

## 1 Course Outline

Text: *Elementary Differential Equations with Boundary Value Problems*, C. Edwards and D. Penney

In this course, we will consider some of the more advanced topics in differential equations. The key topics we will consider include,

- Series solutions to differential Equations.
- Solutions using transforms.
- Eigenvalue problems.
- Nonlinear systems.
- Numerical methods.

Depending on time constraints other topics of interest to the class may be added.

There will be homework assignments every one to two weeks.

All homework assignment, solutions and handouts will be available from the web page in pdf format. If you have any problems downloading or viewing/printing these documents please let me know.

## 2 General Information

**Instructor** David Iron

**Times** Monday, Wednesday and Friday 11:25-12:25

**Location** Dunn 101

**Web Page** <http://www.mathstat.dal.ca/~iron/math3120/index.html>

**Office hours** Wednesday 2:00-3:30 and Thursday 1:00-2:30

## 3 Instructor Information

**Name** David Iron

**Office** Chase 322

**Phone** (902) 494-2385

**email** [iron@mathstat.dal.ca](mailto:iron@mathstat.dal.ca)

## 4 Grading

**Homework** 40%

**Term Test** 20%

**Final Exam** 40%

The final exam will be 3 hours long and written. The midterm test will be held in class on the Friday February 19<sup>th</sup>.

## 5 Grading Scheme

The grading scheme is as follows: A+>92% , A>85% ,A->79% , B+>75 , B>70% , B->63% , C+>60% ,C>58, C->50% , D>45% .

## 6 Final Notes

- Late homework will be penalized at 5% per day.
- Homework will be accepted as on time up to 6:00pm on the due date. Email submissions will be accepted, but must be in either pdf or postscript format. I will not accept Word documents or any other proprietary formats.
- The university policy states that all cases of academic misconduct *must* be handled through official channels. I have no latitude in this matter. I do encourage people to work in groups, but I must insist that each student write up their own homework. Please read the paragraphs on academic honesty on page 21-26 in the Calendar.
- Students with permanent or temporary disabilities who would like to discuss classroom or exam accommodations are asked to contact me as soon as possible. For information on available services see <http://www.dal.ca/~services/ssd.html>.