

College of Central Florida
MAP2302 Elementary Differential Equations (3 credits)
Section 01 (TH 11:00AM- 12:15 PM)
SPRING 2023

Instructor: Kirby Brown
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Office Hours

Monday	Tuesday	Wednesday	Thursday	Friday
8:00AM- 9:30AM	8:00AM-9:30AM	8:00 AM-9:30AM	8:00 AM-9:30 AM	8:00AM-10:00AM
11:00 AM-12:30 PM	12:30PM-1:30PM	12:30 PM-1:30 PM	12:30PM-1:30PM	
				9PM-10PM: Online

TEXTBOOK: A FIRST COURSE IN DIFFERENTIAL EQUATIONS with Modeling Applications (11th Edition) Author: Dennis G. Zill ISBN: 978-1-305-96572-0

Required Materials: A graphing calculator is needed for this course. I fully recommend the TI83/84 calculator

DESCRIPTION: An introduction to elementary differential equations. The course includes the study of initial value problems, solving differential equations using the methods of separable equations, exact equations, linear equations, integrating factor and homogeneous and non-homogeneous equations.

PREREQUISITE MAC MAC2312 WITH A GRADE OF C OR BETTER.

Homework: Homework will be assigned for each section covered in class. Each student is expected to complete their assignments. If a student encounters difficulties with a problem(s), then the **student should refer his or her problem (s) to the instructor during class time or visit the instructor during office hours or get additional help at the Math Center.** The hours of the Math Center are listed as follows:

Math Center Hours (Room 7-106)

Monday	Tuesday	Wednesday	Thursday	Friday
8:00 am – 6:00 pm	8:00 am – 6:00 pm	8:00 am – 6:00 pm	8:00 am – 6:00 pm	8:00 am – 3:00 pm

LATE WORK: Late exams submissions will not be accepted. All exams must be done by the due dates.

EXAMS: Students are required to take all in class exams. **NO MAKE-UP EXAMS WILL BE GIVEN UNDER ANY CIRCUMSTANCES. Every student is required to take the final exam. ANY STUDENT WHO MISSES THE FINAL EXAM WILL RECEIVE A GRADE OF ZERO ON THE FINAL EXAM**

THERE WILL BE THREE IN CLASS EXAMS AND A FINAL EXAM

The grading breakdown is weighted as follows: Attendance: 5%
Exams : 60%
Final : 35%

***FINAL EXEMPTION FACTOR: THERE WILL BE THREE IN CLASS EXAMS AND A FINAL EXAM. IF STUDENTS ARE SATISFIED WITH THE OVERALL AVERAGE OF THEIR THREE EXAMS, THEY CAN CHOOSE NOT TO TAKE THE FINAL EXAM AND WILL EARN THE EQUIVALENT LETTER GRADE THAT IS ALIGNED WITH THE OVERALL AVERAGE OF THE THREE EXAMS, OTHERWISE, THEIR AVERAGE WILL BE CALCULATED ON THE GRADING BREAK DOWN ABOVE.**

NOTE: THE FINAL EXAM MAY RELACE THE LOWEST GRADE ON THE INCLASS EXAMS

Grades: Grades are calculated based on the following procedure:

A	Excellent	90% and above	4.0 quality points
B+	Very Good	87%-89%	3.75 quality points
B	Good	80%-86%	3.0 quality points
C+	High Average	77%-79%	2.75 quality points
C	Average	70%-76%	2.0 quality points
D	Poor	60%-69%	1.0 quality points
F	Failure	59% and below	No quality points

NOTE: Homework will be given at the end of each zoom lectures. The homework will be selected exercises from the textbook. Every student should attempt the homework. Exams will be based off the homework

MAP2302 WEEKLY SCHEDULE

Week	Assignments	Comments
Week 1	Introduction Sections 1.1, 1.2,	
Week 2	Sections 2.1, 2.2, 2.3	
Week 3	Sections 2.3, 2.4	HOLIDAY: Mon . January 16 (Martin Luther King). College Closed
Week 4	Sections 2.3, 2.4	
Week 5	Sections 2.5, 2.6 EXAM 1	EXAM 1 COVERS UP TO 2.6
Week 6	Sections 3.1, 3.2	
Week 7	Sections 4.1, 4.2	Faculty Professional Development Day February 14. No day classes
Week 8	Sections 4.3, 4.4	
Week 9	Sections 4.5 ,4.6, 4.7	
Week 10	EXAM 2	EXAM 2 covers up to 4.6
Week 11		SPRING BREAK March 13-19. (College Closed)
Week 12	Section 4.7, 5.1, 7.1	
Week 13	Sections 7.1, 7.2, 7.3	
Week 14	Sections 7.3, 8.1, 8.2	
Week 15	EXAM 3	
Week 16	Final Exam Review	
Week 17	Finals	Finals: Tuesday May 02, 2023: 11:00 AM -12:15 PM

THE FINAL EXAM WILL BE ON Tuesday May 02, 2023, 11:00AM- 12:15 PM

Disclaimer: The Instructor reserves the rights to make any changes to these policies and procedures as well as the course outline as deemed necessary.

Zoom Link for Office Hours: <https://cfpatriots.zoom.us/j/7502071571>

College Policies –Spring 2023

Academic Integrity – Cheating and/or plagiarism will not be tolerated and may result in an “F” for the course as well as disciplinary action under the Code of Student Conduct. A student may be referred to an Academic Integrity Seminar. There will be a charge for this two-hour seminar, and attendance is required (see Student Handbook).

Access Services for Students with Disabilities – If you have a disability, serious medical condition or a learning disorder and want to request accommodations, it is your responsibility to register with the Office of Access Services and to provide verifiable documentation to Access Services as soon as possible. If eligible, Access Services will provide you with a notification of approved accommodations to give to your instructors at the beginning of the semester. For information see the Access Services webpage at <http://www.cf.edu/departments/sa/ss/access/>, contact access@cf.edu or call 352-854-2322, ext. 1580. Assistance for students is available at all CF locations, by appointment.

Classroom Decorum – Disruptive behavior will not be tolerated. Disruptive students will be asked to leave the classroom. Continuous disruptive behavior will result in withdrawal from the course and disciplinary action under the Code of Student Conduct (see Student Handbook).

Also please go on canvas to see the withdrawal dates and other college policies

NOTE: IF THIS COURSE SHOULD SWITCH TO A ZOOM FORMAT, RANDOM DISCUSSION BASED ASSESSMENTS WILL BE CARRIED OUT THROUGHOUT THE SEMESTER PERTAINING TO EXAMS UNDER THE CONSTRAINT OF ACADEMIC INTEGRITY WHICH INCLUDES THE INSTRUCTOR ASKING STUDENTS FOR VERIFICATION OF SOLUTIONS TO EXAMS. FAILURE TO SHOW AND EXPLAINED DETAILED SOLUTIONS ON EXAMS WILL RESULT IN NO CREDIT GIVEN. THIS COULD ALSO LEAD TO A FAILING GRADE FOR THE COURSE

MAP2302 Elementary Differential Equations
Institutional Learning Outcomes and Course Objectives

Institutional Learning Outcomes

Learning Outcome	Quiz	Exam	Project	Classroom Activity
Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods.				
1. Perform accurate computations using order of operations with and without technology.	x	x		x
2. Identify and organize relevant information and complete the solution of an applied problem.	x	x		x
3. Interpret and communicate understanding of visual representations of data.	x	x		x
4. Demonstrate mathematical number sense and unit sense.	x	x		x

MAP 2302 Learning Objectives:

1. The student understands the concept of ordinary differential equations, numerically, and analytically.
2. The student states, understands the solution of a differential equation
3. The student learns the method of solving differential equations by the substitution method.
4. The student understand when a differential equation is homogeneous and non-homogeneous
5. The student understands the application of modeling with first order differential equations
6. The student understands the 'Wronskian' of a function and the criteria for linearly independent solutions.
7. The student solves 'Free Undamped motion' problems using differential equations .
8. The student understands the definition of Laplace Transforms
9. The student understands the inverse transforms and transforms of derivatives
10. The student solves linear system problems under the 'Preliminary Theory'
11. The student solves homogeneous linear systems

