## David Nichols

# **MATH 2410: Elementary Differential Equations**

Spring 2018 Syllabus

# Description

Qualitative, analytical and numerical methods for first- and second-order single ordinary equations as well as first order constant coefficient linear system and some special nonlinear systems. Laplace transform and its application to differential equations.

#### Lectures

## Section 005: MWF 8:00 – 8:50 in <u>LH106</u> Section 007: MWF 9:05 – 9:55 in <u>LH109</u>

## **Office Hours**

My office hours this semester are Monday 12-1, Wednesday 11-12, and Friday 11-12 in MONT 422.

#### **Textbook**

We will use A First Course in Differential Equations with Modeling Applications, 11<sup>th</sup> edition, by Dennis G. Zill. You do not need to purchase this book, since you will be provided access to the WebAssign ebook free of charge. To access the ebook online, you must have Flash Player installed and enabled. If you prefer to have a paper copy of the book, then of course you are free to purchase one.

## Homework

You will complete homework assignments online using WebAssign. Unlike other classes, for this class and this semester you do not need to purchase access to WebAssign. Your access to WebAssign for this class will be entirely free of charge this semester. To log into WebAssign, do not go directly to the WebAssign website. Instead, log in to <a href="HuskyCT">HuskyCT</a> using your UConn NetID and password, click on the link to this course in HuskyCT, and then click the "WebAssign" link in the navigation menu for this course.

You are encouraged to discuss the homework problems with other students, but you should make sure that you understand and are able to solve the problems on your own.

#### **Quizzes and Exams**

There will be a graded in-class assignment during each Friday's lecture except for the first week. This will be either a short quiz or an exam. Notes, books, phones, and other electronic devices are not permitted during quizzes and exams. You must complete each quiz and exam on your own and may not work with other students.

There will be two midterm exams and one final exam. The first midterm exam will be given in lecture on **Friday, February 16**. The second midterm exam will be given in lecture on **Friday, March 23**. The final exam will be given at the time and place published by the Registrar.

## **Calculators**

Calculators are not permitted during quizzes and exams. Calculators and other computing devices are permitted when you are working on the homework, but you should make sure that you are able to solve the problems on your own.

#### **Grades**

Final course grades will be calculated as follows.

Assignment(s)	Percentage of Course Grade
Homework	15%
Quizzes	15%
Midterm 1	20%
Midterm 2	20%
Final Exam	30%

## **UConn Links**

- Academic Calendar
- Final Exam Information

- Math Department
- Dean of Students

- Center for Students with Disabilities
- Counseling and Mental Health Services

## **Academic Integrity**

All students are expected to adhere to the <u>UConn community standards</u> at all times.

## **Other Expectations**

- You are expected to show up on time to each lecture. You are responsible for knowing the content of each lecture whether or not you attend.
- You are expected to do work outside of class. This includes reading the text-book and solving practice problems.
- You are responsible for attending quizzes and exams. If you must be absent for a quiz or exam, you must notify the instructor beforehand with a valid excuse.
- You are expected to know basic calculus. In particular, you are expected to be able to take derivatives and integrals.

# **Learning Resources**

- The Q Center offers drop-in tutoring at the <u>Babbidge library</u>.
- The Engineering Tutoring Center offers drop-in tutoring in Engineering II.
- Khan Academy has several useful resources.
- Paul's Online Math Notes features explanations, examples, and exercises.
- Math Dr. Bob works through examples of many differential equations problems.
- PatrickJMT also has a few worked examples.
- <u>Professor McKenna</u> has a complete semester of lecture videos available online. Note that these lectures correspond to a different textbook and syllabus.
- MIT OpenCourseWare provides lecture videos, lecture notes, and exams with solutions.

## **Late Work**

Unless you have an excused absence, you must complete each assignment and exam on time. If you must miss a quiz or exam, you should contact your instructor beforehand with a valid excuse. Your lowest two quiz grades will be dropped, which gives you some latitude to miss one or two quizzes.

## **Instructor Contact Information**

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