MATH 2410Q
Elementary Differential Equations

Spring 2025

Instructor:	Lingxiao Zhang	**Time:**	MWF
Email:	lingxiao.zhang@uconn.edu	**Modality:**	Classroom

Prerequisites: MATH 1132Q, 1152Q, or 2142Q. Recommended preparation: A grade of C- or better in MATH 1132Q; MATH 2110Q or 2130Q. Cannot be taken after MATH 2144Q, 2420Q, 2720, 3146, 3150, 3410, 3412, 3510, 3710. Repeat restrictions apply; see https://advising.uconn.edu/repeat-policy.

HuskyCT: https://huskyct.uconn.edu for class announcements and grade sheet.

Office Hours and Location: Monday Friday 3:20 - 4:20 pm, or by appointment, at MONT 410. Please allow one business day for me to read your email.

Textbook: *A First Course in Differential Equations with Modeling Applications*, 11th Edition by Dennis G. Zill; ISBN-13: 978-1305965720.

Course Objectives: Qualitative, analytical and numerical methods for first and second order ordinary differential equations as well as first order constant coefficient linear system and some special nonlinear systems. Laplace transform and its application to differential equations.

Homework: Homework assignments are completed online on WebAssign (access through HuskyCT). See homework deadlines on WebAssign. WebAssign works better with Chrome and Firefox than Safari.

Exams: There will be two **in-class** midterms and a take-home final(like an assignment).

- 1st Midterm: February 28th Friday
- 2nd Midterm: April 4th Friday
- Take-home Final: posted on HuskyCT on April 29th Tuesday and due on May 6th Tuesday 11:59pm

Quizzes: There will be a quiz on each Friday during the last 15 minutes of the class, except for the first week, Spring recess week, and the exam weeks. Each quiz consists of one or two short problems covering the content of the previous week.

Grading Policy: Webassign Homework (15%) Quiz (20%) 1st Midterm Exam (25%) 2nd Midterm Exam (25%) Take-home Final Exam (15%)

Late Policy:

- No makeup for quizzes, or exams. Four lowest quiz grades (including missed quizzes) will be dropped automatically at the end the semester. The four drops should be saved for emergencies/sickness/appointments/accidents/funerals/power out/car broke down/miss the bus/hurry to class from a far place/have to leave early/have another two exams back to back...
- You will have two sections of your homework (missed homework or lowest score homework) automatically dropped at the end of semester.

  Each student can request homework extension for at most one section. It is not recommended that you wait until last day to finish your homework. The current deadline that you see on webassign is already

been postponed by me. So you should view the deadline of the homework to be a couple days before the written deadline of webassign, and the written deadline of webassign as been extended already.

Requesting for more attempts is considered an extension. No extension can be granted after the end of the semester. (For the same reason, no extension for the take-home final.) The one extension should be saved for emergencies/sickness/appointments/accidents/funerals/power out/internet disconnection/broken computer/website temporarily closed...

When you request a homework extension, don't feel obligated to give a reason, you can be brief and email me: "I need to use my one homework extension to Section __. I am in your class which begins at __pm."

Disability Services: If you have a physical, psychological, medical, or learning disability that may impact your coursework, please contact the Center for Students with Disability http://www.csd.uconn.edu, especially when you need to accommodate the exams. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Accommodations for Illness or Extended Absences: If you are experiencing illnesses or hardships for a long time and have to **miss one of the exams**, please contact the instructor as soon as possible so that we can find a way to accommodate you.

Please bear in mind that every course has finite capacity to accommodate students. To be fair to the rest of the students, the type of accommodation provided to you might not be exactly the way you prefer. It is hard to accommodate you if you miss two of the three exams, and in that case please talk with your academic advisor.

Useful resources:

- **If you have issues with Webassign:** https://www.cengage.com/coursepages/UConn_MATH2410.
  - Webassign Office Hour: See the link above.
  - Webassign Contact: Frank Cronin, Senior Account Executive II
    203-599-5100 frank.cronin@cengage.com
- **The Quantative Learning (Q) Center:** The Q Center is a place on campus where there are knowledgeable people hanging around waiting for you to come by and ask for help with problems you are having with Q courses. Some students find it helpful to use up a couple of their tries at a problem on WebAssign homework and then visit the Q center for help with the problem, before going back to their homework. Tutoring is provided in the Q Center located in Homer Babbidge Library. Please visit the website https://qcenter.uconn.edu/ for more details and hours.

Academic Integrity: Integrity is a crucial part of the academic experience. You must observe the University's Academic Integrity Policy at https://community.uconn.edu/the-student-code-appendix-a/. Cheating can result in one or more of the following: a score of zero on the assignment; a grade of F in the course; expulsion from the university and/or any subsidiary programs.

Policy Against Discrimination, Harassment and Related Interpersonal Violence: The University is committed to maintaining a safe and non-discriminatory learning, living, and working environments for all members of the University community - students, employees, or visitors. More information, including confidential and exempt employee resources available for support and assistance, can be found at https://equity.uconn.edu and https://titleix.uconn.edu.

Syllabus Revision: The instructor reserves the right to make any changes in this syllabus at any time. Notice of such changes will be by announcement in class and changes to this syllabus will be posted on HusckyCT. It is your responsibility to keep up with changes.

Tentative Schedule

Week of 1/21	Lecture of Sections 1.1, 1.2, 1.3
Week of 1/27	Lecture of Sections 1.3, 2.1, 2.2 Homework of 1.1, 1.2 due on Wednesday Quiz on Friday is on 1.1, 1.2
Week of 2/3	Lecture of Sections 2.2, 2.3, 2.4 Homework of 1.3, 2.1 due on Wednesday Quiz on Friday is on 1.3, 2.1
Week of 2/10	Lecture of Sections 2.4, 2.5, 2.6 Homework of 2.2, 2.3 due on Wednesday Quiz on Friday is on 2.2, 2.3
Week of 2/17	Lecture of Sections 3.1, 3.2, 3.3 Homework of 2.4, 2.5, 2.6 due on Wednesday Quiz on Friday is on 2.4, 2.5, 2.6
Week of 2/24	Review on Monday and Wednesday Exam 1 on 2/28 Friday
Week of 3/3	Lecture of Sections 4.1, 4.3 Homework of 3.1, 3.2, 3.3 due on Wednesday Quiz on Friday is on 3.1, 3.2, 3.3
Week of 3/10	Lecture of Sections 4.4, 4.6 Homework of 4.1, 4.3 due on Wednesday Quiz on Friday is on 4.1, 4.3
Week of 3/17	Spring Recess
Week of 3/24	Lecture of Sections 5.1, 7.1 Homework of 4.4, 4.6 due on Wednesday Quiz on Friday is on 4.4, 4.6

Week of 3/31	Review on Monday and Wednesday Exam 2 on 4/4 Friday
Week of 4/7	Lecture of Sections 7.2, 7.3 Homework of 5.1, 7.1 due on Wednesday Quiz on Friday is on 5.1, 7.1
Week of 4/14	Lecture of 7.3, 7.4, B.1 Homework of 7.2 due on Wednesday Quiz on Friday is on 7.2, 7.3
Week of 4/21	Lecture of Appendix B.1, B.3, 8.1 Homework of 7.3, 7.4 is due on Wednesday Quiz on Friday is on 7.3, 7.4
Week of 4/28	Lecture of Sections 8.1, 8.2 Take-home final posted on HuskyCT on Tuesday Homework of B.1, B.3 due on Wednesday
Week of 5/5	Take-home final due on 5/6 Tuesday Homework of 8.1, 8.2 due on Wednesday

- It is the Department of Mathematics that decides what is covered in this course.
- This course does not have discussion sessions.