

Syllabus for MATH 2410 Section 020

Elementary Differential Equations

Term: Summer 2020
Website: learn.uconn.edu

Instructor: Michael Biro
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Text: “*A First Course in Differential Equations with Modeling Applications*” by Dennis Zill (11th ed.)

Description: Introduction to ordinary differential equations and their applications, linear differential equations, systems of first order linear equations, numerical methods.

Lecture Videos: Video lectures will be posted to HuskyCT to be watched according to the posted schedule.

Office Hours: Office hours will be held online through a Piazza link in HuskyCT.

Exams: There will be a midterm exam and a cumulative final, each administered online through HuskyCT. The midterm date is tentatively set for July 30th, while the final will August 13th.

Homework: There will be homework assigned and collected on WebAssign (Link in HuskyCT). No late homework will be accepted, and the lowest homework score will be dropped.

Grading: Based on the homework, the exams, and the final. The weights will be approximately:

- Homework: 25%
- Midterm Exam: 35%
- Final Exam: 40%

Resources: The following resources offer tutoring, support, and accommodations for students:

- The Q center <https://qcenter.uconn.edu>
- The Dean of Students <https://dos.uconn.edu>
- The Center for Students with Disabilities <https://csd.uconn.edu>

Date	Week	Sections	Topics
07/13/20	1	1.1, 1.2, 1.3	Introduction to Differential Equations
07/14/20		2.1, 2.2	Solution Curves and Separable Equations
07/15/20		2.3, 4.1	Linear Equations and Models
07/16/20		2.4	Exact Equations
07/20/20	2	2.5	Substitutions
07/21/20		2.6	Euler's Method
07/22/20		3.1	Linear Models
07/23/20		3.2	Non-linear Models
07/27/20	3	4.3	Homogeneous Linear Equations
07/28/20		4.4	Undetermined Coefficients
07/29/20		4.6	Variation of Parameters
07/30/20		Midterm	Chapters 1-4
08/03/20	4	7.1	Laplace Transforms
08/04/20		7.2	Inverse Laplace Transforms
08/05/20		7.3	Properties of Laplace Transforms 1
08/06/20		7.4	Properties of Laplace Transforms 2
08/10/20	5	B.1, B.2, B.3	Linear Algebra Preliminaries
08/11/20		8.1	Linear Systems of Equations
08/12/20		8.2	Homogeneous Linear Systems
08/13/20		Final	Cumulative Exam