



**NORTHWEST**  
MISSOURI STATE UNIVERSITY  
MARYVILLE | KANSAS CITY

**School of Computer Science and Information Systems**  
**44-644 Mobile Computing - Android (3 hours)**  
**44-444 Mobile Computing - Android (3 hours)**  
**Fall 2023**

**Instructor:** Dr. Charles Hoot

**Phone:** 660-562-1801

**Office Hrs:**

**MWF 12-1**

**M 3-5**

**W 3-4**

**TTh 10-11**

**Email:** hoot@nwmissouri.edu

**Office:** Colden Hall 2163

**Instructor:** Dr. Ratan Lal

**Phone:** 660-562-1588.

**Office Hrs:**

**MWF: 3:00 to 4:00**

**T: 2:00 to 3:30**

**R: 2:00 to 4:30**

**Email:** RLAL@nwmissouri.edu

**Office:** Colden Hall 2205

**Section 1 (Lal)** TR 9:30-10:50 CH 1350

**Section 2 (Hoot)** TR 2:00-3:20 CH 1200

**GAs:** Pamarthi, Jyothsna s555266@nwmissouri.edu

Young, Cooper S537651@nwmissouri.edu

**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 :** *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](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
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:**

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

**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**

Week 1 – Aug 21	Introduction, Android studio, Whats app
Week 2 – Aug 28	Layouts
Week 3 – Sep 4	Layouts Life cycle of an app, intents
Week 4 – Sep 11	Recycler views
Week 5 – Sep 18	Recycler views <b>Project Proposal, Friday Sep 22</b>
Week 6 – Sep 25	Fragments
Week 7 – Oct 2	Live Model <b>Midterm 1, Tues Oct 3 (Evening)</b> <b>Project Milestone 1, Oct 6</b>
Week 8 – Oct 9	Data Persistence MBaaS
Week 9 – Oct 16	Data Persistence Local
Week 10 – Oct 23	Dialogs <b>Project Milestone 2, Friday Oct 27</b>
Week 11 – Oct 30	Dialogs <b>Midterm 2, Tues Oct 31 (Evening)</b>
Week 12 – Nov 6	JSON/Threads/Remote APIs
Week 13 – Nov 13	Navigation <b>Project Milestone 3, Friday Nov 18</b>
Week 14 – Nov 20	Thanksgiving -No class
Week 15 – Nov 27	<b>Final, Tuesday Nov 28 (Evening)</b> <b>Project presentations Thursday Nov 30 (In class)</b>  <b>PPT Submission, Friday Dec 1</b> <b>Project Submission, Saturday Dec 2</b>

Week 16 – Dec 5 Finals Week	<b>Remainder of Project Presentations</b> <b>Section 1 – Monday Dec 4 2:00pm-4:00pm</b> <b>Section 2 – Monday Dec 4 7:00pm-9:00pm</b>
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**Note:** Course schedule is subject to change with instructor notification and students will be responsible for abiding by these changes.

**Academic Calendar:** <http://www.nwmissouri.edu/academics/calendar.htm>

**Final Exam Schedule:** <http://www.nwmissouri.edu/registrar/finals.htm>

### Programming Assignments

All assigned work is to be submitted electronically on canvas to the appropriate assignment by 11:59pm of the due date. Work can be submitted late up to 24 hours, but will be assessed a penalty of 10% of the maximum possible score on the assignment. Any work submitted after the late period will receive **NO** credit. The number of points for an assignment may vary depending on the difficulty of the assignment.

### Quizzes/Exams

Quizzes will be unannounced and will use the lockdown browser from the Canvas Website. Make sure you have it installed on your computer.

The midterms and final will be held on the dates specified. If you must miss an exam, it is your responsibility to notify the instructor in person prior to the exam and to provide the instructor with written verification of the reason for your absence. Failure to follow these instructions may result in a grade of zero on the exam.

All quizzes/exams are closed book and no resources are allowed.

***No calculators, cell phones, or other electronic devices can be used during exams or quizzes unless explicitly allowed by the instructor.***

### Final Project

- All students must complete a final project
- The final project will be done in groups of 3 or 4
- Students will be required to provide a **final project proposal and three milestones and a final submission**. Each team will give a presentation in class as well.

### Grade verification:

Your score on each component will be posted on Canvas as soon as that component has been graded. You are responsible for checking Canvas at least once a week to ensure that your grades are properly posted. ***If there is an error in grading, you must bring that to the attention of the class assistant or instructor within one week of the time the grade is posted. Grades cannot be changed after the one-week period.***

### Attendance

You are expected to attend class each day AND BE ON TIME. Attendance will be a factor in your grade. If you are late to class, you will receive 50%. If you miss a quiz, you will get a zero for it. If you must miss class due to a university sponsored event (documented with an excuse signed by the university sponsor prior to the event) or by circumstances considered extenuating by the course instructor, it is your responsibility to inform the instructor/TA BEFORE class time via email. If the instructor/TA was not notified before class time, the absence will be unexcused and you will get a zero for that day. Please refer to the general university policy on attendance at <https://www.nwmissouri.edu/policies/academics/Attendance.pdf>

### **Class Participation**

As well as attending all classes, you are expected to be an active participant in classroom activities and discussions.

### **Classroom Decorum**

Students are required to come to class prepared for the day's activities. That means be in your seat before the class starts, with the textbook, notepaper or notebook and writing instrument. We will start class promptly at the designated time.

Cell phones and pagers must be turned off during class time and are not allowed during exams. Laptop computers and handhelds may be used during class time if they are being used for a class activity, such as taking notes. Students are not to read or send e-mails, text messages, or surf the web during class time. Anyone using an electronic device to give or receive assistance during exams will be in violation of the "Academic Integrity" section of the catalog.

### **Northwest Online Tools**

Course materials are distributed through the course website at Northwest Online. To access the site, go to <http://www.nwmissouri.edu/online/>. Click the link for Technical Support to see the basic technical requirements your computer system must satisfy. Use the links to configure and test your devices.

### **Accessing Course Materials**

To access course materials go to the Northwest Online site and log in. Your login ID is your Northwest Student Number (S-----). Your password is your social security number, or your 919 number, without dashes. If you are a returning online student, your password will be the same as last trimester. During the first week of classes, *all* students are required to visit the site, check that their computer system meets the technical requirements, and complete the Student Orientation Course, which shows how Northwest Online operates.

### **Announcements and email**

Announcements are communicated via the **Announcements** page on the course website and your Northwest Missouri State University email account. It is your responsibility to check each of these sources daily. Note that you must use your Northwest e-mail account on the Northwest Online site. For security reasons, emails without an appropriate subject may not be opened. Emails *must* include a useful signature; unsigned emails may not receive a reply.

### **Northwest Online Helpdesk.** for Canvas and eConferencing Software

Hours: 24/7/365

[helpdesk@northwestonline.org](mailto:helpdesk@northwestonline.org)

☎ 877.740.2213

### **NWMSU Helpdesk.** for General Questions on Campus Computer, Software, and Networking

Hours: Monday-Thursday 8-9; Friday 8-5 [helpdesk@nwmissouri.edu](mailto:helpdesk@nwmissouri.edu)

☎ 660.562.1634

**Final exams:** If an emergency occurs that prevents the administration of a course scheduled final examination, the final course grades will be calculated based on the work in the course completed to that point in time and the faculty member's considered judgment. Final exams will not be rescheduled, and a grade of "I" will not be given as a result of an institutional cancellation of a final examination. This final exam policy does not apply to online courses.

**Wellness:** Northwest focuses on student success—every student, every day.

The Wellness Center, 660.562.1348, offers free counseling for students coping with depression, anxiety, alcohol or drug misuse, relationships, and other emotional, social, and academic stressors. In addition, faculty, staff, and students who are concerned with student wellbeing can report their concerns, including anonymously, to the Behavioral Intervention Team, so that the student can be offered relevant support, at this link: [Concerning Behavior Reporting Form](#). If you are concerned about the immediate safety of a student, please call the University Police, who have specialized training in intervention, at 660.562.1254.

The wellness center website has links to a lot of resources (both human and on-line) that you might find of use. Check it out at: <https://www.nwmissouri.edu/wellness/index.htm>

**Academic Administrative withdrawal:** When it is in the best interest of Northwest Missouri State University for a student to withdraw, a student will be given a W, put on administrative hold, and given notice that they are about to be withdrawn. This action will result in removal of all credits associated with courses that have yet to be completed in the semester in question and the student will be administratively withdrawn from the University. An Administrative Withdrawal does not affect the student's grade point average. Please refer to Northwest Missouri State University's Academic Administrative Withdrawal Policy at: <https://www.nwmissouri.edu/policies/academics/Adding-Dropping-Withdrawals.pdf>

**University communications:** Students are expected to use their Northwest student email account for any electronic correspondence within the university. Students are also strongly advised to check their email and CatPAWS accounts on a regular basis.

**Academic integrity policy:** The students, faculty, and staff at Northwest endeavor to sustain an environment that values honesty in academic work, that acknowledges the authorized aid provided by and intellectual contributions of others, and that enables equitable student evaluation. Please refer to Northwest Missouri State University's Academic Integrity Policy at <http://www.nwmissouri.edu/policies/academics/Academic-Integrity.pdf>

**Learning or Living Accommodations Request Process:** Northwest Missouri State University complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 [ADA] and the ADA Amendments Act of 2008 [ADAAA]. If a student has a documented disability that qualifies under the ADA/ADAAA and requests accommodations, they should review the Accessibility and Accommodations webpage at <https://www.nwmissouri.edu/titleixequity/accessibility/index.htm> for guidance, including the accommodations application and supporting documentation requirements. Contact [ada@nwmissouri.edu](mailto:ada@nwmissouri.edu) or 660.562.1873 for further assistance. For the university policy on disability accommodation refer to <http://www.nwmissouri.edu/policies/student/Disability-Accommodation.pdf>

**Non-discrimination and anti-harassment policy:** Northwest Missouri State University is committed to maintaining an environment for all faculty, staff, students, and third parties that is free of illegal discrimination and harassment. Please refer to the Non-Discrimination and Anti-Harassment Policy at <http://www.nwmissouri.edu/diversity/titlevi.htm>

**Family Education Rights and Privacy Act (FERPA) policy:** Family Educational Rights and Privacy Act of 1974, as amended (commonly known as the Buckley Amendment), is a federal law which provides that colleges and universities will maintain the confidentiality of student education records. Please refer to the Family Educational Rights and Privacy Act (FERPA) Policy at <http://www.nwmissouri.edu/policies/academics/Family-Educational-Rights-and-Privacy-Act.pdf>

**Disclaimer:** Course schedule is subject to change and you will be responsible for abiding by any such changes. Your instructor will notify you of any changes.