

CALCULUS III

1. **Instructor:** Dr. Evelyn Weinstock
Mathematics Department
Robinson, Second Floor, 228E
256-4500, ext. 3862
email: weinstock@rowan.edu

Text: Calculus:Early Transcendentals by Jon Rogawski , first edition.

Calculator: A graphing calculator, such as the TI-89.

Additional Supplements: Available online via Math Dept. website are Introduction to the TI-89 and Mathematica for Calculus III.

Office Hours: Mon./Wed./Thurs. 3:05-4:05, or by appointment

2. **Attendance:** You are expected to attend all classes. An attendance sheet will be passed around at the beginning of each class. Please write your signature next to your printed name on the list. If you miss a class, it is YOUR responsibility to study the material covered and do the homework. I will not be able to give you a private lesson.
3. **Attendance at exams:** If you are absent the day of a regularly scheduled exam, a grade of ZERO is automatically recorded on my records as your test grade. You will be permitted to make up this zero only when you can confirm that you were absent for serious reasons beyond your control. In such cases, you must phone 256-4500, ext-3862 (or send me an e-mail) on the day of the exam. Leave a message for me including your name and phone number, the reason for your absence and the date you anticipate returning. Additionally, you must present some type of official documentation (e.g., a doctor's note) that verifies your absence.
4. **Grading Procedure:**
- 83% - 3 Exams
 - 10% - 2 Mathematica Projects
 - 7% - Class Grade

Exams: There will be three exams. The first two exams will be given during the regular semester. The last exam will be given during finals week and is not a comprehensive final exam. Your lowest exam will count 23% of your course grade, and your other two exams will count 30% each.

Mathematica Projects: To enhance our study of Calculus, students will learn a computer algebra system called Mathematica. There will be two Mathematica projects for this course. Each will be worth 5% of your course grade. These projects are to be done in groups (more on groups later). Points will be deducted for projects that are received late.

Class Grade: The class grade is worth 7% of your course grade. It will be determined by your class attendance and your class participation. For the semester, each student will be allowed two absences without penalty. All absences after your two excused absences will lower your class grade appropriately. In addition, repeated tardiness will also result in a lower class grade. Disruptive behavior in class will also lower your class grade. Remarks regarding class participation will be given in class.

<u>Grading Scale:</u>	100-90	A
	89-80	B
	79-70	C
	69-60	D
	below 60	F

Withdrawing: If you are doing poorly, be realistic about your chances and talk to me early. The sooner you make up your mind, the easier it is for you to drop the course in terms of the signatures you will need to get, and the refund you might get as well.

5. **Group Work:** Each student will belong to a group. A group consists of three or four students. Each group will have a leader. Please contact a group member when you miss a class to obtain the homework assignment and class notes. The Mathematica projects are group projects. Students are encouraged to use their groups as support systems for learning the course concepts and preparing for exams. Research has shown students that work in groups do better than students that do not.

6. **Classroom Etiquette:**

Please no talking in class.

Please no eating or drinking in class.

Please no headphones in class.

If you must leave a class early please let me know before class and please excuse yourself as inconspicuously as possible.

Please try to use the restrooms before or after class. If you must use the facilities during class please excuse yourself and re-enter the class in an undistruptive manner.

7. **Academic Honesty:** Cheating on a test or assignment seriously undermines the integrity of the academic system and will not be tolerated. If I determine that a student has cheated, I will assign the grade of F for that exam or quiz. I will also file a RAIV report with the University. Students should refrain from all actions that could cause suspicion. Using common sense on your part should avoid unnecessary embarrassment.

8. **Students with Disabilities and Special Needs:** Your academic success is important. If you have a documented disability that may have an impact upon your work in this class, please contact me. Students must provide documentation of their disability to the Academic Success Center in order to receive official University services and accommodations. The Academic Success Center can be reached at 856-256-4234. The Center is located on the 3rd floor of Savitz Hall. The staff is available to answer questions regarding accommodations or assist you in your pursuit of accommodations. We look forward to working with you to meet your learning goals.

9. **Content:**
 - CHAPTER 12 **Vector Geometry** (Sections 12.1-12.7 inclusive)
 - CHAPTER 13 **Calculus of Vector-Valued Functions** (selected topics)
 - CHAPTER 14 **Differentiation in Several Variables** (Sections 14.1-14.7 inclusive)
 - CHAPTER 15 **Multiple Integration** (Sections 15.1-15.4 inclusive, applications as time permits)

10. **Electronics Policy:**

All laptops, cell phones, etc. must be turned off before class. Each violation of this policy will result in a two point penalty deduction from your course average.

11. **Miscellaneous:**

Use of e-mail: Since I have over one hundred students most semesters, it is difficult to correspond regularly by e-mail on an individual basis. Please use e-mail judiciously. **Please note, I will not e-mail homework assignments, test grades, or course grades.**

SOME THOUGHTS ON MATHEMATICS AND LEARNING

Tom Osler
Math Dept., Rowan University

Why is mathematics different from all other academic subjects?

Some 2300 years ago Euclid, a Greek mathematician, wrote a 13 volume treatise on geometry called *The Elements*. It contained hundreds of theorems. During the past 2300 years, not one of these theorems has been proven wrong. No other subject is like this. Once a mathematical fact has been demonstrated, its truth is evident to all who make the effort to understand it. It remains true forever. All other ancient subjects have changed drastically since they first appeared. Only mathematics remains unchanged, and universally unchallenged.

Also, mathematics is truly universal. A number, a triangle, and a circle are perceived in the same way by a male, female, European, African, Asian, etc. There is no cultural bias in mathematics.

Who is responsible for my mathematical education?

YOU ARE!!! You are an adult attending a university. What you learn from this course depends on how seriously YOU pay attention in class and study outside of class.

How should I learn mathematics?

Begin by doing the homework your professor assigns. You must practice doing mathematics by yourself. Mathematics is not a spectator activity. It is important to attend class, pay attention and ask questions, but watching the professor solve problems is no substitute for your doing problems yourself. Hours and hours of problem solving are necessary to master complex mathematical ideas. Don't be afraid to repeat the homework by doing it a second or third time.

If I get an A or B in the course, have I mastered the subject?

Maybe yes, but maybe no. Some students are able to "ace the test" by cramming a few days before it, and doing little else. In this case, the student might get a high grade, but also quickly forget the material. There is no substitute for spending hours and hours wrestling with the complex ideas presented in a mathematics course. At times students with a high GPA do poorly on national exit examinations such as the Graduate Record Exam or National Teachers Exams. This often reflects their study habits. They work just hard enough to get good grades, but not hard enough to really master the ideas. Remember, there is no substitute for hard work.