Department of Mathematics
Pomona College

Math 181/281. Dynamical Systems
Spring 2011

Time and Place:	MW 7:00 pm - 8:15 pm Andrew 253.
Instructor:	Dr. Adolfo J. Rumbos
Office:	Andrew 259.
Phone/e-mail:	ext. 18713 / arumbos@pomona.edu
Course Website:	http://pages.pomona.edu/~ajr04747/
Office Hours:	MWF 9:30 am - 10:50 am or by appointment
Text:	*Ordinary Differential Equations* by Jack K. Hale
	Dover Publications, Inc., 2009 edition.
Prerequisites:	Linear algebra, elementary ordinary differential equations and real analysis.

Course Description.   This course provides an introduction to the theory and applications of continuous Dynamical Systems. We begin with the study of the fundamental existence and uniqueness for ordinary differential equations, as well as the results on continuous dependence on initial conditions and parameters. We then define continuous dynamical systems and explore their properties. In particular, we study stability and bifurcation properties and various techniques and results that arise in the theory and applications.

Assigned Readings and Problems.   Readings and problem sets will be assigned on a weekly basis. Students are strongly encouraged to work on every assigned problem. **Late homework assignments will not be graded**.

Grading Policy. Grades will be based on the homework, two 50-minute examinations, plus a comprehensive final examination. The overall score will be computed as follows:

homework	20%
two 50-minute exams	50%
final examination	30%

Final Examination.

Time:	Monday, May 9	7:00 pm - 9:00 pm.
Place:	Andrew 253	