Syllabus for MATH 2120 May 11, 2015 - Jun 02, 2015

Class Schedule: MTWR 06:05 pm - 08:45 pm, LSC-COMMON AREA C236

Instructor: Shuangquan Xie, Chase building 354, xieshuangquan2013@gmail.com, http://www.mathstat.dal.ca/~xies

Office Hours: Monday 12:30pm - 3:00pm, Friday. 12:30pm - 5:00pm. You can also email me to set up an appointment.

Textbook: *Sixth edition of Elementary Differential Equations with Boundary Value Problems* by Edwards and Penney

Grade Policy: Your final grade will be determined using the followingschemes:

$$20\%\text{homework} + 30\%\text{Test} + 50\%\text{Final}$$

Homework would be graded mainly for completion at the discretion of the grader. There will be two 60-90 minute tests based on the previous weeks homework.All exams, including quizzes, are closed book with no phones or calculators;final grades may be scaled. Letter grades will be assigned according to the Dalhousie Common Grade Scale: [90,100] A+, [85,90) A, [80,85) A-, [77,80) B+, [73,77) B, [70,73) B-, [65,70) C+, [60,65) C, [55,60) C-, [50,55) D,[0,50) F.

Course Objectives: This course is a study of Ordinary Differential Equations (ODE's), including some models.
Topics include:

- Solution of First-order ODE's by Analytical, Graphical Methods;

- Linear ODE's, Especially Second Order with Constant Coefficients;

- Undetermined Coefficients and Variation of Parameters;

- Delta Functions, Convolution, and Laplace Transform Methods;

- Matrix and First-order Linear Systems: Eigenvalues and Eigenvectors;

Homework: Each homework assignment has two parts: a first part drawn from the book or notes, and a second part consisting of problems which will be handed out. Both parts are keyed closely to the lectures. Students should form the habit of doing the relevant problems between successive lectures and not try to do the whole set the night before they are due.

Test and Exam: The lecture material and homework will be more representative of problems that I may ask on tests and exams.

Intellectual Honesty and Plagiarism: Collaboration on homework is allowed, but the material handed in for grading must be written up individually and independently. Copying on tests and final will be dealt with according to university policy. Please do not do it. For more details, please read the section on academic honesty in the student calendar.

Extra Help: Dot not hesitate to come to my office during office hours or by appointment to discuss a homework problem or any aspect of the course.

Calendar

Day	Topics
May 11	§1.3, §1.4, §1.5
May 12	§1.6, §1.7
May 13	§2.2, §2.3
May 14	§2.5, §2.8
May 18	Victoria Day, University closed
May 19	§4.1, §4.2
May 20	§4.3, §4.4
May 21	§4.5, §4.6
May 25	Review and Test
May 26	§5.2, §5.3
May 27	§5.4, §5.6
May 28	§5.7, §5.8
June 1	Final review
June 2	Final exam