### WESTERN UNIVERSITY

### **APPLIED MATHEMATICS 1413**

Applied Mathematics for Engineers I

### **Course Outline**

Summer Evening 2019

### **Instructor:**

Prof. K. Nguyen: Section 001 MW Th 7:00-9:30 PM in PAB 150 Office MC 282

**Texts:** 

• Calculus – A Complete Course, 9th edition, Adams and Essex, Pearson. (Required)

• Mathematical Handbook, 2nd ed., by Spiegel & Liu, ISBN# 0-07-0382034 (Optional)

## **Overview of the Course:**

Limits, continuity, differentiation of functions of one variable with applications, extreme values, integration, the fundamental theorem of calculus, methods and applications of integration to areas, volumes and engineering applications. Sequences and series, convergence, power series. Vector functions, partial differential calculus, gradients, directional derivatives and applications.

A list of suggested exercises will be provided; it is strongly recommended that you solve all of them.

## Method of Evaluation:

20% quizzes (approximately one every two weeks)

15% Midterm Test 1 - Friday, May 31, 2019, 7pm – 8:30pm (Location tba)

15% Midterm Test 2 - Friday June 28, 2019, 7pm – 8:30pm (Location tba)

50% Final Exam – July 29 or July 30. Examinations will be closed book. No computational aids will be permitted.

# There will be no 100% option for the final exam.

# **Missing Quizzes and Exams:**

Missing an exam or quiz will result in a grade of zero for that exam or quiz, unless permission is granted from Engineering Student Services. If permission is granted, a prorated mark will be assigned. There will be no makeups for quizzes or midterms.

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## Addendum to all Applied Mathematics Course Outlines

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's Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor 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 faculty's Dean's Office immediately. For further information please see: http://studentservices.uwo.ca/secure/index.cfm

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 found here: https://studentservices.uwo.ca/secure/medical\_document.pdf

### **Mental Health Statement:**

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.

## Accessibility:

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.

## **Support Services:**

Learning-skills 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.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.

The website for Registrar Services is http://www.registrar.uwo.ca.