



Instructor: Dr. Sara Pollock

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fall 2018 office hours: M W Period 4 (10:40-11:30), or by appointment

M W F Period 3 (9:35-10:25a), Little Hall Room 207

*Fundamentals of Differential Equations*, (ninth edition), R. K. Nagle, E. B. Saff and A. D. Snider ISBN: 978-0321977069.

**Description.** (Credit hours: 3), First-order ordinary differential equations, theory of linear ordinary differential equations, solution of linear ordinary differential equations with constant coefficients, the Laplace transform and its application to solving linear ordinary differential equations.

#### Topics.

Introduction to Differential Equations (Ch 1)

Methods for Solving First Order ODEs (Ch 2)

Linear Second Order Equations (Ch 4)

The Laplace Transform (Ch 7)

Modeling with Differential Equations (Ch 3) and Series Solutions (Ch 8) as time permits.

**Goals.** Introduce the subject of Ordinary Differential Equations. Develop skills in solving single equation ODEs. Develop qualitative understanding of solution behavior.

**Prerequisites.** MAC 2312, MAC 2512 or MAC 3473 (Calculus II), minimum grade C.

Grades will be calculated according to the following percentages ('+' and '-' assigned at upper and lower ranges of each grade):

Midterm 1	20%			90%-100%	A
Midterm 2	20%			80-89%	B
Quizzes	25%			70-79%	C
Final Exam	25%			60-69%	D
Class Participation	10%			<60%	F
Total	100%				

**Class Participation.** Your participation grade will be determined by the following factors. (1) Showing up to class on time on a regular basis and attending the entire class. (2) Asking for clarification if you do not understand a concept or assignment. (3) Maintaining the appearance that you are paying attention in class.

**Exams.** We will have two in-class midterms and a final exam. The final will be cumulative. The midterm dates will be posted on the course webpage. Exams will not be rescheduled for the convenience of individual students.

**Quizzes.** Expect 1-2 quizzes per week, either in class or as a take-home quiz to be returned the following class. The three lowest quiz grades will be dropped. Please contact the instructor to make arrangements if more than three are missed for excused absences. There are many valid reasons for missing class and possibly a quiz, and that is why the three lowest quiz grades will be dropped.

**Homework.** will be assigned weekly and posted on the course website. The homework is not collected except in the case of take-home quizzes, and then it will be explicitly announced; however, **quiz questions may very (very!) similar to those on the homework, and regularly doing the homework is essential to doing well in the class.** You may refer to your homework on some of the quizzes.

**Attendance.** It is in your best interest to attend lectures. If you do choose to attend, you are expected to stay for the entire lecture. If you regularly leave lecture early, you may expect to receive a low (possibly zero) class participation grade.

**Attention.** Pay attention and take notes during lecture. Exam problems will emphasize concepts that are emphasized in the lectures. You should not spend class time doing your homework (or updating your status on facebook).

**Calculators. No calculators on exams!!**

**Cell phones. No cell phones in class!!** Please don't use your cell phone or other electronic devices during class. You may be asked to put your phone or other device away, or you may be asked to leave the class if you continue to use it. Phones and all electronic devices should be turned off during exams.

**Make-up/late work.** Make-up work is allowed only when written evidence of an official University excused absence is provided. If a student is going to miss an in-class exam, notification in writing (acknowledged email is acceptable) prior to the date of the absence is required. In cases where this is not feasible, the student must provide documentation by the end of the second working day after the absence. If these conditions are met, then the percentage grade earned on the final exam will be substituted for a missed exam. This option is available only once. **No make-up quizzes will be given as the three lowest quiz grades will be dropped.** In the case of a University excused absence on a day when a take-home quiz is due, please contact the instructor and make arrangements to turn in the quiz.

**Honor Code.** 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. You can find the honor code here: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> If you have any questions or concerns, please consult with the instructor.

**UF Policy on Grade Points.** Grading will be in accord with the UF policy stated here: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

**Class Attendance.** Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

**Accommodations for Students with Disabilities.** Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

**U Matter We Care.** Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392- 1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Contact information for the Counseling and Wellness Center.** <https://counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

**Online Evaluations.** Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>

**Your textbook.** It is worthwhile to read the sections as we cover them in class and as you do your homework. You will find many topics well explained, possibly in a different way than in the class notes.

**wolfram alpha.** You are welcome, and indeed encouraged to check your homework solutions on <https://www.wolframalpha.com/>. It is also a useful tool for visualization, which can help with understanding.

**SUGGESTION.** Ask for help on a problem only after thinking about it for at least 20 minutes.

