MATHEMATICS 202 A2
FALL SEMESTER 1991-92

TITLE: ELEMENTARY CALCULUS I

SCHEDULE:

Class:	Tuesday , Thursday	11:00 am - 12:20 pm
Seminar:	Tuesday	3:00 pm - 4:50 pm
	Wednesday	3:00 pm - 4:50 pm

INSTRUCTOR:
Dr. Subhash Karnik
Office: J206
Extension: 2093

TEXT:
i) Howard Anton; Calculus with Analytical Geometry.(Third Edition/Brief Edition)

ii) Albert Herr; student's solution manual to accompany (i)

MARKING:

Final	35%
Term test 1	15%
Term test 2	20%
Quizzes	20%
Assignments	10%

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE

MATHEMATICS 202/203

ELEMENTARY CALCULUS I 3 - 2 MA 202
3 - 1.5 MA 203
UT(3)

Review of analytic geometry. Functions, limits, continuity. Differentiation of elementary functions. Applications of maxima, minima and rates. Introduction to Integration. Fundamental theorem. Numerical integration. Area and other applicatons of the definite integral.

Prerequisite
Students with MA 30 and MA 31 background take MA 203 while students with MA 30 only background take MA 202.

Note: The course description for MA 202/203 and MA 212 are very similar. MA 212 is for Engineering students only. MA 202/203 is primarily for other students intending on doing further courses in calculus.

This course is listed among the requirements in honors programs in almost all Science subjects. It is a requirement for many specialization programs in Science subjects including Mathematics, Physics, Geology, Computing Science and Chemistry. It is a requirement in the Agriculture, Forestry, Pre-Veterinary and Pre-Medicine programs. It is also required in the secondary Education program (Mathematics Specialization), and in the Business Administration and Commerce program.

Detailed Description:

Review of inequalities, lines and functions.

Limits, limit theorems, continuity (includes trigometric limits).

The definition of the derivative, rules for finding derivatives.

Differentials, trigonometric differentiation.

Implicit differentiation, higher derivatives.

Applications of the derivative, antiderivatives, maxima and minima, rates, curve sketching.

Rolle's Theorem and the Mean Value Theorem for derivatives.

Area under a curve, definition of definite integral.

The fundamental Theorem of Calculus, calculation of simple integrals.

Numerical integration, trigonometric integration.

Applications of the definite integral.