

MATH 1D

CRN 49270

SECTION 21Y

Topics in this course include partial derivatives, multiple integrals, vector calculus, and their applications.

Instructor: **Dr Zack Judson**

Time: MTWTh 11:30-12:20 Room: G-1

Drop In Hours: MW 7:30-8:20 Room: G-7

TTh 10:30-11:20 Room G-1

Email: judsonzack@fhda.edu

(Note: I will not answer Math questions over email)

Prerequisite: Math 1C or an equivalent course or placement

Text: "Calculus Early Transcendentals, 9th Edition, Stewart"

Student Learning Outcomes

1. Apply analytic, graphical and numerical methods to study multivariable and vector-valued functions and their derivatives, using correct notation and mathematical precision.
2. Use double, triple and line integrals in applications, including Green's Theorem, Stokes' Theorem and Divergence Theorem.
3. Synthesize the key concepts of differential, integral and multivariate calculus.

Accommodations

Those of you who need additional accommodations, due to disability, campus-related activities, or some other reason, please meet with me during the first two weeks of class to discuss your options.

Assignments

Quizzes

Each unit will have two quizzes. These quizzes will be open to your printed notes and homework. These quizzes are intended to be formative, so if you score higher on the corresponding Midterm, these grades will be replaced by your midterm score. Quizzes will represent 15% of your grade.

Exams

Three exams will be given with no make-ups. Each exam will be worth 10% of your grade. If an exam is missed under extreme circumstances and for a very valid reason, an alternative will be found.

Final Exam

A two-hour comprehensive final exam will be given on Monday, June 22, from 11:30am to 1:30pm. The final will represent 40% of your grade.

Asynchronous Lectures.

This class is a hybrid course with 80% taking place with face-to-face instruction. The remaining 20% will be presented through a collection of videos to watch over each weekend. The total time for each group of videos will be about one hour. To honor the time spent watching the videos, there will be a short assessment for you to take while watching the videos. Since, the purpose of these assessments is to reflect the time spent watching the lectures, **alternate correct answers will not be accepted. Only the answer reflected in the videos will be awarded credit.** These lecture check-ins will represent 10% of your grade.

Group Work

In my experience, every calculus class understands the lecture right up until the point they have to work through a problem. To help facilitate this process, we will occasionally break into groups and work on problems and get our hands dirty. This work will take place in small groups at the whiteboards. You will be graded based on your active participation both while you are writing on the board and while others are doing the writing. Remember, if you are not writing on the board, then you are responsible for the content of the solution. The group work will represent 5% of your grade.

Homework

Homework will not be a part of your grade in this course. Some of you will read that sentence and have the mistaken impression that there will be no homework. The only way we can learn mathematics is by practicing mathematics. It is best to think of the homework assignments I assign as minimal problem sets. Students are encouraged to go beyond them. It is recommended that you complete all homework problems from a particular section before we take the quiz covering those sections. You will be allowed to reference your homework problems during the quizzes.

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- Synthesize the key concepts of differential, integral and multivariate calculus.

Office Hours:

M,W 7:30 AM - 8:20 AM

G-7

T,TH 10:30 AM - 11:20 AM

G-1