

60236 M 171 Section 001
Calculus I
4 credits

Fall Semester 2014
Monday – Thursday
0920 - 1020
LA 313

Instructor Dr. Mark D. Jacobson

Office Hours Monday – Thursday: 10:30 – 11:30 a.m. or by appointment

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Text *Thomas' Calculus Early Transcendentals*, 13th Edition By Weir, Hass and Heil, **Bundled with MyMathLab.**

Catalog Description M 171 Calculus I, 4 credits

Prerequisite: M 122 or equivalent.

Covers differentiation and some applications to the computation and approximation of functions, geometry and extremum problems. Introduces integration.

Course Goals and Purpose

This course is intended as a first course in differential calculus for students. Upon completion of the course, students should be able to work with transcendental functions in combination with polynomials and rational functions as they study limits, derivatives, and some antiderivatives (integration). The students should also be well versed in the mathematical language needed for applying the concepts of differential calculus to numerous applications in science, engineering and applied mathematics. Our goal of this course is to present the key concepts and main ideas of differential calculus.

Students will demonstrate the ability to understand quantitative measures, use quantitative skills to solve problems, and use logical skills to make judgments. Students will also demonstrate a basic understanding of subject matter; they'll demonstrate thinking, comprehension, and expression of subject matter. Students will demonstrate content knowledge in numbers and operations by demonstrating computational proficiency, including a conceptual understanding of numbers, ways of representing number relations among number and number systems and meaning of operations. And finally, students will demonstrate ability to identify and solve problems using methods of this discipline and apply the process of mathematical problem solving.

Course Outline

Chapter 1: Functions – Individual Review, not covered in class

Chapter 2: Limits and Continuity

Chapter 3: Differentiation

Chapter 4: Applications of Derivatives

Assessment

Progress by the student will be assessed through homework and exams. Homework is designed to serve as a medium of practice of the concepts covered in the daily class lectures while the in-class and online exams are to assess the mastery of the material by the student. Tests will be given on the announced date only unless other arrangements are made **prior to the test.**

In the event of an emergency, you must notify me by phone or e-mail

PRIOR to the test. No make-up exams will be given. There may also be projects and/or take-home exams during the semester, though these will be limited in nature if they are assigned at all. The purpose of all forms of assessment is to measure mastery of material as well as encourage development of problem solving and critical thinking skills.

<u>ITEM</u>	<u>Percentage</u>
MathXL Online Homework	25 %
5 Exams (Equal Value) (All In-Class)	75 %
TOTAL	100 %

<u>Percentage</u>	<u>Grade</u>	<u>Points</u>
100 – 93 %	A	4.0
92 – 90 %	A-	3.7
89 – 87 %	B+	3.3
86 – 83 %	B	3.0
82 – 80 %	B-	2.7
79 – 77 %	C+	2.3
76 – 73 %	C	2.0
72 – 70 %	C-	1.7
69 – 67 %	D+	1.3
66 – 63 %	D	1.0
62 – 60 %	D-	0.7
Below 60%	F	0.0

Graded Internet Homework

Registration: You will access the internet homework by first registering at the following site:
<http://pearsonmylabandmastering.com/> .

Click on the **Register** button on the right-hand side.

The **Student Access Code** is contained in your bundled package.

The **Course ID** for this course is: **jacobson32802**.

The course choice is: **M 171-001 Fall 2014**.

Follow the directions. Make sure you install the required software plug-ins during this process.

Note: If you have only the textbook, you can purchase a Student Access Code online as shown in the registration process for about \$80. If you have technical problems call: 1-800-677-6337.

Homework: All homework will be done at the above MyMathLab website.

Click on the **Log In** button located on the right-hand-side.

Give your **Login Name** and **Password**.

Click on the **M 171-001 Fall 2014** link located on the left-hand-side.

Click on the **HOMEWORK** button located on the left-hand-side.

Click on the appropriate **Homework Chapter** link located under the **Assignment**.

Note: These graded homework problems can be taken an unlimited number of times. Your work is saved automatically when you leave the homework site.

Gradebook: Your homework and exam grades can be viewed by clicking on the **GRADEBOOK** button, located below the **QUIZZES & TESTS** button.

Calendar: The calendar for this course can be viewed by clicking on the **Course Home** button, located at the upper left-hand top of the page. All the important dates for the homework and exams are shown here.

Calculators

NO CALCULATORS, SMART PHONES, or ANY ELECTRONIC DEVICES DURING EXAMS!

Calculators are allowed on the Web Homework. What you personally choose depends on your needs, finances, etc. The TI-30 X IIS is a choice. The next level would be a graphing calculator like the TI-83 Plus. This has matrix capabilities which will be useful later in the course. Other options make this useful and easy to operate. Approx \$80 - \$100. Finally, the TI-89, TI-92 or TI-200 have an easy to use equation solver, matrix capabilities, and the ability to do derivatives. Approx \$150 to \$200. All three (excluding the TI-200) are available for your use at the Academic Support Center. Just leave ID at the front desk and you can use them in the building for as long as you wish.

Web Help

For additional math help, go to the following site:
http://www.msubillings.edu/asc/algebra_helps.htm

Attendance

In a class such as this one – which is structured on sequentially learned skills – attendance is important! You are responsible for all material covered in each class – whether you are there or not. In addition, any quizzes or ‘minute papers’ that are given on a particular day will not be available to you on a later date unless alternate plans have been made ahead of time.

Incompletes

An Incomplete (grade) is given only when students have been in attendance for at least three-fourths of the semester but have been prevented by circumstances beyond their control from completing all the requirements of the course. The student must provide adequate evidence to the instructor as to the reason why they were unable to complete the requirements of the course. An Incomplete must be made up within one calendar year or the grade will revert to an F. In general, to make up an incomplete for this class, the student must retake the course and will be required to submit all material required by the new instructor of a regular student.

Plagiarism / Cheating

Neither will be tolerated in this class. Stealing others work – with or without their permission – is not acceptable for the simple reason that it blocks your learning. It will catch up with you eventually. You are expected to come out of any course with a knowledge base. If you do not have it, your success later may be in jeopardy. I cannot guarantee that I will catch all acts of dishonesty. However, for those I do catch, the first instance is a zero on that assignment and the second is an F for the course. Don’t do it! You have more integrity than that. Refer also to page 134 of your student handbook.

Cell phones, et el

I expect all modes of electronic communication as well as games, etc. to be off during class time. If there is some reason that you must be available for a call, please talk to me about it.

On-campus evacuations

There will be times when you will be exiting your classroom due to evacuation drills or a real emergency. Keep two things in mind:

- Treat all instances seriously!
- **TAKE ALL PERSONAL BELONGINGS WITH YOU.** Any that you leave behind may be confiscated for several days!!

Phone numbers

Admissions and records 657-2158

Campus police 657-2147

**Students with disabilities, whether physical learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact Disability Support Services as soon as possible to ensure that such accommodations are implemented in a timely fashion. Please meet with [DS] staff to verify our eligibility for any classroom accommodations and for academic assistance related to your disability. Disability Support Services is located in the Academic Support Center.