Spring 2012 Differential Equations MAP2302, J. Zweibel, DM428, (305)348-3479, zweibelj@fiu.edu

Office hours: TR 2-3 & 4-4:45, or by appointment

Prerequisite: MAC 2312 or its equivalent

Performance measures: grades on exams

Exams: 3 100 point exams on 2/7, 3/6, 4/10, and a 160 point final exam on 4/~~28~~ 24, 5PM - 7PM.

Use of calculators, books, notes, or electronic devices on exams is prohibited.

Absence from an exam will result in a score of 0 for that exam, unless the absence is caused by circumstances which are beyond the student's control, and these circumstances are verified by documentation from an appropriate authority (not a family member). If this occurs for a 100 point exam, then the final grade will be based on the remaining exams, and if this occurs for the final exam, then a make-up final exam will be given.

Grading scale: A=414, A-=391, B+=368, B=345, B-=322, C+=299, C=276

Course description: ordinary differential equations and initial value problems

Course objective: to learn some elementary techniques for finding solutions to ordinary differential equations

Text: Ross, Introduction to Ordinary Differential Equations, 4th ed., Wiley, ISBN 0471098817

Course outline: (1) ODE's and IVP's (chapter 1); (2) 1st order equations (chapter 2); (3) general theory of linear ODE's (sections 4.1, 4.6); (4) constant coefficient linear ODE's (4.2, 4.3); (5) variable coefficient linear ODE's (4.1 (again), 4.4, 4.5, 6.1, 6.2); (6) convolution and Laplace transform (chapter 9); (7) mechanics (3.2, 5.1-5.5).