



**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 2021**

**Instructor:** Dr. Charles Hoot

**Email:** hoot@nwmissouri.edu

**Phone:** 660-562-1801

**Office:** Colden Hall 2163

**Office Hrs:**

**MWF 11-12**

**MTWTh 2-3**

**Section 1** TR 9:30-10:50 CH 1200

**TA:** Yemi Runsewe S533481@nwmissouri.edu

**Discord Link:** <https://discord.gg/k6uamjgpFK>

**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 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%
<b>Total</b>	<b>100%</b>

**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

**Office Hours:**

While I will be in my office during office hours, due to COVID-19, I would like to encourage you to try discord first. I will be listening and monitoring the text/chat channels for questions

An invitation to discord will be published on the course web site in announcements.

**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 2021 Schedule**

Week 1 – Aug 16	Introduction, Android studio
Week 2 – Aug 23	Whats app, Layouts
Week 3 – Aug 30	Layouts
Week 4 – Sep 6	<b>Project Proposal, Friday Sep 10</b> Life cycle of an app, intents
Week 5 – Sep 13	Recycler views
Week 6 – Sep 20	Recycler views  <b>Midterm 1, Thursday Sep 23</b>
Week 7 – Sep 27	Fragments Dialogs <b>Project Milestone 1, Sep 30</b>
Week 8 – Oct 4	JSON Data Persistence
Week 9 – Oct 11	Data Persistence Parse, MBaaS
Week 10 – Oct 18	Parse, MBaaS
Week 11 – Oct 25	Action Bar, Tabbed applications <b>Project Milestone 2, Friday Oct 28</b>
Week 12 – Nov 1	Action Bar, Tabbed applications
Week 13 – Nov 8	<b>Midterm 2, Thur Nov 11</b> Custom Views
Week 14 – Nov 15	Animation, Drawing <b>Project Milestone 3, Friday Nov 19</b>
Week 15 – Nov 22	Thanksgiving Break – No class
Week 16 – Nov 29	Project Presentations <b>Final Project Presentation Submission, Wed Dec 1</b> <b>Final Project Submission, Friday Dec 3</b>
Week 17 – Dec 6	<b>Final</b>

Finals Week	<b>Section 1:</b> Monday, December 6 at 2:00 pm - 4:00 pm
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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 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 class time via email. If the instructor was not notified before class time,

the absence will be unexcused. 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:** 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](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>

**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>

**COVID-19 Classroom Mitigation:** Northwest is committed to the health and safety of the University community and has therefore adopted COVID-19 mitigation policies. Every student must wear a face covering (such as a cloth facemask, bandana, scarf, neck gaiter, or medical mask) over their nose and mouth at all times in all academic building spaces, including classrooms (unless directed not to by the instructor), offices, hallways, and restrooms. Face shields may be worn in addition to, but not in place of, a face covering. Students without face coverings will not be allowed in the classroom until they comply with expectations. Students must also follow directions regarding entries, exits and furniture, and maintain at least 6 feet of social distancing whenever possible. Northwest further asks all students to practice good hygiene and not enter academic buildings or attend face-to-face classes when they feel sick or have been instructed to quarantine/isolate; students who miss class should communicate with their instructors. Students who do not comply with these requirements will be subject to standard disciplinary procedures according to the Northwest Student Code of Conduct (i.e. verbal and written warnings followed by a hearing, if necessary). We thank you for doing your part to maintain our learning environment and to protect the health of fellow Bearcats.

**Change in Course Delivery:**

It is our goal as a University to continue all courses as planned on campus. However, due to unforeseeable impacts of COVID-19, faculty and students must be prepared to move all courses to a remote/online learning format anytime during the semester, either permanently or for a short term. The type of format (synchronous or asynchronous) will be at the discretion of each faculty member. The University and faculty will communicate with students in the event such action is deemed necessary to preserve the health and safety of students and employees.