

# MATH 4020/5020: Analytic Function Theory

## Course Information:

Session:	Winter 2012
Time:	Monday, Wednesday, Friday 11:35-12:25 pm
Room:	Chase 227
Course webpage:	<a href="http://www.mathstat.dal.ca/~ghandeh/MATH4020">http://www.mathstat.dal.ca/~ghandeh/MATH4020</a>

## Instructor:

Instructor:	Mahya Ghandehari
Email:	<a href="mailto:ghandeh@mathstat.dal.ca">ghandeh@mathstat.dal.ca</a>
Office:	Chase 253
Office Hours:	Monday and Wednesday 10:00-11:00 am (also by appointment)

## Evaluation:

Homeworks	20%
Midterm 1 (Wednesday January 25th @ 5:00-6:00 pm)	15%
Midterm 2 (Monday February 27th @ class time)	20%
Final (2.5 hours, scheduled by the registrar)	45%
Bonus questions	

The final exam will include additional questions for students enrolled in MATH5020.

## Grade Equivalents:

90-100 $A^+$	75-79.9 $B^+$	62-64.9 $C^+$		
85-89.9 $A$	70-74.9 $B$	58-61.9 $C$	50-54.9 $D$	<50 $F$
80-84.9 $A^-$	65-69.9 $B^-$	55-57.9 $C^-$		

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## 1 Course Description

Review of analytic complex functions including topological properties of the plane, Mubius mappings, exponential, logarithmic, trigonometric and related functions, integration and the Cauchy theorem, Cauchy's integral formula, residues, harmonic functions, analytic continuation, entire and meromorphic functions, some results of conformal mappings, Riemann mapping theorem.

## 2 Textbook

The lecture notes will be self-contained. For additional reading material refer to the following books.

- *Complex Variables*, Second Edition by Stephen D. Fisher
- *Complex Variables and Applications*, Seventh Edition by James Ward Brown and Ruel V. Churchill.

### 3 Assignments

There will be 7 assignments each worth approximately 3% towards your overall grade. Assignments are going to be available online as scheduled below:

Assignment 1	January 11th
Assignment 2	January 18th
Assignment 3	February 1st
Assignment 4	February 10th
Assignment 5	March 7th
Assignment 6	March 19th
Assignment 7	March 30th

The due dates are going to be announced. Late assignments (5 minutes to two days) will be penalized 10%.

### 4 Missed test policy

A missed midterm cannot be written at another time, and will be count as a 0. Exceptions are made if you have an officially valid excuse such as a medical doctor's note. In such cases, the weight of the missed midterm will be shifted to the final exam. There is no make-up option for the final exam.

### 5 Academic Integrity

You are allowed to discuss homework problems with your classmates, but the write-ups should be done individually, without access to the papers of fellow students. Most importantly, work submitted for this course must represent your own efforts. Copying assignments or tests from any source, completely or partially, will not be tolerated. (See <http://academicintegrity.dal.ca/> and the links therein for more information).

### 6 Syllabus Statement on Accommodation

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the Nova Scotia Human Rights Act. Students who require academic accommodation for either classroom participation or the writing of tests, quizzes and exams should make their request to the Office of Student Accessibility & Accommodation (OSAA) prior to or at the outset of each academic term (with the exception of X/Y courses). Please see [www.studentaccessibility.dal.ca](http://www.studentaccessibility.dal.ca) for more information and to obtain Form A - Request for Accommodation.