

MathU141  
Spring, 2005

Applied Calculus  
Syllabus

Text: Applied Calculus, by Hughes-Hallet, Gleason, et al. Second Edition

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**Course Objectives:**

This course has two main goals: to have students understand the concepts of derivatives, antiderivatives and integrals, and to enable students to display that understanding through a variety of applications. This focus on mathematical modeling of reality will frequently lead us into word problems. The difficulties in word problems involve language and our intuition about reality as much as mathematics. Specific, measurable, manifestations of your understanding that will be tested during the semester include your ability to:

Calculate derivatives of algebraic, trigonometric, and transcendental functions  
Calculate antiderivatives  
Apply calculus to graphing, optimization, calculation of areas under graphs and growth/decay problems.

The instructor reserves the right to change this syllabus according to the needs which may arise in this class during the course of the semester. Students are responsible to be aware of what goes on in the classroom including the announcement of exam dates, material to be covered on exams and any adjustments to this syllabus. If you have any questions which you are not comfortable asking in class, please feel free to come to my office during my office hours or send me an email.

We hope that your experience in Applied Calculus is a good one. However, if you have any concerns or complaints about how the course is proceeding, your first step should be to talk with your instructor. If this course of action does not seem to help, or if you are uncomfortable discussing the problem with your instructor, you should contact the course coordinator:

Prof. Martin Schwarz 4-- Lake Hall 617-373-5654 [m.Schwarz@neu.edu](mailto:m.Schwarz@neu.edu)

If Prof. Schwarz is unavailable or you wish to talk with someone else, you should contact the Vice-Chairman of the Mathematics Department:

Prof. Donald King 447 Lake Hall 373-5679 [donking@neu.edu](mailto:donking@neu.edu)

**Grading Policies:** There will be weekly quizzes which will usually be during the first 20 minutes of the class on Thursday. We will have an hour exam on February 25th. Your grade in this course will be calculated using your quiz average for 30%, your hour exam for 30% and your 2-hour final exam for 40%. **THERE WILL BE NO MAKE-UPS** and you can drop your lowest quiz score. If you miss a quiz, use the missed quiz as the quiz which you drop.

Cheating is an insult to honest students: it will not be tolerated. The University's

cheating policy and related disciplinary actions are detailed in the Student Handbook; the Handbook also includes a description of what is considered cheating by the University. Cheating in this class includes (but is not limited to): looking at the papers of others during a quiz or test, talking to other students during a quiz/test, looking at notes during a quiz/test (unless it is specifically announced that you may), and copying other students' work outside of class. In this class, working together on homework is NOT considered cheating. All incidents of cheating will be reported to the Office of Judicial Affairs.

**Algebra Proficiency:** A common problem in calculus courses is that students learn the calculus material, but have such weak algebra skills that they rarely obtain correct answers to problems. We will require correct algebra work throughout the semester. Even though this is a calculus course, you will lose points for pre-calculus errors.

**Algebra and Calculus Help and Tutoring:**

The best strategy is to ask questions in class and see your instructor during his office hours. There is also a walk-in tutoring in Cahners Hall. It is very likely that additional tutoring help will be set up either in the Library or in the Math. Dept.

**Attendance:**

It is essential that you attend class regularly. The easiest way for you to learn the material, and to know what material has been covered, is to come to class each day. Students are responsible for finding out what material has been covered or what announcements have been made on days that they miss class.

The following table describes the topics to be covered with corresponding homework assignment. They may change as we progress through the course.

**NOTE. I have to be away to attend conferences during the weeks of January 24<sup>th</sup> and March 21<sup>st</sup>. An experienced substitute teacher will cover the classes during my absence.**