GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY
MATHEMATICS 2140 A2
Fall 1998

Title: Intermediate Calculus I

Prerequisite: Mathematics 1150 or Mathematics 1010

Corequisite: Mathematics 1200

Schedule: Lectures   M W F   12:00 to 12:50 in J228
                    Seminars AS1   R   13:30 to 14:20 in J

Instructor: Thomas Kaip
                    Office J212
                    Extension 2963
                    Email   kaip@gprc.ab.ca   (office) or
                               kaip@telusplanet.net   (home)

Textbook: James Stewart, Calculus (3rd Edition)

Topics: - Sequences, Series
                    - Tests for convergence and divergence
                    - Power, Taylor, Maclaurin and Binomial Series
                    - Vectors, dot and cross product
                    - Equations of lines and planes, Quadric Surfaces
                    - Vector functions, Space curves, Length and
                      Curvature
                    - Functions of several variables
                    - Limits, Continuity and Partial derivatives
                    - Tangent Planes, Differentials and Chain rule
                    - Directional derivatives and Gradient vectors
                    - Maximum and Minimum values, Lagrange Multipliers

Grading: Assignments   25%
                    Midterm Exam   25%
                    Final Exam   50%

Midterm: The midterm examination will be held during the
                    week of Oct. 13 - Oct. 16.

Assignments: Assignments will be given (approximately) weekly.

Final Exam: The final exam will be scheduled by the
                    registrar's office.