

Applied Calculus, Math 107-02

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Office hours: T & Th at 9:00-9:50AM.

Office hours by appointment: M & W 4:30-5:30PM.

Other times by appointment, don't hesitate to contact me if you need extra office hours.

Text: Calculus & Its applications
Goldstein, Lay, Schneider and Asmar
Fourteenth Edition 2018
ISBN 978-0-13-443777-4

Meeting Times: M,W and F 11:00-11:50AM

Students Learning Outcomes

This course will emphasize outcomes in:

- Developing skills to model identify and analyze data.
- Learning a language and symbols such that the students can use precise communication.
- Solving real life problems and interpreting the found solutions.
- Understanding the concept of integral.
- Understanding definite integral as an area under the curve.
- Applying different techniques of integration to solve real life problems.
- Solving problems using partial derivatives.
- Solving double integrals.

At the end of the course, the students will be able to do the Following.

- Solve problems applying definite integral.
- Solve problems involving partial derivatives.
- Apply different techniques of integration.
- Solve problems using double integrals.

Attendance:

A student is expected to attend classes and attendance will be taken each class period. It is important that the students *do not sleep in class* and *do not be late or leave early* class without a valid excuse. These will be considered an absence. There will be no distinction made between excused and un-excused absences. If it is necessary for a student to miss a class, it is the student responsibility to get the class notes. A total of six absences (excused or otherwise) may result in your grade being lowered by up to one letter. A total

of the twelve absences of scheduled class sessions are excessive and it will result in a course grade of F.

Participation:

Show up for class on time and prepared. It means that student has read the appropriate sections from the book plus any handouts. Attending the Citadel Math Lab is considered as class participation. A student may receive a maximum of 12 extra credit points for attending the Math Lab. Indeed, the student will receive one extra credit weekly by attending two or more sections. To receive the credit it is required that you sign the attendances sheet at the Math Lab.

Mon-Th	1:00PM-4:00PM	Thompson Hall 107
Sun-Th	7:00PM-10:00PM	Thompson Hall 203

Participation and Homework:

Homework shall be assigned every class period (it will be online) and it is assumed that an attempt has been made to do that homework by the next class period. The scores of total homework will be in the rank 0-50 points. To register for online homework go to

<http://www.mymathlab.com/>

Course ID: florez06354

Course Name: Applied Calculus, Math 107-02

Quiz:

There will be quizzes (pop or take home). NO MAKE UP quizzes will be given. So, if a student misses a quiz, he/she will receive zero credits. The scores of total quizzes will be in the rank 0-70 points.

Test:

There will be three tests and comprehensive final examination. Note that the final exam is not considered a test. Anyone absent on the day of a scheduled test must provide verifiable written evidence supporting your absence. Failure to do so will result in a score of zero for that test. The instructor gets to determine whether or not an excuse is valid. In particular, guard duty is not an acceptable excuse for missing an assigned test. When possible, students should notify the instructor in advance if they will be unable to take an assigned test. All make-up tests will be given outside of normal class time. A make-up test should be taken in a period of no longer than 8 days of the scheduled test. Failure to do so will result in a score of zero for that test.

Failure to take the final examination will result in an "F" grade for the course. The scores of each test will be in the rank 0-100 points. The scores of Final exam will be in the rank 0-130 points.

I will not answer any question about grades via **E-mail or phone**. I will not hand back any homework, quiz, test or exam to anyone but the person in question. So, if you are not present when I hand back any graded stuff you will need to come to my office during the office hours to pick it up.

General Expectations:

- **Cell phones** are not allowed in class. That is, don't keep phones in your hands.
- **Graphing calculators** are allowed in class, but they are not allowed in tests.
- **School e-mail:** All e-mail communication will go to your school e-mail. Make sure you check this e-mail every day.

Tentative test date:

First test: February 8
 Second test: March 9
 Fourth test: April 13
Final exam: April 27 at 1:00-4:00PM (Friday)

Grading scale

A	B	C	D	F
100-90	89-80	79-70	69-60	59-0

Final grade = (test1 + test2 + test3 + Final E + Quizzes + HW + Math Lab)/5.5

Math Lab is not mandatory, however will receive one extra credit point for each 3 hours a week that you attend Math Lab. Note that there is maximum one credit per week.

Topics Covered

Review: Derivatives

Review: 6.1: Antidifferentiation

Section 6.2: Definite Integrals

Section 6.3: Definite Integrals

Section 0.4: Review

Section 6.4: Areas in the xy -Plane

Section 6.5: Applications of the Definite Integral

Section 7.1: Examples of Functions of Several Variables

Section 7.2: Partial Derivatives

Section 7.3: Maxima and Minima of Functions of Several Variables

Section 8.1: Radian Measure of Angles

Section 8.2: The Sine and the Cosine

Section 8.3: Differentiation and Integration of $\sin t$ and $\cos t$

Section 8.4: The Tangent and other Trigonometric Functions

Section 9.1: Integration by Substitution

Section 9.2: Integration by Parts

Section 9.3: Evaluation of Definite Integrals

Section 9.5: Some Applications of the Integral

Section 9.6: Improper Integrals

Section 10.1: Solutions of Differential Equations

Section 10.2: Separation of Variables

Section 10.3: First-Order Linear Differential Equations

Section 10.4: Applications of First-Order Linear Differential Equations

Section 10.5: Graphing Solutions of Differential Equations

Section 10.6: Applications of Differential Equations

Student Registration Instructions

To register for Applied Calculus, Math 107-02 :

1. Go to www.pearson.com/mylab .
2. Under Register, select **Student** .
3. Confirm you have the information needed, then select **OK! Register now** .
4. Enter your instructor's course ID: florez06354 , and **Continue** .
5. Enter your existing Pearson account **username** and **password** to **Sign In** .
You have an account if you have ever used a MyLab or Mastering product.
 - » If you don't have an account, select **Create** and complete the required fields.
6. Select an access option.
 - » Enter the access code that came with your textbook or that you purchased separately from the bookstore.
 - » If available for your course,
 - Buy access using a credit card or PayPal.
 - Get temporary access.
7. From the You're Done! page, select **Go To My Courses** .
8. On the My Courses page, select the course name **Applied Calculus, Math 107-02** to start your work.

To sign in later:

1. Go to www.pearson.com/mylab .
2. Select **Sign In** .
3. Enter your Pearson account **username** and **password**, and **Sign In** .
4. Select the course name **Applied Calculus, Math 107-02** to start your work.

To upgrade temporary access to full access:

1. Go to www.pearson.com/mylab .
2. Select **Sign In** .
3. Enter your Pearson account **username** and **password**, and **Sign In** .
4. Select **Upgrade access** for **Applied Calculus, Math 107-02** .
5. Enter an access code or buy access with a credit card or PayPal.