

MTH 132: Calculus I (22216101)

Course Information Sheet and Syllabus¹

Spring 2013

Instructor: Dr. Susan Cooper

Office: Pearce Hall, Room 221 *Email:* s.cooper@cmich.edu *Phone:* 989-774-2893

Office Hours: Mondays & Wednesdays 9:30 a.m. – 10:30 a.m & 1:00 p.m. – 2:00 p.m.;
or by appointment

Class Times and Location: MW 11:00 a.m. – 12:50 p.m., Pearce Hall – Room 136

Prerequisites: MTH 130 or equivalent

Course Web-Page: We will use *Blackboard* which can be found at <http://blackboard.cmich.edu/>.

Text: *Essential Calculus: Early Transcendentals* by James Stewart (Second Edition)

Course Description: We will explore a branch of mathematics called *Calculus* which is loosely defined as the study of change. We will closely investigate functions and their properties. Topics will include functions, limits, continuity, derivatives, integrals, and applications of these objects to solve real-life problems. We will be covering most of Chapters 1 through 5 of your textbook.

Why study Calculus? One of the great advantages of studying mathematics is that it helps one develop the ability to handle abstract ideas. The branch of Calculus is used in many real-world applications such as economics and engineering. As such, it is crucial that we try to deeply understand the material. After completion of the course, students will be able to understand and use algebraic, graphical and numeric descriptions of the topics of the course. Through practice, students will both be able to apply Calculus to solve problems and develop the ability to reason mathematically.

Homework: The best way to learn mathematics is by doing mathematics. Thus, it is crucial that you master your skills through practice. At the beginning of each section, a list of exercises will be assigned from the textbook. Your solutions to these exercises will not be collected, but quiz and exam questions will be based on exercises from this list. Doing these exercises will help you master the material.

On-Line Homework: In order to regularly assess your mastery of the material, you will be required to complete on-line assignments using a program called *WeBWorK*. These assignments will be due every Friday by 5 p.m. and will be graded. To log in, visit

<https://mth-webwork.cst.cmich.edu/moodle/course/view.php?id=23>.

Your login and password are the same as your global ID and CMU password. Using WeBWorK will be discussed in class. The lowest two on-line homework scores will be dropped in calculating your final course grade.

Quizzes: Quizzes will be given every Wednesday. The quiz will take one of two forms: a short in-class quiz or a take-home quiz due on that Wednesday. The type of quiz will be announced during class on the previous Monday. Quizzes will be graded for correctness and clarity. Feedback will be provided to *improve* your mathematical solutions and communication. The lowest two quiz scores will be dropped in calculating your final course grade.

Exams: There will be three midterm exams and one cumulative final exam. The schedule is:

Exam	Date	Time and Location
Exam 1	Monday, February 4	In Class
Exam 2	Monday, February 25	In Class
Exam 3	Monday, April 1	In Class
Final Exam	Wednesday, May 1	10:00 a.m. – 11:50 a.m., Pearce Hall – Room 136

¹The details stated in this course syllabus are subject to change at the discretion of the instructor. Announcements concerning all (if any) changes will be made in a timely fashion.

Missed/Late Work Policies: The following policies will be followed:

- (1) No make-ups or extensions will be granted for the on-line homework and quizzes. If you have to miss a homework/quiz, then a grade of zero will be given and this will count as one of your dropped homework/quizzes.
- (2) Make-up exams will only be given if arrangements are made with prior notification and you have a reasonable excuse for missing the scheduled exam. If you must miss an exam for an unforeseen, excusable absence, you must provide proper documentation for that absence. Make-up exams may be administered for exceptional circumstances and only by the discretion of the instructor. No make-up exams will be granted for the final examination.

Course Grades: Final grades will be determined as follows:

Task	Percentage of Grade	Percentage Grade	Lowest Letter Grade Earned
On-line Homework	15%	$\geq 90\%$	A-
Quizzes	15%	$\geq 80\%$	B-
Midterm Exams	15% each	$\geq 70\%$	C-
Final Exam	25%	$\geq 60\%$	D-

Classroom Atmosphere: A part of learning is making mistakes. We want to establish a classroom atmosphere where the inevitable false starts and mistakes become an opportunity to improve – not an opportunity for embarrassment. Please be constructive and polite in questioning your colleagues in class.

Expectations and Tips for Success: I ask that you have a well-defined sense of professionalism, that you always put forth your best effort, and that you develop a sense of responsibility to your educational community. I ask that you exhibit a persistent desire to learn. In return I will provide you with significant support. Also:

- Be positive, open, and responsive to feedback.
- Be an active participant - mathematics is learned by doing; this includes being solely responsible for material when a class is missed, participating fully in classroom activities (please, turn your cell phones off during class), critically thinking about the mathematics during and outside of class. *In order for this class to be successful, it is imperative that you commit to coming to class regularly, that you commit to coming to class prepared, and that you commit to participating in class!*
- Be committed, take pride in your work, and take your work seriously.
- Be patient with yourself - it takes time to master newly learned things. Ask for assistance when it is needed. Constantly try to improve yourself as a mathematician.
- Be academically honest. You will be expected to submit only work that is your own. This will help us gauge your understanding, progress, and abilities for the material. Although you are encouraged to work together as you study, you should not submit anything that you do not understand or is not written in your own words. You are obligated to adhere to the CMU Policy on Academic Integrity.
- Starting with the first class, study in-depth and regularly. This means, for example, that you should do the assigned exercises *before* the next class period.
- Do not rely on solution manuals! These are readily available and it is tempting to just copy the solutions. However, struggling through the exercises on your own is an important phase of the learning process.
- Get help as soon as you need it: ask questions in class and office hours; form a study group with your classmates; consider getting a tutor, etc.
- For exam preparation, practice exercises that have not been assigned.
- Everyone wants you to succeed. Please speak with me regarding any concerns you may have.
- Relax and have fun with the course!

Special Needs: CMU provides students with disabilities reasonable accommodation to participate in educational programs, activities, or services. Students with disabilities requiring accommodation to participate in class activities or meet course requirements should first register with the office of Student Disability Services (Park Library, Suite 120, telephone: 989-774-3018, TDD 989-774-2568), and then contact me as soon as possible.