Math 4020/5020 - Analytic Function Theory

1 Course Outline

Text: The majority of the topics in this course are covered in

Complex Variables and Applications, seventh edition by James Ward Brown and Ruel V. Churchill.

As the course progresses some optional topics will be introduced chosen by the interests of the class. If possible library references will be given for these topics.

This is a second course in complex analysis. All topics which are required for the comprehensive exam will be covered in this course. The main topics which will be covered are as follows

- Review of analytic complex functions
- Mobius Transforms
- Exponential, Logarithmic and Trigonometric Functions
- Cauchy's Integral Formula
- Residues
- Harmonic Functions
- Entire and Meromorphic Functions
- Conformal Mappings

All homework assignment 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

Times Mon. Wed and Fri. 10:35-11:25

Location The lectures will be held in Chase 227

Web Page http://www.mathstat.dal.ca/~iron/math5020/index.html

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

3 Instructor Information

Name David Iron

Office Chase 308

Phone (902) 494-2385

email iron@mathstat.dal.ca

4 Grading

Homework 40%

Term Test 25%

Final Exam 35%

The midterm will be held in class will be held in class on Friday February 27^{th} .

For students enrolled in 4020, each homework and test will contain optional bonus questions. For students enrolled in 5020 all of the assignment and test questions will be graded normally.

5 Grading Scheme

The grading scheme is as follows:

A+	A	A-	B+	В	B-	C+	С	C-	D	F
[90, 100]	[85, 90)	[80, 85)	[75, 80)	[70, 75)	[65, 70)	[62, 65)	[58, 62)	[55, 58)	[50, 55)	[0, 50)

6 Final Notes

- The university policy states that all cases of academic misconduct must be handled through official channels. I have no latitude in this matter. Please read the paragraphs on academic honesty on page 21-26 in the Calendar.
- Transitions are challenging. Students moving from high school to university experience high levels of stress especially in terms of their studies. The Writing Centre, works to develop writing skills that meet university expectations in one-on-one sessions, in small groups, and in classes. Their url is

http://www.dal.ca/campus_life/student_services/academic-support/writing-and-study-skills.html

Tutoring information and academic skills program information may be found at

http://www.dal.ca/campus_life/student_services/academic-support/study-skills-and-tutoring.html