

The University of Western Ontario
London Canada
APPLIED MATHEMATICS 2277B
Course Outline
2018

Instructor:

Prof. T.E. Moschandreou Section 001: M W F 8:30am-9:30am, AHB-1R40. Office MC 250

Tutorials:

- Tutorial 003 F 11:30am-12:30pm SEB 2202
- Tutorial 004 M 2:30pm-3:30pm SEB 2202
- Tutorial 005 T 11:30am-12:30pm SSC 2036

Website:

Course announcements, material and information will be posted at <https://owl.uwo.ca>

Text:

- **Advanced Engineering Mathematics**, 6th edition, Zill and Wright, ISBN 978-1-284-10590-2.
Optional
- **Calculus, A Complete Course**, 8th edition by R. A. Adams and C. Essex, Pearson 2015.

Course Description:

This half-course is designed for chemical, civil and green process engineering students with an introduction to systems of differential equations, partial differential equations and multiple calculus with special applications that are most useful in the engineering sciences. Topics include solving systems of odes by the method of eigenvalue, partial differential equations, integral transform method and its use for solving partial differential equations, multiple integration and its applications.

Method of Evaluation:

20 % quizzes

30% Midterm exam: **Friday March 2, 2018**, 7:00pm-9:30pm

50% Final Exam

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, midterm and final exam. Dates for quizzes will be announced in class. Absence from class on the day of announcement is not a valid excuse for missing those dates.

Missing quizzes or Exams:

Missing a quiz or an exam will result in a grade of Zero for that quiz or exam 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:

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 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 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 at: http://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 Service for Students with Disabilities (SSD) at 661-2111 ext 82147 if you have questions regarding accommodation.

Support Services:

Learning-skill counselors at the Student Development Centre (<http://sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentation 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 of Office of Registrar is <http://www.registrar.uwo.ca>.

AM2277B PROBLEM SET

Section 10.1: 1-25 (odd).

10.2: 1,3,5,13,19,21,29,33,35,37, 46, 49

10.4: 1,3,5,9,11,13,15,17,19,21,23,25,27,29,31,33.

Section 15.1: 1-15 (odd).

15.2: 1-25 (odd).

Section 9.10: 1-61 (odd)

9.11: 1-35 (odd)

Section 9.15: 1-79 (odd)

9.8: 1-37 (odd)

9.9: 1-31 (odd)

9.12: 1-15 (odd) , 21a)

9.13: 1-37 (odd), 38

9.14: 1-17(odd)

9.7: 1-37 (odd)

9.16: 1-15 (odd), 19, 21

9.6: 15-23 (odd)