MATHEMATICS 2150 A3
WINTER SEMESTER 1995-96

TITLE: Intermediate Calculus II

SCHEDULE: Monday, Wednesday   8:00 am - 8:50 am   J204
                Tuesday   1:30 pm - 2:20 pm   J204
                Friday (seminar)   8:00 am - 8:50 am   J204

INSTRUCTOR: Dr. Subhash Karnik
                Office: J 206
                Phone Extension 2093

TEXT: STEWART, James: Calculus with Analytic Geometry

MARKING: Final   35%

                Mid-term Test   25%

                Quizzes   25%

                Review Quizzes   15%

SCHEDULE OF EXAMINATIONS :

        Mid-term test : Tuesday, February 20, 1996 (tentative)

        Final Examination : As will be scheduled by Registrar's
Office in April 1996.

        Quizzes, term tests and the final examination must be
written at scheduled times.

MATH 2150   Intermediate Calculus II 3 (3-0-1)

PREREQUISITE : Math 2140 or equivalent

DETAILED DESCRIPTION:

Vector-valued functions. Limits, derivatives and integrals. Curvature. Tangential and Normal Components of Acceleration. Kepler's Laws.

Double integrals, areas, volumes, moments and center of mass, double integrals in polar co-ordinates.

Triple integrals, application of triple integrals, triple integrals in cylindrical and spherical co-ordinates, surface area. Vector fields, line integrals, independence of path, Green's Theorem, Surface integrals, The Divergence Theorem, Stokes' Theorem, Transformation of co-ordinates, change of variables in multiple integrals.

Separable and first-order linear differential equations, exact differential equations, homogeneous differential equations, second-order linear differential equations, Non-homogeneous linear differential equations, series solutions of differential equations.