MATH 124 SYLLABUS

October, 1998

Prerequisites: One of the following

- A minimum grade of 2.5 or S in UW Math 120 or B- in a course which transfers to UW as Math 120.
- a score of 67% or higher on the *Advanced Math Placement Test.*
- A score of AP-2 or higher on either AP math test.

Text, materials:

- *Math 124: Calculus I, 1998-1999* by Neal Koblitz, available at Professional Copy, 4200 University Way N.E.
- *a scientific calculator*
- **Optional:** HBJ College Outline Series: *Calculus*, 1984, Harcourt, Brace, and Javanovich.

Course Description: Math 124 and 125 is a two-quarter introduction to single variable calculus. It covers differentiation and integration of functions of one variable and techniques for solving simple first order differential equations. The sample tests and copies of previous 124 final exams repreinted in the Lecture Notes give an idea of the skills students are expected to acquire.

Like UW Math 120, the course emphasizes word problems, with particular emphasis on multistep problems. The course requires reading and reasoning skills, and fully developed computational skills at the level of UW Math 120.

Final Exam: All sections of Math 124 have the same final examination which is given on the first Saturday after the last day of instruction. Each of the 124 instructors will be asked to contribute problems. You will receive detailed information in time.

Outline of syllabus by weeks of the quarter

The syllabus below is an outline only. The scheduling of the two midterms takes into account the current UW policy on dropping courses. There are likely to be carry-overs back and forth from day to day or week to week, and adjustments may have to be made for holidays.

WEEK 1 Chapter 3 *Instantaneous Rate of Change: The Derivative*
Chapter 4 *The Derivative Function*

(over)

WEEK 2	Chapter 4 *The Derivative Function* Chapter 5 *The Tangent Line Approximation*
WEEK 3	Chapter 6 *Rules for Finding Derivatives* *Review for Midterm #1.* *Midterm #1.*
WEEK 4	Chapter 7 *Implicit Functions and Implicit Differentiation* Chapter 8 *Trig Functions and Sinusoidal Functions*
WEEK 5	Chapter 8 *Trig Functions and Sinusoidal Functions* Chapter 9 *Derivative of Trig Functions*
WEEK 6	Chapter 10 *Curves Given Parametrically* Chapter 11 *Combined Parametric Motions*
WEEK 7	Chapter 12 *Related Rates* Chapter 13 *Curve Sketching*
WEEK 8	*Review for Midterm #2* *Midterm #2* Chapter 14 *Maximum/Minimum Problems*
WEEK 9	Chapter 15 *Newton's Method*
WEEK 10	Chapter 16 *Indefinite Integrals* Chapter 17 *Definite Integrals: Area*
WEEK 11	Chapter 18 *The Fundamental Theorem* *Review for final exam.*