# THE UNIVERSITY OF WESTERN ONTARIO London Ontario

## **APPLIED MATHEMATICS 2276**

Applied Mathematics for Electrical and Mechanical Engineering III

Course Outline

2016

## **Instructors:**

Prof. C. Essex:	MC 270	Lecture	001	M W F	08:30-09:30	NSC 1
Y. Wang	MC 275B	Tutorial	002	Tu	08:30-09:30	SSC 3028
C. Zhao	MC 275G	Tutorial	003	Tu	09:30-10:30	SH 3345
S. Gupta	MC 275L	Tutorial	004	M	10:30-11:30	AHB 1B04
A. Li	MC 275K	Tutorial	005	Th	15:30-16:30	SH 2316

#### Texts:

- Calculus: A Complete Course, 8<sup>th</sup> edition, Adams and Essex, ISBN: 978-0-321-78107-9
- Advanced Engineering Mathematics, 5<sup>th</sup> edition, Zill and Wright, ISBN 978-1-4496-9172-1 (Note: Both of these books were required in previous mandatory courses)

## **Overview of the Course:**

A review of orthogonal expansions of functions and Fourier series and transforms, multiple integration with methods of evaluation in different systems of coordinates, vector fields, line integrals, surface and flux integrals, the Green, Gauss and Stokes theorems with applications.

# Method of Evaluation:

20% Division I Quizzes 20% Division II Quizzes

60% Final Examination

All evaluations will be *closed book*. *No* electronic or computational aids will be permitted.

<u>Missed Evaluations:</u> Missing an evaluation will result in a grade of zero for that exam or quiz, unless permission is granted from the Associate Dean of Engineering. If permission is granted there will be no makeups for quizzes. The mark will be forgiven or estimated.

# **Registration in Tutorials**

Students <u>will not receive credit</u> for writing quizzes in tutorial sections in which they are not registered. You are expected to know which tutorial section you are registered in, and your attendance at each tutorial date is required.

#### General University Details:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your faculty's Dean Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructors once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from your Dean's Office immediately. For further information please see: <a href="http://studentservices.uwo.ca/secure/index.cfm">http://studentservices.uwo.ca/secure/index.cfm</a> A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Records Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be founded at: <a href="http://studentservices.uwo.ca/secure/medical\_document.pdf">http://studentservices.uwo.ca/secure/medical\_document.pdf</a>
Students who are in emotional/mental distress should refer to Mental Health@Western http://www.uwo.ca/uwocom/mentalhealth/ for a complete list of options about how to obtain help. Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext 82147 if you have questions regarding accommodation.

Learning-skill counselors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counseling. The website