

SEP. 10 2002

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF COMPUTING, MATHEMATICS and STATISTICAL
SCIENCES

MATHEMATICS 1130 B2
FALL SEMESTER 2002

TITLE: ELEMENTARY CALCULUS I
SCHEDULE: Class:
Wednesday, Friday 1:00 pm - 2:20 pm J227
Seminar:
CS1 Monday 2:30 pm - 4:20 pm J229
CS2 Tuesday 2:30 pm - 4:20 pm J227

INSTRUCTOR: Dr. LakshmaREDDY Ganta
OFFICE: J 220
TELEPHONE: 539 - 2850

TEXT: i) Single Variable Calculus, 4th Edition, James Stewart.
ii) Student Solutions Manual, Stewart.

Calculators: No Calculators are permitted quizzes, term tests
and Final Exam.

GRADING:
Quizzes/Worksheets/Assignments 15%
Term Test-1 20%
Term test-2 20%
Final exam 45%

SCHEDULE OF EXAMINATIONS:

Term test 1 : Friday , October 18, 2002 (Tentative)
Term test 2 : Friday , November 15, 2002 (Tentative)

Final Examination : Will be scheduled by Registrar's Office
in December 2002.

Math 1130

MA 1130 Elementary Calculus I 3 (3 - 2 - 0).

Math 30 is a pre-requisite for this course.

The following topics are covered in this course :

- i) Functions and their graphs
- ii) Limit of a function, Calculating Limits using the Limit Laws, Limits of Trigonometric Functions
- iii) Continuity
- iv) Derivatives, Differentiation Formulas, Derivatives of Trigonometric Functions, Chain Rule, Implicit Differentiation, Higher Derivatives, Related Rates, Differentials, Linear and Quadratic Method, Newton's Method, Rates of Change in Natural and Social Sciences
- v) Maximum and Minimum Values, Mean Value Theorem, Increasing and Decreasing Functions, First Derivative Test, Concavity and Points of Inflection, Second Derivative Test, Limits at Infinity, Horizontal and Vertical Asymptotes, Curve Sketching, Applied Maximum and Minimum Problems, Applications to Economics, Anti-derivatives
- vi) Sigma Notation, Area, Definite Integral, Fundamental Theorem of Calculus, Substitution Rule, Areas between Curves.