

## Math 286 Syllabus

**Instructor:** Mao Li

**Email address:** maoli@illinois.edu

**Office hours:** MW 9pm-10pm on Zoom

**Zoom link:** <https://illinois.zoom.us/j/81651736434?pwd=bEhIMUlmZXFhZDRJQjhSNk1RWZHUOT09>.

**Class Meetings:** MTWR, 12:00-12:50 in 2079 NHB

**Textbook:**

Boyce and DiPrima, Elementary Differential Equations and Boundary Value Problems, 10th Ed., 2012, Wiley.

We will use WebAssign for Textbook and HW. Check the link for WebAssign in Moodle.

**Course Description:** This course is an introduction to differential equations. It is intended for engineering students and others who require a working knowledge of differential equations. Topics to be covered include techniques for solving and applications of ordinary differential equations, linear systems of differential equations, and an introduction to partial differential equations, separation of variables and Fourier series. The focus will be on understanding the physical meaning of the equations and their solutions, and not on rigorous proofs.

**Grades:**

The final grade will be computed based on these percentages:

Midterm Exams(45%): Three in-class tests each covering a section of the course.

Final Exam(25%): This is a three-hour exam, which covers the material of the whole course.

Homework(30%): We will have one or two homework assignments per week, they are due on next Monday and Thursday. You are free to discuss the homework with your classmates, but we strongly encourage you to understand the solution yourself. Do not assume you understand something just because someone told you how to do it. Remember that no collaboration will be allowed during in-class tests and exams. Your homework assignment with the lowest score will be dropped.

**Covid 19 Policies:**

Following University policy, all students are required to engage in appropriate behavior to protect the health and safety of the community. Students are also required to follow the campus COVID-19 protocols. Students who feel ill must not come to class. In addition,

students who test positive for COVID-19 or have had an exposure that requires testing and/or quarantine must not attend class. The University will provide information to the instructor, in a manner that complies with privacy laws, about students in these latter categories. These students are judged to have excused absences for the class period and should contact the instructor via email about making up the work.

All students, faculty, staff, and visitors are required to wear face coverings in classrooms and university spaces. This is in accordance with CDC guidance and University policy and expected in this class. Students who fail to abide by these rules will first be asked to comply; if they refuse, they will be required to leave the classroom immediately. If a student is asked to leave the classroom, the non-compliant student will be judged to have an unexcused absence and reported to the Office for Student Conflict Resolution for disciplinary action. Accumulation of non-compliance complaints against a student may result in dismissal from the University.

**Some suggestions for the class:**

1. Please come to class prepared. This does not mean you have to understand everything. In fact, if you don't understand something you will have the opportunity to ask about it and we can discuss it in class.
2. Please let us know if you are having trouble with something, and do so **before** it becomes an issue on a test or exam. Do make use of office hours.
3. While reading your text we strongly encourage you to work through the proofs and examples yourself on paper. This is a very useful way to increase your understanding of the material.
4. After reading something, try to summarize the important concepts. This will help create a mental framework into which to  
t the problems you will be working on.