
MAT 303, Calculus IV with applications Syllabus

Online

Monday, Wednesday 6:05pm-7:25pm

This syllabus contains the policies and expectations that the instructor has established for this course. Please read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course.

Instructor: Dr. Peter Lin (bo-bo.lin@stonybrook.edu)

Office: Math Tower 3-116

Office Hours: See course website (link below).

Course assistant: Ruijie Yang ruijie.yang@stonybrook.edu

Course Description This course is an introduction to differential equations, with particular emphasis on scientific applications. Topics we will cover include homogeneous and non-homogeneous linear differential equations, systems of linear differential equations, non-linear systems, Laplace transforms, and series solutions to equations, as time permits. We will study standard techniques for solving ordinary differential equations, including numerical methods, and their applications to engineering, physics, biology, chemistry, economics, and social sciences.

Prerequisites: In order to take this course, you must have a grade of C or higher in MAT 127 or MAT 132 or MAT 142 or AMS 161 or level 9 on the mathematics placement examination.

Important Dates

Exam Dates

- Midterm 1: March 3 6:05PM-7:25PM (Online)
- Midterm 2: April 7 6:05PM-7:25PM (Online)
- Final Exam: May 12 5:30PM-8:00PM (Online),

Required Resources

- **Course Webpage:**
math.stonybrook.edu/~bplin/teaching/spring2021/mat303
- **Discussion board:**
piazza.com/stonybrook/spring2021/mat303
All course related questions should be posted here.
- **Textbook:** Differential Equations with Boundary Value Problems: Computing and Modeling (5th edition) by Edwards, Penney and Calvis.

Course resources All course resources will be posted on the website. It is your responsibility to check the website regularly. If I post something there I will assume that you will check it within 24 hours.

Graded Components

- **Homeworks** – 30% of course average. You must write your solutions neatly and then upload them to gradescope.
There will be a homework assignment due most weeks. Homework assignments will be announced on the course website.
You are welcome to work together with your fellow classmates on the homework, provided that each person in a group is actively contributing. In particular, you must completely understand your solution and write it in your own words. You cannot show anyone your completed (written up) work. If you use an outside resource, such as an

internet site, you should cite this in your solution. You should also declare all your collaborators.

- **Midterm Exams** – 40% of course average

There will be two 80 minute midterm exams in class. See 'Important Dates' above for dates.

- **Final Exam** – 30% of course average

There will be one 150 minute final exam on the date scheduled by the university. See 'Important Dates' above for dates.

For each exam, a random selection of students may be asked to do a 15-minute verbal follow-up after they have they submitted the written component. Once you have been notified that you have been selected for a follow-up, you can choose any time within the next week to meet with me.

Your *final grade* will be determined by a weighted average of the graded components above.

Late Homework Policy

A student's homework assignment shall be considered late if it is not turned in to the instructor by the end of lecture on the due date. Late homework assignments will not be accepted. You must submit each problem on a new page.

Missed Exam Policy

No make-up exams will be given. If a student misses a midterm exam with documented evidence, then the student's final exam grade will be substituted for the missed midterm. A student must sit the final exam at the scheduled time in order to receive a passing grade in the class.

Disability Support Services

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services (631) 632-6748 or

studentaffairs.stonybrook.edu/dss/

They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website:

www.sunysb.edu/facilities/ehs/fire/disabilities

Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at

www.stonybrook.edu/uaa/academicjudiciary/

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.

Syllabus Revision

The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and changes to this syllabus will be posted on the course website.