

UNIVERSITY OF BRITISH COLUMBIA  
MATH 300   SECTION 201   WINTER 2016  
INTRODUCTION TO COMPLEX VARIABLES

### Basic information

Course instructor: Kevin Henriot

Instructor's email address: [khenriot@math.ubc.ca](mailto:khenriot@math.ubc.ca)

Course webpage: <https://khenriot.wordpress.com/teaching/m300/>

Office hours: Tuesday 1:00-1:50 PM, 3:35-5:00 PM, M209.

### Official textbook

Saff, Snider - Fundamentals of complex analysis (3<sup>rd</sup> edition).

### Course outline

The main topics covered in this course are as follows:

- Complex numbers
- Functions of the complex variable
- Rational, exponential, logarithmic functions
- Contour integration and Cauchy's integral formula
- Series representations of functions of the complex variable
- Residue theory

These correspond to Chapters 1-6 of the class textbook.

### Grading scheme and exam dates

There will be weekly homework (outside breaks/midterm weeks), two midterms and a final exam, at the dates indicated below. The worst homework assignment grade will be dropped. The final score will be a weighted average of the scores received in homework, midterms and finals, with the breakdown as follows:

10 %	Homework	Weekly on Thursdays
20 %	First midterm	February 9
20 %	Second midterm	March 31 <sup>st</sup>
50 %	Final exam	TBA, between April 12 and April 27

### Policies

The homework is distributed weekly in class and online on Thursdays, and it has to be handed in at the beginning of the class on the next Thursday.

Permission to shift the weight of missed midterms or to ignore missed assignments will be granted only in the following circumstances:

- Prior notice of a valid, documented absence on the scheduled date (e.g. out-of-town varsity athletic commitment, with a letter from coach)
- Medical emergency, with notification of the instructor within 48 hours and presentation of a doctor's note upon return of the student to UBC.

No calculators or notes are allowed in the midterm and final exams.

**Prerequisites**

One of:

- M200 Calculus III
- M217 Multivariable and Vector Calculus
- M226 Advanced calculus
- M253 Multivariable Calculus
- M263 ?

**Corequisites**

One of:

- M217 Multivariable and Vector Calculus
- M227 Advanced calculus II
- M317 Calculus IV
- M253 Multivariable Calculus
- M263 ?