

MAT 1575 Calculus II (4 cr, 4 hr) Fall 2018

Course Meetings: D637: TTh 2:15PM - 3:55PM (N718) **Email:** ehalleck@citytech.cuny.edu

Instructor: Ezra Halleck

Phone: (718) 260-5931

Office Hours: MW 2:30-3:30 and by appt

Office: N726

Texts: G. Hartman, et. al, APEX Calculus, version 3.0, CC 2015, volumes I (one section in chap 3) and II (mostly).

Computer software: MATLAB, Mathematica, Maple (all three of these are available for FREE to City Tech students) or a free program like SAGE (which is based on Python).

Course Description: A continuation of MAT 1475. Topics include Taylor polynomials, Mean Value Theorem, Taylor and Maclaurin series, tests of convergence, techniques of integration, improper integrals, areas, volumes and arc lengths.

Prerequisite: MAT1475

Student Learning Outcomes: At the end of the semester, students will be able to

1. Find anti-derivatives using integration by parts, trigonometric substitution, and partial fractions.
2. Apply knowledge of integration to calculate volumes of solids of revolution, areas, and arc lengths.
3. Evaluate improper integrals.
4. Find Taylor polynomials and use Taylor's Theorem to estimate error.
5. Construct infinite series and test for their convergence and divergence.

Attendance: Daily quizzes at the beginning of class should motivate you to arrive on time.

Cell phones: Please turn *off* or place on *vibrate* and out of sight.

Academic honesty: You are encouraged to work in groups on homework, but be able to explain *anything* you turn in. During an exam, showing someone else your work is cheating; you will be treated in the same way as the person who copies. It is your responsibility to cover your work.

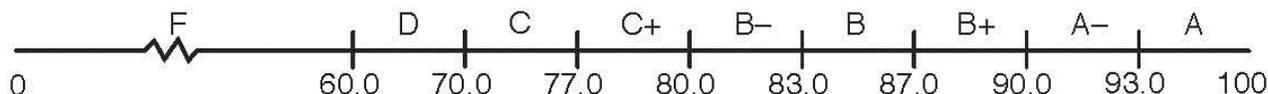
Set enough time aside each week: You are expected to spend 8 hours outside the classroom each week reading the text, watching videos, doing homework and preparing for exams.

Time problems? Here is a damage control priority list:

1. *Read the section prior to the class in which it is covered.* They will facilitate your understanding and participation in class and will frequently be part of the daily quiz.
2. *Attempt at least some of the homework problems immediately after class,* so that you know how much of the class you understood.
3. *Take advantage of office hours:* If you are unable to attend the scheduled hours, make an appointment.
4. *Make use of the Atrium & Voorhees Learning Centers (approximately 9AM-8PM, M-Th, shorter hours on F & Sat):* While some of the tutors are undergraduate students, many are adjunct faculty.
5. The math dept. often arranges for advanced math students to provide tutoring. Stay tuned for more info.

Grade Components:

- 5% class participation (including online)
- 20% WeBWorK
- 40% Best 2 out of 3 midterm exams
- 35% final exam



Homework will not be collected. Instead, [webwork](#) sets will be due on Monday & Wednesday nights.

Quizzes:

There will be a short quiz at the beginning of class based on the material from the previous session. These quizzes will be self-corrected and are mainly meant to provide you feedback as to how you are doing in the course.

The quiz problems will be based on problems from the following 3 sources:

1. [webwork](#);
2. homework problems listed in the course [schedule](#);
3. [final exam review](#).

The material for these quizzes will often be chosen with the final exam in mind (it is advised that you also consult the final exam review prior to each session).

A complete set of attempts (done in pencil) and corrections (done in ink) carefully put together and organized (be sure to put your name, session day, date and topic on each sheet) earns you 10% bonus on your next midterm exam provided that you

1. have missed no more than one class in this period with one additional late <20 minutes (or 2 lates without an absence);
2. submit the packet at the beginning of the exam in question;

If you miss a class or are late, you are responsible for getting the problems from the quiz from a classmate, with the exception of the quiz prior to the exam in question, which you can get from the instructor via email.

Midterm Tests:

Test 1: Thursday, September 27

Test 2: Thursday, October 18

Test 3: Tuesday, November 20

- Latecomers will not receive extra time.
- *No make-up tests will be given.* If you miss a test, that will be the one which is not used in the grade calculation. Any student who misses two tests should seriously consider dropping the course.
- No sample exams will be given for the midterm tests. YOUR DAILY QUIZZES carefully organized, studied and solved will serve this purpose.

Final Exam, Thursday December 20:

Covers all topics studied. It must be taken to pass the course. The department provides a [final exam review](#).

Class Participation:

You are expected to participate in class and in online discussion on the Open Lab. Details will be announced in class, via email or on the openlab. You will be assigned a participation grade out of 10.

A midterm grade (P, BL, U) will be written on your Second Exam when returned to you on Tuesday, Oct 23. The last day to withdraw with a W is Tuesday, Nov 6.

Prefinal Grade:

- Provided 1 week prior to the final exam broken down by component.
- It is up to you to verify the accuracy of this report. In particular, be sure to keep all the material from the course until the final grade has been determined, this includes quizzes and exams.