RIT School of Mathematics and Statistics

MATH 211 Elements in Multivariable Calculus and Differential Equations

This document states the conditions under which you will succeed in this course. The policies and procedures should be followed in order to ensure the best possible learning experience. Please read it carefully and keep it as a reference in the event you have questions about such policies and procedures or how to contact me. Be sure to clear up any misunderstandings you may have about this document as soon as possible!

Instructor

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Office Hours:	MWF 10:00-11:00 in Bates Study Center MW 6:00-7:00 in office	MWF 12:00-12:50 by appointment

Course Description

This course includes an introduction to differential equations, Laplace transforms, numerical methods in differential equations, and the calculus of functions of two variables. The emphasis is on the application of these topics to problems in engineering technology.

Prerequisite

Grade of C- or better in either MATH - 172 or MATH - 182.

Goals of the Course

- To introduce the basic definitions, concepts, rules, vocabulary, and mathematical notation of calculus.
- To provide the manipulative skills required for problem solving in calculus.
- To provide the knowledge and appreciation of calculus as a tool in solving applied physical problems.
- To provide a background in mathematics that can be used for the study of science and engineering.

Learning Outcomes

- Explain the basic vocabulary, concepts, rules, definitions, and mathematical notation of differential equations.
- Demonstrate the standard techniques for solving differential equations.
- Use Laplace transforms to solve differential equations.
- Solve applied physical problems using differential equations.

Policies

Attendance and Participation

Attendance is extremely important as a graded assignment is completed each day in class. There is no grade for attendance but you are responsible for being in class and participating in lecture. This is a second year course and students enrolled should understand the significance of their presence during content delivery. **Technology**

Calculators are not permitted on exams, so we encourage all to try to accomplish as many assignments without their calculators as it will help prepare them better for exams. If we see anything that may be a disruption to your learning, we will remove it for the duration of class. It is also important that the class goes uninterrupted, so you must silence all phones when in the room.

Academic Honesty

The honor code is a cornerstone of our learning community. As an institution of higher learning, RIT expects students to behave honestly and ethically at all times, especially when submitting work for evaluation in conjunction with any course or degree requirement. The School of Mathematical Sciences encourages all students to become familiar with the RIT Academic Integrity Policy, and the RIT Honor Code. First offenses will result in a zero for the assignment without any chances of retaking. A second offense will result in failure of the course.

Make-Up Policy

There will be no make-ups given unless the student has been excused PRIOR to the day or deadline of that exam and no more than one exam make-up is permitted per student. This is, of course, unless the circumstances are serious enough to allow otherwise. Your excusal from class and any extensions given are at the professor's discretion.

Assignments and Exams

Handbook

There is no textbook in existence for this course. So, Professor Olles has developed a handbook using the last 15 years of her teaching this course to help you organize your lecture notes, get practice problems and review for exams. Your instructor will print for those who request it but you may use your tablets or computers to take notes directly on the digital file (posted in mycourses) if you prefer.

Homework

Each unit has a homework assignment associated with it. These are to be completed by the deadline in the Course Schedule. The homework will be graded by the TA and instructor based solely on completion. It is very important that you complete this homework, along with other practice problems, in preparation for exams.

Exams

There will be four (50 minute) in class examinations. There will be no make up exams given, unless you have been excused previously. We will allow no more than one make up exam per semester. This is of course unless the circumstances are serious enough to allow for it. The final exam is mandatory in this course and is separate from the four in class exams.

Other Resources

mycourses

Grades, Attendance and Content will all be found on mycourses. In Content, you will find homework, workshop, recitation and exam solutions as well as other helpful materials like formula sheets, videos and supplemental materials.

Academic Accommodations

There are several resources available to students to help them succeed in the classroom. If you are a student in need of extended test time, you should make your professors aware of this with the appropriate documentation from the Academic Accommodations Office. It is your responsibility to deliver all testing envelopes to the professor well in advance of any upcoming exams.

Academic Success Center

Any student who feels they are falling behind in the course can take advantage of our Success Center and private mathematics tutoring. This is a free service and is located in the SAU Second Floor (above the coffee shop). See me for more information if you would like to take advantage of this opportunity.

Bates Study Center

Located on the first floor of Gosnell, the Bates Center is a place where students can get tutoring from the Teaching Assistants, Graduate Students and sometimes professors in their Math courses. The tutors' hours are posted outside the doors of the center. The Bates Study Center is now where students can also find tutors from the Academic Support Center during the hours of 9:00 am to 6:00 pm.

Grading and Course Objectives

Grade Determination

Homework:	15%
Exams:	60%
Final Exam:	25%

Grade Scale

A	$93\% \leq x \leq 100\%$
A-	$90\% \leq x < 93\%$
B+	$87\% \leq x < 90\%$
B	$83\% \leq x < 87\%$
B-	$80\% \leq x < 83\%$
C+	$77\% \leq x < 80\%$
C	$73\% \leq x < 77\%$
C-	$70\% \leq x < 73\%$
D	$60\% \leq x < 70\%$
F	$0 \leq x < 60\%$

Grading Standards and Expectations

You will be assessed on the goals and learning outcomes as laid out on the second page of this syllabus, as required by the academic accreditation agencies. While they may seem rather vague, they will be broken down and discussed with you on a regular basis throughout lectures and workshops.