

3450:221 Analytic Geometry - Calculus I

Fall 2012 3450:221-xxx

Text : Calculus:Early Transcendentals, James Stewart, 7th edition, Brooks/Cole 2012

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Office Hours : By appointment

Tentative Course Outline

Week	Section
1	2.1 The Tangent and Velocity Problem 2.2 The Limit of a Function 2.3 Calculating Limits using the Limit Laws
2	2.4 The Precise Definition of a Limit 2.5 Continuity 2.6 Limits at Infinity: Horizontal Asymptotes
3	2.7 Derivatives and Rates of Change 2.8 The Derivative as a Function
4	TEST #1 3.1 Derivatives of Polynomials and Exponential Functions
5	3.2 The Product and Quotient Rules 3.3 Derivatives of Trigonometric Functions 3.4 The Chain Rule
6	3.5 Implicit Differentiation 3.6 Derivatives of Logarithmic Functions
7	3.8 Exponential Growth and Decay 3.9 Related Rates 3.10 Linear Approximations and Differentials
8	3.11 Hyperbolic Functions TEST #2
9	4.1 Maximum and Minimum Values 4.2 The Mean Value Theorem 4.3 How derivatives Affect the Shape of a Graph
10	4.4 Indeterminate Forms and l'Hopital's Rule 4.5 Summary of Curve Sketching
11	4.7 Optimization Problems 4.8 Newton's Method

Week	Section
12	4.9 Antiderivatives TEST #3
13	5.1 Areas and Distances 5.2 The Definite Integral
14	5.3 The Fundamental Theorem of Calculus 5.4 Indefinite Integrals and the Net Change Theorem
15	5.5 The Substitution Rule
16	FINAL EXAMINATION

Course Policies

1. **Incompletes.** These will only be given in **documentable** cases of long-term illness, or similar problems.
2. **Homeworks.** Some homework will be assigned for practice. Said practice is essential, to both learn the material, and to master it. Without this practice, you will likely find that the tests are too long. There may also be extra assignments to be collected and graded. **Neatness, grammar and spelling count on any graded work.**
3. **Quizzes.** There will be regular quizzes given, based on both the recommended and collected homework.
4. **Tests.** If you are going to miss a test (which will be announced approximately one week in advance), you must have a valid, documentable excuse **and** notify me **in advance**, or as soon as reasonable afterward. The make-up will be as soon as possible, generally within a week of the original test date.
5. **Grades.** Final grades will be determined from 600 points, broken down as follows : 3 exams @ 100 points each, homework/quizzes @ 150 points, final examination @ 150 points.

The grade scale will be **no higher than** : A 90-100%, B 80-89%, C 70-79%, D 60-69%, F 0-59%.

6. **Rules.** All University Rules and Regulations are in effect, including those on attendance, discipline, academic honesty and harassment.
7. **Enrollment.** You must be on the class list and properly enrolled in the course to participate, including taking quizzes or tests.
8. **Prerequisites.** The **prerequisite** for the course is a grade of C- or better in 3450:149 PreCalculus (or appropriate placement).
9. **Tutoring.** Students who seek **tutors** may get help from the Peer Tutoring center in Bierce Library.
10. **Important Dates:**