

GRANDE PRAIRIE REGIONAL COLLEGE  
DEPARTMENT OF SCIENCE  
COURSE OUTLINE

**MATHEMATICS 204 A3**  
WINTER SEMESTER 1991 - 92

**TITLE:** Elementary Calculus II

**SCHEDULE:** Monday, Wednesday, Friday 9:00 am - 10:00 am J 227  
Tuesday/Thursday 9:30 am - 10:50 am E 306

**INSTRUCTOR:** LakshmaREDDY Ganta

**OFFICE:** J 220

**TELEPHONE:** 539 - 2850

**CONSULTATIONS:** Monday 10:00 am - 11:00 am  
Friday 10:00 am - 12:00 noon AND  
ANY TIME THAT IS CONVENIENT TO BOTH YOU AND ME

**TEXT:** i) Howard Anton; Calculus with Analytical  
Geometry (Third Edition/Brief Edition)  
ii) Albert Herr; Student's Solution Manual to  
accompany (i)

**COMPOSITION OF THE COURSE GRADE:**

Final Exam	35%
Term Test - 1	15%
Term Test - 2	20%
Quizzes	20%
Assignments	10%

**ASSIGNMENTS:** Must be legible using proper notation. NO LATE  
ASSIGNMENTS. Any work handed in late will be  
marked for errors but will not receive a grade.

## MATHEMATICS 204

MA 204    Elementary Calculus II  
3(3-1.5)    UT(3)    WINTER

Applications of integration to areas, volumes, work, arc lengths. Differentiation and integration of exponential, logarithmic and trigonometric functions. Techniques of integration. Indeterminate forms and improper integrals.

Prerequisite:    MA 202, MA 203    or    MA 212

### Detailed Description

Application of integration such as areas, volumes using the slab method, volumes of revolutions, the shell method, arc length, area of a surface of revolution, work, mass, moments, center of mass. The functions  $\ln x$ ,  $e^x$ , other bases, logarithmic differentiation and integration, inverse trigonometric functions, their derivatives, hyperbolic functions - derivatives and integrals. Integration by parts, partial fractions, substitution, improper integrals, Taylor series.