

Department of Mathematics
Math 2132
Engineering Mathematical Analysis, Winter 2015.

Instructor: Adam Clay
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Office hours: MW 3:30-5:00
Email: Adam.Clay@umanitoba.ca
Lectures: MWF 8:30am-9:30am EITC E3 270
Tutorials: Tuesdays, 11:30am-12:45am EITC E3 270

Course website: http://server.math.umanitoba.ca/~claya/math2132_2015.html

This website contains all the information on this sheet, but I will also scan my class notes and post the PDF files there. They will be hand-written and may possibly contain mistakes, but may be useful as study material.

Textbooks: *Calculus for Engineers*, fourth edition, Donald Trim, Prentice-Hall, together with supplementary notes available at:

<http://home.cc.umanitoba.ca/~dtrim/Courses/Math2132/Laplacechapter.pdf>

Course outline:

1. Infinite series, Taylor and MacLaurin series, and applications to limits and integrals.
2. Solving various types of differential equations, such as separable, linear first order and linear n-th order using a variety of techniques.
3. Laplace transforms, their properties and using them to solve differential equations.

Marking: There will be two tests and one exam. Tests will be held during tutorials, on dates which will be announced in class and on the course website. Each test will count for 20% of the final grade, the exam will count for 60%.

Calculators are not allowed on tests or final exams. Formula sheets are not allowed—if you need a formula that you are not expected to remember, it will be provided.

Notes:

1. There will be no make-up tests. If you miss a test, you will be given a score of zero unless you provide supporting documentation which clearly indicates that your absence was necessary.
2. The VW deadline is March 19.
3. Mid-term break is Feb 16-20.

Academic Dishonesty: The Department of Mathematics, the Faculty of Science and the University of Manitoba regard acts of academic dishonesty in quizzes, tests, examinations or assignments as serious offenses and may assess a variety of penalties depending on the nature of the offense.

Acts of academic dishonesty include bringing unauthorized materials into a test or exam, copying from another student, plagiarism and examination personation. Students are advised to read Section

7 (Academic Integrity) and Section 4.2.8 (Examinations: Personations) in the "General Academic Regulations and Requirements" of the current Undergraduate Calendar. Note, in particular that cell phones and pagers are explicitly listed as unauthorized materials, and hence may not be present during tests or examinations.

Penalties for violation include being assigned a grade of zero on a test or assignment, being assigned a grade of "F" in a course, compulsory withdrawal from a course or program, suspension from a course/program/faculty or even expulsion from the University. For specific details about the nature of penalties that may be assessed upon conviction of an act of academic dishonesty, students are referred to University Policy 1202 (Student Discipline Bylaw) and to the Department of Mathematics policy concerning minimum penalties for acts of academic dishonesty.

The Student Discipline Bylaw is printed in its entirety in the Student Guide, and is also available on-line or through the Office of the University Secretary. Minimum penalties assessed by the Department of Mathematics for acts of academic dishonesty are available on the Department of Mathematics web page.

All Faculty members (and their teaching assistants) have been instructed to be vigilant and report incidents of academic dishonesty to the Head of the Department.