The University of Western Ontario
London **Ontario**

Applied Mathematics 3415a
Applied Mathematics for Electrical Engineering II

Course Outline – Fall 2013

Instructor: Pei Yu
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Office hours: Tuesday   4:30 – 5:30 pm   MC283

Lecture: Mon & Wed   11:30am – 12:30 pm UCC 37
                  Fri   12:30 – 1:30 pm   SSC 2050

Tutorial: Thursday   1:30 pm - 2:30 pm   SSC 2050

Textbooks:

   Advanced Engineering Mathematics by Dennis G. Zill / Warren S. Wright,
   4th Edition 2011, Jones & Barlett, ISBN 978-0-7637-7966-5.

Course Content:
This is a special course designed for electrical engineers that combines traditional topics of
partial differential equations and functions of a complex variable. The topics to be covered are
   1. Sturm-Liouville Problems
   2. Orthogonal series expansions
   3. Boundary Value Problems in Cartesian Coordinates
   4. Integral Transform Methods in solving Partial Differential Equations
   5. Functions of a complex variable
   6. Integration in the Complex Plane
   7. Complex Series and Residues
   8. Conformal Mapping

Homework:
Homework problems will be posted on WebCT (https://owl.uwo.ca/portal) and students are
encouraged to do the assigned problems as many as possible. These problem sets are designed to
enhance understanding of the lecture and to develop problem solving skills. In addition, these
assigned problems may be asked in quizzes or in the midterm and final exams.

Attendance:
Attendance at tutorials is mandatory.

Grading:

Quizzes:	15%
Midterm exam:	35%
Final Exam:	50%

Examinations and Quizzes:
All material in the lecture up to the end of the course can be considered testable. In addition, extra material is covered in lectures which may be asked in quizzes, tests or exams. For this reason, students are strongly advised not to miss class and NEVER miss two or more classes in a row. Dates for quizzes will be announced in class. Absence from class on the day of an announcement is not a valid excuse for missing those dates.

Quizzes: will be in tutorials. Missing a quiz or an exam will result in a grade of zero for that quiz or exam, unless permission is granted from the Associate Dean of Engineering. If permission is granted, a prorated mark will be assigned. There will be no makeup quizzes or midterm exam.

Midterm Exam: Friday, October 18, 2013, 7-10 pm, Rooms TC 342 and 343

Log into **WebCT** (https://owl.uwo.ca/portal) for individual term grades, assignments, solutions to assignments and important announcements.

Addendum to all Applied Mathematics Course Outlines

Accessibility Statement: Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

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://www.uwo.ca/univsec/handbook/appeals/medical.pdf

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