



DAVIS UNIVERSITY

COURSE SYLLABUS

MTH104: ELEMENTARY DIFFERENTIAL EQUATIONS

SUMMER QUARTER 2025

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COURSE SYLLABUS FOR: MTH104 ELEMENTARY DIFFERENTIAL EQUATIONS

CREDIT HOURS: 5 CREDITS

INSTRUCTOR:

INSTRUCTOR EMAIL:

INSTRUCTOR OFFICE HOURS:

COURSE DESCRIPTION: Introduction to ordinary differential equations with applications, covers boundary value problems, methods of solution of first order differential equations and the solution of higher order linear equations by methods which may include undetermined coefficients, operators, variation of parameters, Laplace transforms and series solutions.

TEXT: *A First Course in Differential Equations with Modeling Applications*, 11ed, Zill, ISBN: 9781337652469, Cengage.

*A graphing calculator and a computer algebra system will be used throughout the course. Students should ask the instructor which calculator will be used.

LATE WORK POLICY: All students are expected to submit homework assignments electronically on the date specified on the syllabus. No late homework will be accepted and the student will receive a "0" (zero) for the homework assignment. Should the student refuse to complete the assigned work for the class, it could result in the student failing the class. All work assigned is expected to be completed on the date assigned. The instructor reserves the right to alter the schedule as necessary. Please be sure to check your email/Moodle for any changes to the schedule.

PLAGIARISM AND COPYRIGHT INFRINGEMENT POLICY: Work that is found to be plagiarized receives a grade of zero and often causes a student to fail a class. Documentation of plagiarism is added to the student's academic file as a violation of accepted student conduct and is subject to disciplinary action. Plagiarism is the use of another person's exact words, or their ideas written in the student's words without giving the original author credit.

Plagiarism can result from any of the following:

- Quote material directly without using quotation marks.
- Paraphrase the original so that many of the phrases are the same as the original. A good rule is no more than 3 or 4 words in a row should be the same as the original.
- Copy the original sentence pattern, substitution synonyms for key words.
- Neglect to indicate the source of the original material.

ASSESSMENTS:

Content

Exams	75%
Homework	15%
Written Assignments	10%
Total	100%

COURSE GRADE: A = 93%-100%

B = 85%-92%

C = 77%-84%

D = 70%-76%

F = below 70%

TENTATIVE CLASS SCHEDULE:

(Subject to change)

Week	Content Covered	Assignments & Assessment Due
Week 1:	Chapter 1: Introduction to Differential Equations (Sections 1.1-1.3) Chapter 2: First-Order Differential Equations (Sections 2.2-2.5)	
Week 2:	Chapter 3: Modeling With First-Order Differential Equations (Section 3.1) Chapter 4: Higher-Order Differential Equations (Section 4.1)	Exam #1- Friday
Week 3:	Chapter 4: Modeling With Higher-Order Differential Equations (Sections 4.3, 4.4, 4.6, 4.7) Chapter 7: The Laplace Transform (Section 7.1)	
Week 4:	Chapter 7: The Laplace Transform (Sections 7.2-7.3)	Exam #2- Friday
Week 5:	Chapter 6: Series Solutions of Linear Equations (Sections 6.1 & 6.2)	Final Exam- Friday