

Math 172: Calculus I

Meeting Daily at 9:00 – 9:50 in Bouillon 106

Instructor: Dr. Yvonne Chueh
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Office Hours: M,W,F 2:00-2:50, Tu,Th 11:00-11:50,
and by appointment.

Description: Math 172 is a 5 credit math course covering the fundamentals of single variable differential calculus. The course involves understanding first and second derivatives (at a point and as a function) and rules for finding derivatives of common functions. You will further be expected to find derivatives of products, quotients, and compositions of common functions, and effectively apply derivatives to contextual problems. Communication is a critical part of the expectation; you will be expected to communicate your processes clearly using proper math symbols and “grammar” as well as to communicate interpretations of your answers.

Time: The general rule of thumb for college is 2 hours outside of class for each hour in class. Expect to spend 10 hours per week besides class time to be successful (some may need more, some less....) You choose to succeed or not largely by how you choose to spend time and energy. Plan ahead and make sure you have time available.

Materials:

- A graphing calculator is required. Smart phone apps will not do, as you can't use a phone during quizzes and tests (hopefully for obvious reasons). A TI-83 Plus or TI-84 plus is recommended, as I can help with those, but other calculators are acceptable if you read your own manual.
- Text: Calculus: Early Transcendentals 3rd edition; by Jon Rogawski and Colin Adams, Chapters 1-4.

Assessment Method

Assessment Method	Value	
Homework	20%	200 points
In-class work/quizzes	15%	150 points
Three Tests	45%	450 points
Final Exam	20%	200 points
Total	100%	1000 points

Grading:

Final grades will be assigned according to the following scale:

A 100-93%	A- 92.9-90%	
B+ 89.9-87%	B 86.9-83%	B- 82.9-80%
C+ 79.9-77%	C 76.9-73%	C- 72.9-70%
D+ 69.9-67%	D 66.9-63%	D- 62.9-60%
F 59.9% and below		

Homework is assigned almost every day, and needs to be done that day. We may use an open source (aka “free”) online homework site “webwork” for practice problems in addition to handouts and some book assignments. You are responsible to do your work in a timely manner and come to class the next day with appropriate questions. Attendance and participation are essential, and practicing the skills and concepts promptly is the only way to be confident of success.

Chapter tests and the final exam must be taken on the days assigned; you will know chapter test dates at least a week ahead. Other times will be arranged only for the direst of circumstances (family funeral is valid if it is your own ☺).

Projects: if assigned, will be relatively small and be scored as quizzes.

Late work: No late work is accepted for paper assignments.

Cheating = Failure. You are allowed help always on homework. Tests, quizzes, and the final exam are individual efforts. You will receive a zero with no chance for make up if you copy, help, hint, check, etc. with a classmate.

Extra Help: The University Math Center, located in ARC on the first floor of Brooks library has very generous drop in tutoring hours, and there are “PALs” (peer-assisted labs), which are course-specific weekly study sessions available with a tutor at times TBA. Kahn academy (www.khanacademy.org) has an organized collection of over 2,400 tutorial videos, with special emphasis on math.

Accommodations: If you have a disability and require accommodations for this course please speak with me privately as soon as possible so that your needs may be appropriately met. If you have not already done so, you will need to register with Disability Services (DS). DS is located in Bouillon 140. Call (509) 963-2149 or email cds@cwu.edu for more information.

Expectations:

New learning occurs most effectively when it is based on what students *already know*, when students actually *do* real science, and when they become aware of *how* they learn, not just *what* they learn (Donovan, 2005). Learning is a deliberate and conscious decision, one that involves breaking established neural patterns and creating new ones. To best facilitate growth, my expectations are for you to:

- **Think critically.** This course will require critical thinking. People that analyze, infer, evaluate, and make reasoned judgments do better in college, make better daily decisions, and have greater professional success. Developing critical thinking should be a key goal of every student.
- **Apply yourself.** This course will take a lot of time and energy. If you have high learning expectations, that is what you will achieve. Success in this course will require significant effort (several hours of study time for each hour of class). Depending on your mathematical background, you may need to spend more or less study time. Attend class regularly, be on time, and budget your time to accommodate the workload.
- **Ask questions.** Statistics is fascinating, but it can be confusing, too. Ask questions. If you aren't clear on something, there are likely others who are equally unclear on the topic.
- **Be informed.** People sometimes use information to manipulate others' behaviors and decision-making in ways not always to your benefit. If you don't understand the mathematical basis of a claim about data, you can't make an informed decision about it. Be curious; try and find out all you can about a topic before you make a decision that may profoundly affect your life.
- **Be respectful.** We will discuss some sensitive and controversial issues in this course. Everyone will respect others' right to express their opinions even if you disagree. Respectful discourse is a minimal expectation of every student.
- **Communicate clearly.** Effective written and oral communication indicates an intelligent mind. Clarity, proper format, spelling, and grammar are expected of every student.
- **Use common sense.** Cheating on assignments or tests, plagiarizing others' work, and turning in late assignments is unacceptable. Any infractions may result in a zero for the assignment, a failing course grade, and the possibility of disciplinary action by the university. I won't accept *anything* late unless you have written documentation from an appropriate source or have made prior arrangements with me. If you have a problem that prohibits you from turning something in on time, let me know ahead of time. In all instances, communicate with me so we can prevent problems.

THE END: Your final exam will be determined by the university. There will be regular daily work, a quiz, and review assignments due during the last week of class.