1 Course Outline

Text: Numerical Analysis by Timothy Sauer

This course is a introduction to the algorithms used to solve common math problems. We will consider methods used to find zeros of nonlinear functions, data interpolation and polynomial approximation, numerical differentiation and numerical integration, numerical solutions to ordinary differential equations, best fit approximations and the error analysis of these algorithms. Other topics of interest to the class will also be considered.

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

2 General Information

Instructor David Iron

 \mathbf{Times} Tues. and Thurs. 10:05-11:25

Lab Every other Thurs. the lecture will be replaced by a lab (starting Sept. 17)

Location The lectures will be held in Sir James Dunn 302. The labs will be in LSC 200

Web Page http://www.mathstat.dal.ca/~iron/math2400/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

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 Thursday November 5^{th} .

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

- $\bullet\,$ 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.