

Numerical Analysis - MATH/CS 4513 -MATH 5513

Fall 2020 TuTh: 10:30-11:45 am, MSCS 514

0. Face Mask Requirement

Due to the highly infectious nature of COVID-19, OSU students and employees should do a daily health self-assessment before arriving on campus for class or work. Wearing face coverings has been shown to reduce the spread of COVID-19 to others. This class follows the face mask guideline listed below

- All OSU students, employees, and visitors **MUST** wear a facial covering (mask) upon entering any campus building and when near or encountering others. This includes the entire period of the class. Students who fail to wear their facial covering in class will be asked to leave the classroom and return after retrieving their facial covering.
- Students who continually fail to comply with this university expectation will be referred to the Office of Student Conduct Education and Administration under the Student Code of Conduct's Failure to Comply policy.
- Wearing a clear face shield alone (without a cloth or disposable face mask) is considered inadequate and will not be allowed to attend the class in the classroom.
- Students having health-related concerns with wearing a face covering for class need to work with Student Accessibility Services (SAS) to identify reasonable accommodations to the face-covering requirement.

1. Course Information

- **Delivery Method:** face-to-face
- **Instructor:** Dr. Xu Zhang
- **Office:** MSCS 416, phone: (405) 744-5783
- **Email:** xzhang@okstate.edu
- **Course Webpage:** <http://math.okstate.edu/people/xzhang/F20Math4513.html>
- **Textbook:** *Numerical Analysis*, 10th edition, Authors: R. Burden, J. Faires, and A. Burden.
- **Contents:** selected sections of chapters 1- 7.
- **Prerequisite:** MATH 2233 (Differential Equations), MATH 3013 (Linear Algebra), and knowledge of programming
- **Recommended Programming Language:** MATLAB.
- **Office Hour (hold virtually with Zoom)** Wednesday: 2pm-3:30pm, Friday: 10:30am-12pm

2. Attendance

The attendance will be taken to aid with contact tracing measures should a positive COVID-19 case be reported. To maintain the social distancing, you should only sit on the seats labeled with numbers, and remain using the same seat throughout the semester. The attendance will not be counted toward any part of the grading.

3. Office Hours

All office hour sessions will be held virtually using **Zoom**. The office hours are scheduled on

Wednesday 2 pm-3:30 pm Friday 10:30 am-12 pm

I will send the links of **Zoom** meetings to students before each office hour session. If you cannot make these times or need additional meetings, you are welcome to email me to schedule an appointment. (Email: xzhang@okstate.edu)

4. Grading

Your overall course grade consists of four portions:

- **Homework Assignments:** 45%
- **Group Computational Project:** 15%
- **Midterm Test:** 15%
- **Final Exam:** 25%

85% will guarantee an A; 70% a B; 60% a C; 50% a D.

4.1 Homework Assignments

There will be five written homework assignments this semester. You need to write or type complete solutions and submitted electronically on Canvas website. The assignments will not be accepted after the due dates. You may discuss these problems with others but must write your own solutions independently. I will grade these assignments and will give partial credits for solutions not entirely correct.

4.2 Computational Project

There will be one group project in the second half of the semester. The project will focus on applying our numerical algorithms to solve a practical real-world problem. Each group will consist of two or three students. They will work together on the project and will present the result to the class. Each group will receive a score for the project based on performance, and each group member will be assigned the same score.

4.3 Midterm Test

There will be one in-class midterm test this semester. The tentative date is

September 22, 2020, Tuesday.

The date is subject to change according to the progress of lectures. There will be no makeup tests in general. If a student has a verified time conflict with the test schedule, the instructor must be notified in advance in order to schedule an alternative test time. If a student misses a test for reasons that are serious, unavoidable, and beyond the student's control, the situation will be handled on an individual basis.

4.4 Final Exam

According to the university policy, the final exam will be online. The exam is scheduled on

December 10, 2020, Thursday, 10:00 am - 11:50 am.

5. Academic Honesty

Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge. For a brief overview of the policy you can watch the video or contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, academicintegrity.okstate.edu.

6. Notes

This syllabus and grading scheme are subject to change if the university alters the class schedule or methods of instruction; I will inform you in writing of any changes.