

# Math 172: Calculus I

Meeting Daily at 9:00 – 9:50 in Hertz 121

Instructor: Tim Brown

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Office: Bouillon 117

Office Hours: 1 - 2 Daily (*and by appt.*)

**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.

## **Expectations:**

**Uni-tasking!** The (lost) art of doing one thing at a time, focusing, and doing it well. Turn off your phones, ipods, ipads, cortical implants, etc. during class... She will still love you in 50 minutes. The birds will still be angry. Some people will still call him Maurice. The fruit will still need to be ninja-ed. If you are here, be truly here.

Attendance, participation, homework. You have to show up, do your work, ask meaningful questions, and get help as needed to succeed. If you must be gone, you are responsible to access my website for information, and keep up with the work.

Respect yourself: Believe your education is important enough to put forth the effort. Your future is worth investing in.

Respect others (real or simulated respect) – me, classmates, the school, etc. Honesty is an absolutely essential part of that.

## **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: Single and Multivariable 6<sup>th</sup> edition; by Hughes-Hallett et al.

## **Grading:**

- 20% Final Exam
  - 35% Unit Tests
  - 25% Quizzes
  - 10% “Perfect Practices”
  - 10% Homework
- 90% - 100% = A  
80% - 90% = B  
70% - 80% = C  
60% - 70% = D  
+ and – grades apply if your score is within 2%.

**Homework** is assigned almost every day, and needs to be done that day. Attendance and participation are essential, and practicing the skills and concepts promptly is the only way to be confident of success. Homework will be collected on the day of the unit test, but may be “checked” more often to ensure progress. You need to check your own work against the answers in the back of the book, and come to class with questions as appropriate. There are also online resources we may use as part of the homework expectation. Pop quizzes will generally be taken directly or very closely from the homework problems.

Perfect Practices are tasks which must be completely perfect to get credit (at which point they get stamped), or you keep working until they are. This ensures you are on the right track before you do the homework practice, and also provides an example you have worked out correctly for reference. You get as many chances as you need to get these correct, but they must be stamped by the day before the unit test at the latest. Perfect practices will be turned in as a packet on the day of the unit test.

Quizzes will usually be short and will sometimes be unannounced. They will cover the homework concepts from the previous few days. You can retake up to 4 quizzes for a better grade this quarter. You must complete the relevant homework (showing work on paper) and perfect practice(s) to be eligible for a retake, and you must come see me outside of class – during office hours or by appointment. Retakes must be done by the day before the unit test. If you are absent the day a quiz is given, the retake is your only chance at the quiz.

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:** Homework has a grace period until the next unit test. Perfect practices are done the day assigned, but have a grace period until the day before the next chapter test. After that, they get zero credit.

**Cheating** = Failure. You are allowed help always on homework, and usually on perfect practices. 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:** Do not hesitate to come see me at my office. Frustrations often relate to prior skills you may not realize you are missing. I can help identify and correct those issues. My office hours are listed on the front of this page, and I'm available other times by arrangement. We may have math education students who are available for individual or small group tutoring – see me. Also, the University Math Center, located in ARC on the first floor of Brooks library has very generous drop in tutoring hours, and there are “supplemental instruction” course-specific weekly study sessions available with a tutor at times TBA. Kahn academy ([www.khanacademy.org](http://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](mailto:cds@cwu.edu) for more information.

**THE END:** Your final exam will be held on Tuesday, December 9, at 8:00 AM. There will be regular daily work, a quiz, and review assignments due during the last week of class (12/1 – 12/5).