

Math 141: Calculus with Analytic Geometry II

Prerequisites: Math 140 or Math 140A. Students who do not meet one of these prerequisites may not take this class.

Text: Single Variable Calculus: Early Transcendentals, 6th Edition by James Stewart

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Office Hours:

Monday 9:00AM – 10:00AM
Wednesday 9:00AM – 10:00AM
Friday 9:00AM – 10:00AM

Course Outline

In this course we will cover chapters 7, 10, and 11 of the text.

Techniques of Integration

substitution, integration by parts, trigonometric integrals, integrals involving inverse trigonometric functions, trigonometric substitution, partial fractions, numerical integration, improper integrals

Parametric Equations and Polar Coordinates

curves defined by parametric equations, tangents and areas, arc length, polar coordinates, areas and lengths in polar coordinates

Infinite Sequences and Series

sequences, series, the integral test, comparison tests, alternating series, absolute convergence, ratio test, root test, power series, representing functions using power series, Taylor series, applications of Taylor polynomials

Calculators

Calculators may not be used on any quizzes, exams, or the final. However, some of the homework problems may require the use of a calculator.

Grading

All grades in this course will be given on a scale from 0 to 100. These scores translate into letter grades as follows:

Grade	Letter Grade
92.00	A
90.00	A-
88.00	B+
82.00	B
80.00	B-
78.00	C+
70.00	C
60.00	D

Your final grade in the course will be computed as a weighted average of your individual scores on the quizzes, exams, and final. Each type of grade will be weighed as follows:

Quizzes	15 %
Exam 1	25 % (Tuesday September 29 th)
Exam 2	25 % (Tuesday November 10 th)
Final	35 % (Wednesday December 16 th 10:10AM in 134 Hawthorn)

Homework

You are expected to work and understand **all** of the homework problems. The problems on the quizzes, exams, and the final will be similar to the homework problems. **If you do not work the homework problems then it is very unlikely that you will be able to pass the exams.**

Make-up Policy

The following is an excerpt from Penn State policy 42-27: “Instructors also should provide, within reason, opportunity to make up work for student’s who miss classes for other legitimate but unavoidable reasons. Legitimate, unavoidable reasons are those such as illness, injury, family emergency, or religious observance. If an evaluative event will be missed due to an unavoidable absence, the student should contact the instructor as soon as the unavoidable absence is known to discuss ways to make up the work. **An instructor might not consider an unavoidable absence legitimate if the student does not contact the instructor before the evaluative event.**

Academic Integrity

Any form of cheating on an exam, quiz, or final will result in a 0 for the grade on that test. Serious forms of cheating will be referred to the appropriate University offices and can lead to such punishments as suspension or expulsion from the University.