

Numerical Analysis

Math 4065 Fall 2020

Time: Tuesday and Thursday, 10:30-11:50 AM, Zoom Online Lecture
Use the Zoom Lecture link or Meeting ID and password on your Moodle.

Instructor: Name: Hongchao Zhang Email: zhc At lsu.edu
web page : <http://www.math.lsu.edu/~hozhang/Math4065/Math4065.html>

Office Hours: Tuesday and Thursday 4:30~5:30 PM, or by email Appointment
Zoom Meeting ID: 435 490 7449 (This ID is different from lecture ID.)

TA: Teaching Assistant Name: Zhongkai Mi Email: zmi1@lsu.edu
Office hour: Monday and Wednesday 4:00~5:00 PM
Zoom Meeting ID: 998 5912 1454 Passcode: 024171

Text: **Numerical Analysis 10th edition by Burden and Fairs**, ISBN-10: 978-1-305-25366-7. Cengage.

Prerequisites: A grade of C or better in MATH 2057 (Calculus III); Basic programming abilities in Matlab.

Contents: We will cover most of chapters 2-4 and chapter 8. Topics include root-finding, polynomial interpolation and approximation, numerical differentiation and integration, more general approximation theories, etc.

Homework: Homework will be assigned during the lecture and posted on the course web page. Homework will not be collected; however, you may see very similar problems on the tests and quizzes. So, completion of the assignments on time is VERY ESSENTIAL to your success in this course and is one of the BEST ways to prepare for quizzes and tests.

Quizzes: There will be biweekly quizzes (each worth 20 points and takes about 20-25 minutes) at the end of Tuesday's online lecture. Quiz should be submitted (preferred in PDF file) by email to **Teaching Assistant** by 12:00noon after the lecture on the quiz day. There will NOT be any make-up quizzes. Quiz problems are very similar to the homework problems. Quiz scores will be accumulated to count 20% of your final grades.

Projects: There will be 3-4 projects during the semester consists of programming tasks in Matlab. It normally takes two weeks to complete the project. Project scores will be accumulated to count 20% of your final grades.

Tests: There will be one accumulative midterms (tentatively on Oct. 13th) and one final exam. There will not be any make-up exams. Midterm and final exams will count 25% and 35% of your final grades respectively.

Grade: Quizzes: 20%; Projects: 20% ; Midterm Exams: 25% ; Final Exam: 35%

Grade Scale: A-: 90-92 A:93-96 A+:97-100; B-: 80-82 B:83-86 A+:87-89;
C-: 70-72 C:73-76 C+:77-79; D-: 60-62 D:63-66 D+:67-69; F: less than 60
Final grades maybe finally scaled, but will only be scaled up.

Note: Except for unforeseen reasons, students must obtain advance approval from the instructor for missing any assignments including Quizzes and Exams, etc. Under this case, any excuse for missing an assignment must be properly documented and any missed assignment must be made up within three days.

Policy: The use of calculators without programmable memory is allowed during quizzes or exams. However, I recommend not using calculators and all the problems could be done by hand calculations.