# GRANDE PRAIRIE REGIONAL COLLEGE MATH 2140 A2 FALL 1999

SEP 0 6 2000

Title:

Intermediate Calculus I

Schedule:

Tues., Thur.

11:30 - 12:50

J202

Tues.

9:00 - 9:50

A304

Instructor: Dr. Eric Chislett

Office C409

Phone 539-2003

Textbook: i) Calculus, Early Transcendentals, 4rd Edition, James Stewart

Brooks/Cole Publishing Company.

ii) Student Solutions Manual, by James Stewart, Daniel

Anderson, Daniel Drucker, Brooks/Cole Publishing Company.

The course covers chapters 10, 11, 12, and 14 of the above text.

Grading:

Assignments

20%

Midtern Exam

30%

Final Exam

50%

Assign'ts:

There will be 10 assignments given during the term, one per

week. Given out on Thursdays and due the following Tuesday.

Seminars: The assignments are usually finished during the seminars. But

you do not have time in this one hour period to do all of an

assignment.

Midterm:

The Midterm Exam will be given on Thur. Oct. 28 during the

class period.

Final:

The Final Exam time is set by the Registrar's office.

## MATH 214 - Intermediate Calculus I

\*3.0 (fi) (either term, 3-0-0)

### Calendar description:

Infinite series. Plane curves and polar coordinates. Three dimensional analytic geometry. Partial derivatives.

Prerequisite: MATH 115 or equivalent.

Note: This course may not be taken for credit if credit has already been obtained in MATH 209 or MATH 217

#### Sections offered this term:

(see Course Timetable)

### This course is listed among the

- prerequisites or corequisites for the courses:
  CMPUT 304, 340, 406, 418, 422; GEOPH 437, 438; MATH 201, 215, 280, 334, 336; PHYS 281, 301, 302; STAT 221, 222, 265, 266, 471.
- requirements or recommendations of the programs:
  BA in Mathematics; BEd Major or Minor in Secondary Education; BSc (Sciences Mathématiques);
  Honors or Specialization in Chemistry, Computing Science, Physical Geography, Geophysics,
  Meteorology, Physics, Statistics; Specialization in Mathematics, Mathematics and Economics,
  Mathematics and Finance, Mathematics and Statistics for Actuarial Science; Honors in Physiology

### Detailed Description:

- 1. Infinite series; tests for convergence, Taylor's formula with remainder, power series.
- 2. Parametric representation of plane curves, arc length.
- Polar coordinates, area, are length, conics.
- 4. Partial derivatives, directional derivatives, gradient, tangent planes.
- Maxima and minima. Lagrange multipliers.

#### References:

Last modified: July 29, 1999 webmaster@math.ualberta.ca