

MATH 172 Calculus I
Dr. Boersma
Fall 2010

Goals: We will begin the study of *Calculus*. We begin the course with the introduction of the derivative, which forms the basis for our study. Because of their versatility, derivatives can be used to represent everything from fluctuations in interest rates to the rates at which fish populations vary and gas molecules move. Derivatives have applications throughout the sciences. We will learn differentiation techniques including the chain rule and implicit differentiation. Applications of the derivative which we will study include curve sketching, related rates problems, and identifying maxima and minima of functions. Along the way, we will learn how to use graphing calculators to enhance our understanding of calculus.

Office: Bouillon 107E, phone: 963-1395, email boersmas@cwu.edu. Office hours will be announced in class shortly. You may of course drop by anytime. If I'm not busy I'll be glad to talk with you.

**Required
Materials**

1. **Text:** *Thomas' Calculus: Early Transcendentals*, by Weir, Hass, and Giordano.
2. TI-83/84 Graphing Calculator

Your Grade: Your final grade in this course will depend on three fifty-minute exams, one final exam, and several graded homework assignments.

Exams Three fifty-minute exams will be given in class, thus making attendance mandatory on these dates. If you anticipate a conflict, please see me at least one week **before** the date of the exam. The final exam (120 pts) is scheduled for Wednesday December 8th, 8:00 – 10:00 a.m. This time is scheduled by the registrar's office and cannot be changed!

**Graded
Homework**

This class will make use of an online homework system called *WeBWork*. All students will be required to complete regular homework assignments using this system. While problems may be printed and worked on anywhere, solutions **must be entered online** by the posted due date. Please perform the following steps as soon as possible:

1. Visit <https://courses.webwork.maa.org/webwork2/cwu-math172/>
2. Logon using your student ID# as both your username and password.
3. Change your password using the **Password/Email** link on the Main Menu.

4. Select **Homework Sets** from the Menu to see current homework assignments.
5. Begin working on HW1, problems 1–9.

Homework There will also be **daily** homework assignments from the textbook. It is **your responsibility** to keep up with these assignments. Although these problems will not be collected or graded, they will provide you with a variety of practice before attempting the graded homework problems.

Technology: We will discover how the TI-83/84 graphing calculator can be used as an extremely powerful problem solving tool in calculus. I will be assuming that everyone is familiar with the basic arithmetic and graphical operations of the calculator. If this is not the case, you should come by and talk with me about your familiarity with the calculator.

Attendance I will assume that everyone attends every class meeting. If you happen to miss a day, be advised that you are still responsible for any assignments that were given or turned in. Feel free to come by my office to discuss the day’s activities that you may have missed.

Final Grades: As mentioned in part above, your final grade will depend on

Graded Homework	100 pts.
Three in-class exams	300 pts.
Final Exam	<u>120 pts.</u>
TOTAL	520 pts.

While I reserve the right to “curve” final grades as I deem appropriate, your grade will be no lower than:

A :520– 481	C+:412– 397
A-: 480– 465	C :396– 377
B+:464– 449	C-:376– 361
B :448– 429	D+:360– 345
B-: 428– 413	D :344– 325
	D- : 324– 309

Students who have special needs or disabilities that may affect their ability to access information or material presented in this course are encouraged to contact me or Robert Harden, ADA Compliance Officer and Director, ADA Affairs and Student Assistance on campus at 509-663-2171 for additional disability-related educational accommodations.

DATES TO REMEMBER

Exam 1: October 7	Exam 2: October 29
Exam 3: November 19	Final Exam: December 8