



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)
Spring 2021

Instructor: Dr. Charles Hoot

Email: hoot@nwmissouri.edu

Phone: 660-562-1801

Office: Colden Hall 2163

Office Hrs:

WF 1-3

TTh 2-3:30

Section 1 TR 9:30-10:50 CH 1350

TA: Yemi Runsewe S533481@nwmissouri.edu

Zoom Link: <https://zoom.us/j/732480905?pwd=UXdvQ1dydHAyTFNS2ZBSG9paThtZz09>

Discord Link: <https://discord.gg/BKnWg7jYJG>

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);
- 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 GPS location services
5. Use JASON to get information from an online service
6. Use a mobile backend data service to support an app.
7. Represent information using modern data serialization formats
8. Utilize technologies *not* taught in this course with greater confidence and efficiency ("learn how to learn")
9. Explain, from experience, how to work well with others on a team
10. 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 Spring 2021 Schedule

Week 1 – Jan 11	Introduction, Android studio
Week 2 – Jan 18	Whats app Layouts
Week 3 – Jan 25	Layouts
Week 4 – Feb 1	Project Proposal, Friday Feb 5 Life cycle of an app, intents
Week 5 – Feb 8	Recycler views
Week 6 – Feb 15	Recycler views Midterm 1, Thur Feb 18 in class
Week 7 – Feb 22	Fragments Project Milestone 1, Friday Feb 26
Week 8 – Mar 1	Dialogs JSON
Week 9 – Mar 8	Data Persistence
Week 10 – Mar 15	Parse, MBaaS
Week 11 – Mar 22	Parse, MBaaS Action Bar, Project Milestone 2, Friday Mar 26
Week 12 – Mar 29	Action Bar, Tabbed applications
Week 13 – Apr 5	Room Midterm 2, Thur Apr 8 in class
Week 14 – Apr 12	Custom Views Project Milestone 3, Friday Apr 16
Week 15 – Apr 19	Animation, Events
Week 16 – Apr 26 Prep Week	Final Project presentations Presentation Submission, Wednesday Apr 28 Final Project Submission, Friday Apr 30
Week 17 – May 3 Finals Week	Final Exam Section 1: Thursday, May. 6 at 2:00 pm - 4:00 pm

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 be on Canvas. You will have a limited amount of time to finish the quiz.

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.

The midterm exams are open for written materials. No other resources are allowed.

The final exam will be a take home exam and will be due at the end of the final period.

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 video presentation 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. During the course of the class period, there may be times when students on zoom are required to respond in chat. Students that do not respond in the given time frame will receive a lower attendance score.

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 (or logged into our zoom session), 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

☎ 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

☎ 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: During this time of Covid and enhanced Online course content delivery, it is easy to feel isolated and not take the best care of yourself. But there are resources out there that can help you.

Wellness Center Website: <https://www.nwmissouri.edu/wellness/index.htm>

Wellness Center Well-Being Resources (lots of

links): <https://www.nwmissouri.edu/wellness/wellness%20resources.htm>

TAO (Therapy Assist Online) (self guided): <https://www.nwmissouri.edu/wellness/counseling/tao/index.htm>

Body U (self guided) : <http://bodyu.org/>

RESPOND training (training for helping others, students are welcome): <https://www.nwmissouri.edu/wellness/respond.htm>

Concerning Behavior Report (one of many ways to report a potential issue): https://cm.maxient.com/reportingform.php?NorthwestMOStateUniv&layout_id=5

Wellness Center Workshops(lots of topics, students welcome): <https://www.nwmissouri.edu/wellness/Hope4All/workshops.htm>

Administrative drop: An instructor may request the Office of the Registrar delete a student from a course roster if the student has not met the prerequisite for the course as stated in the catalog, or as a result of non-attendance in the course.

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>.

Special accommodations policy: 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 disability that qualifies under the ADA/ADAAA and requires accommodations, they should contact the Office for Equity and Accessibility for information on appropriate policies and procedures at 660.562.1639, or pjp@nwmissouri.edu / ADA@nwmissouri.edu. 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>