

Syllabus of Math 2200

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Office Hour: One hour before each class

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Outline of course

I. Prelude to calculus

- 2.1 Tangent Lines and Slope Predictors
- 2.2 The Limit Concept
- 2.3 More about Limits
- 2.4 The Concept of Continuity

II. the derivatives: Rules and differentiation

- 3.1 The Derivative and Rates of Change
- Exam 1 ----
- 3.2 Basic Differentiation Rules
 - 3.3 The Chain Rule
 - 3.4 Derivatives of Algebraic Functions

III. The derivatives: Applications and differentiation of transcendental functions

- 3.5 Maxima and Minima of Functions on Closed Intervals
 - 3.6 Applied Optimization Problems
 - 3.7 Derivatives of Trigonometric Functions
- Exam 2---
- 3.8 Exponential And Logarithmic Functions
 - 3.9 Implicit Differentiation and Related Rates

IV. Additional Application of the Derivatives: Mean Value Theorem and First Derivative Test

- 4.2 Increments, Differentials, and Linear Approximation
 - 4.3 Increasing and Decreasing Functions and the Mean Value Theorem
 - 4.4 The First Derivatives Test and Applications
- Exam 3----

V. Additional Applications of the Derivative: Curve Sketching

- 4.5 Simple Curve Sketching
- 4.6 Higher Derivatives and Concavity
- 4.7 Curve Sketching and Asymptotes

VI. Antiderivatives

- 5.2 Antiderivatives and Initial Value Problems
 - 8.3 Separable Equations and Applications
- Exam 4-----

Grading:

1. 15% for each test (All the grades will be counted. No drop or substitution)
2. 15% for final exam.
3. 15% for homework assignment.
4. 5% for quiz.
5. 5% for attendance. (You can get full credit of this if your absences are less than or equal to 5)

WebWork

For this class we're using a web-based homework system called *WebWork* on <https://webwork.math.uga.edu/webwork2>. Your username is your email username. Your initial password is your 9-digit student ID number in the form 810-xx-xxxx, which you *must enter with the dashes* and you should change after you login for the first time.

Until the assignment is due, **you can try the problems as many times as you like**, and the system will tell you whether or not you have the right answer.

After the assignment's due date, the system will show you the correct answer for each problem when you try it (but your answer won't be scored). **You can not ask for a homework extension after the assignment is due.**

Academic Honesty

The University of Georgia expects every student to live up to the highest standards of academic honesty and ethics. The penalties for academic dishonesty are severe and ignorance of UGA policy is Not an acceptable defense. Student should pay particular attention to sections 5 and 7 of the academic honesty statement found at the link

http://www.uga.edu/honesty/ahpd/culture_honesty.htm

Free Tutoring

The MATHEMATICS STUDY HALL provides FREE math tutoring and is open in **Room 221** on Monday, Tuesday, Wednesday and Thursday in Boyd Graduate Studies Bldg., from 3:30-5:30pm.

Attendance Policy:

The University requires that students attend classes, and warns students that they may be withdrawn from any classes by the instructor with a grade "WF" if they miss more than 5 classes. I will give you a notice when you reach 4 absences.

Withdraw Policy

The University imposes a limit of 4 career withdraws from academic courses for undergraduate students. Students will receive "WP" or "WF" on withdrawing. No "WP" can be assigned after midterm. Withdraw Deadline is Oct. 22.

Disclaimer

This syllabus is a general guideline for the course, but it is subjected to necessary changes over the

course of the semester.