

**University of Toronto at Mississauga
Fall 2008**

**MAT 242H
Differential Equations I**

Instructor: Saša Kocić

Office: SE 4063

Office hours: Tuesdays and Thursdays 4-5pm or by appointment

e-mail: s.kocic@utoronto.ca

Lectures:

Tuesdays 11-12, and Thursdays 10-12, Room SE 3127

Tutorials:

Friday 1-2pm (CC 2140), 2-3pm (CC 2140), 3-4pm (CC2134)

Teaching Assistant: Sahir Syed Haider, sahir.haider@gmail.com

Prerequisites and Corequisites:

MAT233H5 (Calculus of several variables) is a prerequisite for this course or MAT232H5 may be taken as a corequisite. See the Registrar's page for more information:

<http://www.utm.utoronto.ca/regcal/WEBCOURSEMAT242H5.pl>

Textbook:

Edwards & Penney, Differential Equations with Boundary Value Problems: Computing and Modelling, Fourth Edition, Prentice Hall

Supporting materials for this book may be found on the publishers Web site at

http://wps.prenhall.com/esm_edwards_bvp_3a

Topics:

The course will cover Chapters 1-6 of the text. The topics will include: an introduction to first order differential equations; phase plane analysis; numerical methods; higher order linear equations and systems; nonlinear phenomena.

Computing project:

The computational side of the course will be based on the use of a powerful computer algebra system *Maple*. More information about the projects and *Maple* will be available soon.

Marking Scheme:

30% bi-weekly in-class quizzes, every second Thursday beginning September 27, and one computing project

25% Midterm, October 16th, in class

45% Final Exam

Please note that there will be no make-up quizzes, an undocumented absence will result in zero credit

Homework Exercises, Quiz Solutions and Supplementary information:

A list of suggested homework exercises for each topic, solutions to past quizzes, and additional information as needed will be provided on the UTor Portal:

<https://portal.utoronto.ca/>

Plagiarism and academic honesty:

Students are expected to adhere to the academic regulations of the University as outlined in the "Code of Behaviour on Academic Matters" which can be found in the UTM Calendar or at

<http://www.utoronto.ca/govcncl/pap/policies/behaveac.pdf>

The work you submit must be your own. Plagiarism is a form of academic fraud, and the University treats it very seriously. See the guide "How not to Plagiarize" at

<http://www.utoronto.ca/writing/plagsep.html>