

CS 495 – Software Engineering, Fall 2024

Instructor: Michael Kowalczyk

Office: 2222 Jamrich Hall

Office phone: 227-1600

Class meetings: 9:00am – 9:50am Mon / Wed / Thurs / Fri in room 2317 Jamrich Hall

In-person “walk-in” office hours:

Mon., Wed., Thurs., Fri., 8:00am – 8:50am

By-appointment online office hours:

Monday through Friday, 3:00pm – 5:00pm

Reserve a time by going to ESP in MyNMU; reserve your appointment the day before (at latest).

At your appointed time visit <https://nmu.zoom.us/my/drkow> and use passcode: 147147

Email: mkowalcz@nmu.edu

Course Website: <https://educat.nmu.edu>

Overview:

This course is an introduction to software engineering, which is defined by the IEEE as: “The application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software...”.

Essentially, we will focus on all of those aspects of developing and maintaining software *other than* how to write code.

Prerequisites:

C or better in either CS 222 or CS 330.

Textbook:

For each student in the class, I will be lending a personal copy of *Software Engineering – A Practitioner’s Approach* (7th Edition), by Roger Pressman. Please return it at the end of the semester so I can do the same for future students. Note that we are not using the most recent edition. I looked through both the 7th and 9th editions, it seems to me that the material of the 7th edition is mostly the same, is far less expensive, and some chapters actually have *more* content.

Course objectives:

CS 495 is a special topics course, with this iteration being focused on the basics of software engineering. Upon successful completion of this course, a student should be able to do the following:

- Know the relative strengths of various software lifecycle models
- Be able to analyze software requirements and produce a requirements document
- Apply high-level and low-level software design principles in practice
- Design a user interface in accordance with established usability principles
- Develop and implement a comprehensive plan for testing a software project

Evaluation of these learning outcomes will be done through written assessments (quizzes, exams, project deliverables, and/or assignments).

Equipment:

You will need a laptop computer with a web browser and Internet access. You will also need to do some software installations.

Academic Conduct:

I strive for honesty and integrity and I expect my students to do the same. If outside sources (including AI) are used, you must explicitly indicate what came from where – just like the professionals do. Other than that, every assignment must be written entirely by you or your team.

Grading:

Grades will be based on quizzes, exams, assignments (take-home or in-class), and project deliverables:

5pts. per quiz

50pts. per exam

5-50pts. per assignment (depending on size and complexity)

20-100pts. per project deliverable (depending on size and complexity)

Handing in Work and Late Policy:

If an assignment is handed in late but before I have started grading, then I will accept it for full credit. If an assignment is handed in after I have begun my grading session, I can still give feedback but it won't get credit. If for some reason you are having trouble handing something in, email it to me as an attachment. If some circumstance such as illness occurs which might interfere with getting your work in on time, let me know about it right away. I can usually work something out if your concern is brought up well in advance of the deadline. You are training to be a professional; treat it like a job. If you wait until days after the fact to say that you were sick, don't expect much slack.

Exam Dates & Schedule Conflicts:

The final exam will be held on Monday December 9 from 8:00am to 9:50am. Other exams will be announced as needed throughout the semester. Let me know as soon as any conflict prevents you from attending (due to religious observances, illness, intercollegiate athletics, etc).

Laptop Use:

Your laptop will be needed for some class sessions. At times, we will have a lecture or discussion in which I will need your complete attention (laptops closed). You are responsible for keeping your laptop in good working condition. The helpdesk does not backup your work if they need to fix your laptop (unless you pay a fee), so make frequent backups to hardware external to your laptop *before* a crisis strikes.

Disability Services:

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgecock Building (227-1737 or disserv@nmu.edu). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.