

The University of Western Ontario  
London, Ontario Canada

Department of Applied Mathematics  
APPLIED MATHEMATICS 2270A  
Course Outline 2017

Instructors:

Dr. Bogdan Tudose (Office MC 286) Section 001  
Monday, Wednesday, Friday : 8:30am -9:20am MC-110

Dr. Khoa Nguyen (Office MC 282) Section 002  
Monday, Wednesday, Friday : 8:30am -9:20am SSC-2050

Dr. A.B. MacIsaac (Office MC 285) Section 003  
Monday, Wednesday, Friday : 9:30am -10:20am AHB-1R40

Tutorials:

004	TUT	Friday	12:30 PM	1:30 PM	SEB-2100
005	TUT	Friday	10:30 AM	11:30 AM	FNB-3210
006	TUT	Friday	11:30 AM	12:30 PM	FNB-3210
008	TUT	Friday	12:30 PM	1:30 PM	SSC-2024
009	TUT	Friday	10:30 AM	11:30 AM	SEB-2100
011	TUT	Friday	11:30 AM	12:30 PM	SEB-2100
012	TUT	Wednesday	3:30 PM	4:30 PM	SSC-2032

Office Hours: TBD

plus by email appointment! ( put AM2270 in the subject line and use your UWO email address. )

Text:

Advanced Engineering Mathematics, 6th edition, Zill (required) (No need to take book to class. )

May also use

Advanced Engineering Mathematics, 5th edition, Zill and Wright ISBN 978-1-4496-9172-1

Course Description:

This (half) course is designed to provide all second year engineering students with an introduction to the field of differential equations, with special emphasis on methods and applications that are most useful in the engineering sciences. Topics include first order differential equations of various types, higher order differential equations and methods of solving them, initial and boundary value problems, applications to mass-spring systems and electric RLC circuits, Laplace transform and its use for solving differential equations, systems of linear differential equations, orthogonal functions and Fourier series.

**Method of Evaluation:**

20% quizzes Q1: Sept 27th and 29th Q2: Nov 1st and 3rd Q3: Nov 22nd and 24th  
( 50 minutes each during Tutorial Sessions )

30% midterm exam- Thursday, October 19, 2017, 7:00pm-9:00pm

50% Final Exam (TBD)

**Attendance:**

Attendance is not mandatory but highly recommended. All material in the lecture up to the end of the course can be considered testable. In addition, extra material covered in lectures can be tested in quizzes, tests and exams.

**Missing Quizzes or Exams:**

Missing an exam or quiz will result a grade of zero for that exam or quiz except when permission is granted from Engineering Student Services. If permission is granted, a prorated mark will be assigned. There will be no make up for quizzes or midterm.

**Registration in Tutorials:**

Quizzes will be written during Tutorial session. Students will not receive credit for writing quizzes in tutorial sections in which they are not registered.

**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](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 Registrarial Services is <http://www.registrar.uwo.ca>.