

Department of Mathematical and Statistics, UNCW

MAT361-003 Differential Equations

Course Outline(Draft) —Spring, 2019

Instructor	Classroom	Lecture Time	Office	Ext.	E-mail
Dr. Xin Lu	OS 2004	TTh 2:00-3:15PM	OS 1007C	3673	lux@uncw.edu

Office Hours: 9:00 - 10:00pm, M-F. Additional office hours by appointments. Students are always welcome to stop by my office.

1. Text: *Elementary Differential Equations and Boundary Value Problems* (10th Edition)

by William E. Boyce and Richard C. DiPrima, ISBN: 978-0-470-45831-0.

2. Course Description and Learning Outcomes: Prerequisite: MAT 261. Theory, methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods. Course Catalog Description

3. Course Description and Learning Outcomes: The first course in differential equations gives thorough illustration on the fundamental theory, basic methods, and various applications of ordinary differential equations with emphasis on first order equations, higher order linear equations, and initial value problems. The course objectives are for students 1) to attain a skillful mastery of the basic concepts of ordinary differential equations; 2) to develop the capacity to formulate and solve problems using these concepts.

4. Test and Grading Policy:

2 major tests — 50%

Homework and Quizzes — 20%

Final exam — 30%.

Grading policy: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: under 60.

If the averaged grade falls just above or below a cut-off, a “-” or “+” grade may be assigned. Factors that may also affect the judgement are the distribution of grades, improvement during the semester, and attendance.

5. Attendance: You are EXPECTED to be present at, to be prepared for, to participate actively in All class meetings. Active class participation and individual assignment completion are the most significant parts of your learning in this course. You are responsible for the material covered in all class. If you must miss a class, it is your responsibility to get the notes and assignments from the instructor or a classmate before the next class meeting.

6. Make-up policy: Make-up test is only given in case of illness or emergence. Instructor has to be notified on or before test date.

7. Academic Honor Code and Respect Compact: Please refer to Section V in your student handbook and Dean of Students’ website about Academic Honor Code for the definition and procedures about academic dishonesty offenses (<http://www.uncw.edu/stuaff/doso/>). The Seahawk Respect Compact expresses the core values essential to an open, respectful learning and working environment (<http://www.uncw.edu/diversity/src.html>).

8. Disabilities: : If you have a disability and need reasonable accommodation in this course, you should inform me of this fact in writing within the first week of class. If you have not already done so, you must register with the Office of Disability Services (extension 7555) and obtain a copy of your Accommodation Letter. You should then meet with me to make mutually agreeable arrangements based on the recommendations in the Accommodation Letter.

9. The UNCW Statement on Diversity in the University Community:

The UNCW Statement on Diversity in the University Community: As an institution of higher learning and excellence, the University of North Carolina Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula, and co-curricular activities that encourage understanding of and appreciation for all members of its community and will not tolerate any harassment or disrespect for persons because of race, gender, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, political affiliation, marital status, or relationship to other university constituents.

10. Zero Tolerance Policy: UNCW practices a zero tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273; Campus Police at 962-3184; or Wilmington Police at 911. For University or community resources visit: <http://www.uncw.edu/safe-relate/campusResources.htm>. Violence prevention information and resources are available at <http://www.uncw.edu/safe>

11. Cell Phones, PDAs, Laptops: Please silence your cell phone and do not make calls, access applications or text during class. If you have a personal, urgent matter for which you need to be on call, please let me know in advance and/or quietly step outside. In addition, please do not have any PDAs or laptops/netbooks/iPads, etc. open or powered on during lectures.

THE UNIVERSITY LEARNING CENTER

Web address: www.uncw.edu/ulc

DePaolo Hall 1056 & 1003, 1st floor Tel: 910.962.7857

The University Learning Centers (ULC) mission is to help students become successful, independent learners. Tutoring at the ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students and include the following:

- Learning Services
- Math Services
- Study Skills
- Writing Services.

The ULCs hours are shorter at the beginning of the semester, during exams, and during the summer, but typically the ULC is open.

Emergency Hotline: (910) 962-3991 or toll free (888) 657-5751

Table 1: Tentative Weekly Schedule

Week	Activities
1st: 1/14-1/18	Chapter 1
2nd: 1/21-1/25	MLK Day(1/21), 2.1, 2.2 (Wednesday: last day to add/drop)
3rd: 1/28-2/1	2.3, 2.5; HW 1 due
4th: 2/4-2/8	2.6, 2.7
5th: 2/11-2/15	2.8, Review; HW 2 due
6th: 2/18-2/22	3.1, Test 1(2/21).
7th: 2/25-3/1	3.2, 3.3.
8th: 3/4-3/8	3.4, 3.5; HW 3 due(Tuesday: last day to withdraw)
9th: 3/11-3/15	Spring Break
10th: 3/18-3/22	3.6, 4.1, 4.3
11th: 3/25-3/29	5.1, 5.2; HW 4 due.
12th: 3/26-3/30	5.3, 5.4
13th: 4/1-4/5	Review, Test 2(4/4)
14th: 4/8-4/12	5.5, 5.6; HW 5 due
15th: 4/15-4/19	5.7, no class on Thursday
16th: 4/22-4/26	6.1, 6.2
17th: 4/29-5/1	Review
5/9, Thursday	Final Exam 3:00-6:00pm, semester ends