

Numerical Analysis, MAD 3401

Summer A 2018

Instructor: Xiaosheng Li

Lecture Time and Location: MWF 9:30am – 11:45am GL 166

Office Hour: MWF 12:00pm – 12:30pm, TuTh 2:00pm – 2:30pm, or by appointment

Office: DM 419C

Email: xli@fiu.edu

Textbook:

Numerical Analysis by R. Burden, D. Faires and A. Burden (10th Edition)

Course Objective: This course is intended to be a mathematical introduction to the essential concepts in numerical methods: convergence, stability, and efficiency. The main topics include root-finding, interpolation and approximation of functions, numerical differentiation and integration, and least square approximation. Students will be assigned to write programs in the projects.

Course Plan:

Chapter 1: Section 1, 2, 3

Chapter 2: Section 1, 2, 3, 4, 5, 6

Chapter 3: Section 1, 2, 3, 4

Chapter 4: Section 1, 2, 3, 4, 5, 6, 7

Chapter 8: Section 1, 2, 3, 4

Prerequisite:

Grade C or better in both COP 2210 (Programming I) and MAC2312 (Calculus II)

Exam Schedule:

Midterm : May 25 (Friday), 9:45am – 11:45am

Final : June 15 (Friday), 9:45am – 11:45am (**Cumulative**)

Projects Due Dates:

Project I : Due June 1 (Friday), 9:30am

Project II : Due June 15 (Friday), 9:30am

Grading Policy:

Project I: 20% Project II: 15%

Midterm: 30% Final: 35%

Letter grades will be assigned approximately as follows (Total=100):

A	A-	B+	B	B-	C+	C	D	F
≥ 90	≥ 85	≥ 80	≥ 75	≥ 70	≥ 65	≥ 60	≥ 45	< 45

Important:

- No make ups are permitted. Please consult your calendar to be sure that you can take both exams.
- Both exams are closed books. You will not be permitted to use formula sheets during exams. A scientific calculator can be used during exams.
- Late projects will not be accepted.
- Picture I. D. with signature is required and must be presented upon request for both exams.
- The homework will not be collected for grading. But a good way to prepare for the exams is to do the assigned problems.
- Deadline to drop a course with a DR grade: June 4 (Monday).

Helpful Information:

The math website lists various available help for students. Please visit <http://mathstat.fiu.edu/useful-information/> then click “Math Help for Students” in the left column.

Early Alert:

In an effort to help you succeed in your academic courses, FIU utilizes an Early Alert system. Instructors are now able to notify students academic advisors if there are concerns about class performance. If an alert is submitted, your academic advisor will send you a message via your Student Dashboard (accessed via your MYFIU page) to discuss ways to improve your performance. Please respond to any communication you receive from your academic advisor about an early alert. Our goal with this program is to help you to be successful by identifying any issues as early on as possible and working to address them.

The instructor reserves the right to make changes to this syllabus. These eventual changes, if any, would be announced in class and you are responsible to be aware of them.