

MAT 244H1F: Fall 2009

Introduction to Ordinary Differential Equations

- **Section L0101: Instructor:** Dilip Raghavan
Lecture: M10 in RW 117, TR10 in SS 2102
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- **Section L0501: Instructor:** Hiro Oh
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- **Teaching Assistants:** Trefor Bazett **E-mail:** tbazett_at_utoronto.ca
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- **Prerequisite:** MAT135Y1~MAT137Y1/MAT157Y1, MAT223H1/MAT240H1;
Co-requisite: MAT235Y1/MAT237Y1
- **Textbook: Elementary Differential Equations** by Boyce and DiPrima, 9th edition, Wiley.
- **Course Plan:** We will cover Chapters 1, 2, 3, 6, 7.
This is a first course in Ordinary Differential Equations (ODEs): modeling physical systems with ODEs and interpreting results; solutions to first order equations: integrating factors, separable equations, modeling, exact equations, existence and uniqueness; second order linear ODEs: with constant coefficients, method of undetermined coefficients, variation of parameters; Laplace Transforms;
Other topics as time permits. e.g. Sec 2.7: Numerical scheme (Euler method), Chap 5: Solutions by series.
- **Grading Policy:** Homework: 20 %
Midterm: 35 % (Tentatively scheduled on Oct. 29 Thu)
Final exam: 45 %

Homework will be assigned on a regular basis via “Blackboard” as well as in the lectures, and will be collected during the lectures of your registered section. **NO late homework is accepted.**

The midterms will be scheduled in the evening, while the final exam will be during the time slot assigned by the university. Make-up midterm will be given **only** to those students who have a legitimate conflict, and who notify us at least one week before the scheduled exam date.