

Math 241 --- Problem-Solving in Calculus
Schedule #: 80272/3

Syllabus
Fall 2009

Dr. Chetan Prakash, Instructor

Time/Place: TTh 4:00 to 5:50 a.m. at JB-390

Instructor's Office: JB 327 **Phone:** 537-5390 **e-mail:** cprakash@csusb.edu

Office Hours: MW 3:00-4:00 pm, TTh 1:15-1:45 pm and by appointment

Departmental web page: <http://www.math.csusb.edu>

The Course: The intent of this course is to familiarize you with the use of computer algebra systems in mathematics. We will be using the system MAPLE XIII (there are other systems such as MACSYMA, MATHEMATICA, DERIVE, MATHCAD, MATLAB etc.). MAPLE is able to perform calculations and other processes in numerous areas of mathematics, such as algebra and trigonometry, calculus (both single and multi-variable), linear algebra, combinatorics, number theory, numerical analysis, statistics, etc. - even physics topics such as general relativity! We will restrict our attention to algebra and calculus in this course, but you will find this course very useful in future mathematics and science courses. **Supplement:** Any calculus textbook.

Schedule: During the first two classes we will go through the login procedure, practice some simple MAPLE calculations and take a part of the new users' tour. Every week thereafter I will spend the first few minutes of class discussing that week's lab project, and you will spend the rest of the class doing it. **Assignments:** You will be expected to write up each lab project, explaining how MAPLE was used to derive the solution. A stranger looking at your work should be able to reproduce the solution, so please be explicit and complete in your reports, explaining what you have done at each stage. **Conservation:** Please write up your reports in 10- or 9-point, so as to save paper. The default in MAPLE is 12 point.

Feedback Exercises: There will be a test on Thursday, December 3 at 4 p.m. in the Lab.

Grading: Your lab reports will be worth 70% and the final 30% of your grade. The final grade will be calculated on the following scale: an *A* from 89-100%, a *B* from 75-88%, a *C* from 57-74%, a *D* from 40-56% and an *F* for 39% and below.

Important Dates:

Wednesday, September 30: Last Day to Add without permission

Wednesday, October 14: Last Day to Add/Drop with permission

Thursday, October 22: State Budget Closure - Campus closed: No classes

Tuesday, October 26: Faculty Furlough Day - No class; Reading Assignment

Thursday, November 26: Thanksgiving Holiday - Campus closed: No classes

Thursday, December 3: Final at 4 p.m.

Tuesday, December 8: Final period at 4 p.m.

Students with Disabilities: If you are in need of an accommodation for a disability in order to participate in this class, please contact Services to Students with Disabilities at UH-183, (909) 537-5238. ssd@csusb.edu.

H1N1 (Swine Flu) and Attendance: To avoid a pandemic outbreak of H1N1, the campus is encouraging students, faculty, and staff to stay at home if they have any flu-like symptoms instead of coming to campus. So if you think you may have the flu, please stay home. You will NOT need to bring a doctor's note to excuse your absence. You WILL be able to make up any quizzes, exams, or other work that you miss by staying at home.