

Syllabus for Math 231, Spring 2019, Section 10, MWF 12:20–1:10

Instructor Name: Cartwright, Dustin

Office Hours and Location: T 1:30-2:30, W 1:15–2:15, and by appointment, Ayres 210

Email: cartwright@utk.edu

Course webpage: Further information is on the Canvas webpage for this course.

Course Communications: The best way to reach me is by email. I will reply within 24 hours during the work week and usually much faster.

Student Learning Objectives: Upon completion of this course, students should be able to:

- Classify ordinary differential equations as linear or nonlinear, and according to their order.
- Solve first and second order differential equations using a variety of techniques
- Solve differential equations using Laplace transforms.
- Approximate solutions using power series.

Classroom Etiquette: I expect you to attend every lecture, pay attention, and participate in discussions. During lectures, you should not be using your laptop, cell phone, or any other electronic devices without permission.

Text: *Fundamentals of Differential Equations* by Nagle, Saff, and Snider, 9th edition

Calculator Policy: Calculators are not needed and no calculators or other electronic devices are allowed during exams.

Course Assessment:

- 10% homework
- 15% weekly quizzes
- 45% three midterms (15% each)
- 30% final

In general, I will use the standard grading scale: 90-100% A, 80-89% B, 70-79% C, etc. However, the exact grade scale for each component may be

more lenient and will be decided after each component is finalized, i.e. after each exam and after the homework and quizzes have all been graded. The course grading scale will be determined by averaging together the component grading scale according to the same proportions as above.

Homework: Homework is due at the beginning of class each Wednesday. Assignments will be posted on Canvas at least a week in advance. In general, all the material for an assignment should be covered by the Friday before the due date.

You are *encouraged* to discuss your homework with other people in class. However, you must write up your own solutions and you must acknowledge your collaborators or any other sources used beyond the standard course resources.

Each homework assignment will be graded on the basis of a single sample problem, which will not be announced in advance.

Quizzes: We will have a short quiz at the beginning of class every Wednesday. Each quiz will usually consist of a single question, which will be similar to one of the homework problems due the same day.

Exams: All exams will be cumulative, but midterms will focus on the material since the last midterm.

Make up Policy: No late homework will be accepted. Instead, I will drop the lowest homework score. In the event of an unavoidable absence, you may submit your homework by email, so long as it arrives before class time.

No make-up quizzes will be given, but I will drop the two lowest quiz scores.

Accommodation for missed exams requires a valid, documented excuse, such as a medical or family emergency. In most cases, you should provide your documentation through and approved by the Dean of Students. Accommodation may take the form of a make-up or by having the final exam replace that component in your grade, as appropriate for the circumstances. Please let me know as soon as possible if you will miss an exam.

How to be Successful in this Course: Go over the lecture material after each class, either your own notes, or the textbook. Start the homework early. Complete each homework assignment and make sure you understand how to do the problems.

Go to office hours. When you get your exams back, go over your results and understand why you got the answers you did. Talk to other people in the

class about the homework and the material.

If you find yourself falling behind on the material, adjust sooner rather than later. Go back over the notes or the book. Rework problems that you got wrong. Come to office hours if you have questions.

Course Feedback: I welcome your feedback during class or by email.

Course Outline: We will cover the majority of Chapters 1–5, 7, 8 from the textbook.

Schedule: The approximate schedule of topics discussed in class is listed on a Canvas page. The exam dates are:

- Fri, Feb 8: midterm
- Fri, Mar 8: midterm
- Fri, Apr 12: midterm
- Fri, May 3, 12:30-2:30pm: final exam

Campus Syllabus

If the instructor finds it necessary to make informational changes (e.g. office hours, schedule adjustments) due to students' needs or unforeseen circumstances, students will be notified in writing/email of any such changes.