

Lakehead University

Department of Mathematical Sciences

MATH 2131 – VECTOR CALCULUS Winter 2012

Course Outline

Instructor: Dr. Deli Li

Office: RB-2003

Phone: (807)343-8231

E-mail address: dli@lakeheadu.ca

Description: Coordinate systems and vectors; parametric curves and surfaces; partial differentiation; multiple integration; vector fields; and vector calculus including Green's theorem, Stokes' theorem, and the divergence theorem.

Credit Weight: 0.5

Prerequisite: MATH-1172 or permission of the Chair of the Department of Math Sciences

Textbooks: **Book 1** **Calculus: One and several variables, 10th Edition**
by S. Salas, G. Etgen, E. Hille

Book 2 **Student Solution Manual for Book 1 (Recommended)**

Course Content: We will cover Chapters 13-18, inclusive.

Lectures: **Tuesday and Thursday 11:30 AM – 01:00 PM in RB-2024**
Pre-reading related sections in the textbook is expected.

Office Hours: **Tuesday & Thursday 1:30 p.m. - 4:30 p.m. or by appointment.** For an appointment, please email the instructor.

Course Requirements

Assignments (25%): A list of assignment problems will be given to students during each Tuesday class period and are due on the Friday of the following week prior to 6:00 PM. Assignments should be dropped in the MATH-2131 Assignment Box on the second floor of Ryan Building before the due time. In fairness to other students, late assignments will not be marked under any circumstances. Sloppy writing may face a mark penalty up to 25%. There will be about 11 assignments worth 25% of your final mark. The lowest assignment mark will be dropped when calculating your average assignment mark. Solutions to the problems of each assignment will be distributed by e-mail.

Midterm (25%): The midterm exam will be written in the classroom during the regular class time on **Tuesday 28 February 2012. The exam will be closed book with no calculators or other aids allowed. No make-up test is provided for any student who misses writing the midterm exam at the scheduled time.** If there is a legitimate (documented) reason, the final mark will be calculated on the basis of the final exam. Otherwise, a grade of **0%** for the missed exam will be averaged with other grades. The material the midterm exam will cover will be announced in class as the date draw near.

Final Exam (50%): The final exam will be written in the scheduled three hours. The final exam will be scheduled by the registrar's office. **The exam will be closed book with no calculators or other aids allowed. The final exam will cover the whole course.** Further details will be provided closer to the exam dates.

Marking Disputes: If you feel you have been treated unfairly in the marking of the midterm exam or an assignment, **put your complaint in writing on the front of the paper and return it to the instructor.** Do not put it back in the Assignment Box.

Drop Date: The final date to withdraw from this course without academic penalty is Wednesday 07 March 2012.

Academic Dishonesty: All cases of academic dishonesty will be dealt with according to the University's Code of Student Behaviour and Disciplinary Procedures, copies of which are available from the Registrar.