NORTHWEST
MISSOURI STATE UNIVERSITY
MARYVILLE | KANSAS CITY

School of Computer Science and Information Systems

44-444(644)-1, Mobile Computing-Android, and 3 credit hours

Spring 2026

Instructor: Dr. Ratan Lal **Email:** rlal@nwmissouri.edu

Office hrs:

MW

01:00 p.m. to 03:00 p.m.

TR

01:00 p.m. to 02:30 p.m.

Office: CH2205
Phone: 660.562.1588

Prerequisites: CSIS 44242 with a grade of C or better, or CSIS 44542 with a grade of B or better. Knowledge of object-oriented programming and an interest in exploring new technologies.

Textbook and supplementary materials: ***No textbooks are required; all materials will be provided through the course website.*** Some supplemental material can be found here:

- Google - Training for Android Developers (https://developer.android.com/training/index.html)
- Google - User Interface Guidelines (https://developer.android.com/guide/practices/ui_guidelines/index.html);
- The Android Developer's Cookbook (available in university library);

Software and resources: Students must have access to the following:

- Their campus-assigned laptop at every class session
- Android Studio (Free)
- Genymotion Android Simulator (Free)
- Various tools and libraries as directed by the instructors.
- Lockdown browser (for quizzes)
- A repository for the project (GitHub

Course description: This course provides an introduction to mobile computing and mobile application development, with an emphasis on the Android platform.

Student learning outcomes:

Upon completion of this course, each student should be able to:

1. Describe the frameworks that support an Android application
2. Use Android studio to create and debug an app
3. Create a layout for an android app

Refer to Syllabus Addendum for additional information

4. Use fragments to structure tasks in an app
5. Use a recycler view to present data
6. Use JASON to get information from an online service
7. Use a mobile backend data service to support an app.
8. Use a local data base to support an app.
9. Represent information using modern data serialization formats
10. Utilize technologies not taught in this course with greater confidence and efficiency ("learn how to learn")
11. Explain, from experience, how to work well with others on a team
12. Make a compelling, professional presentation

Assessment methods: Desired Student outcomes will be assessed via programming assignments quizzes, midterms, and a final exam

Instructional methods: Instructional methods include lectures, individual work, and quizzes.

Graded course requirements:

Category	Weight
Attendance	5%
Quizzes	5%
Assignments	20%
Midterm Exams (2)	35%
Final Project	20%
Final Exam	15%
Total	**100%**

Grading scale:

Your score on each component will be posted in the online gradebook as soon as that component has been graded. You are responsible for checking the gradebook at least once a week to ensure that your grades are properly posted. ***If there is an error in grading, you must bring it to the attention of the class assistant or instructor within two weeks of the time the grade is posted.***

Grading scale:

Undergraduate Credit		Graduate Credit	
Percent Range	**Grade**	**Percent Range**	**Grade**
88-100%	A	90-100%	A
>= 78% and < 88%	B	>= 80% and < 90%	B
>= 68% and < 78%	C	>= 70% and < 80%	C
>= 58% and < 68%	D	>= 60% and < 70%	D
below 58%	F	below 60%	F

Final Grades Rounding: I round up your score to the next number if decimal part of your score is greater than or equal to 0.50, that is, a score greater than or equal to 79.50 and less than 80 rounds up to 80, but 79.49 rounds down to 79.

Course outline/major topics studied:
This is a tentative schedule and is subject to change. For exact information, including important dates, check the course website.

Tentative Fall 2023 Schedule

Weeks	Topics	Activities
1	Introduction, Android studio, Whats app	Software installation
2	Layouts	Program 01
3	Intents	Classwork 01
4	Activity Lifecycle	Program 02
5	Threads and JSON	**Project Proposal | Exam 1**
6	Data Persistence MBaaS	Program 03
7	Remote Database (Firebase)	Classwork 02
8	Spring Break	
9	Local Database (Room)	Program 04 | **Project Milestone 1**
10	Local Database (Room)	Classwork 03
11	Recycler View	Program 05
12	Recycler View	Classwork 04|**Project Milestone 2| Exam 2**
13	Fragments & Live Model	Program 06
14	Fragments & Live Model	Classwork 05 | **Project Milestone 3**
15	Project Presentation	**Project Presentation | Final Exam**

Note Course schedule is subject to change with instructor notification and students will be responsible for abiding by these changes.

Late Submission Policy for lab assignments: Each assigned, graded activity will have a due date posted and are expected to be completed by due date. All the submissions must be submitted through Northwest Online. Any submission up to 24 hours after the due date will be considered as a late submission. The score for late submissions will have 10% of the maximum score deducted from the actual points.

Announcements and email: Announcements are communicated via the Announcements page on the course website and your Northwest Missouri State University (Northwest) email account. It is your responsibility to check each of these sources daily. Note that you must use your Northwest email account on the Northwest Online site. All emails in this class will be sent to your Northwest address.

Professionalism: Students are expected to behave in a professional manner in their dealings with each other, the class assistant, and the instructor. Emails should be politely written, use proper grammar, and follow the rules of capitalization. Emails ***must*** include the course number (44-444 or 44-644) and section number (01 or 02) in the subject line. For security reasons, emails that do not include an appropriate entry for the subject may be ignored.

Attendance: Students are expected to **arrive on time** and attend all classes and labs. Attendance will be taken exactly when the class starts. Late arrivals get partial credit for that class. Some in-class may have points associated with them and may not be announced in advance. A student who misses such an exercise due to an unexcused absence will not be allowed to make it up and will receive a zero. Excused absences include attendance at a university sponsored event (documented with an excuse signed by the university sponsor prior to the event) or by circumstances considered adequately extenuating by the course instructor. It is the responsibility of the student to promptly notify their instructor when unable to attend class. Please refer to the university policy on attendance at https://www.nwmissouri.edu/policies/academics/Attendance.pdf