

MATHEMATICS 126 02 : CALCULUS II
Fall Semester 1997

Text: **Thomas & Finney, Calculus, 9th ed.**

Exam schedule:

Hour exams:

| | |
|-----------------------|-------------------|
| Tues. Sept. 23 | at 8:15 am |
| Tues. Oct. 28 | at 8:15 am |
| Tues. Dec. 2 | at 8:15 am |

Final:

Tues. Dec. 16 at 1:45 in the afternoon.

Students with more than 2 finals in one day, or more than 3 finals in a 24 hour period, may negotiate to change the time of one of these finals. If you intend to request to have your 126 final changed please see your instructor as soon as possible. The schedule of finals is known now, so plan ahead.

Grading: The grading will be based on a total of 500 points broken down as follows. The three hour exams will each be worth 100 points. The final will be worth 150 points and homework will count for 50 points. The 500 point total will be curved if needed and letter grades assigned on the basis of percentage of total: 100% to 90% A; 89% to 80% B; 79% to 70% C; 69% to 55% D. Plus and minuses come from the appropriate end of the scales (so 90% and 91% will be A-'s). You might notice that midsemester grades/deficiencies are due before the second hour exam takes place.

Honor Code: You may work together on homework assignments, but the final written solutions should be your own. Tests of course should be entirely your own work.

Absences: To miss an hour exam is serious. As soon as possible, contact me. If you oversleep, see me immediately (during the exam if possible). Absence from the final is more serious still. Unless I have a form from your dean authorizing a grade of X, I have no choice but to compute your grade based on a 0 on the final.

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Office Hrs: Tues. & Thurs. 8 am
or by appointment

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Chapter 6. Transcendental Functions

- 6.1 Inverse functions and their derivatives
- 6.2 Natural logarithms
- 6.3 The exponential function
- 6.4 a^x and $\log x$ to base a
- 6.5 Growth and decay
- 6.6 L'Hopital's rule
- 6.7 Relative rates of growth
- 6.8 Inverse trigonometric functions
- 6.9 Derivatives of inverse trigonometric functions; integrals
- 6.10 Hyperbolic functions
- 6.11 First order differential equations

Chapter 7. Techniques of Integration

- 7.1 Basic integration formulas
- 7.2 Integration by parts
- 7.3 Partial fractions
- 7.4 Trigonometric substitutions
- 7.6 Improper integrals

Chapter 8. Infinite Series

- 8.1 Limits of sequences of numbers
- 8.2 Theorems for calculating limits of sequences
- 8.3 Infinite series
- 8.4 The integral test for series of nonnegative terms
- 8.5 Comparison tests for series of nonnegative terms
- 8.6 The ratio and root tests for series of nonnegative terms
- 8.7 Alternating series, absolute and conditional convergence
- 8.8 Power series
- 8.9 Taylor and Maclaurin series
- 8.10 Convergence of Taylor series; error estimates
- 8.11 Applications of power series

Chapter 9. Conic Sections, Parametrized Curves, and Polar Coordinates

- 9.1 Conic sections and quadratic equations
- 9.2 Classifying conic sections by eccentricity
- 9.4 Parametrizations of plane curves
- 9.5 Calculus with parametrized curves
- 9.6 Polar coordinates
- 9.8 Polar equations for conic sections
- 9.9 Integration in polar coordinates