

SYLLABUS MAD 3703 Numerical Analysis I Spring 2014

- Web Page: <http://www.math.fsu.edu/~bellenot/class/s14/num1>
- Professor: Dr. Steven Bellenot, 223 Love, 644-7405, email: bellenot@math.fsu.edu
- Class schedule: MWF 2:30-3:20 102 Love
- Office Hours: MW 1:30-2:20 223 LOV

ELIGIBILITY. The prereq's for this course are Linear Algebra (MAS 3105), Calculus (B- or better in MAC 2312 or C- or better in MAC2313) and Programming (Either COP 3014 or ISC 3313 or some other scientific programming language).

TEXT. Numerical Analysis, Burden and Faires, 9th edition

COURSE CONTENT. See the on-line sched page. We will cover chapters 1-4 of the text. And some addition on-line material.

COURSE OBJECTIVES. The purpose of this course is to introduce students to subject of numerical analysis. In particular, error analysis, floating point number, numerical algorithms:

Learn the fundamentals of Numerical Analysis.

Computer arithmetic, solutions of nonlinear equations, approximating functions, numerical differentiation and integration.

Not only do we cover how to implement existing methods, but also teaches analytical techniques for modifying methods for a given tasks and predicting how a method will perform prior to having to implement the method.

ATTENDANCE. Attendance and class participation will be factors in determining the final grade. No food or drinks are allowed in the classroom. Please turn off cell phones and keep them hidden during class.

COMMUNICATION: It is your responsibility to register for a (free) FSU computer account so that I can send you email, which you are expected to check regularly. If you prefer to read your email elsewhere then you can arrange to have messages forwarded, but you must still obtain an FSU account in the first instance. This class does not use Blackboard.

GRADING. Grading is based on the standard 90% A, 80% B, 70% C, 60% D system. Grades will be determine from a collection of projects, tests, quizzes, homework and classroom presentations. Plus or minus grades may be given, for example 92.5% might be an A-. The final is worth 1/4 of your grade, each midterm 1/6, the programming projects 1/4 and the final 1/6 comes from a combination of homework and quizzes.

EXAM POLICY. No makeups will be given. A missed assignment may be excused if the student presents sufficient evidence of acceptable extenuating circumstances. The either similar assignment grade will be used for the missing grade, or at the instructor's option, a substitute oral test will be given. Students must bring FSU ID cards to all quizzes and tests. Every Friday there will be a test, a quiz or a graded take home quiz/test. (See the on-line schedule for the current plan <http://www.math.fsu.edu/~bellenot/class/s14/num1/sched.html>.)

Test dates (tentative):

Midterm I 14 Feb 2014

Midterm II 28 Mar 2014

The Final is 12:30pm-2:30pm Thursday 1 May 2014.

(Watch the on-line Google Calendar)

HOMEWORK. The list of homework problems will be maintained on the class web site. Email will be sent to the class whenever the list is updated. Some class days students will present problems and on others the homework will be collected. Most problems will not be graded directly. Please neatly organize your completed assignments into a notebook. Late homework is not accepted.

HOMEWORK RULES. Your **OWN** work, written in clear English. Neatly typed or written in ink on one side of standard 8.5 by 11 paper. Multiple pages must be stapled and **NOT** dog-eared or paper clipped. Discussion about the homework problems with other students or the professor is permissible and even encouraged, but the final output needs to be uniquely yours. Generally each problem should start on its own page.

PROGRAMMING RULES. Your **OWN** work, with the code clearly commented. Code can be rejected for inefficient algorithms, variable names that are not meaningful, the use of global variables, or non-modular construction. Part of each program, is how you tested it to determine its correctness.

REQUIRED STATEMENTS: <http://facsenate.fsu.edu/Curriculum-Forms/Policies>

University Attendance Policy: Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy: The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and ... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://dof.fsu.edu/honorpolicy.htm>.)

Americans With Disabilities Act: Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the: Student Disability Resource Center, 108 Student Services Building
874 Traditions Way, Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice), (850) 644-8504 (TDD)
sdrcc@admin.fsu.edu, <http://www.disabilitycenter.fsu.edu/>

Free Tutoring from FSU <http://ace.fsu.edu/tutoring>

Syllabus Change Policy "Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice."