

Math 211, Calculus I, Fall 2011
MWF 12:00-12:50pm, Th 7:00-8:15pm

Instructor: Amy DeCelles

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Office hours: M 2-3pm, W 3-5pm, F 2-3pm, and by appointment

Course Prerequisites: Successful completion (with a grade of C or better) of Math 170 (Precalculus) or 3-4 years of high school mathematics including Precalculus or advanced mathematics. An SAT math score of 600 or more or an ACT score of 26 or more. If you have any questions about your placement in this course let me know.

Credits and Workload Expectations: (4 credits) Expect to spend 8-10 hours per week on coursework outside the classroom.

Course Content: This course will cover the following topics: review of functions of one variable and an introduction to functions of several variables, the derivative as a measure of rate of change, the integral as a measure of accumulated change, differentiation techniques, applications of the derivative, antiderivatives and the fundamental theorem of calculus, modeling using differential equations.

Course Materials and Resources:

- Textbook: *Applied Calculus*, 4th Edition, Hughes-Hallett, et al., Wiley, 2009.
- Calculator: No calculator is required for this course, though you may find a graphing calculator to be helpful.
- Course webpage: <http://people.goshen.edu/~adecelles/math211>. Notes and other information will be posted there.
- Software: We will be using a computer algebra system, Mathematica, which is installed on all the lab computers.

Homework: Each week you will have a problem set, typically due in class on Monday and returned within the week. Each section of homework problems be worth 5 points, partial credit being given on the basis of the percentage of the homework that is properly completed showing the necessary work. To receive full credit for homework and exam problems, your work must be neat, organized, and complete.

In-class exercises: Each week you will the opportunity to check your mastery of the material in a five-minute closed notes, closed book exercise, given at the beginning of class on Fridays. We will review the exercise in class, and you may make changes to your work before handing it in.

Labs: In the Thursday labs, you will have an opportunity to practice what you are learning by doing a variety of projects and writing about your results.

Final Course Grade: The final grade for this course will be computed as follows:

- Homework (10%): weekly problem sets
- In-class exercises (10%): weekly 5-minute in-class exercises
- Labs (15%): weekly lab write-ups
- Exam 1 (15%): in-class, Mon Sep 19
- Exam 2 (15%): in-class, Fri Oct 21 (tentative)
- Exam 3 (15%): in-class, Fri Nov 18 (tentative)
- Final exam (20%): cumulative; 1pm Wed Dec 7, location TBA

Make-up midterm exams may be given to students with legitimate excuses such as verified illness, University sponsored events, etc., as long as the make-up exam can be taken within a reasonable time frame. If it is not possible to schedule a make-up exam within a reasonable time frame, the grade for the midterm may be prorated from the final exam. Written documentation is required.

Disability Accommodations: Goshen College wants to help all students be as academically successful as possible. If you have a disability and require accommodations, please contact Lois Martin, the Director of the Academic Resource & Writing Center early in the semester so that your learning needs may be appropriately met. In order to receive accommodations, documentation concerning your disability must be on file with the Academic Resource & Writing Center, Good Library 113, x7576, lmartin@goshen.edu. All information will be held in the strictest confidence. The Academic Resource and Writing Center offers tutoring and writing assistance for all students. For further information please see www.goshen.edu/studentlife/arwc/.

Peer Tutoring: The Peer Tutoring Program helps organize peer-tutored study groups of three to four students who meet every week for one hour. If you would like a tutor, please contact: Lois Martin, ARWC director, at lmartin@goshen.edu.