

**CSCE 4623 – Mobile Programming**  
**Fall 2023 MWF 10:45 - 11:35 AM Room: BELL 2286**

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**Instructor:** Alexander Nelson, JBHT 528, Phone: (479)575-6794

**Office Hours:** T/Th 1:00-2:00 in JBHT 528 and by appointment.

**E-Office Hours:** 9:00 AM-6:00 PM. I will be responsive during these hours. Questions outside of these hours may not be answered until the next day.

**Teaching Assistant:** Diego Perez Bakovic (diperezb@uark.edu)

**Teaching Assistant Office Hours:** MW 1:00-3:00

**Textbook/Required Material:** Mobile App Development with Kotlin. Frank McCown, 2022. <https://www.zybooks.com/catalog/mobile-app-development-with-kotlin/>

**Course URL:** <https://ahnelson.uark.edu/courses/csce-4623-mobile-programming-fall-2023/>

**Prerequisites:\*** CSCE 3193 - Programming Paradigms with a grade of C or better.

**Course Description and Objectives:** An introduction to software development on mobile devices. The major topics covered in this course include underlying concepts and principles in mobile programming, as well as hands-on programming experience on mobile devices with an emphasis on smartphones.

**Course Outline:**

Topic	Week
Introduction and Challenges .....	1
MV* Design Patterns .....	2–3
Process lifecycle, multi-threading, task management .....	3–8
Program testing and performance enhancement .....	9–10
UI design, persistent storage, core services, wireless communication, multimedia, sensors .....	11–14
Project Presentations .....	15

**Grade Distribution:** Grading will be based on the following scheme, though I reserve the right to make minor changes to the distribution as I see fair and appropriate during the semester. All changes will be announced in class and reflected in a syllabus change.

- Exams 30%
- Final Project: 30%
- Projects: 32%
- Readings: 8%

Grades will be assigned on the standard 90–80–70 scheme. The instructor reserves the right to modify the scale, with the caveat that the student will earn at least the grade letter determined by these scores.

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\*Exceptions by instructor and departmental approval

**Assignments and Exams:** There will be two exams for this course which will total 30% of the course grade. There will be four programming projects assigned during the course, and The total of these will be 32% of the final grade. There will be one final project which will be worth 30% of the final grade.

**Project:** There will be one semester-long project. The projects will have bi-weekly check-point reports, and a final presentation to discuss findings. Projects may be completed individually, or in groups up to three. Group projects will be expected to produce in accordance with the group size.

**Reading Assignments:** The ZyBook will constitute your reading requirements. Completion of the ZyBook readings will constitute 8% of the course grade (equal to one assignment).

**Questions and Forum:** This course will use online resources for communications. The primary mode of communication will be e-mail and Slack.

**Late Policy:** Unless stated otherwise, all work must be submitted by the beginning of class on the day it is due. Work submitted late will be penalized 25% for each business day after the due date. The final exam will not have a make-up or alternative exam date unless there are specific arrangements made with the instructor ahead of time.

**Academic Integrity:** As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' at [honesty.uark.edu](http://honesty.uark.edu). Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

**Collaboration Policy:** Unless otherwise given in the project/assignment statement, all homework, quizzes, assignments, and exams are to be completed alone. This includes the sharing of code. Any code taken from websites must be CITED according to policy on the website. Borrowed code must not be the majority of the work on any project. Discussion of projects among the class is expected and you may minimally discuss approaches to projects.

**Emergency Preparedness:** The University of Arkansas is prepared for a wide range of emergencies. Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at <http://emergency.uark.edu/>. See also: Emergency Procedures.

**Attendance Policy:** Education at the university level requires active involvement in the learning process. Therefore students have the responsibility to attend classes and to actively engage in all learning assignments or opportunities provided in their classes. There may be times, however, when illness, family crisis, or university-sponsored activities make full attendance or participation impossible. In these situations students are responsible for making timely arrangements with the instructor to make up work missed. Such arrangements should be made in writing and prior to the absence when possible.

Examples of absences that should be considered excusable include those resulting from the following: 1) illness of the student, 2) serious illness or death of a member of the student's immediate family or other family crisis, 3) University-sponsored activities for which the student's attendance is required by virtue of scholarship or leadership/participation responsibilities, 4) religious observances, 5) jury duty or subpoena for court appearance, and 6) military duty. The instructor has the right to require that the student provide appropriate documentation for any absence for which the student wishes to be excused.

**Inclement Weather:** Inclement weather includes any kind of extreme weather, usually snow or ice, which creates hazardous driving conditions or significantly impair normal operations at the University of Arkansas. This also includes severe thunderstorm activity, tornadoes, flooding or other natural perils.

The university continues certain operations during periods of inclement weather due to the needs of students, the requirements of ongoing research activities, and other factors.

Please read the policy on inclement weather (<http://vcfa.uark.edu/Documents/2100.pdf>) and the weather emergency procedure (<http://vcfa.uark.edu/Documents/2110.pdf>), which clearly define how such events impact the campus community.

**Emergency Alerting:** The University of Arkansas has a campus-wide alert system for any hazardous conditions that may arise on campus. To learn more and to sign up: <http://safety.uark.edu/emergency-preparedness/emergency-notification-system/>

**Academic Support:** A complete list and brief description of academic support programs can be found on the University's Academic Support site, along with links to the specific services, hours, and locations. Faculty are encouraged to be familiar with these programs and to assist students with finding and using the support services that will help them be successful. <http://www.uark.edu/academics/academic-support.php>