

SYLLABUS

MAT 221-011, Summer 2008
9:30-11:20 AM, MTWRF ST 248

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OFFICE HOURS: 1:00-2:00 PM Monday through Thursday. I am also available by appointment, and at random.

EXPECTED BACKGROUND: C or better in MAT 120 or MAT 122.

TEXT: *Calculus*, by Jon Rogawski. We will cover sections 8.1-8.4, 9.1, 10.1, and most of the material in chapters 12, 13, and 14.

CALCULATOR: You need to have a TI-92 or TI-89 or Voyage calculator (or equivalent.)

GRADING: There will be quizzes, tentatively scheduled for June 5, 10, 17, 19, 26 and July 1. There may be some take-home work counted as additional quizzes. There will be two exams during the semester, tentatively scheduled for June 12 and 24, each counting equally, and a comprehensive final examination, Thursday, July 3. The course grade will count the quiz average (after the lowest score is dropped) 20%, each exam 25%, and the final exam 30%.

Make-up exams will not usually be given. If I excuse a student from any item for some serious reason, the student's course grade will be figured based on the rest of the semester's work

HOMEWORK: Homework will be assigned daily, but not collected. You should expect to do a lot of homework, and to do it regularly, in order to do well in the course.

ATTENDANCE: The student is responsible for all material assigned or discussed in class. Attendance will be taken occasionally.

WITHDRAWAL: The last day to withdraw from any class is Friday, June 20. After that day it is not usually possible to drop.

DEPARTMENT SYLLABUS: The general syllabus for all Mathematics and Computer Science courses is a part of the syllabus for this course.

Course learning objectives:

The student will know the mathematics needed to have a reasonable expectation of success in the mathematics and statistics courses for which Calculus II is a prerequisite.

The student will be able to solve problems involving vectors and vector operations, parametric curves, polar coordinate systems, and techniques of integration.

The student will be able to write clear explanations of the techniques of calculus including the proper use of standard mathematical notation.

The student will be able to model applications by using calculus.

The student will be able to apply the content from Calculus I to solve problems in Calculus II.

The student will be able to recognize the problem type, select an appropriate solution strategy and apply rules and procedures for solving the problem.

The student will begin to be able to apply theorems in order to solve problems.

The student will be able to use a computer algebra system to graph parametric and polar curves, and implement vector operations.

Attainment of course learning objectives will be measured by exams, including a comprehensive final exam, and quizzes.