

MATH-UA.0282 FUNCTIONS OF A COMPLEX VARIABLE (SPRING 2017)

- Term: Spring 2017
- Lectures: Tuesday-Thursday 3:30pm-4:45pm in CIWW 202
- Instructor: Giulio Trigila
- Office: CIWW 1009
- Office hours: Wednesday 8:30-10am, Thursday 5-6:30pm
- Email: trigila@cims.nyu.edu
- Recitations: Friday 9:30pm-10:45pm in CIWW 202
- Teaching Assistant: Reza Gheissari
- TA's Office hours: Monday 12:30-1:30pm
- Midterm Exam Date: Thu., March 9 2017, 3:30PM-4:45PM
- Final Exam Date: Thu., May 11 2017, 4:00PM-5:50PM

Prerequisites:

MATH-UA 123 Calculus III or MATH-UA 213 Math for Economics III (for Economics majors) plus one higher level course such as MATH-UA 140 Linear Algebra with the grade of C or better.

Topics:

- Complex numbers and complex functions
- Differentiation and the Cauchy-Riemann equations
- Cauchy's theorem and the Cauchy integral formula
- Singularities, residues, and Laurent series
- Fractional Linear transformations and conformal mapping
- Analytic continuation. Applications to fluid flow etc

Textbook:

The course textbook is "*Complex Variables and Applications*" by J.W. Brown and R.V. Churchill, Mc Graw Hill, 9th edition. Other useful resources are the book by J. Bak and D.J. Newman "Complex Analysis", Springer-Verlag and the book Schaum's outlines "Complex Variables" by R. Spiegel, S. Lipschutz, J.J. Schiller and D. Spellman.

Assignments and grading:

There will be weekly assignments, an in-class midterm and an in-class final. Grading will be based 30% on assignments, 30% on the midterm, and 40% on the final. Please see [NYU's Academic integrity policies](#).

Announcements:

For announcements, assignments, etc. please see the NYU Classes page. You have automatic access to the site once you register for the class.

Spring break: There will be no class on the week 03/13 - 03/19.