction to the tools for developing mobile applications. Topics covered include: history of mobile development, using an appropriate IDE, emulating a mobile device, building a flexible user interface, understanding the application lifecycle, creating and managing multiple threads, creating and using web services and encrypting a completed project. A large mobile application will be created throughout the course.

Course Website: if it happens in this course, it will be posted on UWO's [Canvas](#) site. Set up notifications to be alerted when announcements are posted, new assignments, quizzes, or notes are posted and graded, etc.

Required Textbook:

None: all resources will be free and online

Course Outcomes :

Upon successful completion of the course, students will be able to:

1. Understand the mobile platform and development environment and how it differs from traditional application development.
2. Understand the basic components on which mobile applications are created.
3. Be able to create a configuration file to present essential information to the system about an application.
4. Use permissions correctly to restrict access to a part of code or to data on a device.
5. Be able to define and create applications with sophisticated user interfaces including using layouts, menus, action bars, dialogs, notifications, drag and drop and toasts.
6. Provide the user with notifications when the application is running in the background.
7. Be able to handle concurrency using threads and handlers.
8. Create an application where the application can access data over a network from a mobile device.
9. Create an application using GPS locational services.
10. Be able to animate an application and create applications that respond to custom gestures.

Project Schedule (tentative):

Artifact	Date
Final Project Proposal	Feb 10
Final Project "Paper" Prototype	Feb 24
Final Project GUI Submission	Mar 10
Final Project - 1/3 Submission	Mar 31
Final Project - Draft submission	Apr 14
Final Project - Evaluations	Apr 21
Final Project - Final submission	May 10

Grading Criteria:

Category	%
Project	70
Labs	20
Quizzes	10

Grade Scale:

%	≥ 92	90-92	88-90	82-88	80-82	78-80	72-78	70-72	68-70	62-68	60-62	< 60
Letter	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Late Policies: Late submissions will not be accepted -- exceptions will be made for medical / personal issues (with a note from a doctor or from the Dean of Students Office).

Absences: It has been scientifically proven that the most significant factor for predicting student success is attendance (although whether this is truly causation or merely correlation is another question). Students should attend each and every class, and notify the instructor ahead of time if you will be absent. Attendance may be taken and factored into the Quizzes category.

Academic Integrity: You may discuss problems with other students, but the work you turn in for labs and your project, and answers to quizzes, will be your own. For code snippets that you use for your team project, the source of those must be clearly labeled in the comments. Failure to adhere to these guidelines will result in a 0 for the lab/project/quiz in question. For detailed information on what constitutes academic misconduct, please see the discussion of UWS Chapter 14, Student Academic Disciplinary Procedures.

Accessibility: Your instructor is committed to ensuring a fair playing field. If you have a disability and need assistance (e.g., a note taker, certain seating, extra time to take tests,

adaptive technology, etc.), please register with the Accessibility Center, and we work hard to accommodate your needs.

Non-discrimination and Anti-harassment: Your instructor is committed to maintaining a harassment-free, welcoming classroom, and will not tolerate discrimination on the basis of race, religion, creed, color, sex, gender, identity/expression, ancestry, national origin, age, marital status, relationship to other employees, sexual orientation, disability, veteran's status, membership in the military, arrest/conviction record, political affiliation, or any other protected status.

Feedback: Your instructor thrives on feedback, especially during the semester: feedback provided via SOS will be too late to benefit you, so if you are having issues, please discuss them with me ASAP.

COVID-19 Policies:

1. Everybody **must** wear a mask/face covering inside all University buildings, practice social distancing, and practice appropriate hygiene, i.e., wash your hands (see, you mother was right :-)
2. This is a HyFlex class: you may attend face-to-face, or online, and transition between the two as you see fit.
3. Classes will be held synchronously: students attending online will connect via Collaborate Ultra during class time. If technical issues preclude doing so, videos of the class will be available online.
4. Online students will be expected to take exams during the same time, and in the same fashion, as the in class students.
5. Students who are feeling poorly are asked to follow the advice listed on the [Titans Return](#) page.