MATH 301 - NUMERICAL ANALYSIS 2
WINTER 2009
TR 3:30-4:50, Matheson 411.

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COURSE PAGE: www.math.drexel.edu/~tolya/301.html

COURSE CONTENT: splines, numerical integration and differentiation, basics of numerical linear algebra (linear and nonlinear systems), numerical solutions of differential equations (ordinary and partial).

PREREQUISITES: Math 300

COURSE OBJECTIVE: to understand the numerical aspects of algorithms in linear algebra and differential equations, learn to compute accurately and efficiently, develop a critical eye toward the results.

TEXT: As in Math 300, we will rely on the web notes www.math.uiowa.edu/~atkinson/ena_master.html (companion site to “Elementary Numerical Analysis” by K. Atkinson and W. Han), and also on www.mathworks.com/moler/index_ncm.html (electronic edition of “Numerical Analysis with MATLAB” by C. Moler).

HOMEWORK/QUIZZES: Homework will be due almost every week. You will also find weekly exercises on the course page. These exercises, together with the homework and in-class examples, will constitute a basis for quizzes and tests.

EXAMS: Two midterms and a cumulative final exam. I will announce exact dates at least one week ahead of time. No make-up exams or quizzes will normally be given. If under exceptional circumstances you would have to miss an exam, please inform me promptly.

GRADE COMPONENTS: midterms 25% (each), homework and quizzes 20%, final exam 30%.

Any changes to this syllabus will be announced in class.