

Math 1411 (4 credits)  
MW 12:30–1:20; TR 12:00–12:50  
LART 103 (MW); LART 303 (TR)

**CALCULUS I**  
**Syllabus**

Spring 2013

Instructor: **Dr. Art Duval**

office: **Bell Hall 303**

phone: **747-6846**/office (24hrs./day; if I'm not in, please leave a message)  
**747-6502**/fax (include a cover sheet with my name, please)  
**545-1788**/home (9am–9pm only, please)

internet: [artduval@math.utep.edu](mailto:artduval@math.utep.edu)

<http://www.math.utep.edu/Faculty/duval/home.html>

Office hours: **Mon, 2:30–3:30; Wed, 9:00–10:00; Fri, 12:00–1:00**. Please feel free to stop by my office any time during scheduled office hours. You are welcome to visit at other times, but in that case you might want to make an appointment, just to make sure that I will be there then. You can make an appointment simply by talking to me before or after class, by calling me at my office or at home, or by sending e-mail.

I will also be available in the classroom after class on Tuesdays and Thursdays.

You may also ask any questions directly via phone or e-mail. If I'm not in when you call, please leave a message on the voice-mail or answering machine with your name, number, and a good time for me to call you back. I will try to respond to your phone or e-mail message as soon as possible.

Additional instructor: **Dr. Eric Freudenthal**

contact information at: <http://robust.cs.utep.edu/~freudent>

Website: <http://www.math.utep.edu/Faculty/duval/class/1411/131/12/home.html>

Here you will find this syllabus with relevant links, including homework and reading assignments for the whole semester, as they are announced. Other resources may become available.

**Prerequisites:** MATH 1508, or an adequate score on a placement exam. This generally means you should be comfortable with the idea of functions, including how to graph them, finding inverse functions, and applying transformations. You should be comfortable with representing functions symbolically, graphically, and numerically. Specific functions you should be familiar with include polynomial and rational functions, exponential and logarithmic functions, and trigonometric functions.

**COURSE OBJECTIVES:** Upon successful completion of the course, you will be able to represent functions and their derivatives and integrals numerically, graphically, and symbolically, and be able to determine which approach is most effective in a given situation. You will be able to explain the use of limits in derivatives and integrals, and the relation between limits and the precision of numerical answers.

You will recognize when it is appropriate to use technology, when a purely symbolic approach is more effective, and how to mix the two. You will be able to compute derivatives and simple integrals numerically and symbolically.

You will be able to set up and solve problems which require understanding and use of derivatives and integrals. You will be able to solve open-ended problems, problems which require written commentary rather than a string of symbols or numbers, and problems for which different answers may be equally correct.

**Textbook: Calculus: Single Variable, 5th ed., Hughes-Hallett, Gleason, McCallum, et al., Chs. 1–6.** We will spend only very little time on Chapter 1, and we may skip some other sections, as announced in class.

**Required Reading:** Read each section that we cover in class, both before and after class. Skim the section before class, even if you don't understand it fully, to have some idea of what we'll be doing in class. Read it more carefully after class to clarify and fill in details you missed in class.

**Warning:** Sometimes, we will not “cover” all the material from a section in class, but instead focus on a particular aspect of the section. In such cases, I will point out in class (and on the course's website) which other parts of the section I expect you to read on your own.

**Computer:** We will be doing some computer explorations, in and out of class. As a result, it will be necessary for you to bring a laptop to class, if possible, and have access to a computer outside of class. (In class, we will be fine as long as there is one laptop for every two students, and you can then work in teams of two.) The software for this is free, and web-based, and works on any major browser. (You will still need to purchase WileyPlus, as described below.)

## GRADES:

**Online Homework (15%)** Individual homework will be assigned on a daily basis (with some exceptions). Homework is to be completed on the WileyPlus system. You are allowed to work together on homework (in fact, I encourage you to do so), but, for maximum effectiveness, you must understand the solutions to all the problems. It is your responsibility to keep up with the homework, even when you have to miss class. Your four lowest homework scores will be dropped.

**Other assignments/quizzes (10%)** There will be additional (not WileyPlus) assignments and quizzes, some related to the computer software.

**Exams (15% each)** There will be three in-class exams on the following days, approximately covering the following chapters:

Chs. 1, 2	Thu. 21 Feb.
Ch. 3	Thu. 28 Mar.
Chs. 4, 5	Thu. 2 May

Makeup exams can be given only in extraordinary and unavoidable circumstances, and with advance notice.

**Final (30%)** The final exam will be comprehensive over all material we discuss in class, including Chapter 6. The final will be on

Tue. 14 May, 1:00–3:45 p.m.
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All exams are closed-book, no calculators.

## POLICIES:

**Academic dishonesty:** It is UTEP's policy, and mine, for all suspected cases or acts of alleged scholastic dishonesty to be referred to the Dean of Students for investigation and appropriate disposition. See Section II.1.2.2 of the Handbook of Operating Procedures.

**Attendance:** Daily attendance at lectures and peer leader sessions is required, although there is no particular grade penalty for missing class, other than missing quizzes. My goal is for class meetings and activities to complement, rather than echo, the textbook, and thus for every class to be worth attending.

**Drop date:** The deadline for student-initiated drops with a *W* is Friday, April 5. After this date, you can only drop with the Dean's approval, which is granted only under extenuating circumstances.

I hope everyone will complete the course successfully, but if you are having doubts about your progress, I will be happy to discuss your standing in the course to help you decide whether or not to drop. You are only allowed three enrollments in this course, and students enrolled after Fall 2007 are only allowed six withdrawals in their entire academic career, so please exercise the drop option judiciously.

**Courtesy:** We all have to show courtesy to each other, and the class as a whole, during class time. Please arrive to class on time (or let me know when you have to be late, and why); do not engage in side conversations when one person (me, or another student) is talking to the whole class; turn off your cell phone (or at least set it to not ring out loud), and do not engage in phone, email, or text conversations during class.

**Disabilities:** If you have, or suspect you have, a disability and need an accommodation, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148, [cass@utep.edu](mailto:cass@utep.edu), or Union East room 106. You are responsible for presenting to me any CASS accommodation letters and instructions.

**Exceptional circumstances:** If you anticipate the possibility of missing large portions of class time, due to exceptional circumstances such as military service and/or training, or childbirth, please let me know as soon as possible.