Math 252 # Calculus II Spring 2009

INSTRUCTOR: Gary Church

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WEBSITE: http://www.smccd.edu/accounts/churchg/

OFFICE HOURS: 8:00–10:00 daily

TEXTBOOK: Stewart; *Calculus: Early Transcendentals, 6th ed.*

PREREQUISITES To be eligible for this class you must have taken and passed (hopefully within the last year and with a "C" grade or better) Math 251 (First semester Calculus)

CALCULATOR: You are encouraged to obtain a TI-86 graphing calculator (If you already own a TI-83, TI-85 or TI-92 graphing calculator, you don't have to get the TI-86.) This is a useful tool for this course and will serve you well in subsequent courses in Mathematics, Statistics, Engineering and Science.

GRADING: Your grade will be based on homework, out of class assignments, frequent quizzes, exams and a final exam. I will drop your lowest quiz score and, if necessary, adjust exam scores by adding a constant amount to each students score to ensure that at least ten percent of the class receive "A's." Homework, assignments, quizzes, exams and the final exam will be weighted as follows:

Homework and Assignments:	15%
Quizzes:	15%
Exams:	50%
Final Exam:	20%

The final letter grade is calculated as a percentage of the weighted scores based on the ranges:

A = 100–90 B = 89–80 C = 79–70 D = 69–60 F = 59–00

A grade of "I" (incomplete) will be given *only* in the case of an emergency situation.

MAKEUPS: In case of absence, you will be allowed to make up *one* exam *if* you inform me of your absence no later than one day after the date of the exam *and* you take the make-up within one week of your return to class. The make-up test will be more difficult than the original exam and will not be curved with the rest of the class.

HOMEWORK: Homework will be assigned through WebWork, an on-line homework management system. You can get a link to the site from our course web page. Problem sets will appear as they become available and you will be able to rework problems in order to improve your score. From time to time you will be given take-home assignments in addition to the usual homework. Collection policies on these exercises will be discussed when the assignment is issued.

MRC: You are required to sign in to the Math Resource Center (MRC) in 18-202 for at lease one hour each week. This time can be spent studying, doing homework or getting help from one of the tutors. More information about the MRC can be found at: http://www.smccd.edu/accounts/csmmrc/

DISABILITIES: If you have a documented disability and need accommodations for this class, please see me as soon as possible or contact the Disability Resource Center (DRC) for assistance. The DRC is located in Bldg. 16 Room 150. (650) 574-6438; TTY (650) 574-6230

- Confidentiality. Students with disabilities are protected under Family Education Rights and Privacy Act (FERPA). Please understand confidentiality and do not identify the person or their disability information to other students.
- Taping Lecture. Students who are unable to take or read notes have the right to tape record class lectures only for their personal study.
- Documentation. Students must provide documentation before they are entitled to accommodations. If you have any questions, please feel free to contact me or Danita Scott-Taylor (650) 574-6215; scott@smccd.edu

ATTENDANCE: Attendance, while not directly affecting your grade, is very important; there is a direct correlation between attendance and grade point average. Attendance will be recorded each class meeting and excessive absence (five or more days) is cause for being dropped from the course, regardless of academic progress. Whether a student is actually dropped depends on individual circumstances.

FINAL EXAM: The final exam is comprehensive and will be given on Fri., May 22, 8:10–10:40.

IMPORTANT DATES:

- Last day to add or to drop with possible class fee refund: Mon., Feb. 2.
- Last day to drop with no mention of course on transcript: Tue., Feb. 17.
- Last day to drop with a guaranteed "W" grade: Thu., Apr. 30.
  No "W" grades will be given after this date! Please bring me a drop slip if you decide to drop the class.

STUDENT LEARNING OUTCOMES: Upon completion of this course, the student will be better able to:

1. Follow mathematical exposition, including descriptions of algorithms and derivations of formulas, presented either orally or in writing.
2. Determine whether a theorem or definition applies in a given situation, and use it appropriately if it applies.
3. Use the language and notation of differential and integral calculus correctly, and use appropriate style and format in written work.
4. Demonstrate good problem-solving habits, including:
   (a) estimating solutions and recognizing unreasonable results.
   (b) considering a variety of approaches to a given problem, and selecting one that is appropriate.
   (c) rejecting the temptation to rely on mechanical techniques (either pencil-and-paper or electronic) that they do not understand.
   (d) interpreting solutions correctly, and answering the questions that were actually asked.
5. Use technology (especially calculators) effectively and appropriately.
6. Evaluate definite integrals using the fundamental theorem of calculus.
7. Analyze geometric and physical situations to obtain Riemann sums, and interpret and evaluate them as definite integrals.
8. Use numerical methods to estimate the value of definite integrals.
9. Use techniques of integration, including algebraic and trig substitutions, integration by parts, and partial fractions, to evaluate definite and indefinite integrals.
10. Find limits of sequences, or show that the limit does not exist
11. Determine whether series diverge, converge conditionally, or converge absolutely, and find or estimate sums of series.
12. Find intervals of convergence of power series.
13. Find Taylor and Maclaurin series of functions.
14. Interpret and solve certain types of differential equations, including separable and first order linear.