GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE
MATHEMATICS 1010 A3
WINTER 2007

Title: Calculus II

Prerequisite: Math 1000

Schedule:

Lecture A3	M	W	F	09:00-09:50	J202
Seminar AS1			F	10:00-10:50	J202

Instructor: Thomas Kaip
Office: J212
Phone : 2963
e-mail : kaip@gprc.ab.ca

Textbooks: James Stewart; Calculus Early Transcendental 5th Ed.

Grading:

Assignments	10%
Quizzes	15%
Midterm	25%
Final Exam	50%

Content: Techniques of integration. Applications of integration to planar areas and lengths, volumes and masses. Introduction to differential equations: laplace transforms, separable, linear, direction fields, Euler's method, applications. Infinite series, power series, Taylor expansions with remainder terms. Polar coordinates. Rectangular, spherical and cylindrical coordinates in 3-dimensional space. Parametric curves in the plane and space: graphing, arc length, curvature; normal binormal, tangent plane in 3-dimensional space. Volumes and surface areas of rotation.

Quizzes : Quizzes will be held in the latter 30 minutes of the seminar. There will be a total of n Quizzes. The best n-2 quizzes will count towards your grade.

Calculators : Calculators **WILL NOT** be allowed in quizzes and exams.