

Department of Computer Science and Cybersecurity
College of Health, Science, and Technology
University of Central Missouri
Course Syllabus 4120/5220

Course: CS 4120/5220 – Adv. Application Program. in Java

Semester: Summer 2023

Class Time:

MW 8:00-9:50 am CRN 30445 MIC B203

MW 10:00-11:50 am CRN 30763 MIC B203

MW 1:30-3:20 pm CRN 31432/30763 MIC A252

Instructor: Dr. Belinda Copus

Email: copus@ucmo.edu

Office Hours: By Appointment, F2F or Zoom

Zoom office hours link

<https://ucmo.zoom.us/j/95258172328>

Office: MIC D257, WCM 222C Warrensburg

Textbook : *Introduction to Java Programming, 12th edition*, by Daniel Liang, Pearson, 2020

Prerequisite: CS 2300 or consent of instructor

Description:

A continued exploration of the Java programming language with an emphasis in utilizing more advanced features of the language in software development. Topics include generics, multithreading, networking, JavaFX, databases, servlets, and JSP.

Objectives:

- Understand generics and their capabilities in the Java programming language.
- Utilize multithreading in Java applications.
- Use networking capabilities in Java applications.
- Work with databases in Java applications.
- Create GUI applications using JavaFX and event-driven programming.
- Explore server-side capabilities with servlets and JSP.

In addition, a student taking this course for graduate credits will be able to:

- Evaluate use of appropriate techniques and technologies in Java software development.
- Synthesize the appropriate use of various advanced Java techniques and technologies in the creation of complex software systems.

Course Content Outline:

A. Generics

B. Multithreading

C. Networking

D. GUI Programming

E. Database

F. Servlets

G. JSP

Course Guidelines:

1. Current industry tools will be utilized in this course. You are expected to work with the prescribed IDE and other tools, including version. **IntelliJ Ultimate and Java JDK 17 or higher are required.** We will also be using JavaFX, MySQL and Apache Tomcat.

Course Format

This class is a hybrid. There will be 12 in-person class meetings, two per week for 6 weeks with additional self-directed work each week. The student is expected to learn more independently. This is an advanced course, and you will often need to research and learn some material independently. Some video will be posted. There will be homework assignments, a small project, and a final exam.

Grading

Homework and project	400 points
Final Exam	100 points

Grading Scale A: 90%-100%, B: 80%-89.9%, C: 70%-79.9%, D: 60%-69.9%, F: 0%-59.9

Other Information and Policies

1. **Your UCM email account will be used, frequently, by the instructor, to communicate messages. It is your responsibility to check this account regularly.**
2. Class notes, files, and assignments will be posted to Blackboard. It is the responsibility of the student to frequently check their email.
3. **The assigned textbook is required.**
4. Do not have side conversations unnecessarily during lectures. You will be warned once and then asked to leave the classroom. Side conversations impede the learning of your classmates and are hugely annoying to your instructor.
5. Students with documented disabilities who are seeking academic accommodations should contact the Office of Accessibility Services, Union 222, 660.543.4421.
6. Advanced arrangement for unavoidable absences should be made whenever possible. Neither absence nor notification of absence relieves you of the responsibility of meeting all course requirements.
7. Make-up exams will be given only for valid excuses with proof and have to be completed within 5 days of the regular exams. A make-up exam will be different from the regular exam.
8. Homework is to be done independently unless otherwise directed. Grade of 0 will be given for submissions that are substantially similar to another's or can be found on the internet. Additionally, student could be reported to the University for academic dishonesty.
9. All assignments are due by the due date. **LATE WORK WILL NOT BE ACCEPTED.**
10. During tests, no communication tools are allowed. **Any form of academic dishonesty will be dealt with according to the guidelines found in the UCM Student Planner/Handbook or at <http://www.ucmo.edu/student/documents/honest.pdf> and <https://www.ucmo.edu/offices/general-counsel/university-policy-library/academic-policies/academic-honesty-policy/index.php>.**