Elementary Differential Equations
MAP 2302

Spring 2018, Section 3142

Little Hall 203, MWF Period 3, 9:35 - 10:25 AM

Instructor: Michael Catanzaro   **Email:** catanzaro@ufl.edu   **Office Location:** 411 Little Hall
Office Hours: M P6, 12:50 - 1:40, W P4 10:40 - 11:30, F P5 11:45 - 12:35, and by appointment.

Prerequisites: MAC 2312, MAC 2512, or MAC 3473.

For whom planned: The fundamental ideas of calculus and differential equations play an integral role in the physical sciences and engineering. For this reason, students of these fields are encouraged to explore both the theoretical and applied portions of this course. This course is also paramount for students of mathematics, as various forms of differential equations are at the forefront of modern research.

Course Content and Description: The primary goal of the course is to obtain a sound understanding of the basic knowledge necessary for understanding, applying, and solving differential equations. We will cover most of the first six chapters of the text and some of chapters seven and eight. Topics include first order methods, like separability, exactness, integrating factors, first order linear equations, and Bernoulli equations; higher order constant coefficient equations, including particular and general solutions via undetermined coefficients; and Laplace transform methods. We will also provide applications to physical problems at various points throughout the course.

Textbook: Nagle, Saff, Snider. Fundamentals of Differential Equations and Boundary Value Problems. Ninth edition. Pearson, Boston. A copy of the seventh edition of this text is on reserve at the UF library.

Evaluation and Grading

Homework: Homework problems will be assigned every day. Some of these problems may be quite difficult and will require a significant amount of time to work. Students are expected to do the homework assignments as part of the preparation for the quizzes and exams.

Quizzes: We will have quizzes every week in which there is not an exam. Quizzes will be given at the beginning of class periods on Fridays. The quiz average will consist of 25% of the final grade. The two lowest quizzes will be dropped for emergency situations; because of this, there are no make-up quizzes.

Exams: We will have three mid-term exams and an optional cumulative final exam. Exams will cover all material covered up to that point in class. Each exam is worth 25% of the final grade. No notes or books are allowed on any exam. The tentative exam dates are listed below.

Friday, February 9: Exam I
Friday, March 16: Exam II
Friday, April 20: Exam III
Thursday, May 3: (optional) Final Exam

All exams in the course, including the final exam, are cumulative. The final exam is optional, and can replace a low test score if desired. For this reason, **there are no make-up exams**.

Final Grades: Grades in the course will be determined by the average quiz score (accounting for two drops), and each of the three best test scores. The final exam is cumulative and optional, and can replace a low test score if desired. The final grade is determined by the weighting

Quizzes − 25%

Exams − 75%

with the following grading scale

Grading Scale out of 100%										
100-97	**A**	89-87	**B+**	79-77	**C+**	69-67	**D+**			
96-93	**A**	86-83	**B**	76-73	**C**	66-63	**D**	59-0	**F**
92-90	**A-**	82-80	**B-**	72-70	**C-**	62-60	**D-**			

Attendance Policy: I expect you to come to class each day; this is critical for success in a mathematics course. If you must miss class or an exam for a religious observance, you must notify me in writing of participation in this observance at least one week prior to the event. This is consistent with the university policies that can be found here: `https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx`.

Course Policy: The use of calculators on any in-class exam is prohibited in this course. Further, written medical documentation is required for any make-up exam.

Academic Integrity: 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, which can be found here `http://www.dso.ufl.edu/sccr/process/student-conduct-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.

Students with Disabilities: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation

to the student who must then provide this documentation to the Instructor when requesting accommodation. The Disability Resource Center can be contacted at (352)-392-8565 or by visiting `https://www.dso.edu/drc/`. Students should provide the DRC with the appropriate documentation as early as possible in the semester.

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