Math 3351 - Fall 2009

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Office hours: W,Th 2-3:30, or by appointment

Textbook

Zill and Cullen*: Advanced Engineering Mechanics*

Topics

- Vector Spaces, Matrix Algebra, and Eigensystems
- Systems of First-Order ODE
- Series Solutions of ODE
- Fourier Series and Orthogonal Functions
- Boundary-Value Problems in 1D
- Boundary-Value Problems in 2D and 3D
- Fourier Transforms

Evaluation

Weekly quizzes	20%
Two midterm tests	20% each
Graded homework	15%
Final exam	25%

- Each exam will consist of an in-class part and a take-home part
- Each week I will assign homework problems. Typically only one or two of those problems (usually the more difficult ones) will be required. The required problems will be collected and graded. The other problems are recommended and won't be collected; you should do as many as necessary to make sure you understand the material and can work problems. Quiz problems will be similar to the recommended problems.
- On the homework and take-home exams, you may need to use the computer programs Matlab and Mathematica. Matlab is available in many labs on campus. Mathematica is available in MA 113.