

MATH 1450, CALCULUS 1, SPRING SEMESTER, 2010
Syllabus for Section 101, MWF 10:00–10:50am, Cudahy 001.

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Office Hours: MWF 11:00am–noon, or by appointment.

Teaching Assistant: Balamurugan (Bala) Pandiyan (who will post his own details).

Text: *Calculus, 5th ed.*, by Hughes-Hallett, et al.

Supplementary Material: Students should have—and be able to use—the TI-89 graphing calculator. Because of its computer algebra operating system, the TI-89 is fundamentally different from (and more powerful than) the TI-86 and lower-numbered models. It is essentially the same as the TI-92. *Be aware that the use of calculators may be prohibited during all or part of exams and quizzes, depending on the nature of the material being tested.*

Prerequisites: MATH 1101 or equivalent.

Exams/Quizzes:

- There will be three hour exams, weekly 10-minute quizzes based on assigned homework problems, and a two-hour final exam. Each hour exam is worth 60 points, the six best quizzes—at 10 points each—give another 60 points, and the final exam is worth 90 points. Your grade will then be based on the percentage of points you have earned out of the 330-point total.

Each exam will test the material covered since the last exam; but be aware that the material is inherently cumulative, that the concepts introduced later in the course are built upon those introduced earlier. The final exam will be explicitly cumulative, having a portion of it being drawn from the three hour exams.

- The hour exams will be given during lecture times posted in the schedule; quizzes will be given during the Thursday quiz session. The final exam is at 1pm on Tuesday 05/11/10, in Cudahy 001.
- There will be no makeup exams or quizzes without arrangements being made beforehand, and only extenuating circumstances will be considered.

Grading:

Three hour exams	180
Six quizzes	60
Final exam	90
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Total	330

Grading scale:

- A: 92–100%
- AB: 87–91%
- B: 78–86%
- BC: 73–77%
- C: 64–72%
- CD: 59–63%
- D: 50–58%
- F: 0–49%

Attendance and Deportment: You are expected to attend all lectures and quiz sections, and to be *on time*. Excessive absences will be noted, and may result in a lowered grade. Norms for classroom conduct are based on respect for the instructor and your fellow students. Distractive behavior, such as using cell phones, reading newspapers, sleeping, playing games, or talking to your neighbor, is inappropriate.

Policy on Academic Honesty: In the spring of 2006 the University approved an academic honesty policy that is applicable to all courses; details may be found at <http://www.marquette.edu/rc/academichonesty.shtml>. Basically you're expected to do your own work, and to not copy answers from anyone else in a quiz or exam situation. Also crib notes, either in written or electronic form, are forbidden during quizzes and exams.

Withdrawal Date: The final date for voluntary withdrawal from class this semester, with a grade of W or AU, is Friday, April 16, 2010.

Course Topics (chapters 1–5 of the textbook)

Course Goals:

1. Develop habits of thinking and learning based on reasoning and understanding, rather than on memorizing and mimicking. In this course the focus is on developing a grasp of basic concepts and techniques of differentiation and integration of functions of one real variable, and on developing intuitions needed to apply calculus effectively in real-world situations.
2. Learn to interpret, represent, and connect the concepts of calculus in multiple ways:
 - Numerically (e.g., tables)
 - Graphically (e.g., hand sketching, using the TI-89)
 - Analytically (e.g., equations)
 - Verbally (e.g., understand and create clear explanations of ideas)
3. Use problem solving skills to:
 - Learn basic concepts of (one variable) calculus
 - Apply the concepts of calculus to real-world problems
4. Develop facility in the basic symbol manipulation skills of calculus.

University Core of Common Studies Mathematical Reasoning Outcomes:

At the completion of core studies the student will be able to:

1. Evaluate the effectiveness of the mathematical sciences in describing the world.
2. Analyze quantitative information symbolically, graphically, numerically, and verbally for the purpose of solving problems or drawing conclusions.
3. Construct logical arguments in support of mathematical assertions.