MAP2302 (Section 6554): Elementary differential equations

SYLLABUS, CLASS MEETINGS, AND COURSE POLICY

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Syllabus and course outline
Link to detailed syllabus for MAP2302 Section 6554 Fall 2019

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Class meeting times and venue
Days: Monday, Wednesday, and Friday
Period: 9
Time: 04.05-04.55 p.m.
Venue: LIT 101

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Office hours

Monday: 15:00-15:50 (8th period)

Wednesday: 13:55-14:45 (7th period)

Friday: 15:00-15:50 (8th period)

By appointment: calistusnn@ufl.edu, (352) 294-2335

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Textbook

R. Kent Nagle, Edward B. Saff and Authur David Snider. Fundamentals of differential equations and boundary value problems. Seventh Edition. (Pearson) (2018). *Each student is required to have a copy of this textbook.*

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Pre-requisite(s)

A grade of C or better in MAC2312, MAC2512 or MAC3473.

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Course Description, Objectives, and Goals

MAP2302 (Elementary Differential Equations) is a 3 credit hours course in differential equations that covers topics such as: first order linear, separable, exact, homogeneous, and Bernoulli equations, second order homogeneous and non-homogeneous ordinary differential equations with constant and variable coefficients, the Laplace transform and its application, power series solutions of ordinary differential equations, and applications of differential equations.

Differential equations constitute a language through which the laws of nature are expressed. Many of the fundamental laws of applied Mathematics, Physics, Chemistry, Biology, Engineering, Economics and Finance can be formulated as differential equations. Hence, it is essential for students in the physical sciences, biological sciences, engineering, social sciences, etc., to be familiar with differential equations.

The major objective of MAP2302 is to introduce students to the basic concepts and applications of differential equations. Students would be expected to understand the basic concepts of differential equations well enough to be able to decide when, how, and why to apply them to real-world phenomena and to be able to interpret and communicate the results. This course is designed to help students progress in developing analytical thinking, critical reasoning, problem-solving, and communication skills. The goal is to obtain a useful mastery of concepts and methods basic to fully understand and appreciate the theory and practice of differential equations.

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Homework

The purpose of homework is to develop more skills in the material covered. It will be the student's responsibility to solve the assigned homework problems in a timely manner. Selected problems from homework will be graded and these will count towards the final grade. Students who intend to do well in the course are advised to solve the homework problems. Students should feel free to approach the instructor with difficulties from homework problems. Problems in which students encounter difficulties may also be discussed in class. See the detailed course outline for assigned homework problems.

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Final Grades

There will be five exams administered during the normal 50 minutes class period and one cumulative (comprehensive) final exam. The final exam shall be administered according to the University's schedule. Each exam will consist of a multiple choice and a problem section. The problem section will contain questions that require detailed solutions and possibly definitions and brief explanations of concepts and it will be graded on a partial credit basis. Only the best four exams will count towards the final course grade.

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Final Exam	**100 points**
50-Minute Exams	**300 points**
Quizzes	**50 points**
Homework	**40 points**
Attendance.	**10 points**
Total	**500 points**

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Grading Scale

Grade	Range	Grade	Range
A	465-500	C	375-387
A-	450-464	C-	350-374
B+	438-449	D+	338-349
B	425-437	D	325-337
B-	400-424	D-	300-324
C+	388-399	E	000-299

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Attendance and Late Policy

In a bit to understand the material, it will be essential that students keep pace with the material as it is being presented. Consequently, students will be expected to attend all class meetings, and to be on time too. Late homework will not be accepted or graded. "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx."

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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/."

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Special Accommodations

"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."

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U MatterWe 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, 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 911.

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Contact information for the Counseling and Wellness Center

https://counseling.ufl.edu/, 352-392-1575; and the University Police Department: 352-392-1111 or 911 for emergencies.

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