

Faculty of Science Course Syllabus
Department of Mathematics and Statistics
MATH3120
Differential Equations II
Winter 2018

Instructor(s): Roman Smirnov Roman.Smirnov@dal.ca Chase324

Lectures: MWF 9:35-10:25am Dunn304

Laboratories: N/A

Tutorials: N/A

*Submit course syllabus to your Department office for posting on the Dept website prior to the start of term
Submit requests for final exam exemptions (1000, 2000 and 3000 level courses only) to the Dean's office at least 2 weeks prior to the start of term*

Course Description

The topics discussed are of great importance to any student interested in applied mathematics. Areas include Fourier series, orthogonal polynomials, Sturm-Liouville problems, the classical partial differential equations, and some applications to physics, chemistry and engineering.

Course Prerequisites

MATH 2120.03 or MATH 2135.03 or PHYC 2140.03

Course Objectives/Learning Outcomes

Solving second order ODEs by power series methods and Fourier series methods, solving eigenvalue and boundary value problems.

Course Materials

Differential Equations for Engineers by Jiri Lebl, <http://www.jirka.org/diffyqs/>

Course Assessment

Bi-weekly assignments, midterm, final exam

Component	Weight (% of final grade)	Date
<i>Tests/quizzes</i> 1 midterm	20%	February 16, 2018 (in class)
<i>Final exam</i>	50%	(Scheduled by Registrar)
<i>Assignments: bi-weekly</i>	30%	

Other course requirements

Attendance is strongly encouraged.

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale



A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (<50)
A- (80-84)	B- (70-72)	C- (55-59)	

Course Policies

Late homework will not be accepted except with my prior permission. A missed midterm cannot be written at another time. If you miss the midterm without my prior permission, then it will count as a 0. Exceptions are made in two cases: (1) if you obtain my prior permission to miss a midterm, or (2) if you have an officially valid excuse such as a medical doctor's note. In these cases, the weight of the missed midterm will be shifted to the final exam (i.e., the final exam will then count 70% instead of 50%). There is no make-up option for the final exam, except if you have an officially valid excuse of which I am notified prior to the exam (such as a medical doctor's note).

Course Content

Chapters 7, 4, 5 and (parts of) 8 in the textbook