Syllabus

Day/Time and Room: TTh 12:15 - 1:30, ECG G315

Instructor: Jeff Heys

Office Hours: M 9:30 - 11:30, W 1:00 - 2:00 (or by appointment)

Office: ERC 287

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Course Description (from 2004-2005 catalog): Formulation and solution of complex mathematical relationships resulting from the description of physical problems in mass, energy, and momentum transfer and chemical kinetics.

Course Goals: Develop a basic and practical understanding of methods to solve the following problems: linear and nonlinear algebraic equations, ordinary differential equations, and partial differential equations.

Prerequisites: Calculus, linear algebra, undergraduate differential equations and programming experience(?).

Required Texts:

• Y. Pinchover and J. Rubinstein, An Introduction to Partial Differential Equations, Cambridge Press

Suggested Texts:

• F.B. Hildebrand, Advanced Calculus for Applications, 2nd ed., Prentice Hall
• Kreyszig, Advanced Engineering Mathematics, nth ed., Wiley

Course Web Page: http://www.asu.edu/courses/che527

Grading: The final grade will be computed as follows:

1. Homework: 30%
2. Midterm Exams (2): 20% each
3. Final Exam: 30%

While class participation is not a requirement, it is encouraged, and it may help borderline grades.

Homework:

• There will be approximately 10 homework assignments throughout the semester (there are 15 weeks in the semester). Homework will be due at the beginning of class, and the late penalty is 25% per day.
• You are allowed and encouraged to work together on homework. However, you should write up your own solutions.
• Please show and adequately explain your work. Writing that is difficult to read will NOT be graded. Check and double check your work.