

## Math 311- 1 Spring 2000 Introduction to Numerical Analysis

Classroom Hours: MWF 10:00-11:50am	Classroom Location: 112 TMCB
Instructor: Sum Chow ( <a href="http://www.math.byu.edu/~schow">http://www.math.byu.edu/~schow</a> )	Office: 308 TMCB Email: <a href="mailto:schow@math.byu.edu">schow@math.byu.edu</a> Phone: (801)378-9088
Class Web Page: <a href="http://www.math.byu.edu/~schow/math311.html">http://www.math.byu.edu/~schow/math311.html</a>	Office Hours: MWF 1-2pm and by appointment.

**Textbook:** Burden R.L. and J. D. Faires, Numerical Analysis, Sixth edition, Brooks/Cole, Pacific Grove, CA, 1997.

**Course Objective:** To familiarize the students with the fundamental concepts in numerical analysis and to enable them to apply materials learned in the course to determine the numerical solutions efficiently and to assess the quality of the solutions.

**Pre-requisite and Syllabus:** Calculus (Math 112, 113), and computer literacy. This course will consider problems from the following areas: root finding, floating point systems, solution of linear systems using direct or iterative solvers, interpolation, curve fitting, numerical differentiation and integration, multiple integrals, least squares. We will be covering chapters 1-4, 6-7 and 8.1-8.2 in the textbook.

**Lab Information:** Please ensure that you are able to log onto the Route Y Intranet prior to attending the first lab session.

**Homework and Projects:** Homework will normally be collected each week on Monday. Homework and project that are more than two days late will be accepted subject to reduced credit at the rate of 10% per class day. Collaborative *discussion* is encouraged. Plagiarism is not acceptable. Teaming up is allowed (see class webpage for details.)

**Tests and final:** Two tests are currently scheduled. First test: May 11-12. Second Test: May 25-26. These tests will be given at the testing center. (see class webpage for details.) The final is scheduled on Thursday, June 15, 2000 at 11:00 a.m. to 12:50 p.m. The final will be comprehensive.

**Course Grade:** Course grade will be determined via the following distribution:

Homework	20 %
Projects (3)	20 %
Tests (2)	30 %
Final	30 %

Please see the class webpage for information on school policy on (I) Preventing Sexual Harassment, (II) Dress and Grooming Standards and (III) Students with Disabilities.