

Syllabus for MAP 4305/5304 Fall 2023: Intermediate Differential Equations

- Instructor: Dr. Richard Crew, LIT 404
- Office Hours: MW4
- Web: <https://people.clas.ufl.edu/rcrew/>
- email: rcrew@ufl.edu
- Meeting time: MWF8 in Little Hall 113

Course Description

This course is a sequel to MAP2302 “Elementary Differential Equations,” which is the unique prerequisite. It will be helpful to have had a course in linear algebra (e.g. MAP3114) but this is not necessary. Topics to be covered: linear systems, qualitative theory of nonlinear autonomous equations, and boundary value problems. The text is the latest edition of Nagle, Saff & Snider’s *Fundamentals of Differential Equations and Boundary Value Problems*. We will cover most of chapters 9, 11 and 12 and parts of chapter 5.

Grading Policies

The course grade will be determined by 4 exams (lasting the entire class period) and 4 short quizzes (about 25 minutes) during the semester. Dates of quizzes and exams in each unit may be found on the Course Overview page and in the schedule page for each unit. Each exam will count for 1/6 of the final grade, and each quiz will count for 1/12 (do the math!). Final letter grades will be assigned according to the following scale:

- A: 90% to 100%
- B: 80% to 89%
- C: 65% to 79%
- D: 50% to 64%
- E: 49% or below.

Plus and minus grades will be assigned for percentages near a boundary of two consecutive letter grades. The exact scale will be determined later. I may also adjust the above percentages during the second half of the course.

Homework

For each of the three units in the course I will assign practice problems for the exams and quizzes in that unit. It is extremely important that you do your best on these assignments, but they will not be collected or graded. They will however be discussed in class at the appropriate time.

Return of graded material

Please allow at least one week for this. This is consistent with general UF policies.

Other Course Policies

- *Attendance.* Attendance will not be recorded. If you have to miss a class it is your responsibility to find out what happened during class and get notes, if at all possible from other students. I do not necessarily have useful notes for each class. These policies are consistent with general UF policies.
- *Honor pledge.* UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.
- *Diversity.* The Mathematics Department is committed to diversity and inclusion of all students. We acknowledge, respect, and value the diverse nature, background and perspective of students and believe that it furthers academic achievements. It is our intent to present materials and activities that are respectful of diversity: race, color, creed, gender, gender identity, sexual orientation, age, religious status, national origin, ethnicity, disability, socioeconomic status, and any other distinguishing qualities.
- *Accommodation for disabilities.* Students requiring such accommodations should connect with the Disability Resource Center. This class supports the needs of different learners; it is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.
- *Cell phones.* Please keep them off.