

Calculus I
MA 161-02 Winter 2016
MWRF 11:00 – 11:50 WS 2901

Professor: Dr. Linda Lawton
Office: Jamrich 2206
Email: llawton@nmu.edu
Office Hours: 1:00 – 2:30 MRF, or by appointment

Text: Calculus, Edition 6e, James Stewart, Thomson, Brooks/Cole, 2008.

Course description: This introductory calculus course contains a brief review of precalculus mathematics, limits, the derivative, differentiation rules, applications of the derivative, the definite integral, the Fundamental Theorem of Calculus, and an introduction to the applications of the integral.

This course satisfies the Foundation of Natural Sciences/Mathematics requirement. Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of mathematics in analyzing natural phenomena.

Prerequisite: Satisfactory (C- or better) completion of Math 115 or equivalent.

“Homework”: Homework problems from the text will be assigned but not collected—instead we will have daily/weekly quizzes and in-class grades (group worksheets) worth a total of 1200 daily points. I will “forgive” 200 points—i.e. if at the end of the semester you have accumulated 1000 points, you will receive 100% for your homework average. In light of this, there will not be “make-up” quizzes/worksheets—the “forgiven” 200 points accounts for necessary absences.

Exams: There will be four in-class exams spaced roughly 3½ weeks apart. Exam dates and times can be rescheduled only with prior notice and approval except in the case of emergencies where I am notified by the university. Just a word of warning—make-up exams tend to be more difficult than the original. (Once a test has been given, its content tends to become widely known very rapidly—not to mention I may have already used my best (read nice) problems.)

Breakdown:

Homework:	8%	
Exam 1:	12%	
Exam 2:	17%	
Exam 3:	17%	
Exam 4:	12%	
Final:	34%	(comprehensive)

Grade scale:

91 – 100%	= A
81 – 89%	= B
71 – 79%	= C
61 – 69%	= D
< 60%	= F

Learning Outcomes (primary focus of examinations)

- The student will be able to correctly evaluate a variety of types of limits and interpret their relationship to concepts such as continuity and differentiability.
- The student will be able to select and apply the appropriate differentiation techniques.
- The student will be able to select and apply the appropriate integration techniques.
- The student will model and solve a variety of problems using integration and differentiation, including but not limited to optimization, related rates, and basic physics.

About me:

Normally I am a rather informal, laid back person—i.e. easy to deal with. (Even my husband agrees with this.) But there are a few things which tend to make me grumpy—i.e. difficult to deal with. Here's a short list (keep in mind this was developed while teaching "Math for People Who Hate Math But Have to Have One to Graduate"):

1. bad attitudes

(Please don't just sit in the back glaring at me—pretend you are enjoying yourself!!)

2. homework (or other) questions right before class starts

(I want to provide you with clear, understandable lectures, but I am easily distracted. I need that time to focus before I start class.)

3. repeatedly skipping class and expecting me to "lecture" during office hours

(I don't mind covering the material with you in my office, but there is only so much we can cover in one sitting.)

4. point grubbing

(When I grade quizzes and tests I go through all the papers twice to ensure that equivalent credit is given to equivalent work. If you feel I have made an error, please submit a written request for me to review the matter.)

5. cheating, etc.

Cheating will result in failure of not only the exam / assignment, but also the course.

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1700). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

This syllabus is subject to change with notice.