

**MATH 225 Syllabus      Fall 2008**

**Text:** Differential Equations, Computing and Modeling, Fourth Edition, by C. Henry Edwards and David Penney, Pearson Education, 2008.

**Instructors:**

**Section A:**

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**Schedule:**

<u>Week</u>	<u>Dates</u>	<u>Sections</u>
1	Sep. 8–12	Read 1.2 and Theorem 1 on Page 24 1.4 Separable Equations and Applications
2	Sep. 15–19	1.5 Linear First-Order Equations <b>Friday Quiz 1(Sep. 19)</b>
3	Sep. 22–26	3.1 Second-Order Linear Equations 3.2 General Solutions of Linear Equations(half)
4	Sep. 29 – Oct. 3	Finish 3.2 3.3 Homogeneous Equations with Constant Coefficients <b>Friday Quiz 2(Oct. 3)</b>
5	Oct. 6–10	3.4 Mechanical Vibrations 3.5 Inhomogeneous Equations and Undetermined Coefficients
6	Oct. 13–17	3.6 Forced Oscillations and Resonance Start Laplace Transform <b>Friday Quiz 3(Oct. 17)</b>
7	Oct. 20–24	7.1 Laplace Transforms and Inverse Transforms
8	Oct. 27–31	7.2 Transformation of Initial Value Problems 7.3 Translation and Partial Fractions <b>Friday Quiz 4(Oct. 31)</b>
9	Nov. 3–7	7.4 Derivatives, Integrals, and Products of Transforms 7.5 Periodic and Piecewise Continuous Input Functions (half)

10	Nov. 10–14	5.1 Matrices and Linear Systems <b>Friday Quiz 5(Nov. 14)</b>
11	Nov. 17–21	5.2 The Eigenvalue Method for Homogeneous Systems
12	Nov. 24 – 28	5.3 Second-Order Systems and Mechanical Applications <b>Friday Quiz 6(Nov. 28)</b>

**Final Exam:** The final exam will take place in December and will cover the whole course. It will count for 50% of your final grade.

**Web Page:** <http://www.mast.queensu.ca/~math225/>

**Homework:** A list of practice problems will be given each week to prepare you for the quizzes. The homework will be given in class and posted on the course web page.

**Tutorials:** The Registrar has assigned you to one of the three tutorials: Tue. 8:30, Jeffery128; Wednesday 10:30 Jeffery 127; and Wednesday 10:30 Dupuis 217.

**Quizzes:** There will be 6 quizzes. The best five scores will count towards your final grade: each quiz is thus 10% of your final grade. Quizzes will be held on the following Fridays: September 19, October 3, October 17, October 31, November 14, and November 28. On the six quiz days there will not be a lecture, only a thirty minute quiz which will begin at 11:30. As the lecture rooms are not large enough to host a quiz we will also use two additional rooms.

Room assignment to follow.

**Calculators:** The CASIO FX 991 series calculator or equivalent non-programmable calculator will be allowed for quizzes and the final exam.

**Grades**

Quizzes	50 %	or	Quizzes	30 %
Final Exam	50 %		Final Exam	70 %

whichever produces the higher grade.

**Academic Dishonesty:** The Department of Mathematics and Statistics expects its students to comply fully with Queen’s University policies on academic dishonesty.

<http://www.queensu.ca/secretariat/senate/policies/acaddish.html>

**Cell Phones and Laptops:** Please do not use cell phones or laptop computers during class as they are very disruptive to other students.

**Practice Problems:**

Week 1 : 1.2 # 6, 7, 12, 18, 35, 36, 38 ; 1.4 # 11, 15, 24, 25, 36, 59, 64

Week 2: 1.5 # 8, 12, 14, 23, 36, 37, 39