

**MATH 1304-02 Calculus I**  
**Spring 2006 TT 10:00–11:50 a.m. Sc N 125**

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**Office hours:** TT 9:00–9:30 a.m. & 12:45–1:30 p.m. or by appointment.

**Text:** J. Stewart, *Calculus, early transcendentals*, 5<sup>th</sup> edition, Thompson–Brooks/Cole, 2003.

This is a “standard” first course in calculus—Differential Calculus—which will cover most of chapters 1–4 of Stewart. A number of *review* topics are covered in Appendixes A–E, some of which might be discussed in class, but most of which will be left to students’ own reading.

The *highlights* of the course are the use of limits to study “local” properties of functions, the notion of *continuity* of functions, the definition of the *derivative* of a function, the properties of derivatives and techniques for their computation, and the application of these properties to solve several classes of problems. Problems involving rates of change (including motion, velocity, and acceleration) and problems involving finding maxima and minima are the “classic” problems solvable using the techniques of differential calculus. Of course, in order for one to be able to apply these techniques effectively, one should already be *proficient* in manipulating algebraic and trigonometric expressions.

The appropriate balance between *theory* and *applications* is a recurring issue in the first calculus course. This balance will be discussed in class, but *some* mastery of both aspects are required for success.

The pacing of the course is planned to be roughly as follows:

- Week 1 : Chapt. 1 & Append. A–D
- Week 2 : Chapt. 1 & 2.1–2.4
- Week 3 : 2.4–2.9 & 3.1, 3.2
- Week 4 : 3.3–3.4 & midterm on Week 1–3 material
- Week 5 : 3.5–3.7
- Week 6 : 3.7–3.10
- Week 7 : 3.10–4.2
- Week 8 : 4.2–4.4 & midterm on Week 4–7 material
- Week 9 : 4.4–4.9
- Week 10 : 4.9–4.10 & general review.

This may be ambitious. The coverage may slow down or speed up as needed, or some sections may be moved around, e.g., blending material from chapters 3 & 4. If there is significant deviation, the web version of this handout will be updated in mid-course.

(over...)

**General assignment:** You—on your own initiative—should do a *significant* number of the *odd numbered* exercises. Solutions for these are in the text, which should enable you to check your efforts. You are free—even encouraged—to assist each other with these *in groups* when they prove difficult.

*However*, you will be given regular—usually daily—small assignments chosen from the *even numbered* exercises to write up and to turn in. These are to be your *own* work and no one else’s! [Daily homework would result in 19 assignments being turned in. The **lowest 4** scores will be disregarded in computing the “homework” part of your grade. This should ameliorate the “no late homework” policy (below).] The course web site <http://www.mcs.csueastbay.edu/~nico/1304> will have the list of daily assignments.

**Grading:** The course grade will be computed roughly as follows. (The dates of the midterms are subject to change. Any change will be announced in class.)

1. Written homework (as assigned) ..... 15%
2. One hour midterm (Thursday, April 20) ..... 25%
3. One hour midterm (Thursday, May 18) ..... 25%
4. Final exam (Thursday, June 8, 10:00 a.m.–11:50 a.m.) ..... 35%

Late homework will *not* be accepted. Homework is to be turned in at the *beginning* of class on the due date. Homework is to represent *individual* efforts! Any work not your own, e.g., results obtained from reference sources, should receive appropriate bibliographic *citations*. *Plagiarism* will be subject to appropriate penalties, as described in the *academic dishonesty* section of the *University Catalog*.

**Identification:** When taking tests for the course, students should be prepared to display their CSUEB student photo identification cards upon request.

**Make-up policy:** Make-up tests will be considered only in *unusual* circumstances, and then only if arrangements have been made in *advance*.