Finite difference and finite element methods for partial differential equations (PDEs). Consistency, stability and convergence of methods. The solution of linear and nonlinear algebraic equations that arise from the discretization of PDEs.

**Prerequisite:** CSC351H1/CSC436H1/(CSC336H1 (75%))/equivalent numerical computing background;MAT237Y1/MAT257Y1;APM346H1/APM351Y1/(MAT244H1/MAT267H1 and exposure to PDEs);CGPA 3.0/enrolment in a CSC subject POS.

**Instructor:** Ken Jackson, BA 4228, 416–978–7075 or krj@cs.utoronto.ca

**Office Hours:** by appointment

**Email:** I’ll try to answer your email within a day or so. If my reply will be long, I’ll probably ask you to talk to me instead about your question. If the answer to your question will benefit many students in the class, I will likely copy it to the class (after removing anything from it that will identify you).

I get a lot of email, so it is a good idea to start the Subject line of your email with “CSC 446” or “CSC 2310” so that I can easily distinguish it from other email.

**Web Page:** [http://www.cs.toronto.edu/~krj/courses/446/](http://www.cs.toronto.edu/~krj/courses/446/)

**Bulletin Board:** Coming soon. I’ll try to read this every day or two, but it is better to email me.

**Lectures:** Tuesdays, 6–9 PM, in BA 1230.

**Tutorials:** I will use most of the tutorial periods for lectures.


**Grading:**

1. **Term Assignments:** 30%
   (Three assignments due February 10, March 10, March 31)
2. **Midterm Test:** 25%
   (March 3)
3. **Final Exam or Course Project:** 45%.
You can choose to do either the Final Exam or a Course Project of your own choosing. If you would like to do a Course Project, talk to me about it before you start to ensure that it is suitable.

The Midterm Test and Final Exam are both closed-book: no aids and no calculators allowed.

**Late Policy:** Completed assignments must be submitted at the **beginning** of the lecture/tutorial on the Tuesday on which they are due. Late assignments will be accepted up to and including the following Friday with a penalty of 25%. Assignments will not be accepted after that time unless you have a very good reason for being late.

**Plagiarism:** Please read

http://www.cs.toronto.edu/~clarke/acoffences/
http://www.artsci.utoronto.ca/osai/students

**Accessibility Services:** The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible. See http://www.accessibility.utoronto.ca/